RICE UNIVERSITY

HOUSING THE ELDERLY IN NEW COMMUNITIES

by

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ABSTRACT

The growth of the elderly population in America has rapidly increased since the beginning of the twentieth century, primarily due to increasing life expectancy and decline in the birth rate. Because of their numbers alone, the elderly deserve greater consideration and concern than they have had in the past.

The concept of this thesis concerns the housing of the elderly in the new community as both logical and desirable. Many of the elderly in existing communities do not possess a valuable community life as such and are segregated by living in an unsuitable environment. Because of a lack of alternatives, many are forced to remain in their present housing situation.

Recognition of the need for elderly housing and recognition of the effects of physical and psychological characteristics of the elderly on housing needs give insight to the nature of the problem of elderly housing.

Because of the increasing numbers of new towns being developed in the United States, there will also be an increasing need to provide housing in these new towns for the elderly who moved to the new town at an earlier age and have grown old there and for those elderly who are attracted to come to live in the new town. The new community offers the opportunity for provision of a better living environment for the elderly through availability of adequate services and facilities and of a variety of housing types to fit the varied needs of the
elderly.

The primary goal in housing the elderly in the new town is to provide a living environment that will encourage the continued growth and development of the elderly individual in the community. To fulfill this goal this thesis outlines certain criteria for the placement of housing for the elderly in the new community.
OUTLINE

I. INTRODUCTION

II. RECOGNITION OF THE NEED FOR HOUSING THE ELDERLY
   A. GROWTH IN POPULATION
      (1) INCREASE IN LIFE EXPECTANCY
      (2) DECLINE IN BIRTH RATE
   B. ECONOMIC STANDARDS
      (1) SOURCES OF INCOME
      (2) DECLINE IN EXPENDITURES
      (3) TOTAL INCOME - NATIONAL STATISTICS
   C. SOCIAL ASPECTS
      (1) LOSS OF RESPECT FOR OLD AGE
      (2) EFFECT OF LIVING ARRANGEMENTS ON SOCIAL ROLE
      (3) SOCIAL CONCEPTS - A BASIS FOR HOUSING PRINCIPLES

III. ELDERLY HOUSING - GENERAL CONSIDERATIONS
   A. THE RESIDENTIAL CYCLE
      (1) FOR ALL INCOME LEVELS
      (2) FOR VARIOUS NEEDS IN VARIOUS STAGES OF LIFE
   B. CLASSIFICATION OF HOUSING TYPES
      (1) INDEPENDENT LIVING
         (a) OWNED HOMES
         (b) MOBILE HOMES
         (c) MULTI-FAMILY HOUSING
         (d) RENTAL APARTMENTS
(a) OWNED APARTMENTS
(b) RETIREMENT VILLAGES
(2) ASSISTED LIVING
(a) RETIREMENT HOTELS
(b) RESIDENTIAL HALLS
(3) PROTECTED LIVING
(a) NURSING HOME - COMPLETE CARE
(b) INTERMEDIATE CARE FACILITY

Q. RESPONSIBILITY OF BUILDING ELDERLY HOUSING

(1) GOVERNMENTAL
(2) PRIVATE SECTOR
(a) PROFIT
(b) NON - PROFIT

IV. PHYSICAL AND PSYCHOLOGICAL DEMANDS OF THE ELDERLY

A. PRIVACY

(1) VALUES
(a) NEED TO BE ALONE
(b) NEED FOR QUIET
(2) PROVISION IN LIVING ARRANGEMENTS

B. PERSONAL CONTACT

(1) DECLINE IN SOCIAL CONTACTS
(a) RETIREMENT FROM WORK
(b) DEATH OF FRIENDS
(c) SEPARATION FROM FAMILY
(2) THE GENERATION GAP
(3) ISOLATION AND LONELINESS
(4) INFLUENCE OF LOCATION AND PROXIMITY ON SOCIAL CONTACT
(5) INTEGRATION AND SEGREGATION

C. ACTIVITIES OF THE AGED

(1) CHANGE IN ACTIVITY DUE TO AGE
(2) SELECTION OF ACTIVITIES
   (a) PHYSICAL
   (b) MENTAL
   (c) SOCIAL
(3) DAILY ACTIVITIES
   (a) LENGTH OF A DAY
   (b) OBLIGATED TIME - WORK
   (c) LEISURE TIME
(4) FACILITIES AND SERVICES AVAILABLE
(5) RECREATION AND INCREASE IN LEISURE TIME

D. MOBILITY

(1) MEANS OF TRANSPORTATION FOR THE ELDERLY
   (a) PRIVATE
   (b) PUBLIC
(2) MOBILITY AND THE EFFECT ON ACCESS TO AVAILABLE FACILITIES AND SERVICES
(3) MOBILITY - CHANGE IN LOCATION OF RESIDENCE

E. PHYSICAL PROBLEMS

(1) RELATIVE YOUTHFULNESS OF TODAY'S AGED PERSON
(2) EFFECTS OF AGING ON THE BODY AND BODY SYSTEMS
(3) LEADING CAUSES OF DEATH
(4) LOSS OF SENSATION AND PERCEPTION - RATES OF RESPONSE
(5) RELATIONSHIP BETWEEN ADJUSTMENT TO OLD AGE AND PHYSICAL HEALTH

V. HOUSING THE ELDERLY IN THE NEW COMMUNITY

A. RATIONALE

(1) INCREASE IN NUMBERS OF NEW TOWN DEVELOPED

(2) NEED TO HOUSE THE ELDERLY IN NEW TOWN
   (a) THOSE WHO HAVE GROWN OLD IN NEW TOWN
   (b) THOSE WHO ARE ATTRACTED TO LIVE IN NEW TOWN

B. ADVANTAGES OFFERED BY NEW TOWN

(1) FACILITIES AND SERVICES AVAILABLE
   (a) ACCESSIBILITY
   (b) WIDE RANGE

(2) VARIETY OF HOUSING TYPES
   (a) HOUSES
      i. OWNERSHIP
      ii. RENTAL
   (b) APARTMENTS
      i. OWNERSHIP
      ii. RENTAL
   (c) NURSING CARE FACILITY

VI. GOALS AND CRITERIA

A. BETTER LIVING ENVIRONMENT

(1) HOUSING
   (a) SUITABILITY
   (b) VARIETY
(2) PERSONAL ENVIRONMENT
   (a) IDEAL NEIGHBORHOOD
   (b) PERSONAL CONTACT
   (c) FACILITIES AND SERVICES AVAILABLE
   (d) MOBILITY AND ACCESSIBILITY

B. CRITERIA
   (1) LOCATION OF HOUSING
   (2) ACCESS PROBLEMS
   (3) SIZE
   (4) COST
   (5) NEIGHBORHOOD

VII. CONCLUSION

VIII. BIBLIOGRAPHY
I. INTRODUCTION
"He only lives who living enjoys life" - Menander

The elderly are people who experience ordinary human needs. They need food, shelter, emotionally significant social contacts, and like all people, at times they need to call on resources outside themselves to meet some of their needs. One of these needs is housing.

Much has been said and done for the young in today's society. We are just now awakening to the needs of the elderly. The adequacies of one period in our lives are often the inadequacies of another. In housing the common problems of design, type of construction, location, and method of financing are always involved. The difference lies in the values we place on these factors.

The need for greater provision of housing designed for the special circumstances of many older persons is evident. The population of today's aged in the United States is approximately ten percent (20.5 millions), and this percentage is expected to increase steadily in the years to come.

One of the major problems of the elderly is their decreased income. Because of this many are forced either to live in substandard housing or to live with relatives when they would prefer to live independently. In the cases of those aged who can afford standard housing, the problem is that of lack of design for the needs of the elderly. However, all old people cannot be lumped together into one group with
unvarying characteristics. Too often old people are referred to, and sometimes treated, as if they were a separate species of the human race. Far too often, generalizations are made: old people are lonely; they are immobile and house-bound; they live in near poverty; they are neglected by their children and ignored by their neighbors; they want too much done for them. Some of these statements were undoubtedly true in past decades, and some could refer to some old people in particular places under particular circumstances today, but it is clear that they are false if applied to the elderly as a whole. And so the varied needs of a varied group must be considered as basic criteria for any planning of housing for the elderly.

Planned communities can help solve these growing problems of social change for the elderly and deal with the fundamental realities of living in a contemporary community. Since it is impossible to accurately and completely foresee the needs of tomorrow, flexibility of planning according to changing needs must be taken into account. And since new town planning should fit the special needs of this time and this society, it should attempt to fulfill the requirements and aspirations of those who are to live in them, the young and the old.

Planned communities can offer an opportunity for the aged to be successfully integrated among all age groups within the living environment and to become direct participants in the activities of the town without having to cope with the pre-conceived stigma of the worthlessness of the old. The new
tow ns offer the opportunity for the elderly to adapt to a socially meaningful pattern of living.

The real objective of housing for the elderly goes beyond the provision of suitable housing type. The ultimate purpose is to stimulate a fuller and more meaningful life for the residents and to encourage their continuing development as useful contributing members of society.

The crucial people in the aging problems are not the old, but the younger age groups, for it is the rest of us who determine the status and position of old persons in the social order.

What I shall attempt in this thesis is to recognize the nature of the problem of elderly housing and to show the rationale behind the idea of the need and advantages of providing housing for the elderly in the new community. Criteria for planning elderly housing are detailed with the goal in mind of providing a better living environment for the elderly.

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II. RECOGNITION OF THE NEED FOR HOUSING THE ELDERLY
GROWTH IN POPULATION

In the United States today there are twenty million men and women who have passed their sixty fifth birthday. Every tenth American is an older American who faces a great number of problems and decisions that accompany his old age, not the least of which is adequate housing.

For many of the aged the home in which the children have been raised is now empty, and they find themselves in the position of being "overhoused". For many others the problem is lack of any housing or lack of housing that is suitably designed for the special circumstances of many older persons. Because of the growth of the elderly population projected for the future, the inadequacy of housing for them will continue to be a problem of major concern for all, that is, for anyone who plans to grow old.

Most of the aged have relatively low incomes and many, while independently mobile, have health or physical problems. In particular, older people need a living environment that adds to their dignity, independence, and opportunities for meaningful activity.

In the past few decades there has been a large increase in the number of aged persons in the United States. (See Table 1.) By 1980 this number will have risen to some thirty million, which will constitute an even larger percentage of the population than at present.

This rapid growth is the result of a combination of fac-
tors. The life expectancy at birth is increasing in this country. In 1900 it was 48.2 years for men. In 1968 it was 66.6 years, a gain of 18.6 years. For the same period of time, life expectancy rose to 22.9 years for females, from 51.1 years to 74.0 years.²

The death rate has remained relatively stable, while the birth rate has steadily decreased. Therefore, the percentage of the aged population has increased proportionately. (See Table 2 and Table 3.)

Table 1

POPULATION CHARACTERISTICS
(In thousands, except as indicated. Resident population)

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>65 years and over</td>
<td>9,019</td>
<td>12,295</td>
<td>16,560</td>
<td>18,162</td>
<td>20,496</td>
</tr>
<tr>
<td>Percent of total</td>
<td>6.8</td>
<td>8.1</td>
<td>9.2</td>
<td>9.4</td>
<td>10.1</td>
</tr>
</tbody>
</table>

SOURCE: U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS

Table 2

BIRTH RATE
(Per 1,000 population, total)

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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24.1</td>
<td>25.0</td>
<td>23.7</td>
<td>19.4</td>
<td>17.8</td>
<td>17.5</td>
</tr>
</tbody>
</table>

SOURCE: U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS

Table 3

DEATH RATE
(Per 1,000 population, total)

<table>
<thead>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.6</td>
<td>9.3</td>
<td>9.5</td>
<td>9.4</td>
<td>9.4</td>
<td>9.7</td>
</tr>
</tbody>
</table>

SOURCE: U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS
ECONOMIC STANDARDS

The income of elderly people in the past left the greater number of them with insufficient means for decent, dignified living. During the sixties the elderly as a whole enjoyed improvements through greater employment opportunities and better old age security and other public and private benefits. The last two years may have reversed these trends, but as inflation continued to reduce the purchasing power of fixed incomes and rising unemployment reduced job opportunities for older workers, the elderly have had some setbacks. The economic situation of the elderly, if past experience repeats, will improve more slowly than that of younger groups even with an upturn in the national economy.

There are a number of sources from which the aged derive their income: employment, Social Security and other public pensions, veterans benefits, private pensions, income from investments, public assistance, and sources such as contributions from relatives and friends. From 1958 to 1967 there were some changes for the aged in sources of income:

(1) Income from employment showed a steady decline from 37-38% to 29-30%.

(2) Social Security showed an increase from $1/4 to $1/3 of their income.

(3) Private pensions did not show any clear trend, fluctuating from 3% to 5%.

(4) Income from investments ranged from 15% to 25%. The
broad range was possibly due to lack of firm data and also to contributions from relatives and friends.

(5) Public assistance became a more minor source of income, declining from 5-7% in 1958 to 3% in 1967.

(6) Public pensions other than Social Security and veterans benefits, as well as the miscellaneous, remained stable during these years.

For the period 1960-1969 the median income of aged families averaged under 50% of that of nonaged families. The ratio was 50.6% in 1962, but declined to 47.6% in 1969. Over the same time the median income of aged families rose by 65.8% and for nonaged families by 70.8%. It can thus be concluded that there is a relatively high degree of stability of the comparative income position of the aged families in relation to that of nonaged families, although the relative income position of the aged has worsened when compared with that of the nonaged. But it must also be considered that the aged have the advantages of sources of non-money income, for example, Medicare and Medicaid.

Explanations for the drop in income of family heads as they approach and enter old age are (1) reduced earning ability, (2) loss of supplementary family income, and (3) actual loss of job.

Living costs of aged individuals and families differ from

those of persons of other age levels. Needs tend to decline in old age. The need to provide for children is reduced or eliminated, but costs of medical and other needed services usually increase. A typical budget for the aged includes two-thirds for rent and food and one-third for clothing, medical care, recreation, transportation, gifts, and contributions.

According to the 1970 Census data for the United States those families with heads aged 65 and over had a median income of $5,053 and a mean income of $7,140. (See Table 4.) Perhaps the drastic economic situation of the elderly has been overemphasized, particularly in considering those couples with male heads who can continue to provide an income to the family unit either by employment or by careful planning in earlier years. For persons aged 65 and over, males had a median income of $3,075 and a mean income of $4,498; females had a median income of $1,522 and a mean income of $2,279. (See Table 5.)

As a working definition of income for the aged the 1969 poverty threshold incomes of $2,200 for a couple and $1,750 for unmarried persons may be used to estimate those levels of income required for minimum physical subsistence. The standard family budgets estimated by the Bureau of Labor Statistics may be used as a guide to relative adequacy of income. In 1969 for a retired couple (husband age 65 or over and wife not working) the lower budget required $2,902, the intermediate budget $4,192, and the higher budget $6,616.4 However, the

### Table 4

FAMILIES WITH HEADS AGED 65 AND OVER BY TOTAL MONEY INCOME IN 1970

<table>
<thead>
<tr>
<th>PERCENT DISTRIBUTION</th>
<th>HEAD AGED 65 YEARS AND OVER (7,175,000 persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $1000</td>
<td>2.1</td>
</tr>
<tr>
<td>$1000-1499</td>
<td>2.9</td>
</tr>
<tr>
<td>1500-1999</td>
<td>5.5</td>
</tr>
<tr>
<td>2000-2499</td>
<td>6.3</td>
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<tr>
<td>2500-2999</td>
<td>7.0</td>
</tr>
<tr>
<td>3000-3499</td>
<td>7.4</td>
</tr>
<tr>
<td>3500-3999</td>
<td>6.4</td>
</tr>
<tr>
<td>4000-4999</td>
<td>11.9</td>
</tr>
<tr>
<td>5000-5999</td>
<td>8.9</td>
</tr>
<tr>
<td>6000-6999</td>
<td>6.7</td>
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<tr>
<td>7000-7999</td>
<td>5.4</td>
</tr>
<tr>
<td>8000-8999</td>
<td>5.4</td>
</tr>
<tr>
<td>9000-9999</td>
<td>3.7</td>
</tr>
<tr>
<td>10,000-11,999</td>
<td>5.9</td>
</tr>
<tr>
<td>12,000-14,999</td>
<td>5.6</td>
</tr>
<tr>
<td>15,000-24,999</td>
<td>6.4</td>
</tr>
<tr>
<td>25,000-49,999</td>
<td>2.2</td>
</tr>
<tr>
<td>50,000 and over</td>
<td>0.3</td>
</tr>
</tbody>
</table>

MEDIAN INCOME (dollars) $5,053

MEAN INCOME $7,140

SOURCE: U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS
<table>
<thead>
<tr>
<th>Income:</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1-499 or less</td>
<td>1.1</td>
<td>4.5</td>
</tr>
<tr>
<td>500-999</td>
<td>5.1</td>
<td>21.9</td>
</tr>
<tr>
<td>1,000-1499</td>
<td>10.4</td>
<td>22.8</td>
</tr>
<tr>
<td>1500-1999</td>
<td>13.1</td>
<td>16.8</td>
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<td>2000-2499</td>
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<td>2500-3000</td>
<td>9.0</td>
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<td>4000-4999</td>
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<td>5000-5999</td>
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<td>8000-9999</td>
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<td>10,000-14,999</td>
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<td>15,000-24,999</td>
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<tr>
<td>25,000 and over</td>
<td>1.2</td>
<td>0.2</td>
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</table>

**Median Income:**
- Male: $3076
- Female: $1522

**Mean Income:**
- Male: $4498
- Female: $2279

**Source:** U.S. Department of Commerce, Bureau of the Census
relative adequacy of income varies with the preferences of the individual and the standard of living to which the person was accustomed.

From the previous Census data it can be seen that approximately 3.6 million (50.5%) of families with heads aged 65 and over have incomes over $5000, while it is the single person (male - median income of $3,076 and female - $1,522) who is most in need of assistance in the financing of new living arrangements. Finding adequate housing and maintaining an adequate standard of living becomes crucial for many aged individuals who are alone.

In 1960 41% of all elderly people had assets of $10,000 or more. Perhaps the poor economic situation of the aged segment of the population has been overemphasized. Builders are finding that they have underestimated buyers' assets and that many older buyers prefer to make full-cash payments.

A case in point is Woodburn Senior Estates, a retirement community of single-family homes south of Portland, Oregon. Expecting to attract retirees hard-pressed for money, the developers offered low down payments and F.H.A. Section 203 loans on small houses priced from $8,975 to $11,250. Of over five hundred buyers thus far, 60% have paid cash in full.5

The difference in income levels between the aged living in their own households and those living in the households of

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others is significant - $1,905 median income for aged economic units in the first category and $1,040 for those in the second. Perhaps even more significant is the fact that nearly half of the aged not living in their own households had incomes at the time of the survey under $1000 per year. Another 38% had incomes between $1000-2000. In contrast, nearly half of the individuals living in their own households had incomes of $2000 or more.6

In summary, we conclude that the reduced income of many elderly persons in American society cannot be overlooked, but the income of many is relatively good, considering their retirement from the work force. Adequate housing should morally be an obligation and an objective for all the elderly, regardless of income. As architects we should recognize the needs of the aged and begin to seek solutions to the problem of inadequate housing for the elderly.

SOCIAL ASPECTS

We have considered both the rapid increase in the growth of the aged population and their relatively low income as factors citing the need for more adequate housing for the elderly. But there is more to providing suitable housing than pure numbers. There is a lack of socially necessary and socially meaningful environments providing purpose to living for the elderly. A particular burden of the aged is the low prestige that society holds of them. Ours is a youth-oriented society, and the status position of the elderly group has practically disappeared. Respect and honor are still accorded a few of our older citizens, but the majority are disregarded in favor of the younger.

There have been several major factors in social trends concerned with aging in this century:

(1) The Industrial Revolution has largely destroyed the family as a unit of economic production.

(2) The shift from rural to urban living naturally accompanied industrialization and therefore, the shift from personal to impersonal social contacts.

(3) The break-up of the extended family.

(4) Rise of large organizations and thus the anonymity of the individual.

(5) Automation and the resultant increase of leisure time.
Conservation of human life."

As a result of these trends the elderly today find themselves in a "roleless" role. They have no vital functions to perform such as they once had in rural society.

It is predicted that the trend will continue in the tendency toward the breakdown of family structure. The family will no longer serve in the functions of providing shelter, care, and affectional relationships to the older generation. Far-reaching social policies must be developed to provide substitutes.

On the individual level, each person can prepare for his own old age economically, socially, physically, and psychologically. While the active and passive uses of the physical environment by man have always been the concern of the architect, designer, planner, and ecologist, systematic attempts to link these sciences with the behavioral sciences are relatively recent.

It has been observed by J.E. Berren in his study of normally aging men that when the environment shows qualities of deprivation, the attitudes and behavior of the aged show more deteriorative qualities. It appears that the opposite is equally true. When the environment is rich with social and cultural opportunities, security and permissiveness, the atti-

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tudes and behavior of at least some of the aged manifest the qualities of growth and development.\(^9\)

There are a number of social concepts on which housing principles and policies are based:\(^{10}\)

(1) It is in the best interests of the economic and social health of the country to provide older people with living arrangements best suited to their needs.

(2) Industrialized society, because of its influence on the break-up of the generations, must assume some of the responsibility previously supplied by the family for the shelter and care of the aged.

(3) The older age group has the right to its proportional share of the goods and services available to other age groups in the population.

(4) Mental and physical health of older people are promoted when they can maintain active membership in the life of the community.

Such principles related to environmental factors have great effect on the elderly and their adaptation to society in older age. We must be concerned with both the physical and social life setting. Time and the social system have shaped the current situation of the aged, so we must cope with the problem as it exists. It is the responsibility of the architect to take into consideration all those factors which relate


\(^{10}\) Burgess, op. cit., p. 126.
to the physical and psychological well-being of those for whom he is planning.
III. ELDERLY HOUSING - GENERAL CONSIDERATIONS
Today the concept of housing for the elderly has broadened to include provision for all elderly people. It is a more flexible concept, taking in a wide variety of forms of housing to meet the needs and interests of the elderly of all social and economic classes, of all the later ages, of all conditions of health, and of individual preferences. There is also more consideration for the "residential cycle," emphasizing the sequence of types of housing to meet the changing needs of older persons at particular stages of health and economic status in the later years.  

Understandably, a major emphasis has been placed on the urgent needs of those who are just reaching age 65 and of those who are at a particular economic disadvantage. While this has been done for these extreme cases, insufficient attention has been given to the question of how best to provide suitable living environments for all people at all stages in the aging process.

Rather than beginning, and too often ending, at age sixty five, the attack on meeting the housing needs of the elderly should start as people reach middle age and should extend through the balance of the life cycle.

Middle Age - This is the period in which children are growing up, getting married, and establishing homes of their own. As a result, the house which had been barely large enough

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11. Burgess, op.cit., p. 23
now provides more space than is actually needed for the remaining family group. It is also at this age that reluctance to move to newer and/or smaller quarters is greatest, but it is at this point in the family cycle that the couple is probably in the best economic position to make a housing shift or to adapt its present quarters to meet later requirements.

**Later Maturity** - By this time the children have left home, and many of the principal wage earners either have retired or are facing retirement. Income is definitely lower for most families than it was in middle age. Physical changes have taken place, and individuals have begun to slow down and limit their activity. Progressively, more and more find their home too big or too expensive to maintain. A study by Hunter and Maurice in Grand Rapids, Michigan, showed that during later maturity years more than two-fifths of the families began to report some problems with their living quarters. 12

By this time more families are beginning to think about changing their living arrangements. Yet most never get beyond the discussion stage. Those in the upper end of the economic scale begin to take active interest in finding houses in a warmer climate or making arrangements for getting into some type of retirement housing facility. Many at the lower end of the economic scale find that it becomes necessary to live with their children, not the most desirable living arrangements for

either the parents or children involved.

**Early Old Age** - A portion, perhaps one in five, are in a sufficient financial position to readjust their housing arrangements to meet current needs or to maintain present satisfactory quarters. For those who choose to stay in their own homes, difficulties arise. The people who have neither the physical strength nor the money are unable to maintain a large house and tend to allow it to run down. Many have failed to recognize signs of neighborhood deterioration until much of the value which their property once would have commanded has already been lost. By now a growing proportion of those who have been renters find that the quarters they are able to afford are ill-suited to their current needs. It is to meet the needs of these groups that many of the present efforts in the elderly housing field are being directed.

**Late Old Age** - By this time physical disabilities are great. Because the medical profession has thus far been more successful in extending the span of life than it has been in maintaining physical strength and mental alertness, a growing share of couples as they advance through late old age need more than shelter. Eventually all but a few will require at least nursing care, if not active medical care in the terminal phases of life.
CLASSIFICATION OF HOUSING TYPES

Living arrangements for the elderly can conveniently be classified into three types:

(1) Independent Living
(2) Assisted Living
(3) Protected Living

Independent living is described as individual housekeeping residences for unassisted, completely independent living. Assisted living suggests non-housekeeping, moderate independence with varying degrees of service, food, and care provided, generally congregate type living. Protected living suggests minimum independence, with services, food, and full care provided.\(^\text{13}\)

Different types of accommodations under each type may be more suitable to certain persons than others. All would require careful attention to location, site selection, and architectural design, including site plan, building plan, and engineering design. The successful adaptation of housing environment would be expected to be related to several physical characteristics of the housing site, including its geographical relationships to an urban center, proximity to needed everyday services and facilities (e.g., stores, banks, commercial enterprises), and to provisions for leisure and recreational activities. Also of concern are medical, community, supportive services, counseling, and adult education.

One of the most difficult problems concerning choice of housing type for the aged person is that of independence vs. security. Most old people do not want to give up the freedom of their own homes, but they need security and protection because of their declining strength and greater susceptibility to illness.

Health statistics tell us that one-half of the elderly have good enough health to live independently. Another one-third could manage such living with special features to meet individual handicaps and with supporting community services.\(^{14}\)

The costs of the community service programs - health, home helps, food services, social, and recreational - are considered much more economical to society than the building and maintenance of institutional types of housing that would be necessary for the rather large group who are now able through relatively extensive use of these community services to care for themselves.

A primary requirement of housing is one which provides for a maximum of independence and privacy whether it is a congregate or individual type dwelling. This does not mean that older people are seeking isolation. They want housing of an appropriate type situated in close proximity to community services, to members of their families, and to homes of their friends. This independence is a strong characteristic which is not abandoned until weakness or illness necessitates pro-

tected care.

The preferred living arrangement of the elderly is that of independent living apart from family or other relatives and usually in a self-owned, detached, single-family dwelling. The next choice would be to live with another person of the same age and sex, but again independently of others. The next preference would be to live near (first choice) or with (second choice) family and relatives. The least preferred living arrangement was that of institutionalization in a facility for care of the aged. 15

It was also found that the closer the aged person was to the possibility of dependent living, the less favorable the idea of a nursing home. It was preferred then to live in his own home with care or with greater attachment to family.

The actual percentages of living arrangements of the elderly bear out the above suppositions: 16

(1) Living in their own households as heads or wives of heads - 83.5%.

(2) Living as "guests in household of younger people, mainly as parents or other relatives of the household head" - 12.5% (Proportion increasing with advanced age.)

(3) Living in institutionalized settings - 4%.


The types of independent housing offered vary from houses, apartments, flats, house trailers, tents, and house boats.

The mobile home is a special type of single family dwelling and accounts annually for approximately half a million new homes. (20.9% of the aged 65 and over live in mobile homes in California.) Mobile homes contribute primarily to the housing supply outside of the central city and particularly in smaller communities outside of metropolitan areas.

Older people find mobile home park living easy, low in cost, and enjoyable because of its informal, friendly, and interdependent atmosphere and because of the relative lack of socio-economic class barriers. Among the disadvantages of mobile homes are rapid depreciation, difficulty in resale in some parts of the country, usually no formal health plans or services, and for some a lack of privacy.

The growth of multi-family housing for the elderly who wish to live independently, but who do not want to or cannot live in single dwellings, has been rapid, an increase of two and one-half times in the 1960's. This is a particularly attractive future market for the elderly.

Rental apartments for elderly occupancy of the garden type, motel type, or elevator type in high-rise buildings have been produced in large volume under the Federally assisted housing programs. Generally, high-rise apartments


are less expensive than single-family homes, and their high density makes in- or near-town locations possible.

Owned apartments are of two types, cooperatives and condominiums. Such living conditions provide opportunity for continuing home ownership and its associated independence but removes the personal responsibility for upkeep. A cooperative is a type of apartment house where individuals own stock or membership in the cooperative and have the right to live in one of the units. In a condominium an individual separately owns one or more dwelling units in a multi-unit building.

Retirement villages attempt to offer to the elderly an opportunity to live in environments designed specifically for their needs with a maximum of independence and opportunity for social interaction. Most communities are self-contained developments with a variety of services and facilities within easy access. In general, the emphasis is on leisure living, a pattern of life many older people find attractive. The criticism aimed at such communities are usually of the stigmas of age segregation, high pressure salesmanship, and badly located projects. However for many people the retirement community offers the advantages of nearness or accessibility to work, shopping, and other facilities, recreational opportunities, privacy, compatibility of neighbors, and a well-kept-up look.

The assisted living type of housing for the elderly is generally of the congregated type. This group housing may
include large rooming houses, hotels, tourist courts, dormitories, residence clubs, and similar arrangements.

Retirement hotels represent a form of group living which has developed to satisfy older people who want privacy and independence with limited services. These hotels are often located within the central city and thus provide ready access to shopping, recreation, health services, community agencies, and places of worship. The costs of such accommodations vary greatly from one setting to another, but since two unrelated persons often share rooms, and residents do their own housekeeping, costs can be kept at a level within the reach of persons in the lower income group.

Residence halls established and operated by non-profit organizations in larger cities offer bed-sitting rooms and suites, supplemented by communal areas, such as lounges, dining rooms, and activity spaces. This type of group living permits a high degree of independence, for people who can care for all their needs and who are able to come and go at will and participate in community life.19

Development of adequate independent congregate housing would help to solve many community problems and to relieve the pressure of providing institutional care. Congregate housing should provide to the greatest degree for the level of privacy, freedom of movement, and social participation of the elderly

while still providing those services desired in assisted living.

Only a small percentage of older people require a "protected living" situation. Homes for the aged can be classified according to the type of care provided, skilled nursing care or mainly custodial care, and should be provided in surroundings as home-like as possible from both environmental and psychological viewpoints.

The nursing home, unlike a hospital where services treat a particular disease, must consider the total person in its treatment and usually for a longer period of time. Care may be either short or long term convalescent care or long term care for the chronically ill or disabled.

The intermediate care facility provides less than skilled nursing care, but more than room and board. The intent is to be a personal care home for the elderly who do not have a disease or condition requiring extended care, but who need some assistance, e.g., a diabetic unable to administer the required drugs himself. The emphasis is more medical than residential.

The provision of suitable housing for the aged of the type needed for the individual's special requirements can produce noticeable effects on the life setting of the individual. There can be increased satisfaction with the residential situation and also more favorable attitudes concerning the self and the role of self toward others, improved
physical and mental health, and more active social patterns of life.
RESPONSIBILITY OF BUILDING ELDERLY HOUSING

The responsibility for building elderly housing belongs to three primary groups:

(1) Governmental authorities
(2) Non-profit groups
(3) Private enterprise

These groups seek to provide varied types of housing for the varied needs of the elderly and varied income levels. Each elderly person deserves the right to adequate and suitable housing no matter what his income level.

Under all governmental programs, except for such special programs as housing for servicemen, nothing in Federal policies excludes the elderly from qualifying as mortgagors. An elderly person, even an individual expecting to retire soon, may be an acceptable mortgagor if his income appears sufficient to cover housing expenses and other obligations.

Special Federal programs for elderly housing started with the Housing Act of 1956. Previously the only specialized housing for the elderly had been such facilities as the county homes, church-supported homes, Federal and State homes for veterans, and privately endowed institutions. Then the Federal government decided that it was also their responsibility to try to meet the housing needs of the elderly segment of the population.

The National Housing Act was amended in 1956, liberalizing the provisions for F.H.A. mortgage insurance under Section 203
for persons 62 years or older by permitting them to borrow for
down payments and closing costs from a source acceptable to
the F.H.A. They must still be able to meet monthly mortgage
payments and maintain their property. Section 234 for condo-
minium housing and Section 213 for cooperative housing offers
this same privilege. Section 235 authorizes interest subsidies
for home ownership by lower-income families. It applies to
mortgage loans by private lenders to lower income families at
market rates of interest. H.U.D. pays to lenders the difference
between 20% of the family's monthly income and the required
monthly payment for principal, interest, taxes, and the mort-
gage insurance premium.

Since 1969, F.H.A. can insure lenders against loss (up
to 90%) on loans made to finance the purchase of new mobile
homes as residences. H.U.D. also makes rehabilitation grants
available to the elderly (as well as others) with limited in-
comes to finance the repair and improvement necessary to make
the property conform to local code or urban renewal plan re-
quirements.

Homeownership for those who desire it and alternatives
for those who do not is a necessary goal in provision of elderly
housing. A substantial group of the elderly realize that as
times goes on they have more room than they need or can main-
tain.

The low rent public housing program offers shelter for
the lowest income group. This program, started in 1937, was
revised in 1956 making single elderly persons eligible for specially designed elderly housing. Financial and technical assistance is provided by H.U.D. to local housing authorities to plan, build, and acquire, own, or lease, and operate low-rent public housing projects. Under the Turnkey method, private developers or builders submit proposals that are evaluated by the local housing authority and H.U.D. If the developer's proposal is acceptable, the local housing authority agrees to purchase the completed project, and the developer obtains his own financing.

Because leasing permits non-project type housing, many families, including the elderly, prefer it. Under the low-rent public housing leasing program the tenant pays approximately 25% of his income for rent and the housing authority makes up the difference between that amount and a fair market rent.

Section 236 (Rental and Cooperative Housing for Lower Income Families - with Interest Subsidy) replaced the old Section 202 Direct Loan Program which allowed H.U.D. to make direct 3%, fifty year loans to meet the total development cost. Under the 236 program, private enterprise can provide rental and cooperative housing for low and moderate income families and elderly or handicapped individuals. Non-profit, limited-dividend, and cooperative organizations may obtain an H.U.D.-insured mortgage at the market interest rate. To bring the monthly rentals down to a level tenants can afford, H.U.D.
makes a monthly payment to the lender reducing the interest cost as low as one per cent. Tenants pay either the basic rental or 25% of their adjusted income (H.U.D. paying the difference), whichever is greater. Those who can afford it pay the fair market rental.

Section 221(d)(3) offers mortgage insurance for low and moderate income housing at market rate interest with rent supplement for construction or rehabilitation of rental or cooperative housing of five or more units for persons whose incomes are determined by H.U.D. to be low or moderate. Applicants for mortgage insurance may be public agencies, non-profit or limited profit organizations, cooperatives, or other approved sponsors. The housing may be primarily for the elderly, or it may combine family and elderly housing. Payment by H.U.D. of the difference between unsubsidized rent and 25% of tenant's income is to the owner.

Section 221(d)(4) insures mortgages of up to 90% on new or rehabilitated rental housing projects of at least five units. This housing is intended for low and moderate income families, persons age 62 or over, and handicapped persons, although there are no income limitations on eligibility for occupancy. Priority is given to people displaced by governmental action. Applicants may be private, profit-motivated entities.

The major portion of governmental programs is aimed toward assisting the non-profit organization in its programs for housing the elderly. Up to now the various church groups
have been the leaders in the field. Although non-profit groups have strong motivation to produce low and moderate income housing, they frequently lack the financial resources required to develop sound projects efficiently. The absence of the "seed money" has prevented many non-profit projects from being undertaken.

Specifically for non-profit sponsors the government offers Section 106 interest-free, 80% loans for new or rehabilitated housing for low or moderate income families to cover pre-construction costs involved in planning and financing a proposed project.

Repayment is made when the permanent mortgage proceeds are made available. The non-profit corporations have a most important part to play in the movement to provide an adequate supply of housing for the elderly. Included among the non-profit groups are the church and fraternal groups, labor unions, and voluntary associations whose interests are in providing their elderly members with housing at appropriate cost.

Private enterprise has only recently begun to develop the market potential in housing for the elderly. In various states a number of builders and real estate subdividers have been attracted to special group housing for older persons which has apparently been found to be a good market if preceded by market analysis and planning and promoted through good campaigns.

Many retired people with $3000 incomes can afford new housing as easily as younger people earning $6000, according to
Sociologist William C. Loring of Prudential because (1) older people have more capital for down payments. The median homeowner among the elderly has more than twice the equity possessed by the median of all spending units. (2) Older people can afford to budget more of their income for housing—about 33% compared with less than 20% for younger people, and much of their income (annuities, pensions, life insurance endowments) is tax-free and not likely to change.

Relying on such information as this, builders who are seeking profit have found the elderly housing market to be a good one. Their concept of the retirement market is more than the 65 and over market; it also includes those who have not yet retired, who still work, and who can be sold on moving to a house that will be suited for them after retirement. The retirement housing market is growing fast not only because the number of older families is growing fast but because their children are marrying earlier and moving away earlier. So houses are growing too large before their time.

As Washington's Public Housing Authority official, Mary Cleverley points out, older families are not hard to move out of their old homes "because they have learned to buy a house like you buy a suit and are accustomed to moving every four years."

The market is growing fast in the numbers of people

willing and able to buy or rent housing designed for their later years. Big builders and small builders almost anywhere in the nation can successfully offer low price or luxury units for rent or for sale with or without health care plans and with or without recreation facilities. The elderly housing market is wide open and in most cities not developed by the housing industry, even in the few markets where retirement building has started.

From this review of governmental, non-profit organizations, and private enterprise it can be seen that the responsibility for providing elderly housing is shared by all three, although a certain group may serve the needs of certain elderly better than another. For example, the needs of the elderly in the very low income group would probably be more logically served through the governmental agencies or non-profit groups with governmental assistance.

For those of moderate income or greater it is well within their range to find suitable housing supplied by both the non-profit group and private enterprise.

The non-profit group generally provides rental housing within the means of the low to moderate income group. Very seldom do they go into the home-ownership market. For this market private enterprise is usually the primary supplier. For those of moderate and greater income it has been shown that homes designed specially for the elderly market are priced within the range of the large majority in these groups,
and this is the market for which the private enterprise sector is reaching. What is needed is the ability to sell the idea of buying a new home better suited to the needs of the elderly person.

The range of needs in elderly housing is wide. To fill these needs the governmental, non-profit, and profit-seeking groups have made substantial beginnings, but the market remains wide open with room for expansion.
IV. PHYSICAL AND PSYCHOLOGICAL DEMANDS OF THE ELDERLY
PRIVACY

It has been said of the elderly that they are no different from other people, that they require the same basic needs of food, clothing, and shelter that peoples of all ages require. In a sense this is true, but as people grow their basic needs vary. Due to both the physical and psychological aspects of aging, the life styles and life roles change, causing changes in demands for privacy, in desire and ability to attain social contacts, and in daily activities and recreation. Many of these changes are due to a decline in mobility and to those physical problems interfering with the ability of the aged to continue life patterns to which they had been accustomed.

The elderly person needs security in the sense of physical safety, independence to retain dignity and self-respect while maintaining maximum freedom for coming and going and doing as he pleases, involvement to be accepted for himself by people with whom he can find intellectual stimulation, and privacy. Privacy can be thought of in two ways: (1) the need to be alone and (2) the need for quiet.

There is an obvious need for the opportunity for the elderly person to be alone, to think through his personal problems, as well as to enjoy moments of solitude and meditation.

Whether the individual lives alone or in a family group, these times of completely privacy are essential. This may be obtained in a room of his own, or if he has none, then by
taking a walk or working in a garden. In planning for elderly persons nothing stands out quite so much as this human need for personal privacy.

Old age brings about tremendous changes in life patterns, loneliness being one of them. Children grow up and leave the parental household and often leave the town or city in which their parents live. Retirement from the job, the loss of economic opportunity, and lack of social interaction with fellow workers contribute to the loneliness of old age. Finally, the elderly are confronted with the deaths of a number of friends and companions of the same age and also of the spouse. Loneliness is a very real problem for the elderly.

Along with privacy the elderly require a greater degree of quiet than they have previously required. Although they enjoy activity taking place around them, constant and excessive noise is worrisome and irritating. Accompanying old age is the need for longer periods of rest and quiet. It is important for the elderly that the environment satisfy their demands for quiet without relegating them to isolation. Quiet denotes the peace and leisure that are the benefits resulting from old age, but isolation denotes the quality of loneliness.

Living arrangements which do not offer the opportunity for times of privacy, when and as needed, fail, if not in their primary purpose as shelter, at least in the primary requirement of suitability.
PERSONAL CONTACT

For persons who can continue some sort of work, job associations help fill the void created by the passing of friends and relatives. In the past the family group has provided the social contact and role of importance and recognition that is vital to the psychological well-being of the aged person. Today the role of the aged within the family has been drastically reduced. Not only are aged parents generally segregated from their children, often by considerable distances, but they retain little or no authority over their offspring once they have set up an independent household.

For those elderly who would consider moving to live with one of their children, there are a number of factors which would cause worry: loss of independence, fear that living together might change the traditional roles of parent and child, concern about furniture, and the actual physical and economic strain of moving.

Reduced income limits social life. Retirement forces the elderly person to make great adjustments in his social life. If he has lost his mate, his adjustment is made even more difficult.

The problem of the generation gap grows because of the lack of communication between the young and the old. The young tend not to make friends with older people for various stereotyped reasons. Social pressure from younger group members inhibits older people from seeking new experiences.
Failure to seek new experiences starts in middle age and by old age cannot be revived.

A residential location which increases the number of casual contacts a person is likely to have during a typical day can consequently aid the friendship formation process. In the study by Lawton and Simon proximity proved to be of great importance in the creation of a social structure. The role of the apartment house floor as the focus of interaction emerged immediately, underlining the importance of casual contacts which lead to exploratory conversations as the basis for formation of friendships. 22

Old people are eight times more likely to live alone than are people aged under 65, 23 the result of the desire to remain independent in old age. The tragedy of such independent living is that it often results in extreme examples of social isolation. Nearly all surveys show that elderly people prefer the activity of a busy street to the isolation of rural solitude.

In order to provide suitable housing for the elderly it is necessary to consider the individual as aging in social situations which involve his interaction with other people, his work setting, family, neighborhood, religious organiza-


tions, and recreational activities. It is here that archi-
tecture can be of social benefit in providing a living en-
vironment which responds to both housing and social needs.

When planners of housing consider social consequences, housing is generally regarded as a direct physical means to certain social ends, and it is assumed that changes in housing produce certain social changes. But research shows that housing seldom structures social life directly. What can be done is to modify the physical environment which may in turn set limits on emerging social structures or favor some at the expense of others. In housing we may alter the conditions, but not the determinants of social life. In this sense, the primary variable in housing the elderly is their immediate social environment and particularly the age composition of the local neighborhood.

The age structure of old people's neighborhoods is one of three basic types: (1) normal, or integrated, (2) isolated, (3) segregated.

The "normal" is the typical urban area of all age groups, with old people scattered through it almost randomly in numbers proportional to their part of the total population.

The "isolated" demonstrated by institutions set in the solitude of the country or the true retirement villages, are self-contained, completely separate settlements made up exclusively of older people.

The "segregated" is the intermediate type, with greater
than proportional concentrations of older people in groupings dispersed in a large community.

Thus the isolated pattern concentrates old people together and separates them physically from any surrounding social life. The segregated also concentrates them, to a lesser degree, but insulates them rather than separates them from a large community environment.\textsuperscript{24}

Gerontologists have strong ideological beliefs about normal, segregated, and isolated neighborhoods. Segregated and isolated patterns seem undemocratic, demoralizing, and intensifying the alienation process. On the other hand, age-integrated neighborhoods offer the opportunity to keep old people in normal and familiar surroundings to maintain continuity in their lives.

It is assumed that different age groups in normal neighborhoods will develop social intercourse and mutual support. Lewis Mumford states his belief that residential integration will maximize social integration. However due to economics, discussions of model retirement housing are usually based on age-segregated examples.

The isolated type of living arrangements results in mixed responses of social consequence. Presumably, true retirement villages arouse the enthusiasm of their sponsors, residents, and visitors, but many places are virtually isolated homes or

relatively inaccessible institutions and give a picture of lower morale and adjustment. The critical factor in morale is apparently whether an isolated setting is a complete, self-contained community. If it approximates a community with all of a community's facilities, then it seems to integrate its members and support an active social life.

The "segregated" arrangements, although criticized by many, seem to offer an active social process involving their members. Particularly in public housing settings the residents make greater use of the facilities and services provided, an indication that segregation favors the use of services which would otherwise be uneconomical or unsupportable. It has also been found that the majority of elderly people prefer segregated settings as their health declines.

Consideration must be given to the fact that normal neighborhoods have produced the majority of our problem group, the alienated aged, due to the lack of communication between younger and older age groups, and therefore they offer elderly people no assurance of effective social contact with others. It is clear that the alienating forces of neighborhood change are increasing, particularly in urban areas.

The crucial problem is that of the type of social integration that may result from the residential mixture of dif-

26. Ibid., p. 333.
ferent age groups. Older people have more difficulty in making friends than young people. This is intensified by the negative attitudes toward the elderly by other age groups, and this reflects the age-grading evident in our society which links people by age characteristics and which reduces the common problems and shared experiences of people of different generations. The result is that a common social frame of reference exists primarily with one's own age peers.27

Older persons, it is claimed, need contact with and stimulation from the young. Contacts with younger persons can serve to bolster the spirits of older persons. But on the question of "Should older persons be integrated into the community?" it should not only be considered whether such integration would benefit the old, but also whether the aged sector can contribute to the growth of the community as a whole. For example, do older persons have more, less, or the same amount of some integrative attributes as other population segments, e.g., voting rates and participation in voluntary associations. The integration of the aged in any community depends on the performances of all members, young and old, in the smoothly functioning and effectively organized life of the community as a whole. Adequate social identification generally results in sufficient motivation for the member to continue necessary behavior because he feels that it is right and that he wants to

27. Ibid., p. 332.
do so, rather than because he is forced. It is because of this that the rationale behind age-integration exists.

The primary advantage of age-segregated elderly housing lies in the significant economic gains in the provision of special services and of the housing itself. It is much less expensive to build a large number of dwelling units in one place than an equal number of scattered units. One can also provide various centralization of services more economically and effectively to a concentrated than to a dispersed market.

Major social advances may also be gained from new group memberships in a segregated grouping. The concentration of people with common status and problems, with similar life experiences and perspectives, increases the opportunity for new friendships.

However, in the exclusive company of other older persons, there is a high visibility of illness and death and that constant reminder of the fact is damaging to morale and perhaps leads to extra sensitivity on the part of the elderly person. Another disadvantage of age-segregated housing is the fear of too much pressure or too little privacy.

The re-integration of older people into new groups may ease their transition to their new aged role, especially when


there has been some confusion about this. If they can accept their age peers as a new reference group, then they may no longer need to keep youthful standards which they cannot meet and for which the necessary life conditions have disappeared.

Breen (1962) states that segregation of the elderly from other age groups would make them unavailable to fill their social roles as models for the young and that this would be a serious loss to society. Berwick (1967) states that the wisdom and experience of the elderly serve to maintain and transmit traditionally human values that might otherwise be lost in these times of rapid changes.\(^{30}\)

In Alton Estates housing development at Roehampton, a suburb of London, the London County Council's Architects Department placed one-story row houses for the elderly along paths to and from a school. The reason for doing this was to provide a likely setting for frequent contact between the very old and the very young which would help to keep both sides a bit more human.

Mumford (1956) suggests that if groups of dwellings for elderly people are integrated into neighborhoods for all age groups, this might provide an opportunity for some of the activities of three-generation family arrangements, like babysitting, but still maintain an elderly person's independence and freedom from more contact with other age groups than he

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A key issue in the discussion of residential integration versus segregation for old people is the effect of spatial proximity on social life. Many studies have correlated physical relations and friendship formation, or at least social interaction. Dealing specifically with the aged, Lawton and Simon (1968) found that usual contacts are important in leading to conversations as the basis for friendships. Rupp, Duffy, and Danish (1967) found that activity that brought elderly people in contact with others was an important factor in successful adaptation to aging. Froppe (1968) found evidence that physical layout was very important for a form of social activity enjoyed by the aged. In one home for the aged he observed that a comfortable, spacious lounge with no view of outside activities was virtually unused while residents crowded into a narrow lobby looking out into the street. The importance of spatial proximity to social relations is increased in the case of the aged, who experience progressively reduced mobility as they grow older.

Wilson (1962) suggests small, relatively protected clusters of elderly dwelling units within larger, age-heterogeneous neighborhoods. Jacobs (1958) describes a project in Cleveland where an attempt was made to integrate age groups on what was evidently too intimate a scale. Here some buildings were

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31. Ibid., p. 278.
strictly for younger families with children and others were for mixed occupancy, with both family dwellings and dwellings for the elderly on each floor. Both sides found this unsatisfactory. The elderly were bothered by the noise, and the young were bothered by the inhibitions they felt, although relations between the elderly and young children living in other buildings were fine.

The question of integration versus segregation in housing for the elderly has obviously been long debated. It has been argued that old age or its physical limitations reduces the range of activities available to the individual, so that his instrumental behavior may become less satisfactory in attaining appropriate goals, such as housing, proper food, and social contact. Proximity to age peers and thus, increased opportunity for social relationships are major advantages of planned segregated elderly housing.

On the other hand, integration allowing for regular association and daily interaction with younger persons encourages continued socialization and maintains continuity in the lives of older persons, thus preventing a narrowing of interests and excessive concentration on the problem of age and aging.\(^\text{32}\)

Lewis Mumford stated that "the worst possible attitude toward old age is to regard the aged as a segregated group, who are to be removed, at a fixed point in their life course, \(^\text{32}\).

from the presence of their families, their neighbors, and their friends, from their familiar quarters and their familiar neighborhoods, from their normal interests and responsibilities, to live in desolate idleness, relieved only by the presence of others in a similar plight. To normalize old age, we must restore the old to the community."33

Integration offers the opportunity for the elderly to retain or regain, as the case may be, his status in the life of society, while segregation offers the companionship of like attitudes and like circumstances.

33. Lewis Mumford, "For Older People - Not Segregation But Integration," Architectural Record (May, 1956), 192.
ACTIVITIES OF THE AGED

Evidence is increasing that as people grow older, they lose interest in doing some of the things they previously enjoyed and that are felt to be no longer appropriate or rewarding to them. Often mentioned as a reason is the loss of energy to pursue activities in which the older person once found satisfaction but which now requires too much effort for the reward enjoyed. The elderly display a general pattern of very low activity in roles such as club member, civic and political participant, and church member; a slightly higher pattern of activity in friend, neighbor, and acquaintance relationship; and the highest activity in family roles such as parent and grandparent.34

The most common activities of the isolated old are cooking, housework, shopping, listening to the radio, reading newspapers, seeing relatives, and watching television.35 The great majority of this activity takes place in the elderly person's own home. Activities such as gardening give great pleasure to some (and pain to others), but are much less widespread than consuming the offerings of the mass media.36


35. Living and Activity Patterns of the Aged, op. cit., p. 12.

Madden and Eisdorfeis' study (1962) of activity and morale bears out the basic support for the hypothesis of activity decreasing with age, and a direct relationship was found in this study between activity and morale.37

The question of time usage and activity involves two sets of problems, (1) the problem of content and (2) the problem of selection, which in turn is one of interest and motivation. With the identification of self with age, reconciliation must take place between this image and personal patterns of activity.38 Within the individual life cycle there are two trends with respect to meaningful activity. One is the redistribution of time between physical, social, and mental action which comes at middle age and reduces the proportion of physical action in the lives of most people as they grow older. The other trend is toward greater freedom of choice in the use of one's time as one grows older. This increased freedom of choice is partly a result of better working conditions and higher earning power for working-class people and partly the result of increased longevity which gives more people more years of retirement after their earning career is over.


There was formerly the widespread belief that an old person must be an infirm person. Today it is recognized that although persons may become more infirm as they grow older, this is a normal process and one that is usually not incapacitating, thus the increased emphasis on encouraging the elderly to live independently for as long as they are possibly able.

The results of a survey giving percent distribution of activities given up because of health, by age and living arrangements are shown in Table 6. As can seen, "heavy work" (like shoveling snow) was given up by the majority of respondents, while "nothing" was given up by the next largest group, further strengthening our belief in the generally good health and physical status of the aged.

There is also considerable variation in the "length of day" among the elderly covered by this study:

<table>
<thead>
<tr>
<th>Number of Walking Hours/Day</th>
<th>Percent of persons 65 and Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 or less</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>15 = median</td>
<td>31</td>
</tr>
<tr>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>17</td>
<td>12</td>
</tr>
</tbody>
</table>

The median time of arising was 7:00 A.M., and the median time of retiring was 10:00 P.M.

The simplest manner of describing daily activities is to divide them into work, i.e., obligated time, and leisure categories. Obligated time activities were considered essential in the household, e.g., meal preparation, eating, cleaning up, laundering, personal care, shopping, employment, and the taking care of others. A minimum of five to six hours a day were committed to activities which needed to be performed. (See Table 7.)

Since the median length of day for the elderly has been stated to be fifteen hours, and a minimum of four to five of these hours were generally committed to housework or other activities that represent obligated time, approximately two-thirds of the time during the day or about ten hours, often is available for other than work activities. (See Table 8.)

The three activities in which a large proportion of respondents reported participation were watching television, visiting, and reading. (See Table 9.) A relatively high proportion were found to have spent some time of the previous day in idleness, just relaxing or doing such things as "sitting and looking out the window," napping, and passing the time of day. Broadly speaking, mornings were occupied with obligated time activities; afternoons were spent in a variety of forms of leisure and idleness; while evenings were devoted primarily to television. Outside of the time spent in idleness, a wide range of activities was performed, some of which may have been quite necessary and some for pure enjoyment and others merely because they filled up time. Despite this impression of activity, it
should be pointed out that for many of the elderly, approximately four hours in the afternoon were found to be taken up by idleness and visiting. (See Table 8.)

People who stay young today despite their years do so because of an active interest that provides satisfaction through participation. A recreational program needs to demonstrate to the individual a method by which he might achieve greater satisfaction of the needs for response, recognition, usefulness, and participation. Activities selected to reactivate the older person should meet important psychological needs:

(1) Competitive games are a satisfactory social outlet for feelings of aggression which do not have sufficient opportunity for expression in other aspects of civilized living.

(2) Opportunity to produce something provides expression for the constructive or creative drive.

(3) Relaxation through entertainment also satisfies important psychological needs through catering to passive desires.

In providing activity for the aged it must be considered that not any activity, but only activities that provide status, achievement, and recognition can lift morale, and that those that are not basically satisfying needs do not contribute much to the individual's adjustment. 41


Table 6

PERCENT DISTRIBUTION OF ACTIVITIES GIVEN UP BECAUSE OF HEALTH

<table>
<thead>
<tr>
<th>Activities Given Up</th>
<th>Total</th>
<th>65-69</th>
<th>70-74</th>
<th>75-79</th>
<th>80 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nothing</td>
<td>37</td>
<td>45</td>
<td>37</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Job</td>
<td>27</td>
<td>22</td>
<td>26</td>
<td>30</td>
<td>38</td>
</tr>
<tr>
<td>Heavy Work</td>
<td>48</td>
<td>41</td>
<td>48</td>
<td>54</td>
<td>62</td>
</tr>
<tr>
<td>Trips</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Stairs</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Number Reporting 4,790 1,652 1,646 958 534

Table 7

PERCENT OF ELDERLY ENGAGING IN OBLIGATED TIME Activities AND TIME SPENT (median hours and percent distribution)

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% Engaging in activity</th>
<th>Number of Hours</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>up to 1½</td>
<td>2-3</td>
<td>4 or more</td>
</tr>
<tr>
<td>Meals</td>
<td>99</td>
<td>17</td>
<td>60 23 36 2½</td>
</tr>
<tr>
<td>Housework</td>
<td>69</td>
<td>49</td>
<td>36 15 7 * 1</td>
</tr>
<tr>
<td>Personal Care</td>
<td>97</td>
<td>93</td>
<td>7 16 2</td>
</tr>
<tr>
<td>Shopping</td>
<td>28</td>
<td>47</td>
<td>37 16 2</td>
</tr>
<tr>
<td>Care of Others</td>
<td>7</td>
<td>38</td>
<td>35 27 2</td>
</tr>
</tbody>
</table>

*Less than 0.5%

Table 8

PERCENT OF ELDERLY ENGAGING IN HIGH-PARTICIPATION ACTIVITIES AND TIME SPENT (median hours and percent distribution)

<table>
<thead>
<tr>
<th>Activity</th>
<th>% Engaging in activity</th>
<th>Number of Hours</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>up to 1½</td>
<td>2-3</td>
<td>4 or more</td>
</tr>
<tr>
<td>Television</td>
<td>70</td>
<td>17</td>
<td>47 36 3</td>
</tr>
<tr>
<td>Radio, Records</td>
<td>17</td>
<td>53</td>
<td>34 13 1½</td>
</tr>
<tr>
<td>Visiting</td>
<td>68</td>
<td>41</td>
<td>49 10 2</td>
</tr>
<tr>
<td>Reading</td>
<td>61</td>
<td>65</td>
<td>29 6 1</td>
</tr>
<tr>
<td>Naps, Idleness</td>
<td>56</td>
<td>47</td>
<td>39 14 2</td>
</tr>
</tbody>
</table>

Table 9

PERCENT OF ELDERLY ENGAGING IN VARIOUS ACTIVITIES DURING DIFFERENT PERIODS OF THE DAY

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% ENGAGING IN ACTIVITY</th>
<th>PERCENTAGES MORNING</th>
<th>AFTERNOON</th>
<th>EVENING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watching television</td>
<td>70</td>
<td>10</td>
<td>27</td>
<td>96</td>
</tr>
<tr>
<td>Visiting</td>
<td>68</td>
<td>28</td>
<td>59</td>
<td>43</td>
</tr>
<tr>
<td>Reading</td>
<td>61</td>
<td>24</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>Napping and idleness</td>
<td>56</td>
<td>31</td>
<td>86</td>
<td>18</td>
</tr>
<tr>
<td>Shopping, related activity</td>
<td>28</td>
<td>46</td>
<td>67</td>
<td>10</td>
</tr>
<tr>
<td>Gardening</td>
<td>19</td>
<td>65</td>
<td>56</td>
<td>5</td>
</tr>
<tr>
<td>Radio, records</td>
<td>17</td>
<td>35</td>
<td>37</td>
<td>55</td>
</tr>
<tr>
<td>Walks, sports</td>
<td>10</td>
<td>46</td>
<td>65</td>
<td>14</td>
</tr>
<tr>
<td>Entertaining</td>
<td>9</td>
<td>27</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>Rides, outings</td>
<td>9</td>
<td>42</td>
<td>69</td>
<td>25</td>
</tr>
<tr>
<td>Church, clubs</td>
<td>4</td>
<td>46</td>
<td>64</td>
<td>31</td>
</tr>
</tbody>
</table>

Successful planning of activities enables the elderly person to make new friends, to gain recognition, to feel useful toward other people, and to participate in the community, resulting in the continued or renewed practice of skills and talents or in the learning of new ones so that he is helped to remain psychologically stimulated.

Most elderly have adapted their daily activity patterns to the amount of time they have on hand. One of the major factors that should not be overlooked when considering the daily activities of the aged is that concerning the services available and accessible to them. If social, medical, and recreational facilities and services were made available to the elderly, it can be assumed that they will be more readily taken advantage of. Another factor to consider is that of the person's physical location, e.g., city, suburb, rural. This becomes more important in the meaningful use of time as he grows older, primarily because of the number and kinds of facilities and services made available to him in his type of location.

It is commonly recognized that one of the basic problems of growing old is that of maintaining social contact with the outside world. Since visiting involves the presence of another person, this is a limiting factor both with regard to being able to visit and the amount of time that can be spent at it. Most of the regular contacts for the elderly person were with relatives. Contacts with non-relatives were fewer. Although the aged person knew several neighbors and a large proportion had
most of their friends in the neighborhood, this did not necessarily mean that they had regular contact with them.
MOBILITY

When considering activities of the aged, we cited as a major factor the availability of services and facilities. Along with this goes the accessibility of such services and facilities due to the ability or inability of the elderly person to travel i.e., mobility.

Lack of means to move around a community can isolate a healthy and physically mobile person as completely as if he were confined to bed. Many older people do not drive, and taxis are too expensive for many of them. Dependence on relatives and friends for transportation is not desirable for long term periods. Public transportation either does not exist or is extremely difficult for them to use, and it also becomes more expensive every day.

As a result of this lack of mobility, many older people do not use available free medical services because they cannot reach them. They cannot enjoy free concerts or visits to the park for the same reason. Small neighborhood shops, easy to reach on foot, have disappeared in many communities. Supermarkets are often located at distances too great for many people to reach by walking, and so nutrition suffers. Financial problems may become unnecessarily critical when people are unable to reach a Social Security or public assistance office. Part-time jobs and volunteer opportunities, which would keep many people active, are prohibited because of high transportation fares.
The elderly person who has a car often prefers not to drive on weekdays and to take other forms of transportation. The noise and confusion of city traffic is more often than not too much for the elderly person to cope with. The slowing of mental processes that accompany old age also causes increased difficulty in the relative speed of the decision making process, a critical factor in driving.

Another major form of mobility for the aged person is that of walking. With age there is a general slowing down and more difficulty in walking; either their feet or joints hurt. If there is no actual pain involved in walking, their pace becomes slower and more careful. Frequently this is because of the knowledge that old bones do not heal as rapidly or as thoroughly as young ones do. However, walking is often the desired form of transportation for the elderly in terms of ease of ability to reach needed locations of services and facilities. Walking is also a most desired form of exercise and sometimes the only form available for the elderly.

One other definition of mobility that we should consider is that of changing location of residence. The fact of moving reflects the response of the individual to his residential environment, on the one hand, and his response to changes in his own living requirements, on the other, as retirement, widowhood, or declining health may point up previously unnoticed deficiencies of housing.
PHYSICAL PROBLEMS

One common mistake concerning the elderly is the idea that people are old at the age of sixty five. There is a good bit of evidence that a man or woman aged sixty five years today is biologically as young as a person of forty to forty five years was in 1900.\(^{42}\)

It is true that chronological age does not always match the physical age of a person, but is also true that aging is a continuous, irreversible course.

Below is a partial list of the physical effects of aging:

1. **Skin** - There is an increase in sensitivity to changes in temperature, etc. Older people thrive on a constant temperature and require frequent changes of covers or wrap when the temperature fluctuates.

2. **Eyes** - Few people over sixty see well without glasses, as the result of accumulated damage to the eye, the degeneration of fibers within the optic nerve, and the onset of glaucoma and cataract. Color perception and the power of the eye to adjust to different levels of light and dark are reduced. Thus, it is most important that the elderly not be required to go from lighted rooms or areas into dark

\(^{42}\text{Rosamonde R. Boyd, Foundations of Practical Gerontology (Columbia: University of South Carolina, 1969), p. 43.}\)

hallways, bathrooms, and the like. High levels of illumination are needed for tasks which demand good acuity, craft work, reading, etc.

(3) **Hearing** - By age sixty five the ability to hear high-pitched sounds is usually lost, but this does not interfere with perception of normal conversation. By age seventy five, fifteen per cent of the aged suffer from noticeable deafness and increased difficulty in hearing speech.

(4) **Bone** - A decrease in calcium content causes bone to become fragile and more easily broken.

(5) **Nerves** - There is little functional change, although there is generally a slower reaction and reflex timing. There is a loss of pain sensitivity - dangerous for old people who do not uncommonly suffer fractures, bruises, etc. without awareness.

These changes in the body do not necessarily mean that the healthy aged person cannot function within normal limits, but it does mean that there is less resistance to physical stress.

Sixty years ago, the major causes of death in the United States were tuberculosis, pneumonia, diarrhea, and enteritis; none of which are primary causes today. On the other hand, diseases of the heart have risen from fourth place to first, and cancer from eighth to second. We are able to reduce or control these diseases that are now the leading causes
of death through prevention, proper diet, and regular medical check-ups. This knowledge has contributed to the growing proportion of the aged in the population.

The increased possibility of slips and falls are related to changes in vestibular sense, a serious problem with older people. Body sway also increases with age. Many of the falls suffered by elderly people are not a product alone of weakness or poor muscular control, but also of a lack of awareness that the body is off balance until it is too late to recover. For this reason, even people who are not particularly feeble need stair and hallway railings, grips by the tub, and other appropriate supports.

Mechanisms of response are altered in old age. Time is needed for preparation of action in response to varied stimuli. Most importantly, the elderly person must be allowed to perform at his own rate. The main difficulty in mobility is that of pacing and coordinating stimulus-response pattern.  

The learning process itself slows due to a slowing of response and a block caused by anxiety in the learning process as well as a lack of motivation and a loss in memory retention. The aging person is fully aware that there is a limit to his life span, and he wants to live as long as possible, attempting to preserve and safeguard his energies and health. The

44. Boyd, _op.cit._, p. 48.
degree to which health and the immediate environmental situation affects the older person is great.

Stress of any kind causes more anxiety than was true at an earlier age, and recovery is slower. The younger person expects to recover from illness or disability, to be as good as new again. The aged person is only being realistic when he realizes that he may not.

In general, the adjustment of healthy individuals to aging resembles their adjustment at an earlier period of life. Behavior is relatively consistent over a period of time for both genetic and environmental reasons. However, there may be a continuing loss of life enjoyment, feelings of self-confidence and usefulness, and energy. Thus it is highly desirable that old people experience as stimulating an atmosphere as possible and that they continue to do as many things as their conditions allow.

---

NATURE OF THE PROBLEM

CONCLUSION

In elderly housing the nature of the problem has been defined in terms of (1) the need for housing units and (2) the physical and psychological demands of the elderly. The latter have an indirect influence on housing satisfaction, while the former, particularly the economic aspect, has a direct effect on housing quality.

Categorizing elderly families into income classifications, I have chosen the following:

<table>
<thead>
<tr>
<th>Bracket</th>
<th>Income Level</th>
<th>%, elderly population, U.S. Census Data, 1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>Below $4000</td>
<td>23.8%</td>
</tr>
<tr>
<td>Middle</td>
<td>$4000-10,000</td>
<td>42.0%</td>
</tr>
<tr>
<td>Upper</td>
<td>Above $10,000</td>
<td>20.4%</td>
</tr>
</tbody>
</table>

A primary housing problem for the elderly is that of being "overhoused". (See Table 10.) For those in the upper income bracket the problem of being overhoused is the major one. Financially the elderly in this group are able to afford a change in housing more suitable to their current needs, but many remain in present inadequate housing because of a lack of attractive alternatives from which to choose.

For those in the middle income bracket the problem of being overhoused remains a major one, but the problem of sub-standard housing also exists for many in this group. (See Table 11.)

For those in the lower income bracket the major problem
Table 10

**ROOMS PER PERSON (PERCENTAGE DISTRIBUTION)**

<table>
<thead>
<tr>
<th>Rooms per Person</th>
<th>Age of Head of Unit</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1</td>
<td></td>
<td>14</td>
<td>17</td>
<td>18</td>
<td>9</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>1-1½</td>
<td></td>
<td>56</td>
<td>45</td>
<td>43</td>
<td>25</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>1½-2</td>
<td></td>
<td>10</td>
<td>18</td>
<td>17</td>
<td>20</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>2-3</td>
<td></td>
<td>18</td>
<td>14</td>
<td>14</td>
<td>30</td>
<td>34</td>
<td>31</td>
</tr>
<tr>
<td>3 or more</td>
<td></td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>16</td>
<td>33</td>
<td>52</td>
</tr>
<tr>
<td>No. of cases</td>
<td></td>
<td>192</td>
<td>413</td>
<td>495</td>
<td>414</td>
<td>280</td>
<td>323</td>
</tr>
</tbody>
</table>

*Source: Riley, Aging and Society (New York: Russell Sage Foundation, 1968).*

Table 11

**CONDITION AND PLUMBING FACILITIES OF ALL OCCUPIED HOUSING UNITS AND THOSE WITH THE HEAD 60 YEARS AND OVER, 1960 (% DISTRIBUTION)**

<table>
<thead>
<tr>
<th></th>
<th>All U.S. Units</th>
<th>Units with Head 60+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Occupied</td>
<td>Owner Occupied</td>
</tr>
<tr>
<td>Not Dilapidated with</td>
<td>84.0</td>
<td>88.6</td>
</tr>
<tr>
<td>all facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dilapidated or</td>
<td>16.0</td>
<td>11.4</td>
</tr>
<tr>
<td>lacking facilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Riley, Aging and Society (New York: Russell Sage Foundation, 1968).*
is that of simply not being able to afford adequate housing. In a 1965 survey of over two million Old Age Assistance recipients, four out of ten reported that the housing unit in which they lived had one or more major defects (U.S. Department of Health, Education, and Welfare, 1969). Approximately 15% of the Old Age Assistance recipients lived in housing that had no running water; 30% of the housing lacked inside flush toilets; 40% had no bath or shower with hot water. Only slightly more than one half had the luxury of having every room heated during the winter.

The lack of alternative choices in housing faces members of all income groups. What should be taken into consideration by architects, planners, and developers is that within the elderly age group there is great variety, but all must be housed. The opportunity for the elderly to choose the housing and living arrangements which meet their immediate and future needs is vital for the determination of the quality of their existence. Lack of good housing results in an undesirable living environment, which in turn results in lack of purpose to living.

46. Housing the Elderly, op. cit., p. 13.
V. HOUSING THE ELDERLY IN THE NEW COMMUNITY
RATIONALE

There are at least sixty three new towns currently under construction in the United States, and it is more than likely that more new towns will be developed in the future. 47

All of the planning criteria relating to new communities contained in government pamphlets and university studies recommend that new communities contain a cross-section of age groups, including the elderly.

There are two segments of the elderly population toward whom housing should be directed in the new town:

(1) Those elderly who moved to the new town at an earlier age and who have grown old in the new town.

(2) Those elderly who are attracted to live in the new town in old age.

In discussion of the residential cycle, the changing housing needs of different age groups were pointed out. The younger residents of the new town who grow old in the new town are just as entitled to housing suited to their needs in old age as they were in younger age.

There are also many elderly who desire to move from their present housing, but have no alternatives from which to choose. Moving to a new town offers one alternative. Although it has been argued that the elderly are highly immobile, preferring

47. Housing the Elderly, op. cit., p. 96.
to remain in their present housing situation, this has been proven false. (See Table 12.)

Reasons that would motivate the elderly person to leave his present housing (Table 13) and reasons that would motivate him to move to a new town (Table 14) are listed.

In a study by the Institute for Social Research, the University of Michigan, an assessment of the overall responses of persons to selected, planned residential environments and their responses to particular features of these environments was taken. 1,253 interviews were taken with residents of ten planned and less planned communities, representing a cross-section of the residents of their communities. Three different levels of planning appeared in six suburban communities selected for the interviewing: Columbia, Maryland, Reston, Virginia, and Radburn, New Jersey (highly planned); Crofton, Maryland, and Montpelier, Maryland (moderately planned); Norbeck, Maryland, Southfield, Michigan, and Glen Rock, New Jersey (less planned).

The percentage of the elderly living in these planned communities appeared to increase with the increasing age of the community, Radburn being developed in the 1930's and Glen Rock in 1925. (See Table 15.)

The extrapolation of the data in Table 15 can be interpreted to mean that the older a planned community gets, the percentage of older residents increase because the residents tend to stay within the community as they grow older and be-
<table>
<thead>
<tr>
<th>Percentages given</th>
<th>Age in 1960</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>65-69</td>
<td>70-74</td>
<td>75-79</td>
<td>80-84</td>
<td>85+</td>
</tr>
<tr>
<td>Non-Movers</td>
<td>70.0</td>
<td>71.0</td>
<td>70.9</td>
<td>68.8</td>
<td>65.3</td>
</tr>
<tr>
<td>Movers</td>
<td>30.0</td>
<td>29.1</td>
<td>29.0</td>
<td>31.1</td>
<td>34.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same County</td>
<td>19.2</td>
<td>18.9</td>
<td>19.1</td>
<td>18.9</td>
<td>21.7</td>
</tr>
<tr>
<td>Same State,</td>
<td>4.7</td>
<td>4.5</td>
<td>4.7</td>
<td>5.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Different County</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different State</td>
<td>4.5</td>
<td>4.0</td>
<td>3.3</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Abroad</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Moved, Residence</td>
<td>1.4</td>
<td>1.5</td>
<td>1.8</td>
<td>2.4</td>
<td>3.5</td>
</tr>
<tr>
<td>not Reported</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 13

REASONS FOR THE ELDERLY TO WANT TO MOVE FROM PRESENT HOUSING

1- Overhoused - existing home has greater space than needed, dwelling becomes too difficult to maintain.

2- Changing character of the neighborhood - friends die or move away, age group character of the neighborhood changes.

3- Relocation due to urban renewal.

4- Desire for independence - move from children's or relatives' household.

5- Decrease in income makes it increasingly difficult to maintain a large house.

6- Existing facilities and services for the elderly become more difficult to reach due to decrease in mobility; therefore the desire grows to move closer to services.

7- For many the complete inadequacy of facilities and services for the elderly in the existing settings.

8- Previous renters in retirement age desire to own their own home for security.

9- Dissatisfaction with present physical environment - dust, noise, and pollution.


Table 14

REASONS FOR MOVING TO A NEW TOWN

I. HOUSE RELATED REASONS

1- Desire for homeownership and a free-standing house.
2- Desire for a new home with modern conveniences and amenities.
3- Desire for more garden space, a return to nature.
4- More safety factors in specially designed homes for the elderly.
4- Housing subsidies available in new towns - ease of acquiring suitable housing.

II. COMMUNITY RELATED REASONS

1- Seeking social integration, proper position in society.
2- Desire to move away from the hectic urban pace, return to quieter, easier living environment.
3- Attracted by other friends and family moving to the new town.
4- Adequate supportive services and facilities available, e.g., Senior Citizens Centers for counseling, medical aid, churches, recreational facilities.
5- Transportation system improvements resulting in easy access to supportive services and facilities, ease in visiting, i.e., social interaction facilitated.
6- Less traffic that is better controlled results in greater safety.
7- Common age groups in neighborhoods, but still dispersed among other age groups. Sharing of common interests, activities, opinions, etc.
8- Suitable recreation and park areas, more open space to enjoy.
9- Cleanliness and lack of pollution in the new town.
10- Lack of a traditional class structure in a new town.
11- New towns provide new outlooks on life for its residents. Everyone has this "new and better" concept of community life.
III. PERSONAL REASONS

1- To be closer to children and/or grandchildren who may be living in the new town.

2- Desire for a change in life style, greater opportunity for varied activity.

3- Opportunity for regaining place in society and rebuild dignity.

4- Tired of city life, desire for a better living environment.

5- Compared to urban life, the decreased density of new towns offer greater privacy and quiet.

6- Along with the increase in leisure time of the aged goes the desire for more and varied forms of recreation.

7- Many prefer smaller community life.
Table 16

SATISFACTION WITH THE MAPPED AREA OVERALL FOR THE RETIRED

<table>
<thead>
<tr>
<th>AREA</th>
<th>PERCENTAGES</th>
<th>EXCELLENT</th>
<th>GOOD</th>
<th>AVERAGE</th>
<th>POOR</th>
<th>RATED EXCELLENT FOR THE RETIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia</td>
<td>52</td>
<td>40</td>
<td>6</td>
<td>2</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Reston</td>
<td>61</td>
<td>33</td>
<td>4</td>
<td>2</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Crofton</td>
<td>42</td>
<td>39</td>
<td>13</td>
<td>6</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Montpelier</td>
<td>18</td>
<td>51</td>
<td>32</td>
<td>9</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Norbeck</td>
<td>41</td>
<td>44</td>
<td>13</td>
<td>2</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Southfield</td>
<td>36</td>
<td>49</td>
<td>12</td>
<td>3</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Radburn</td>
<td>54</td>
<td>37</td>
<td>7</td>
<td>2</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Glen Rock</td>
<td>49</td>
<td>38</td>
<td>9</td>
<td>4</td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>


Table 15

CHARACTERISTICS OF COMMUNITY RESIDENTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>PERCENTAGES</th>
<th>AGE 55-64</th>
<th>65-74</th>
<th>75 and over</th>
<th>MEDIAN AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>35</td>
</tr>
<tr>
<td>Reston</td>
<td>6</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>39</td>
</tr>
<tr>
<td>Crofton</td>
<td>10</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>42</td>
</tr>
<tr>
<td>Montpelier</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>37</td>
</tr>
<tr>
<td>Norbeck</td>
<td>8</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>41</td>
</tr>
<tr>
<td>Southfield</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>41</td>
</tr>
<tr>
<td>Radburn</td>
<td>22</td>
<td>13</td>
<td>2</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td>Glen Rock</td>
<td>22</td>
<td>8</td>
<td>5</td>
<td>-</td>
<td>50</td>
</tr>
</tbody>
</table>

Table 17

REASONS FOR EVALUATING THE MAPPED AREA FOR RETIRED PERSONS

<table>
<thead>
<tr>
<th>POSITIVE MENTIONS:</th>
<th>COLUMBIA</th>
<th>RESTON</th>
<th>CROFTON</th>
<th>MONTPELIER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good transportation and accessibility to shopping, etc.</td>
<td>38</td>
<td>55</td>
<td>26</td>
<td>-</td>
</tr>
<tr>
<td>Facilities or activities available</td>
<td>31</td>
<td>55</td>
<td>32</td>
<td>-</td>
</tr>
<tr>
<td>Quietness, peacefulness</td>
<td>6</td>
<td>10</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Nice neighbors or other people in community</td>
<td>12</td>
<td>15</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Low or reasonable cost of living</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>-</td>
</tr>
</tbody>
</table>

NEGATIVE MENTIONS:

| Inadequate transportation and accessibility | 6        | 20     | 26      | -          |
| Lack of facilities and activities         | 6        | 15     | 10      | -          |
| Crime and safety of person and property   | -        | -      | -       | -          |
| Lack of traffic safety                    | -        | -      | -       | -          |
| High cost of living                       | 19       | 15     | 21      | -          |

POSITIVE MENTIONS:

<table>
<thead>
<tr>
<th>NORBECK</th>
<th>SOUTHFIELD</th>
<th>RADBURN</th>
<th>GLEN ROCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good transportation, etc.</td>
<td>14</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>Facilities available</td>
<td>-</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Quietness, peacefulness</td>
<td>21</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Nice neighbors in community</td>
<td>21</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Low or reasonable cost of living</td>
<td>7</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

NEGATIVE MENTIONS:

| Inadequate transportation                | 29       | 10      | -        | 9          |
| Lack of facilities                       | 7        | 5       | 10       | 7          |
| Crime and safety of person               | -        | -       | -        | -          |
| High cost of living                      | 50       | 45      | 42       | 77         |

cause of the attraction of newcomer elderly people to the community.

In these same communities a large percentage rated their area as being excellent. (See Table 16.)

The more planned communities are generally rated better for the retired because of an ease of accessibility to a larger number of facilities and activities. (See Table 17.)

It is to be noted, however, that the majority of these communities had no housing designed specifically to fit the special needs of the elderly. In Columbia, the prices of homes range from approximately $15,000 to $100,000, and there are also rental apartments and some three hundred units of 221(d)(3) federally subsidized apartments for which the elderly are eligible, but which are not restricted to the elderly.

In the newer planned communities more consideration has been taken of the role of the elderly. In Jonathan, Minnesota, a community southwest of Minneapolis projected to have a population of fifty thousand by 1990, forty-two of the 650-700 units planned to date will be constructed with features especially appropriate to the needs of the elderly. 48 In addition, one of the projects features modular units that may be added or deleted as family requirements change, beneficial to the aged as their housing size requirements decrease with the departure of children.

The New York State Urban Development Corporation proposes a new town for Welfare Island, a 147-acre, two-mile long island off the coast of New York across from Manhattan. A total of 1500 apartments, or thirty per cent, would be reserved for low-income persons ($18 to $20 monthly per room), five hundred of these for the elderly. There has also been included a building for elderly services and facilities in which is housed an infant care center, encouraging activity on the part of the elderly to aid in the care of the children and maintain an inter-generational contact. 49

In Woodland, the new town proposed in Montgomery County, Texas, forty miles from Houston, two types of elderly housing are included in the development program. The first would consist of 1700 units of garden apartments at approximately thirty dwelling units per acre, with the balance of 1150 units in elevator apartments. Very little of this elderly housing is provided until latter phases of development due to the need for significant health care and transportation services for elderly households. The inventory of elderly units are to build up rapidly in the last development phases because a full range of urban services is anticipated as the new community matures, and also because many of the low and moderate income families previously living on the site are expected to

qualify for this elderly housing as their families leave home over the twenty year development period and beyond.\textsuperscript{50}

\textsuperscript{50} From Woodland Proposal, George Mitchell, Assoc.
ADVANTAGES OFFERED BY NEW TOWN

Facilities and services offered in a new town can do much to prolong the period of independent living for the aging individual, to increase the opportunities for social integration between young and old, and to provide basic physical, psychological, social, and economic needs for all persons in the community. The importance of any facility or service offered within a new town depends primarily on its accessibility by the people for whom it was intended.

In the new town it is planned that the individual should be able to reach primary shopping areas and a community facility within a short distance. To reach farther sites, the public transportation system should be designed to cover every area of the community and provide quick and easy access to any point. Because of the decreased mobility of the elderly person, opportunity to use walking and public transportation to reach any facility or service within the community that he may desire is a prime attraction of the new town.

As people grow older, certain physical abilities decrease, and certain activities face a degree of constraint as compared to earlier years. A two or three mile walk in youth is not considered extreme, but in old age limits of 1/2 to 3/4 mile may be required.

In a survey conducted by the University of Pennsylvania elderly persons were asked to rate desired conveniences and facilities and then to approximate desired distances to these
facilities in terms of walking times. (See Table 18.)

If aids to transportation were provided, then these times may be shortened or distances may be increased. To solve these transportation problems for the aged, the first step to be taken should be the establishment of a public transportation system to connect major shopping areas with the residential areas of elderly people.

The neighborhood center will be a place where persons of all age groups can come together for a variety of activities and programs. The provision of a senior center within the encompassing neighborhood center may come to hold a place in the life of the older person equivalent to the central role now played by the school in the lives of the children. Younger age groups should not be excluded from those programs designed for the elderly, and vice-versa. In Plymouth, Wisconsin, seniors welcome younger adults to take part in programs in their center. It is not unusual to see a mother and daughter in a sketching class together, or a father and son playing cards with other members. The seniors feel that this hospitality to other age groups is of benefit to everyone. 51

According to Godfrey Frankel of the U.S. Department of Health, Education, and Welfare, Bureau of Family Services, "The senior center has developed out of the poignant need to

Table 18

<table>
<thead>
<tr>
<th>FACILITY</th>
<th>RANK</th>
<th>MINUTES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Grocery Store</td>
<td>1</td>
<td>--------</td>
</tr>
<tr>
<td>Bus Stop</td>
<td>2</td>
<td>----</td>
</tr>
<tr>
<td>House of Worship</td>
<td>3</td>
<td>--------------</td>
</tr>
<tr>
<td>Drugstore</td>
<td>4</td>
<td>---------------</td>
</tr>
<tr>
<td>Clinic or Hospital</td>
<td>5</td>
<td>---------------</td>
</tr>
<tr>
<td>Bank</td>
<td>6</td>
<td>--------</td>
</tr>
<tr>
<td>Social Center</td>
<td>7</td>
<td>indeterminate, on-site if feasible</td>
</tr>
<tr>
<td>Library</td>
<td>8</td>
<td>---------------</td>
</tr>
<tr>
<td>News, cigar stand</td>
<td>9</td>
<td>--------</td>
</tr>
<tr>
<td>Restaurant</td>
<td>10</td>
<td>---------------</td>
</tr>
<tr>
<td>Movie House</td>
<td>11</td>
<td>---------------</td>
</tr>
<tr>
<td>Bar</td>
<td>12</td>
<td>indeterminate, of no importance</td>
</tr>
</tbody>
</table>

ward off loneliness, to feel the importance of being part of a group, to achieve satisfaction of learning a skill, to renew one's life, and to create new social roles for oneself."

There are several acts especially appropriated for the development of senior centers. The "Older Americans Act of 1965" (HR 3708) provides assistance for the development of new or improved programs to help other persons through grants to the states for community planning and services and for training. Another law authorizing grants to multi-purpose senior centers is the H.U.D. Act of 1965. Grants of up to $2/3$, and in some cases $3/4$, of the cost of development of the project are given to local public bodies and agencies to finance neighborhood facilities which would provide health, recreational, and social services, adult education, counseling, information, and other community services.

The town center will also provide an even greater range of services than can be found in the neighborhood and village centers. In Jonathan, department stores, offices, restaurants, and theatres will be contained in one Y-shaped town center, each of whose three wings will extend for $3/4$ of a mile from a central axis. $^{52}$ On upper floors will be apartment dwellings, a particularly good location for housing of the elderly in consideration of proximity to the life of the activities in

the community.

Cedar-Riverside, Minnesota, is an institutionally oriented community incorporating the needs of the area for heterogeneous high-density housing and facilities of types and sizes that are socially and economically integrated. Connecting residential areas with institutions will be an Activity Centrum. In addition to hotel, office, and retail uses, a wide range of community and cultural activities can be anticipated. Recreational activities will include indoor swimming, handball or other gymnastic sports, as well as craft and carpentry rooms. Educational programs would serve people from youth through senior citizen years by means of the latest communications techniques, libraries, and schools. Cinema theatre, art galleries, sports ampitheatres, cafes, restaurants, and specialty shops would ensure an urban vitality. The activities of the centrum will be limited only by the imagination of the community.53

Park Forest South, Illinois, is an open-space, recreation-oriented community, but in the town center within walking distance of each other will be found the municipal buildings, the supermarket, the bank, sculpture garden, an indoor ice rink, restaurants, and a bazaar filled with specialty shops. The town center is conceived in a linear style and designed to segregate automobiles and pedestrian traffic. Rapid

53. Prospectus from Cedar-Riverside Associates, Inc.
transit connections will make possible low cost, high speed transportation from this new town thirty miles south of Chicago to points throughout the metropolitan area, allowing an even greater range of activities and facilities for the elderly.\textsuperscript{54}

To provide suitably for elderly housing requires that their entire range of needs be provided, from low income to high income, from rental units to ownership units, from apartments to homes, and from independent living to assisted living, and to complete protected care. Since the new town is to be a completely heterogeneous community, the need to provide all types of elderly housing is only emphasized.

Home ownership is desired by many, but also included under provision of homes are rental homes, e.g., the duplexes. For the middle-aged who recognize their changing housing needs but still desire the living arrangements of a house, then this could be one solution. As growth continues into old age, the ability to care for a house is maintained for some time. It is for this group of elderly persons that the new town with its ease of accessibility provides the greatest attraction.

As the elderly who own homes grow older and find their homes increasingly difficult to maintain, the desire to move to apartments grows stronger. Rental types will be offered, as well as apartments for ownership. The latter, is exemplified by the cooperatives and condominiums. A cooperative

\textsuperscript{54} Prospectus from Park Forest South.
is a type of apartment house where individuals own stock or membership in the cooperative and have the right to live in one of the units. In a condominium an individual separately owns one or more dwelling units in a multi-unit building. Apartment dwellings offer to the elderly the attraction of independent dwellings with relatively little maintenance and upkeep.

As the elderly person grows older and requires more physical care, the need to move to a protected living situation increases. Nursing care or actual medical supervision may become necessary. There should be provided in the new town a medical complex and nursing care facility to serve the needs of the elderly residents as they find it necessary.

The advantage that is offered by the new town is that these considerations for housing the elderly in all stages of the residential cycle can be taken in the initial stages of planning the community. Housing can be designed with the particular needs and requirements of the elderly in mind.
VI. GOALS AND CRITERIA
A BETTER LIVING ENVIRONMENT

Design of a community cannot in itself create a social community. What can be done through design and architectural planning is to facilitate or impede the processes for social development. Living conditions can relieve boredom and stimulate purposeful activity. Although the architect cannot design the structure of the community to solve the physical, psychological, sociological, and economic problems of the area, he does find that good design can approach solutions to these problems more efficiently and logically. The architect is trained not to be concerned with single housing developments only, but to think and plan in terms of community-wide concepts of development.

In order to try to provide a better living environment in which to live, the two basic considerations are (1) those that apply directly to housing suitability and availability and (2) those that apply to the personal environment of the individual.

As mentioned before, the elderly in the lower income bracket are not the only persons in need of help in finding suitable housing. Traditionally the indigent elderly were the ones provided for, and they still receive priority today. It has been only recently that widespread attention has been given to the needs of the elderly in other income groups. The well-to-do and those of moderate income appear to need help just as much as the indigent.
For the higher income elderly group, the range of housing types available to them is wide. Home ownership is within their means financially and is highly desirable by those who are able either to maintain their own homes themselves or who are able to afford the required maintenance help. For those in this group who prefer the ease of maintenance of apartments, cooperatives, or condominiums, these should also be offered.

The obstacle to good housing in the case of this segment of the elderly population is ignorance of the need for a change in housing, rather than a lack of money. In order to bring to their attention an awareness of the changing housing needs that accompany the changing life style of old age, means must be developed to educate these elderly. If these needs can be emphasized by those members of the social community who have influence on the lives of the elderly, then an effective campaign can be waged. Such members may include ministers, lawyers, social workers, physicians, governmental agencies, and civic clubs. A radio, television, and newspaper campaign may also be an effective means of reaching the elderly. To inform and educate the elderly to a greater awareness of their needs is an awesome task, but it is one that deserves attention.

For the middle income elderly group, home ownership may be somewhat more difficult than for the higher income group, but it remains a possibility. Rental units (apartments, duplexes) should also be provided within the range of price of
the middle income group.

A major problem for this group is also a need for recognition of changing housing needs, but there is also a need to provide opportunities to choose a suitable housing type that is within their financial means.

For the lower income group financial assistance in securing housing must be provided. Public housing projects, rent subsidies, and other forms of low-cost housing are necessary in the new town. In addition to the previous governmental programs discussed, Congress authorized in the New Communities Act of 1968 mortgage insurance to facilitate adequate financing at reasonable cost for site acquisition and preparation in the development of these communities, for the maintenance of a diversified home building industry, and for broad participation by small builders. Programs do exist by which low rent housing can be provided.

Perhaps the major disadvantage to the elderly living in a new town is economic. The cost of living is higher, and this affects the elderly to the greatest degree. The income level of the general population is also higher in many new towns. In a study characterizing the residents of ten new towns, the average income was $18,500 annually. From this we can deduct that a large percentage of elderly in the new

town may be classified as being in the higher income bracket, a smaller percentage in the middle income bracket, and an even smaller number in the lower income bracket. Because of this the majority of housing to be supplied for the elderly in the new community will be single family dwellings for home ownership and apartments for rental to middle and higher income elderly. Since the percentage of elderly in the lower income bracket is small, the need for public housing for the elderly will be proportional.

Analysis of the functional aspects of living arrangements and its meaning to the elderly have revealed that most houses and apartments are poorly adapted to the needs of the elderly.

Consideration of several complex factors are involved in planning housing for the aged:

(1) The need for personal privacy at a time of life when it is most important.

(2) The individual's roots, national, religious, cultural, or occupational backgrounds.

(3) Loneliness and consequent desire to remain in familiar surroundings.

(4) The low income of many old people.

Each factor contributes to the contentment of the individual with his personal environment. To allow the elderly person to participate in community life as a meaningful member is essential in the planning of suitable housing. There are three major ways in which the role of the community in
the life of the aged is demonstrated.

(1) The community establishes general environmental conditions, in terms of densities, nuisances, open space, and aesthetic qualities.

(2) The neighborhood influences personal contacts as it affects site planning, neighborhood composition, transportation facilities, and similar features.

(3) The location, number, and kind of community facilities and services limit or promote independent activity patterns and the satisfaction of various needs.\(^{56}\)

The living environment outside the house is important to people of all ages, but it is even more important to the elderly. In a study by the Institute for Research in Social Science of the University of North Carolina, it was found that when forced to choose between a "very good house in a less desirable neighborhood" and a "less desirable house in a very good neighborhood," the aged were overwhelmingly (85\%) in favor of the better neighborhood. This fact also tends to emphasize the assumption that the usefulness of a particular structure for the aged may be determined ultimately by its neighborhood environment. This was more important to the aged than to younger age groups who preferred the better house.

Personal contact is also an important value for the elderly in constituting a better living environment. In a

\(^{56}\) Langford, op. cit., p. 3.
study also conducted by the University of North Carolina a series of items were compared to measure the relative importance of certain social desires against other physical desires for the elderly. Given below are the results in ranking order:

(1) Good roads and sidewalks.
(1) Convenient public transportation (a tie).
(2) The right kind of people in the neighborhood.
(3) Quietness of the neighborhood.
(4) A neighborhood where people attend to their own business.
(5) Friends close by.
(6) A friendly neighborhood that has the type of people with whom you can stop and chat awhile on the street and visit.
(7) Plenty of parks.
(8) Shopping facilities not too far away.
(9) A neighborhood that persons in other places look up to and hold good opinions of.

Note that four of the first six items preferred by these elderly involved the type of people in their neighborhood. When planning housing for the elderly sufficient opportunities for social contacts should be provided. Physical structuring in housing can be an influential factor in the friendship for-

57. Wilson, op. cit., p. 4.
mation process and in the overall psychological well-being of the elderly individual.

Facilities and services for shopping, health, welfare, education, social and recreational needs are important aspects of the needs for security, leisure-time use, and purely physical sustenance. The provision of these services and facilities to aid the elderly can only be of value if means of transportation to their locations are also made available.

Walking is still a favored form of transportation for the elderly. Facilities and services within walking distance of the residence of the elderly person would encourage their use. A problem in some communities has been the lack of utilization of the services provided.

If it is not possible to locate these facilities within walking distance, then establishment of a public transportation system to connect location of necessary facilities to the residential areas of the elderly would be necessary. The use of subordinate transportation devices, such as the use of vehicles similar to tricycles or golf cars, voluntary car pool service, or a special bus sponsored by community or voluntary organizations to take the elderly on needed trips, would be one solution to the problem of accessibility and utilization of services.

The new town provides the opportunity to create a better living environment for those elderly who lack this in their present living conditions. Not only is the suitability of
housing type a fundamental goal of the new community, but provision of accommodations and environments which fit the preferred life styles and situations of elderly persons is also fundamental.
CRITERIA

Location of elderly housing in the new town can easily be determined in the planning stages of the community, taking into consideration the needs and requirements of the elderly.

The preferable living arrangements for the elderly include a combination of age-integration and age-segregation. Studies indicate that old people prefer the company of their own age peers, but lack of contact with other members of the community is not desirable.

Placement of elderly housing should not be relegated to isolated sites within the new community, but rather should be dispersed in groups within the normal residential areas within walking distance to primary shopping needs and facilities. Because walking is the major form of mobility for a large proportion of the elderly, distances to be traveled and the relative safety of the journey to and from necessary services will be of importance in site selection. Locating housing on paths to and from schools would provide opportunities for beneficial exchange between the elderly and young children.

An exception to this relatively random placement of elderly housing is that of those elderly requiring assisted or protected living. This housing type should be located in close proximity to the town center because of the ease of accessibility to specialized medical service, shopping needs, and social services.
Among the major criteria in selection of a particular site for elderly housing are the geographic features of the land. Hills, bluffs, lakes, rivers, ravines, or a slope in the land may be regarded as handicaps to the elderly. If these can be utilized to create a better environment without neglecting the safety and diminished physical abilities of the aged, then they would be suitable for elderly housing. If such a site demanded the building of special bridges or drainage systems or other safety and protective devices to an excessive degree, then it would not be feasible to locate elderly housing in such an area.

Detailed site analysis should also be made of site topography, site drainage, water runoff, need for sewage pumps, danger of flooding, soil types and soil bearing conditions, as well as access to utilities, water pressures available for fire protection, and similar technical matters.

Although facilities and services are desired to be within walking distance from the homes of the elderly, the ability of the elderly person to walk a long distance decreases as he grows older. The major public transportation system can be planned to connect residential areas, including those of the elderly to primary shopping areas and services and to the town center for more comprehensive services and facilities.

At least fifty cities with public transportation systems have experimented with reducing fares for older people during non-rush hours. In several instances reduced fares not only
have made life happier for older people, but have increased ridership to the point of increasing transit companies' total revenues.  

In addition to the major public transportation system provision of services such as transporting the elderly to nearby towns with a wider variety of shopping facilities would be desirable. A disadvantage of many new towns is a lack of a low priced food supply or of discount stores, partly due to the lack of competition and partly due to the relatively high median income of the residents in the new community.

The developers of Jonathan and Cedar Riverside propose the construction of "megastructures" which will permit the elderly access to shopping areas and town centers through climate-controlled malls and passageways between apartments and commercial areas. Also "people mover" internal transportation systems are being explored, possibly making use of such devices as moving sidewalks.

The recommended size of dwelling units is not so much a matter of economics as it is a matter of the ability of the elderly person to maintain a home. For different income groups among the elderly, the size of the dwelling unit will be approximately the same because of a uniform decrease in living space requirement. Whether the dwelling unit is a house or

58. "Let's End Isolation", op. cit., p. 3.
apartment, the size of the unit provided will be smaller in area than a similar dwelling for younger people who require more living space and who are better able to maintain a larger unit.

Well-planned units that are economic and convenient to maintain should also be liveable and pleasant. A high degree of privacy with a separate sleeping area from living areas is desirable. The aged should be able to enjoy actively and personally their living space and its qualities. The function of the living room is for display purposes and for formal entertaining and visiting. Therefore particular care should be taken in the design of these spaces to make them as appealing and interesting as possible in terms of size, shape, color, and view.

The Massachusetts State Housing Board Standards of Design for Housing of the Elderly suggests 80-90 square feet of living area for single person occupancy. If dining is to be included, then an additional forty square feet can be added. Two person occupancy suggests a minimum of 140 square feet of living area.

Usually older people like to take daytime naps, so a separate bedroom from living areas is preferred. This is desirable from the point of view of privacy and also health. The recommended size for bedrooms by the Massachusetts State Housing Board is approximately 120 square feet whether the room is to be for one or two persons.

It is apparent that the better the financial position of the elderly, the easier it is for him to afford a change
in housing. We have found that the large proportion of elderly fall within the middle income bracket of £4000-8000 per year and many have assets in excess of £10,000. In the new town the income level is relatively higher than the average in the general population, so a dwelling with an area of 700-800 square feet with a cost of £13,000-18,000 would be within the ability of the majority of the elderly in the new town.

These figures are based on data from Leisure World, a development of homes for the elderly by Ross Cortese, one of the five largest builders for the retirement market. In Leisure World six to eight thousand dwelling units were sold for a volume of approximately $100 million annually. One- and two-bedroom homes in Leisure World I were sold initially in the range of $9750 to $11,000 and later for up to $13,900. Monthly payments averaged $120.

In Leisure World II the prices for one- and two-bedroom units ranged from $11,400 to $16,400. Average monthly payments were $163, which included hospitalization and other medical care benefits.

Ten thousand units are planned for Leisure World III, priced from $15,000 to $17,000. All are expected to be sold within two years time. 59

In the new town governmental assistance is available for those elderly who are not able to afford these median prices.

59.
Section 203 of the National Housing Act allows persons 62 years and over to borrow for down payments and closing costs from a source acceptable to the F.H.A. Section 235 authorizes interest subsidies for home ownership by lower income families.

For those elderly who prefer rental units, garden apartments, row houses, duplexes, and high-rise apartments should be provided in the new community.

For the low income elderly in the new town, a minority in number, there are several government subsidized programs that could be made available for them. Section 236 allows private enterprise to build low-cost housing at a reduced interest rate by making monthly payments to the lender, thereby reducing interest cost to as low as one per cent. Section 221(d)(3) and 221(d)(4) provide rent supplements with the elderly paying up to 25% of their total income for rent and H.U.D. paying the remainder to the owner of the housing.

The neighborhood in which the elderly person lives is important to his ability to adjust to old age and to adapt to a new living pattern while remaining an active member of society. The size and layout of the neighborhood can contribute to the ease of adaptation and can encourage social interaction.

The sizes of neighborhoods vary in different communities and in different countries. In Europe and particularly in Scandanavia the number of dwelling units in housing complexes devoted to the elderly has been limited to approximately one hundred, while the large scale projects formerly favored on economic grounds are now being abandoned because of disfavor
by residents. In France approximately eighty units/neighborhood has been suggested, and in West Germany a minimum of twenty units are suggested to facilitate delivery of services. In Britain definite official pressures in favor of smaller aggregates of approximately thirty dwellings and never greater than fifty. 60

The United Nations Economic Commission for Europe Colloquium has suggested that the ideal size for units of elderly housing in the United States is between 75-150. Some American developments for the elderly contain up to 750 units (disregarding the massive true retirement villages), the larger size being due to the economics of management.

The subject of optimum and alternative sizes has been much discussed, but there has been little or no research undertaken to clarify a wide diversity of opinion on the subject.

The new town offers better opportunities for the development of a good transportation system and an easy pedestrian access to almost any point within the community; the need to congregate a large number of units together on the basis of economic facilitation of delivery of services is not as valid here as for other types of living environments. A certain density is, however, necessary to support any continuing activity designed specifically for a certain portion

60. Riley, op. cit., p. 245.
of the population, and in this case, the elderly.

Lewis Mumford suggests that the "normal age distribution in the community as a whole should be maintained. Any large-scale organization of habitations for the aged, which upsets this proportion should be avoided. For both companionship and easier nursing care, the aged should not be scattered in single rooms or apartments throughout the whole community; but neither should they be thrown together in one large barracks labeled by the architecture, if not the signboard, Old People's Home. They should rather be grouped in small units of from six to perhaps a dozen apartments."61 Through their nearness to each other, in small units, personal contacts within their own group may easily pass beyond the pleasantries of daily intercourse.

In addition to these social factors the small neighborhood cluster is favored economically over the scattering of individual units throughout the community. An individual residence will cost appreciably more than if a larger number of units were repetitive in design (perhaps three to four choices in basic design), although specific features for the elderly would be common to all. A tract operation of fifty or more houses would provide even lower per unit costs.

mately fifty units per group, each neighborhood of, e.g., four thousand persons to contain four groups of elderly men and women (each unit defined as occupation by a single elderly couple). These numbers were selected because the natural proportion of the elderly in the United States is ten percent, so in a neighborhood of four thousand, the natural proportion of elderly persons would be 400, or 200 individual housing units, or four groups of fifty units. A group of fifty units would allow enough social interaction among their own age peers so that the aged persons do not need to feel constrained within the confines of their homes as members of a minority group and yet still maintain adequate social interaction with younger age groups when it is desired. Maintaining a ten per cent mix allows the neighborhood to be naturally integrated without destroying the basic interest - leisure. The sharing of this basic life motive and the sharing of the same facilities available to them can ease prior differences in backgrounds and help to increase communication.
VII. CONCLUSION
The criteria for elderly housing as detailed in this thesis are applicable to the planning of elderly housing in many new towns. Physical needs and psychological needs are indirect determinants of the type of housing to be provided for the elderly. The direct determinant of housing suitability is the economic one. The basic problem in housing for the elderly remains that of providing a range of housing from among which to choose that is within the ability of the elderly person to pay.

Most of the earlier planned communities did not make specific provision for elderly people in their homeownership and rental programs. The oldest planned communities, such as Radburn and Glen Rock, have now an elderly population in excess of twenty five percent. These elderly persons face the same problems in housing as the elderly in the general population. Newer planned communities, such as Reston and Columbia, also did not specifically provide for the elderly in their initial planning. However, in current expansion plans at Columbia, particular attention is being directed to the needs of the elderly including the provision of senior centers, a study center for retired professionals, and recreation programs, as well as a greater variety of housing alternatives for the elderly renter or owner. In social studies leading to the development of Jonathan, the needs of the elderly are specifically delineated. To provide a stimulating environment for a heterogeneous population is the goal of the new town,
and to fulfill this goal, the elderly and their needs must be considered.

Provision of housing is not a total solution to the problem of a better living environment for the elderly. Planned facilities and services adapted to the social, physical, and recreational needs of the elderly contribute to the psychological well-being of the elderly individual.

One of the major problems facing those who plan facilities for the elderly is that of actual participation by them. In St. Charles, Maryland, and Jonathan, Minnesota, the use of wide-band telecommunications as a part of each home is being explored. A two-way system of telecommunications might make possible shopping for groceries, clothing, and other household items without leaving the home. Adult education courses directed toward senior citizens and housewives, messages from community council meetings, and other activities such as billing, record-keeping facilities, and banking services can also be made possible through the telecommunications system.

Another method of reaching the elderly is to provide trained leaders, social workers or volunteers, whose responsibility it would be to guide the residents to the available activities and services with particular emphasis given to the elderly.

Preference for homeownership or rental units is an individual decision, and choice of housing type is often a matter of economics. The majority of new town residents will be in
the middle to upper income brackets, so homeownership will be within the economic means of many. Rental units for those who desire it will range from low rent apartments to luxury accommodations. Assisted and protected living arrangements will be provided for those who require it.

A major problem in providing suitable housing and living environment for the elderly is that of recognition of the need for a change in housing. The logical solution to this problem is to educate the elderly in middle age through the family lawyer, the clergyman, the social worker, or public service campaigns of his changing housing needs and the advisability of securing more suitable housing for his later requirements.

In the new community the elderly should not be segregated into isolated neighborhoods. Because of the variety in generations, outlook, income, professions, trades, skills, racial and ethnic backgrounds, and interests of the people in the new town, the elderly have the opportunity to continue as a member of society capable of meaningful contribution. Facilities and services designed to serve the entire community will be more adaptable to the special needs of the elderly than a typical suburban community and, in the view of this, may offer broader opportunity for age mingling to the elderly than communities designed only for retirement living.
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