

PAUL A. LINSE
Community of rural elders.

P378
.L652

LIBRARY
MONTANA STATE UNIVERSITY
BOZEMAN

COMMUNITY OF RURAL ELDERS:
A RETIREMENT FACILITY FOR THE RURAL AGED

BY

PAUL A. LINSE

A thesis submitted in partial fulfillment
of the requirements for the degree

of

BACHELOR OF ARCHITECTURE

Approved:

Maurice S. Woods
Advisor

John N. McZane, Jr.
Thesis Coordinator

[Signature]
Director, School of Architecture

MONTANA STATE UNIVERSITY
Bozeman, Montana

P378
L652

~~AA 2570~~
~~7266~~
~~M 26~~
~~L652~~

STATEMENT OF PERMISSION TO COPY

In presenting this thesis in partial fulfillment of the requirements for an advanced degree at Montana State University, I agree that the Library shall make it freely available for inspection. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by my major professor, or, in his absence, by the Director of Libraries. It is understood that any copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Signature Paul A. Linn

Date 6/18/81

DEDICATION

To Cheryl:

Gerontologist, typist, wife, and still friend.

TABLE OF CONTENTS

	Page
DEDICATION	
INTRODUCTION	1
CHAPTER	
1. Heterogeneity vs. Homogeneity.....	3
2. Success Equals Adaptation.....	6
3. Assumptions About the Prospective Residents and Their Expected Role.....	11
4. Assumptions About the Scope and Theme of the Project.....	17
5. The Therapeutic Environment.....	19
6. The Prosthetic Environment.....	24
7. Site Analysis and Synthesis.....	30
APPENDIX	
A. The Participants.....	47
B. Housing Requirements.....	49
C. Activities and Museum Requirements.....	51
D. Community Center Requirements.....	54

INTRODUCTION

The popular concept that housing for the aged should be integrated with a broad, varied social milieu composed of persons of all ages for increased involvement and interaction is a view that attempts to be humanistic in providing for the needs of the elderly. The evidence, however, seems to point toward age homogeneous housing as contributing to high morale and life satisfaction for elderly people. More importantly, the arguments favoring socially integrated housing for the elderly disregard the inevitability of declining health and physical abilities, and the consequential inevitable trauma of having to move when illness and dependency come. The truly humane position would view aging as a continuum in which the period of well, self-sufficient retirement living is but a transitory stage, and would provide for easing the elderly through the transitions along the course of failing health and increasing dependency.

The project to be studied is a retirement facility for rural elders to be located in the Gallatin Valley. Rural elders are in position to enjoy an extremely successful retirement because they are able to exert greater control over their environment than their urban counterparts. They usually own their home and a large amount of land that enables them to extend their personal territory. They are

able to disengage from their life's work at their chosen rate. The independence and privacy that they enjoy also makes them vulnerable when they are forced to seek alternative housing because of economic conditions, failing health, degenerating physical abilities, illness, or extreme loneliness following the loss of a spouse because housing options that are available to elders in the Gallatin Valley, especially if convenient medical care is needed, are limited to a fast-growing urban setting, requiring the elder to undergo a transitional period of adaptation. Typically, the elder is forced to undergo the trauma of adapting to a new, drastically different lifestyle at a time when he or she is least able to withstand additional stresses. The project will examine what constitutes "appropriate" alternative housing for rural elders.

CHAPTER 1

Heterogeneity vs. Homogeneity

It is impossible to divorce the planning of facilities for the aged from other issues. Our culture is based on an economy that rewards productivity and penalizes inefficiency. A physiological problem develops when the elderly body, afflicted with the aging process, cannot subject itself to the mechanical manipulations that society expects of a normal operative. A sociological problem develops because the collective elderly take on the appearance of a semi-dependent minority group unable to be competitive in the market place, out of sync with the social mainstream. The uniqueness of planning for the elderly springs from these issues.

Two sociological strategies have developed for designing facilities for older people. The most popular strategy among architects seeks to integrate housing and activity centers for the elderly with a normal social context, a strategy that is officially endorsed in England and France (Beyer and Nierstrasz, 1967, 36,39). Age-heterogeneous theorists (those who would integrate persons of all ages) see age-heterogeneity as a means of keeping old people socially alive and active. Mumford (1956, 193) says the optimal strategy is to develop neighborhoods that include elderly persons in the same proportion as in the general population. Researchers'

observations seem to support age-heterogeneity. Kaplan (1979, 67) found that a small, busy entrance lobby exposed to all age groups was the daily focus of social energy, but that an adjacent, spacious, well-furnished lounge was used only for scheduled events. Proppe (1968, 177) witnessed a comfortable, spacious sitting room with no view of activities being shunned in favor of a crowded, active, noisy streetside lobby. J. Jacobs (1958, 88), feels that the elderly should not be housed on an isolated site because "...whereas old people want privacy without isolation, what they get is isolation without privacy."

The second strategy would concentrate the elderly in housing and activity centers that are segregated from normal social context. The greatest benefit is the ease of providing medical services. The definitive research was performed by Rosow (1967, 47) who found that despite important differences in social status, "...the number of old people's friends vary with the proportion of older neighbors, regardless of older rather than younger neighbors."

The review of literature revealed that the design profession often adopted the planning strategies in the extremes as described above. Loring (1961, 102) reported a welcome change from the "putting them out to pasture"

pastoral schemes of the 1950's. They were replaced by planning schemes that spared no expense in attempting to achieve complete social integration. Jacobs (1968, 90) found them to be unsatisfactory to both young and old; the old were disturbed by the noise of the families and the young felt intimidated by the elderly. In one socially integrated housing scheme, Kaplan (1979, 68) found that the faster pace of younger people, especially the very young, generates enough fear to influence the elderly to stay close to home among safe friendly, familiar surroundings, even when they needed something from a nearby store.

The degree to which the elderly wish to associate with persons of other ages may vary drastically. Havighurst (1977, 146) found that disengagement from social contacts by the elderly was dependent on social standing, cultural and ethnic background, concentrations of persons of one sex, or, in short, on the individual's personality. It would seem to be a sensible plan to provide environments that allow the aged to experience peer associations or withdraw as they choose (Mathiasen 1962, 110).

CHAPTER 2

Success Equals Adaptation

By narrowing their focus to the single issue of social integration/age segregation, theorists and designers automatically make an assumption that old age is a static state of being. The elderly would be better served by a philosophy based on the assumption that old age is not a state of being, but is descriptive of the later stages of normal human development. Old age is dynamic and continuous, it is not static and terminal. While it is characterized by inevitable increasing physical degeneration and susceptibility to disabling diseases, it is also a period of potential growth, learning, and personality expansion. The humane environment for the aged individual would increase his capacities to adapt his changing self to his environment and would optimize his potential for continued growth. Such an environment is in direct contrast to the prevailing physiological model of caring for the aged Hamline (1967, 37-40) which is based on a philosophy of care and decreased expectations for the elderly, emphasizing non-utility and pessimism.

Kratz (1979, 330) states the mental health for the aged is dependent on a patterned and active expectable environment. By recognizing that the individual is borne of his genetic inheritance and his life experiences, an appropriate environment for the elderly is possible. The

therapeutic environmental goal is to stimulate older people to start to think beyond themselves, or their lives will be singularly empty and sterile. She states that theorists must stop considering improving elders' lives out of context, concentrating only on their physical needs. She defines the therapeutic environment (1979, 332) as any modification that generates equilibrium between an individual and his environment when one or the other of both undergo change.

Therapeutic modifications are normally thought of as programs in which a specialist temporarily assists an individual to reverse the effects of physical, mental, or social deficits (Lindsley, 1964, 42). The designers of facilities for the aged never become involved with therapeutic programs. However, under Kratz's expanded definition of the therapeutic environment, the design of the facility should be therapeutic in nature because there is a change in the individual (the aging process) and a change in his environment (the new facility). The design can function therapeutically by minimizing the induction of stress in the individual and by providing mechanisms for establishing equilibrium between the individual and his environment when imbalance is induced.

The best way to minimize the trauma of adopting a new

lifestyle in a new physical environment is to closely approximate the environment being replaced (Hoyt, 1977, 124). New facilities for the aged, because of costs, are getting larger, making it more and more difficult for the designer to isolate and exploit commonalities of prospective residents. Some facilities have been successful in providing for their residents by appealing to certain cultural values, and letting prospective residents predetermine how well they will adapt. Del E. Webb Corporation's Sun City projects are financially successful (Beyer and Nierstrasz, 1967, 46), implying that elderly residents adapt quickly and successfully, even though they provide a recreational, social environment in hot climates and concentrate their promotional material on retirees in northern climates with nothing in common. The residents of Hillcrest are happy in their socially active, clublike environment. Prospective residents of both could determine from a single visit how well they would adapt because the expected behavior of the residents is obvious.

The elderly individual who has to seek alternative housing usually has to seek a meaningful role to replace his life's work. Kratz stated the importance of stimulating older people to start to think beyond themselves, and

can occur only if the individual has a focus with greater attraction than preoccupation with changes within himself. Architects rarely program the activities that provide a meaningful role for displaced elders, but they must strive to reinforce the planned role by deploying objects whose forms, spaces, rythms, surfaces, etc., complement the role. The meaningfulness of both the role and the complementary physical environment is derived from the life experiences of the user.

Hoyt (1977, 124) pointed out that there exists a national problem in that national policy makes it mandatory for elderly people to move to a new facility for different degrees of care. These changes of environment literally kill people. In his analysis of the Givens Estate in North Carolina, he cites the availability of all degrees of care within a single facility as having therapeutic value to both the ambulatory and nonambulatory residents with no one needing to worry about having to move on being a real asset.

Continued growth is possible as long as there is an exchange between the individual and his environment. The architect must recognize the need to expand the life space of the aged resident especially when his ability to expose himself to the environment is limited. The means by which

the life space of the aged is expanded is by incorporating prosthetic modifications to the environment.

Prosthetic modifications are permanently deployed compensations for specific behavioral deficits of the aged which make the deficits less debilitating. Prosthetics should be employed in the spirit of expanding the life space of the aged. By expanding his environment, the aged individual can adopt a more active, participatory attitude, resulting in increased exposure to environmental stimuli that are sources of growth. It is the designer's task to incorporate the prosthetic devices using schemes that will encourage their use by those who have need of them, and to recognize that their misuse can make them symbols and reminders of distressing disabilities.

CHAPTER 3

Assumptions About the Prospective Residents and Their Expected Role

The project to be developed to clarify the thesis proposals is a facility for rural elders. The facility will be located in the Gallatin Valley, but it is not assumed that all prospective residents will be native to the Gallatin Valley. Some of the residents may even be urban residents with a rural past, but all must have an interest and desire to seek a rural lifestyle.

Havighurst (1969, 144) defines successful aging as successful adaptation, and he found that adaptability varies with each individual. The wide variety of life experiences of the elderly makes them more varied as a group and less subject to explanation by any single theory or strategy. Following the successful strategy of the Del E. Webb Corporation (Beyer and Nierstrasz, 1967, 46) the project will exploit commonalities of the residents in order to provide an environment that will promote adaptation. Since changes in time are developmental and historical as well as chronological and all are interdependent, commonalities can be isolated by examining historical experiences that have lasting developmental effects.

The description of rural people that follows is not intended to be a historical account of farming. It is descriptive of the "target" group of rural elders who would be the residents and users of the facility.

Farming is not part of life, it is life itself.

Farmers attach a morality to their way of life that has always been acknowledged in our society. For example, both the CCC in the depression and the selective service in WWII exempted farmers' sons who were needed on the farm. The moral issue, although based on earlier economic necessity, persists today as farmers cling to their way of life long after economic conditions should have persuaded them to change their vocation (Rose, 1967, 17).

Before mid-century, farmers were an important part of an economic system that supported small rural towns as exchange points. Towns collected farm goods and sent them to the city, and were transportation terminals from which city products were distributed to farmers. "The small rural towns had an importance to the rural community, a complex population composed of open-country farmers and a network of nucleated people in villages and towns tightly woven by a commitment to mutual service" (Rose, 15). Mumford (1946, 266) postulates that less population density implies greater interdependence, a common theme which views farmers as frequently having to rely on dependable neighbors.

Mumford (1956, 340) continues that the agrarian social fabric was modified in the 1950's when post-war agri-

business stresses high production through scientific and mechanized farming methods. The new methods require capital, and many of the rural villages took on the new financial role. The farmer, beset with the insecurity of indebtedness, became alienated from the villages.

There was a parallel change in the relationship between farmers and the land. Before mid-century land was regarded as a resource, an attitude that was reinforced during the depression when the land was a life source more stable even than the work ethic. After World War II, the land became a friendly resource or a bitter enemy, depending on the productivity of the soil. The land became less important than what was put in and taken from it. Finally, for a few farmers the land ceased to be a resource and became a commodity as the value of real estate boomed and land prices seemingly doubled and tripled overnight. For most older farmers, however, even sudden wealth couldn't make them move to town.

The farmer's way of life expresses a conservatism that transcends politics or religion. Their conservatism manifests itself in a strong work ethic that never allowed for the development of liesure activities (Rose, 12) creating a serious problem when rural elders wish to disengage from their life's work. Liesure is veiwed negatively,

and acceptable leisure activities are farm-like arts and crafts, service activities, and activities associated with nature (fishing, hunting, gardening)(McAvoy, 1979, 44).

Work and independence are highly valued. Because of their isolation, farmers have to be talented improvisors. A machinery breakdown is a wasted day's work if it requires a trip to town. The trip to town, however, is also a good excuse to visit friends. Farmers, particularly the men, possess the contradictory characteristics of taking pride in being a "loner" and having the latent desire to be socially expressive (Rose, 12).

In accordance with their traditional conservatism, rural elders do not comprehend the acceptance by society of responsibility for caring for an increasing share of the population. They do not like to accept something for nothing, including health care when they need it.

Farmers were slow to accept the use of machinery. Rural elders find humor in seeing technological failures, and they love to be asked for advice about anything. They view many of the old-fashioned ways as superior to technological improvements. Chew (1980, 83-84) tells about a rural elder who taught his son to farm using draft horses. The son has sold the machinery and now makes a bigger profit by farming less ground, and he has more

time to spend with his family.

In summary, the prospective residents retain many of their old values and take pride in their role in history. They are in the odd predicament of owning considerable assets but being unable to make a comfortable living by farming. It is hard for them to consider disengaging from a profoundly good way of life, but they welcome the possibility of being relieved of the hard labor. They fear boredom and think liesure is immoral. The men find it difficult to be comfortable in a social context, but they aren't antisocial. The women like to socialize. There is a tendency to develop a few close friends.

The prospective residents expect the facility to provide a healthy environment with clean air and fresh water, milk, and produce. They expect an unstructured rural atmosphere that allows them to experience the rythms of nature. Although their tastes are conservative, they want to live in modern, comfortable homes.

Bander and Doerflinger (1967, 29) postulate that the role of the elderly in rural societies is to serve as models for younger generations and as recorders and transmitters of traditional human values and basic cultural customs and practices that might otherwise be lost in the confusion of rapid change. Toffler (1970,

325) generalizes the same point of view, stating the wisdom and experience of the conservative elderly are a potential counterweight to the dehumanization of modern life. Therefore it is assumed that the guiding principle of the project will be to encourage its elderly participants to assume a role to serve as repositories and transmitters of traditional human values and rural customs, and as models for younger generations.

CHAPTER 4

Assumptions About the Scope and Theme of the Project

The project is funded by a foundation governed by a board of directors. Most of the foundation's assets are in the form of real property, namely the former property of the charter members and first residents of the project, and it may be assumed that some of the residents serve on the board of directors. The ultimate authority (the client) is the board of directors, not the residents.

The project's primary function is to provide housing for an initial number (see Appendix A) of rural elders. The housing is leased to residents, a funding compromise made necessary to ensure continuity within the project. It must also be realized that the housing must be designed for the present generation of residents as well as future generations, with all prospective residents having a rural mindset.

The adopted role of the users of the facility (chapter 3) will be consummated by participation in a Farmer's Museum. The museum is modelled after "Living Museums" which demonstrate processes and provide hands-on experiences in addition to the normal display of artifacts. The participating elders recall, collect, and record processes and methods of doing things. Then they demonstrate these processes and methods, not as a means of livelihood but as a means of evaluating and communicating the value of their

lives relative to the present. It is not the purpose of the museum to authentically replicate a lifestyle or even be a showcase for memorabilia, although it may do either. The purpose of the museum is to enable a group of rural elders to pass on a legacy of their unique wisdom, knowledge, and lore to people who might not otherwise know they exist.

The project's Community Center will extend senior citizen's center functions into a rural environment. The Community Center is for all project residents and for neighborhood rural elders who are center members. Its functions is to encourage socialization among the elderly, provide one well-balanced nutritious meal per day, and to provide a place for community meetings.

The theme of the project will be established by the museum and its activities, and the museum also provides the point of interface between the elderly participants and the general public. The housing is only accessible to the residents. The Community Center is available to area elders who are project members.

CHAPTER 5

The Therapeutic Environment

When design for the aged is considered therapeutically, quality of design can be measured by the degree to which the designed environment promotes adaptation between the individual and his life space, or minimizes negative impacts on adaptability. This chapter will discuss how the architect can manipulate the environment to provide an "active, expectable" environment, and be consistent with expected behavior and the life experiences of the residents.

The role and the activities are the determinants of the expected behavior of the participating elders. Assumptions about both the role and the activities were based on analysis of the life experiences of rural elders, so both should have therapeutic value. It is intended that there are incentives to encourage participation in the activities and to counter withdrawal, but it is recognized that withdrawal for some is not unhealthy and should not be penalized. For example, the residents' monthly rent includes six meals per week at the Community Center, but if they do not participate their only penalty is a lost opportunity.

The social structure of the community is therapeutic. Hoyt (1977, 125) found therapeutic benefits for both ambulatory and nonambulatory residents at Givens Estates

where ambulatory residents were expected to assist non-ambulatory residents. The ambulatory residents approached future physical decline more rationally and nonambulatory residents experienced more social contacts and an expanded environment. There is the added benefit that none of the residents has to worry about having to move to receive another level of care.

The density of the project is a central adaptive issue. Farmers are accustomed to an environment characterized by isolation, with views stretching for miles before being interrupted by anthropological objects, but the project requires him to adapt to a much denser environment. In laying out the project, it is important to ensure panoramic views that include an unbroken, field-like middle-ground. For men's activities, the plan should consider the typical farmer's workday in which activities take place in the open or in outbuildings physically separate from the housing units. Rural elderly women like socializing and adapt readily to activities that take place in a social setting (McAvoy, 42; Rose, 17). Some of the activities could take place in private homes if the number of participants and visitors can be controlled. The project uses the farmyard as a model. Farmyards are laid out functionally, compromising between efficiency of movement and health (machin-

ery noise and dirt, animal odors, field rodents, etc.), and the same criteria can be applied to the project, taking into account decreased mobility and prosthetic devices like golf carts.

Perceived distance is as important as measured distance in inducing fatigue (Hoyt, 127). Perceived distance is determined by the perceived rate of travel and by the incidence of events during the trip. Large distances can be effectively reduced by breaking up the trip with a few dominant events. Similarly, close distances can be made to seem larger by including more events. Of course, it must be remembered that snow accumulation is directly related to measured distance, and is a deterrent to activity.

The perception of the rate of movement follows the laws of parallax, the illusion of the movement of the foreground relative to the middleground and the middle-ground relative to the background. An illusion of speed can be induced by increasing objects in the foreground and moving them closer to the path. Using these principles, the perceived distance between buildings could be reduced using the following scheme: A straight path with a hedge planted close to one edge (illusion of speed) opening into a small park (event), passing through a stand of aspens (illusion of speed, event), crossing a bridge (event), and

crossing a field in front of the destination.

Nature is the agent that organizes a farmer's life, and the project should be sympathetic to nature's rhythms. The reluctance of the farmer to accept mechanization is interpreted to imply a reverence for nature and a natural way of life. Nature, therefore, is viewed as the resource of infinite possibilities, not a chaotic force to be organized. A dining room with a south or southeast orientation is considered a necessity for each living unit, as it orients the individual in his space every morning.

Just as nature is revered, it must be recognized as a kind of adversary. An appropriate symbol of this relationship is the grid, a physical manifestation of man's sense of order that organized land development and has produced some interesting, and even bizarre relics in the Gallatin Valley.

Since the elderly are viewed as dynamic and potentially growing, the architect cannot deprive the individual of his right to personal expression. The modern penchant for abstraction and simplicity and ordered completeness seems to preclude the rural individual's need to be himself, and that may be expressed in disorder. A guiding principle may be to emulate the Oriental development of the house which was a non-analytical evolution that strived to

perfect the reality for the abstraction, the word "house."

CHAPTER 6

The Prosthetic Environment

Prosthetic modifications and devices expand the accessible life space by accomodating specific physiological deficits. The prosthetic environment, architecturally, is composed of permanently deployed constructions, and therefore they must be designed. Physiological decline, although inevitable, affects each individual differently, and Moss (1970, 33) states that most serious physical deficiencies result from disease. The problem for the designer, then, is to employ prosthetic modifcations in order to optimize accessibility for the most people, realizing that the deficits of the people using the devices will have only one thing in common: uniqueness.

The variety of physical deficits of the aged creates a major problem. That is, prosthetic devices that help one individual may deter or be a hazard to another. There are many examples; bevelling corners of walls decrease injuries for the blind and are convenient for those in wheelchairs, but many elders rely on hard edges to discriminate the junction of wall planes; curb cuts for wheelchairs are hazards for the blind who rely on the curb to locate the sidewalk; ramps for wheelchairs are kinesthetically more difficult for most normal people to climb than steps, and for some elders, ramps are impossible to negotiate.

Most of the problems concerning the variety of problems of the elderly can be alleviated by providing an environment that is interconnected by a variety of paths. The environment would be accessible and would offer a greater variety of experiences, and the individual would have the freedom of choice. The success of such a scheme would be dependent upon a system of sensory cues that would enable the individual to foresee the destination and the extent and quality of the obstacles.

Paths paved with blacktop are less hazardous to brittle bones than concrete walks, and have the added advantage of quicker snow melt. Furthermore, they are characterized by an edge condition more compatible with rural sensitivities, with a "feathering" of the edge as grass encroaches in contrast to the typical hard edge of concrete walks. One of the alternate paths might be constructed of crushed rock rolled into a sand base. Such a surface would be semipermanent, forgiving to fragile bones, and it would induce a feeling of adventure with its irregular surface and edge condition, but it would require frequent maintenance and it couldn't be used in snowy weather.

An environment that can be patterned can greatly augment prosthetic functions. A patterned environment refers to an environment that is easily "memorized." Subconscious

memorization is a function of sensory inputs that become associated with specific places (Bloomer and Moore, 1977, 105-111). For the elderly, patterning should not rely on the stimulation of only one sense, but the environment should strive to activate all the senses. Planting juniper next to a series of steps, for example, would provide visual (color, texture differentiation), tactile (touching the leg and hands), and olfactory (a strong, pleasant odor) cues that become associated with a specific place (in a courtyard next to a series of four risers, at the top of which the door to the maintenance shed is ten steps to the right).

A tightly organized space is also easily memorized. A linearly organized space is easily patterned, and straight, unbroken circulation routes contain a safety factor that should not be ignored. When long, linear plans and symmetrical layouts are taken to the extreme, they can be extremely disorienting (Jones and Catlin, 1978, 70) unless used in conjunction with sensory cueing devices described above.

The prosthetic environment includes modifications to the environment that preclude the perception of a hazard when a hazard does not exist. There are many illustrative examples; a shiny floor, by giving the appearance of being

slick, can cause an elderly individual to tense his muscles so tightly that a slight mis-step will cause a broken hip; exterior lighting casts shadowy areas that the elderly have to avoid because they are perceived as dangerous; the general loss of "night vision" induces a fear causing the individual to withdraw to the safe, familiar surroundings of the home, not unlike a child hiding under the covers.

An important prosthetic device is a plan that is developed on one level because walking up stairs consumes 3 times more energy than walking the same distance on level ground (Steinberg, 1958, 3), and level changes require prosthetic considerations in their own right. The site selected for development (see Chapter 7) is essentially flat, having a 2' rise over 100', sloping down from the south to the north-northwest, and could possibly be developed on a single level if therapeutic considerations do not interfere.

In many respects, the creation of a rural atmosphere is compatible with prosthetic considerations. The elderly are sensitive to temperature fluctuations and extremes. Therefore they would be discouraged from being outside on a hot day or on a breezy day. Instead of placing an outdoor area next to a wall for shade, it would be more appro-

priate to consider the prosthetic qualities of a shade tree whose dappled shade is warmer and stimulates other senses as well. A breeze can be heard as it passes through the leaves of trees, and the sudden motion of a squirrel or bird can be seen even by elders who have moderate vision impairment.

An oak floor has rural sensitivities and its use on floors provides aural sensory inputs that augment visual information. A disabled man can sense where his wife is working in the house without having to call or turn his head, for example. A wood floor on the porch provides aural information that a visitor is coming, and there is less stress in trying to answer the door quickly.

When the architect thinks of prosthetic modifications as potentials to expand the life space of the elderly and contribute to their continued growth and not as code requirements that have to be accommodated, the prosthetic environment is bounded only by the designer's imagination and knowledge of the physiology of aging and how it effects the aged individual. There are two concluding disclaimers, however.

Scientists have performed studies of societies which have abnormally high cases of persons of extreme longevity in the Peruvian Andes, Tibetan Himalayas, and steppes of

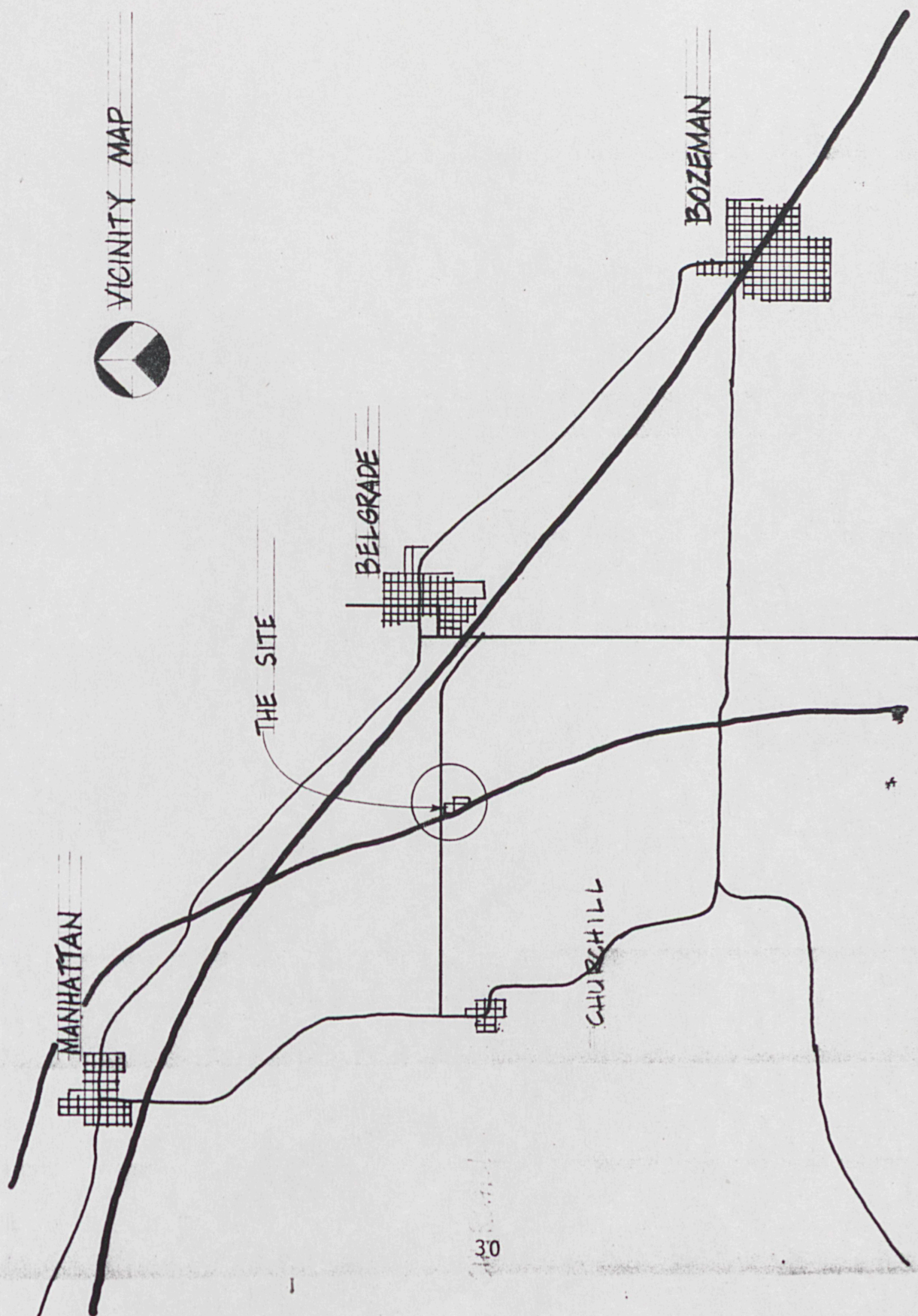
Georgia, Russia. A dominant common trait of all of the societies is that they feel very positively about aging and about the aged, who are assigned meaningful, important social responsibilities (Leaf, 1973, 48). Perhaps gerontologists and designers should reevaluate the importance placed on caring for the aged and focus instead on intensifying their expectations of the aged, giving them meaningful, challenging tasks in their old age.

Secondly, prosthetics can become deterrents to activity if they are not incorporated into an integrated design. If they are allowed to dominate the landscape as isolated objects, they can become objects symbolic of failing health and specific illnesses.

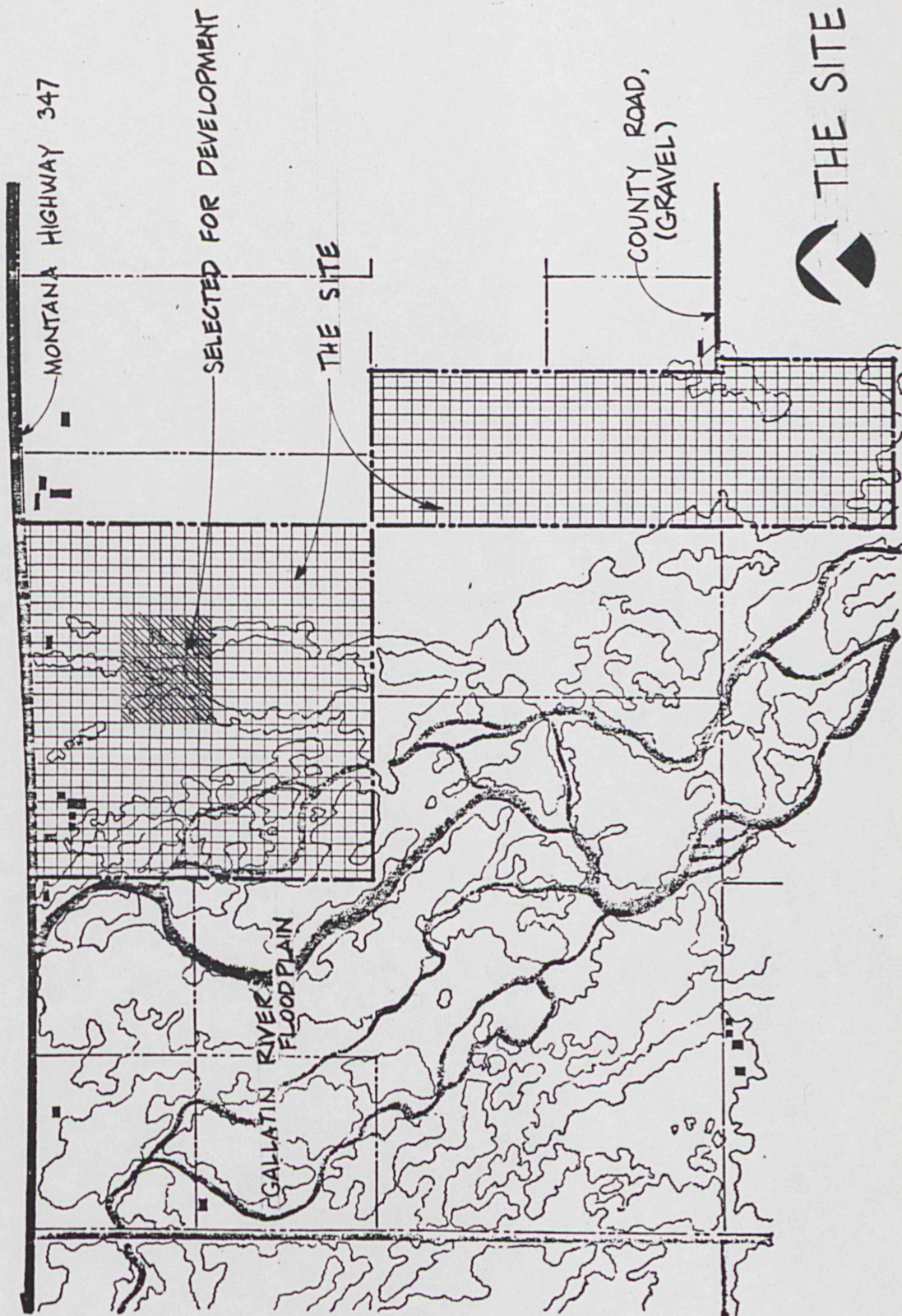
CHAPTER 7

Site Analysis and Synthesis

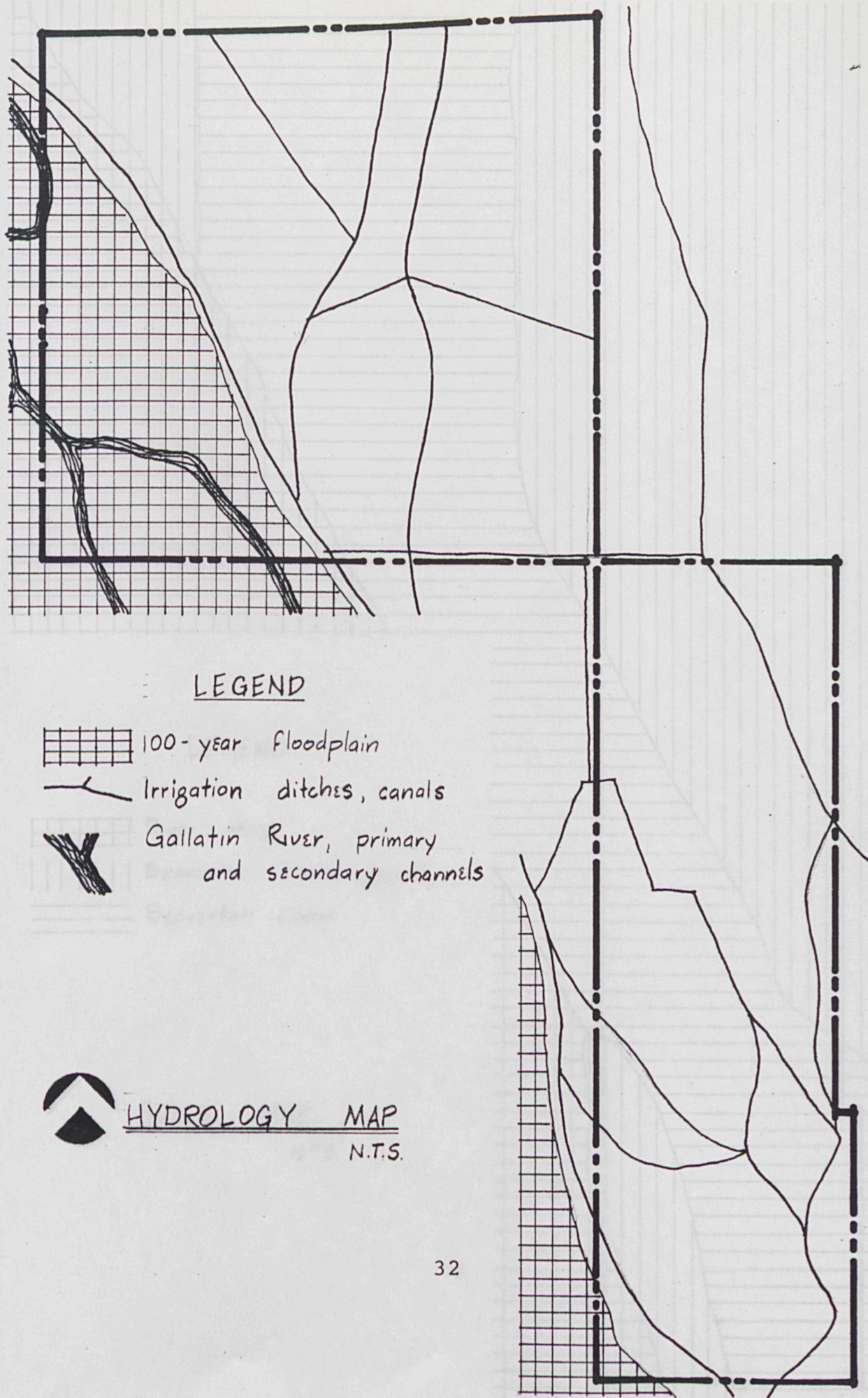
VICINITY MAP



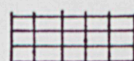
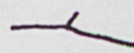
FUTURE DEVELOPMENT:
350 - 1-5 ACRE TRACTS,
1/2 MILE NORTH OF HWY.



THE SITE

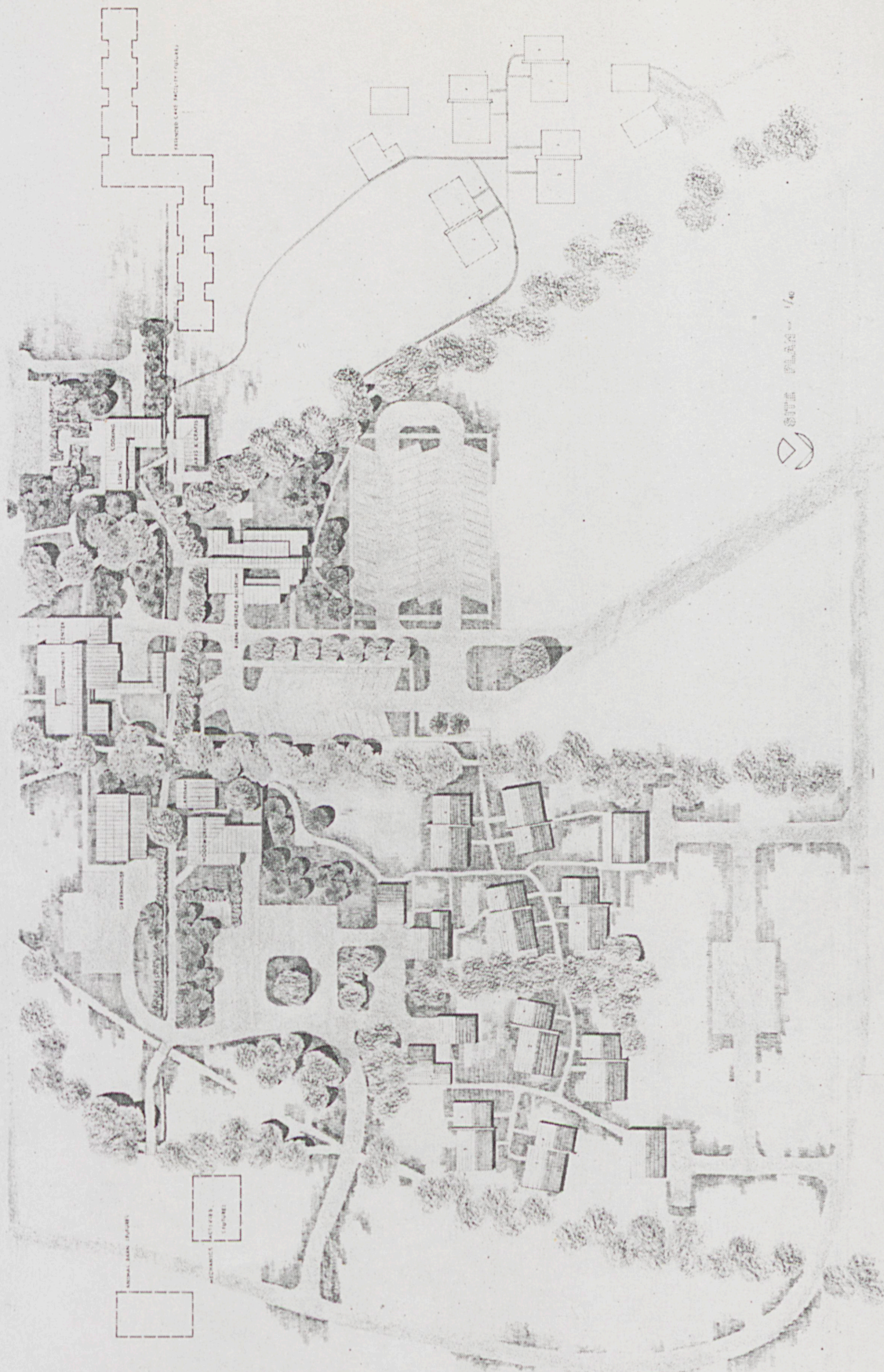


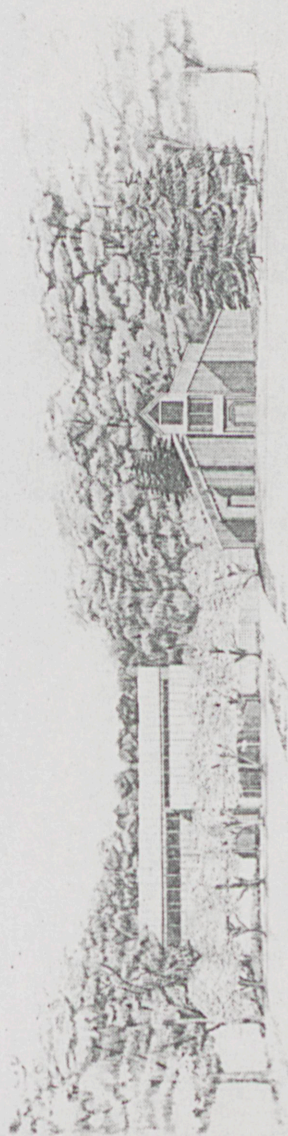
LEGEND

-  100-year Floodplain
-  Irrigation ditches, canals
-  Gallatin River, primary and secondary channels

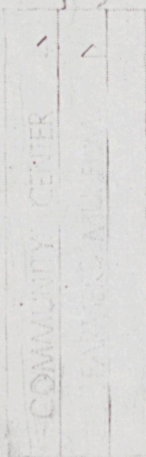


HYDROLOGY MAP
N.T.S.

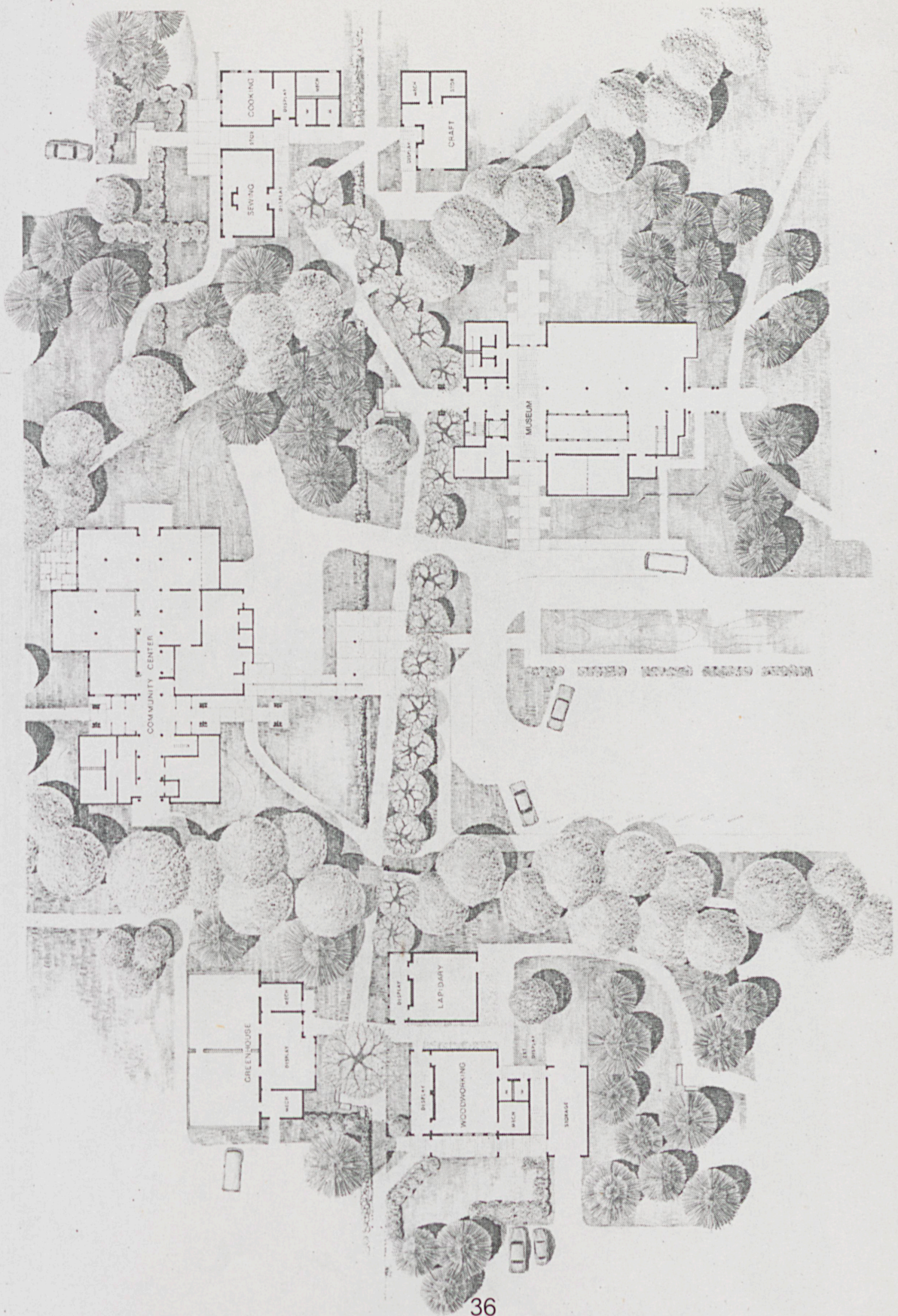




NORTH ELEVATION - 1/8"



EXPANDED PLAN MUSEUM AREA - 1/8"

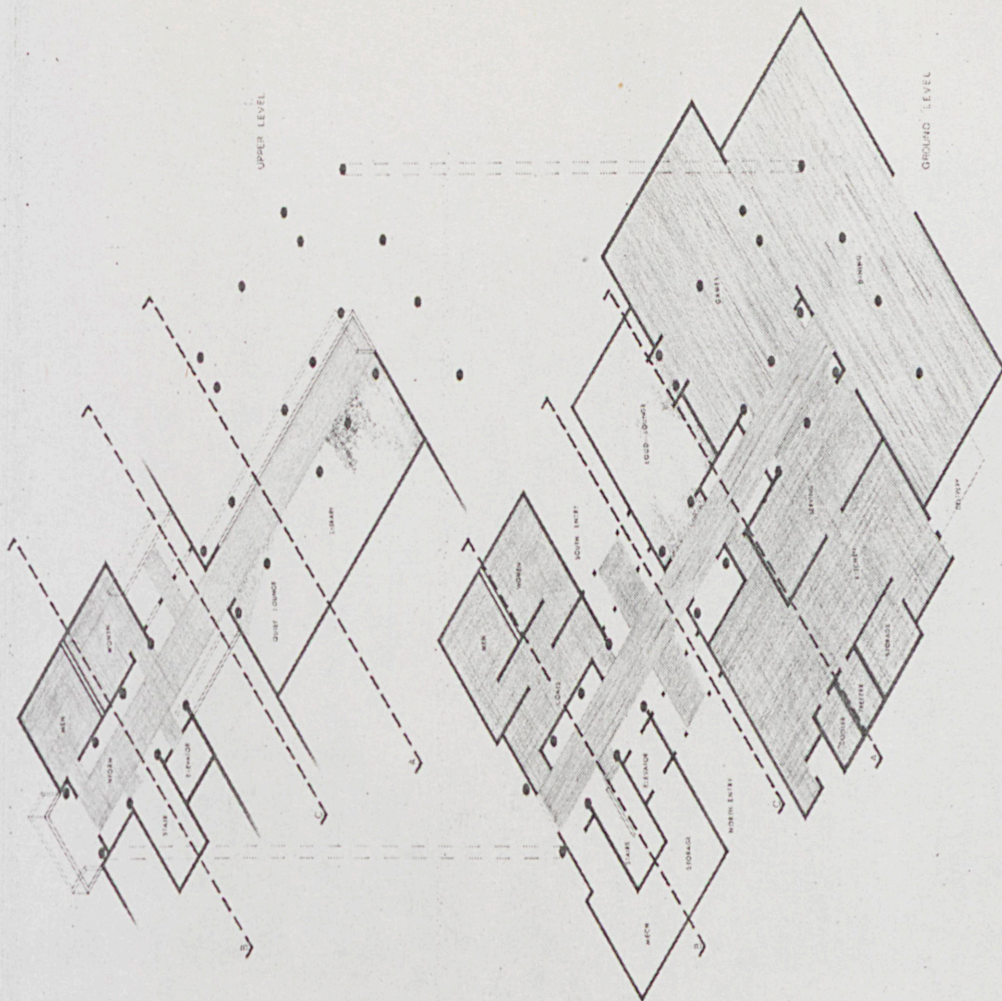
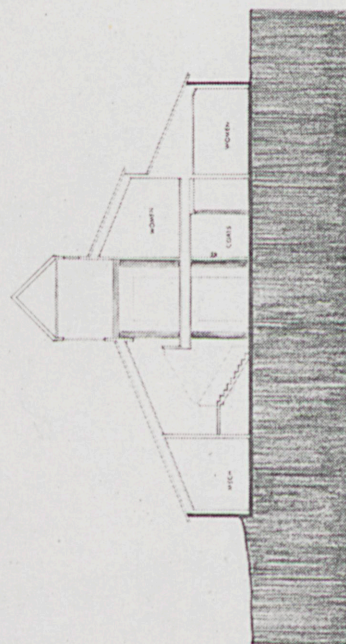


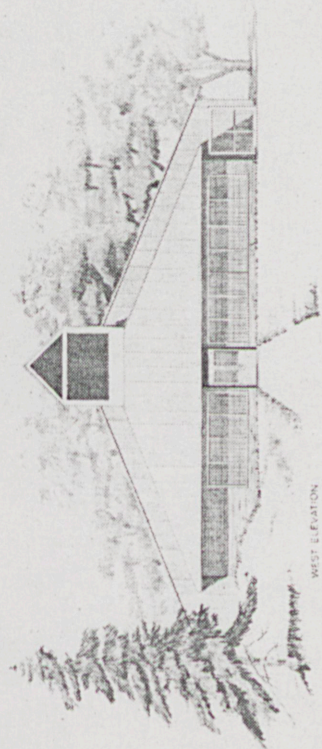
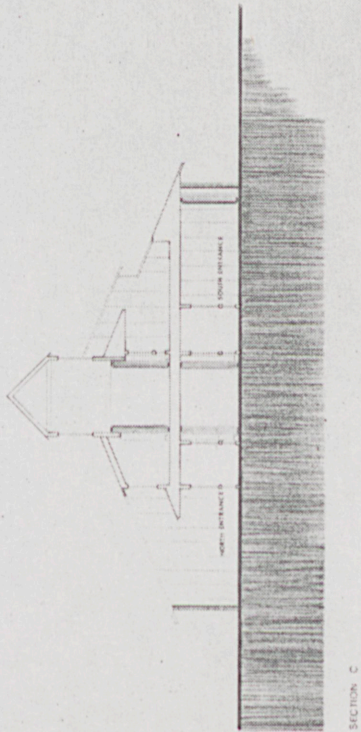
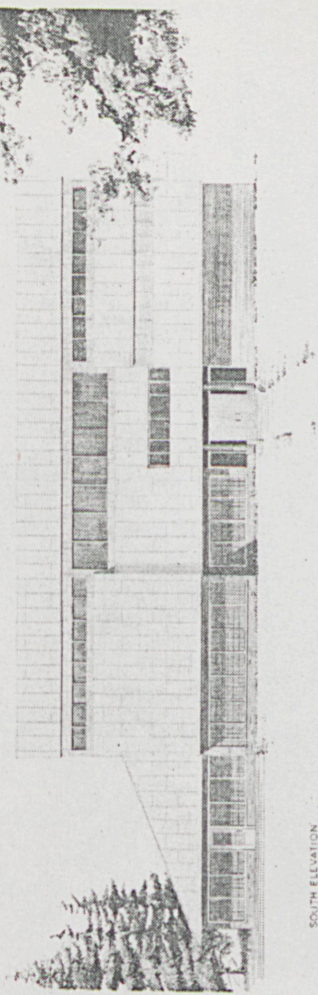
Architectural drawing of the exterior of the 'Klein' house, showing a cross-section. The drawing includes a gabled roof, a chimney, and a small porch area. The drawing is oriented vertically, with the roofline on the left and the ground line on the right.

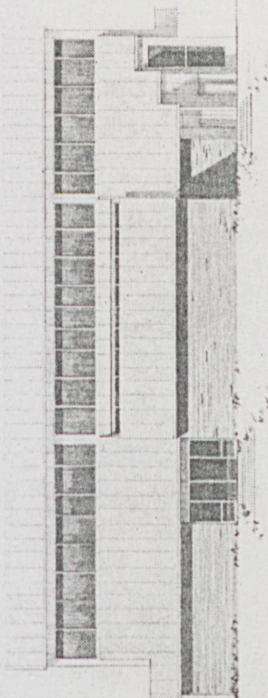
SECTION A

37

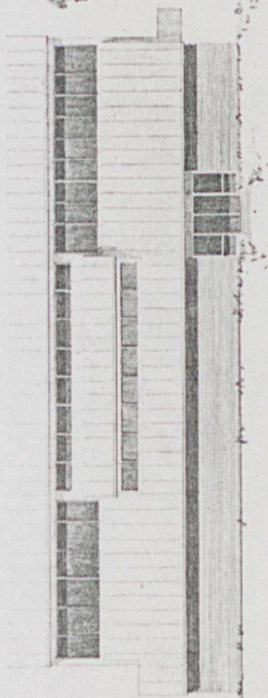
SECTION 6

ISOMETRIC - $\frac{1}{3}$

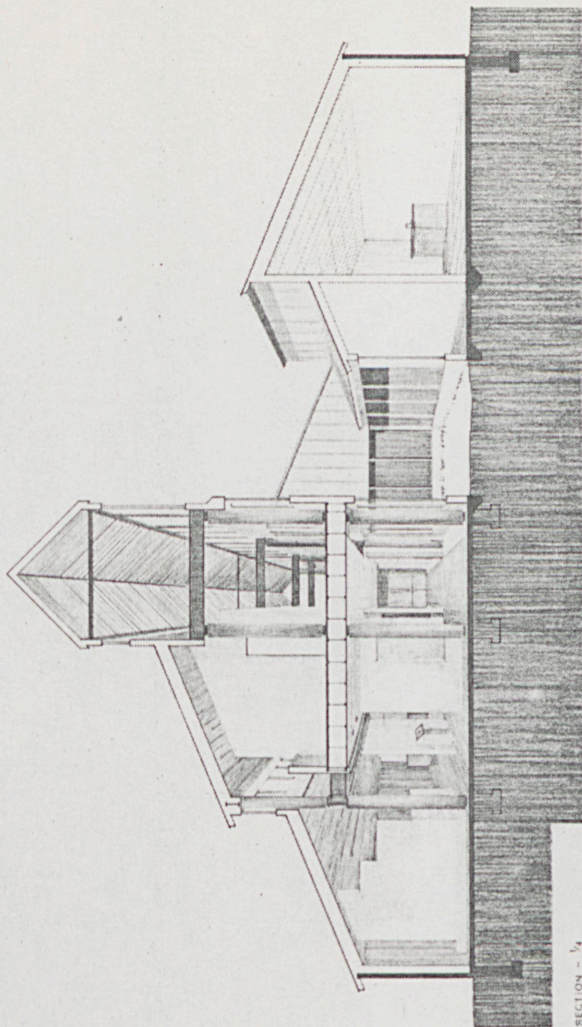




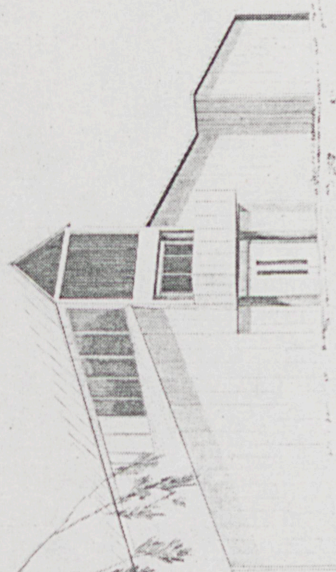
EAST ELEVATION



WEST ENTRANCE



SECTION - 1/4

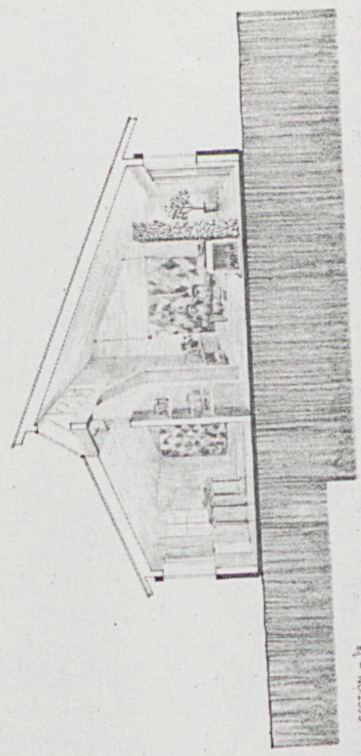


SOUTH ENTRANCE

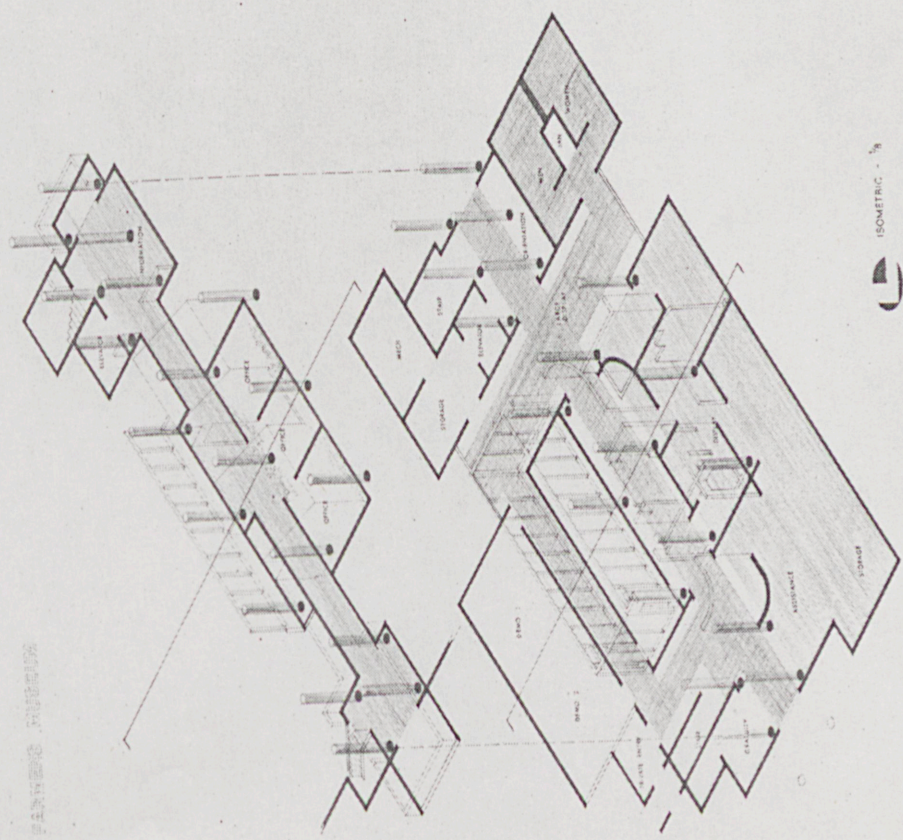


WENT CRAFTS COMPLEX

ENTRANCE - SEWING CRAFTS



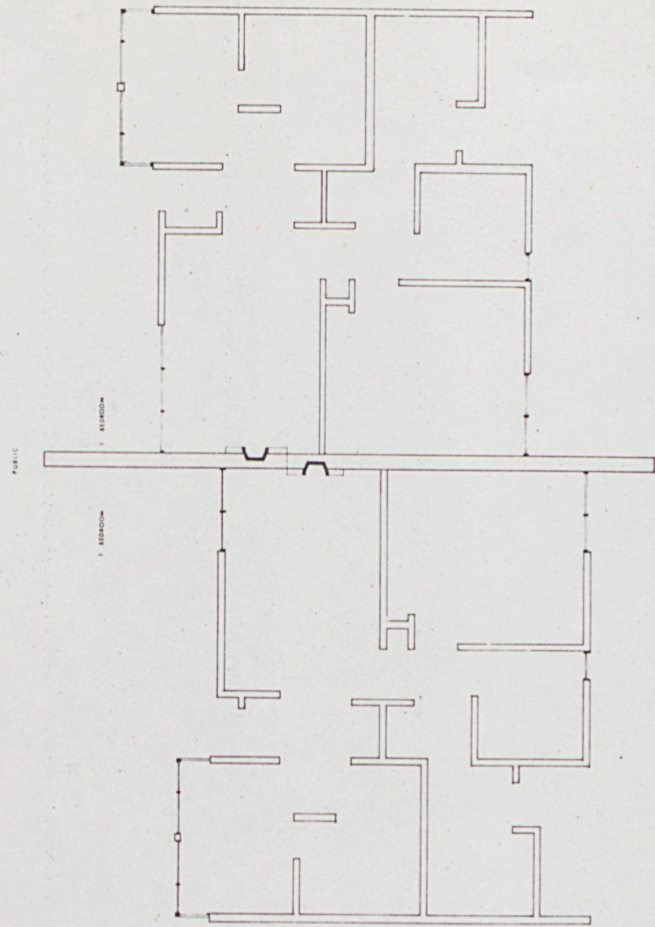
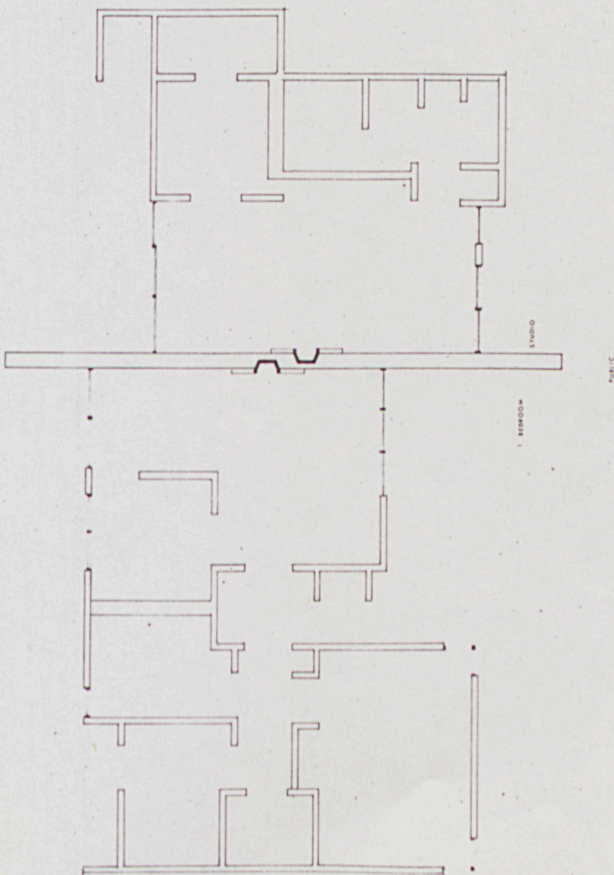
SECTION - 1/8

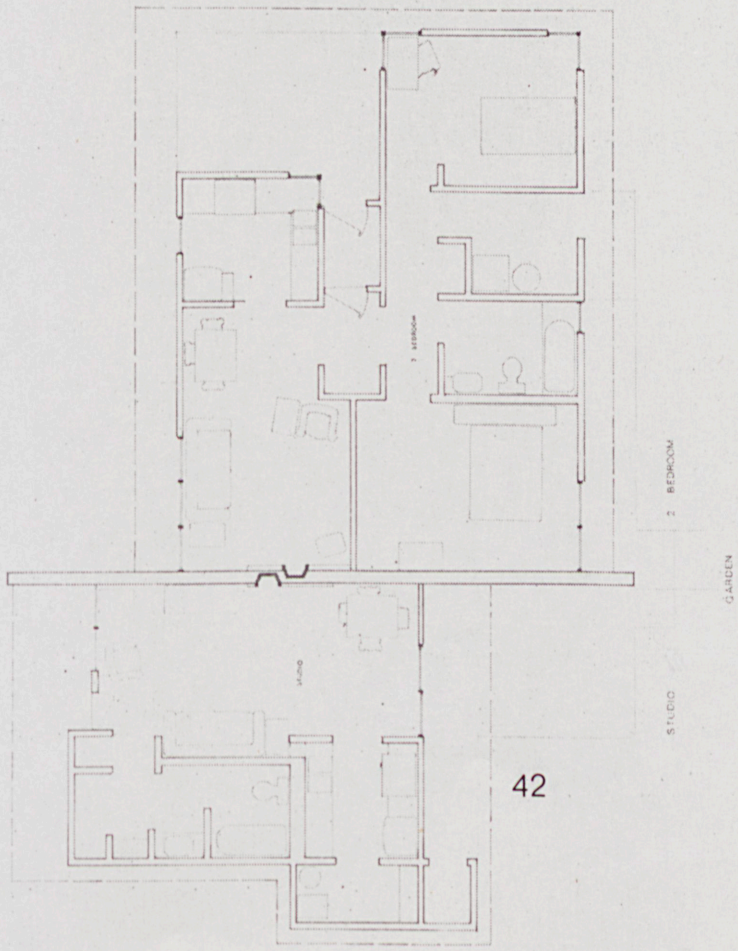


ISOMETRIC - 1/8

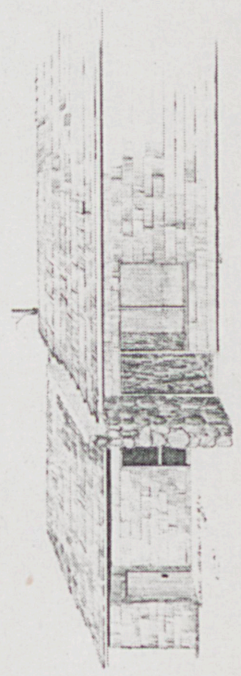
HOUSING UNIT

FLOOR PLANS 31

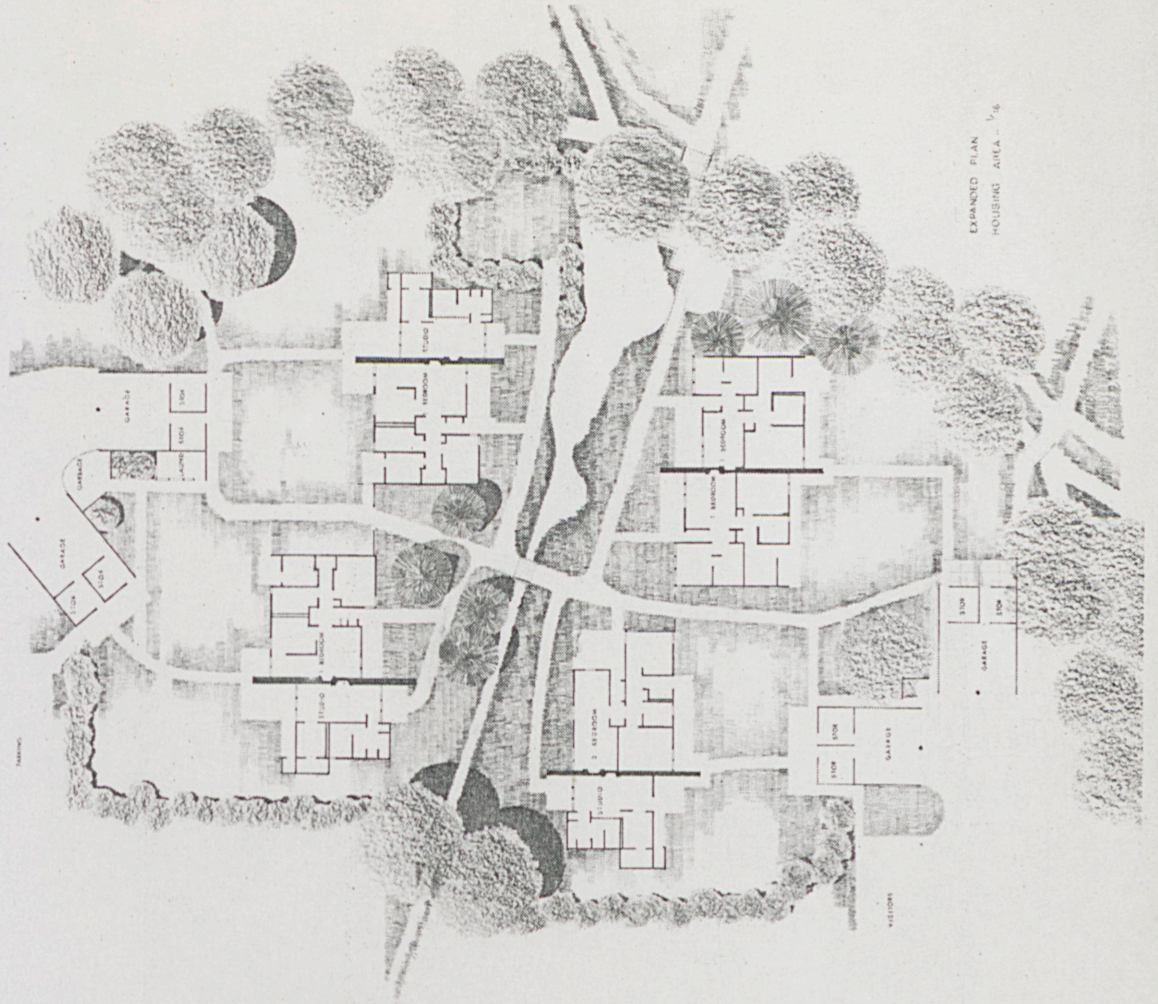




42



PRIVATE FACADE - TYPE 1



EXPANDED PLAN
HOUSING AREA - TYPE 2

REFERENCES CITED

- Bander, W., and Doerflinger, J. Work roles among the rural aged. In E. G. Youmans (Ed.), Older Rural Americans. Lexington: The University of Kentucky Press, 1967, 21-37.
- Berwick, K. The "senior citizen" in America; a study in unplanned obsolescence, Journal of Gerontology, 1967, 7, 257-260.
- Beyer, G., and Nierstrasz, F. H. J. Housing the Aged in Western Countries. New York: Elsevier Publishing Company, 1967.
- Bloomer, k., and Moore, C. Body, Memory, and Architecture. New Haven: The Yale University Press, 1977.
- Chew, P. If fuel is too high down on the farm-just get a horse!, Smithsonian, 1980,10:11, 76-92.
- Hamline, R. A utility theory of old age, The Journal of Gerontology, 1967, 7,2.
- Havighurst, R. J. A social-psychological perspective on aging. In J. R. Barry, and C. R. Wingrove (Eds.), Let's Learn About Aging. New York: John Wiley & Sons, 1977, 139-148.
- Hoyt, C. K. Housing the aging. Architectural Record, 1977, 161, 123-138.
- Jacobs, J. Housing the independent aged. Architectural Forum, 1968, 109, 86-91.
- Jones, M., and Catlin, J. Design for access. Progressive Architecture, 1978, 59:4, 64-70.
- Kaplan/McLaughlin/Diaz, Architects. Post Occupancy study leads to insights on elderly housing. Architectural Record, 1979, 166, 67-70.
- Kratz, C. Sensory deprivation in the elderly. Nursing Times, 1979, 75;8, 330-333.
- Leaf, A. Getting old. Scientific American, 1973, 229:3, 44-52.

- Lindsley, O. Geriatric behavioral prosthetics. In R. Kastenbaum (Ed.), New Thoughts on Old Age, New York: Springer Publishing Company, 1964.
- Loring, W.C. Housing of the elderly. Architectural Forum, 1961, 114, 101-109.
- Mathiasen, G. Trends in housing for the older people. Architectural Record, 1962, 132, 109-116.
- McAvoy, L. The liesure preferences, problems, and needs of the elderly. Journal of Leisure Research, 1979, 2:1, 40-47.
- Mumford, L. For older people-not segregation but integration. Architectural Record, 1956, 119, 191-194.
- Mumford, L. The Culture of Cities. London: Secker and Warburg, 1946.
- Proppe, H. Housing for the retired and aged in Southern California: an architectural commentary. Journal of Gerontology, 1968, 8, 176-179.
- Rose, A. Perspectives on the rural aged. In E. G. Youmans (Ed.), Older Rural Americans. Lexington: University of Kentucky Press, 1967, 6-21.
- Rosow, I. Local concentrations of the aged and intergenerational relations. Paraphrased in G.H. Beyer and F.H.J. Nierstrasz, Housing the Aged in Western Countries. New York: Elsevier Publishing Company, 1967, 46-47.
- Steinberg, H. A Checklist for Retirement Houses. Urbana: The University of Illinois Press, 1958.
- Toffler, A. Future Shock. New York: Random House, 1970.

APPENDIX A.

The Participants

Persons who will participate in the project are categorized as resident elders, other participating elders, visiting public, and staff.

Resident elders live in housing on the site, and their composition is as follows:

	<u>Total</u>	<u>Independent</u>	<u>Semi-dependent</u>
persons	68	62	6
married	36	32	4
single	32	30	2

Other participating elders participate in the activities of the Farmer's Museum and the Community Center.

There are as many fee-paying nonresident members as there are resident members, but the daily number of other participating elders visiting the project varies. Normally, 20 nonresident members participate in the museum and Community Center activities, but for popular events, there can be as many as 40 in addition to resident participants. The Community Center is expected to serve 65-80 lunches each weekday, and an additional 12-20 "meals on wheels." On Sundays, it is expected that 60 lunches will be served with no "meals on wheels," and no special well-advertised events, 120 meals is expected to be normal.

The visiting public tour the living museum only. They may randomly drop in, they may attend demonstrations by arrangement or as regularly scheduled events. They may

come in groups (a school class, for example), and they may come en masse for community events, like an annual harvest bee.

Staff persons are as follows:

handiperson [4]	----- manage the farm, perform some maintenance, does the heavy work as needed.
cooks [4]	----- prepare one meal each noon that includes Meals on Wheels; operate canteen.
director [1]	----- coordinates all activities and events. He is one of the resident elders.
janitorial [1] and clerical help [1]	----- janitor divides service between Community Center and museum. Secretary is also a bookkeeper.

One handiperson and a nurse are housed on the site in existing housing. All other staff persons drive to the site.

APPENDIX B.

Housing Requirements

The house is the individual's private place to where he can withdraw from social contacts and activities, and should include surrounding land to allow individuals to extend their territory. The relationship of dwelling unit to dwelling unit should permit neighbors to check on each other without infringing on individual privacy. Each dwelling unit will have a carport or garage and outdoor storage. Housing is to be provided as follows:

<u>Configuration</u>	<u>Number</u>
studio	18
1-bedroom	22
2-bedroom	10

The dimension and area data in the following table meet or exceed the minima established by the HUD Minimum Property Standards, 1973 ed., rev., U.S. Government Printing Office. Total Area, excluding exterior storage (100 sq.ft.) and garage (250 sq.ft.), is approximately 600 sq.ft. for studio units, 800 sq.ft. for 1-bedroom units, and 1000 sq.ft. for 2-bedroom units.

ROOM	AREA	MIN. DIMENS.
living room (1-bdrm)	160 sq.ft.	11 ft.
(2-bdrm)	170 sq.ft.	11 ft.
dining room (1-bdrm)	80 sq.ft.	8 ft.
(2-bdrm)	95 sq.ft.	8 ft.
kitchen and pantry	90 sq.ft.	-----
bedroom, primary	140 sq.ft.	-----
bedroom, secondary	110 sq.ft.	-----
bathroom	80 sq.ft.	-----
hallway	-----	4 ft.
utility	100 sq.ft.	-----
storage, carport	-----	-----

Rooms or areas may be considered combined if horizontal opening between areas is at least 8'-0", or 6'-0" between kitchen and dining areas. Area minima can be adjusted as follows:

living-dining,	180 sq.ft.	-----
kitchen	90 sq.ft.	-----
living,	160 sq.ft.	-----
dining-kitchen	100 sq.ft.	-----
living-dining-kitchen	250 sq.ft.	-----

APPENDIX C.

Activities and Museum Requirements

The activities that will be a part of the living museum are as follows:

Men's Activities

- restoring old farm machinery
- restoring old cars, furniture
- boarding, exercising, and caring for animals (their's and other's)
- farming activities
- practicing, recording, and teaching old crafts
 - harnessing and working teams of horses
 - ferrier crafts
 - blacksmithing
 - alternate energy schemes relating to farming before REA
- lapidary
- woodworking
- farming

Women's Activities

- spinning and weaving
- crocheting, embroidery
- quilting
- tailoring
- interior decorating
- preserving, canning, freezing, and drying fruits and vegetables
- baking

Men's and Women's Activities

- raising and harvesting fruits and vegetables
- identifying, collecting, and preparing wild, edible plants
- caring for wild game and domestic meats
- beer, wine, and vinegar brewing

Other activities for the Elders at the Project are as follows:

- tutoring grade through high school students
- being foster grandparents
- geneology research

painting and drawing
 deliver meals on wheels
 visiting isolated rural Elders living in their own homes
 continuing education
 annual harvest bee and special events corresponding to seasons and holidays

This list of activities is not intended to be complete. The type of activities will depend on the participants and the demands of the surrounding communities.

The activities take place within a museum context, where the public is welcome to casually observe, interrupt with questions, and even participate. The areas given include area required for special equipment, storage, participants, and small groups of observers. Areas are grouped according to type of activity.

<u>Type of Activity</u>	<u>Activity</u>	<u>Area (sq.ft.)</u>
Sewing	total	500
	weaving	140
	quilting	180
	sewing	100
	crocheting, embroidery	---
	storage	30
Woodworking	total	930
	cabinetmaking, milling	650
	repair, whittling, small crafts	130
	finishing	100
Arts and Crafts	total	180

Lapidary	total	320
	work area	120
	display area/ storage	180
Greenhouse	total	2300
	individual areas: 36sq.ft./dwelling unit, excluding circulation	850
	community area	600
	food drying area	140
	cool storage area	140
Cooking	total	400
	preparation area	150
	pantry/storage	120
Miscellaneous	total	800
	general display, sales	320
	general meeting room	180
	public toilets, lounge, information center, maintenance/ HVAC, projection room	300
Mechanics		*
Barn and Animal Shelters		*

* indicates structures to be constructed by others.

Barns are to be hands-on demonstration projects in which the entire community is invited to a "barn raising" weekend that will demonstrate construction methods and details.

APPENDIX D.

Community Center Requirements

The Community Center extends social activities and functions to all rural members and their guests. It is not accessible to the visiting public, unlike the museum. Functional and area requirements are as follows:

<u>Activity Type</u>	<u>Room Function</u>	<u>Area (sq.ft.)</u>
Entry/Admin. Area	total	1000
	entry-lounge	----
	reception-infor- mation	65
	public toilets	340
	director's office	120
	conference/meeting room	150
	storage	90
Dining/Social Area	total	3800
	kitchen (includes storage, office, toilet, walk-in freezer and cooler, service area, and dish return)	900
	dining	1200
	multipurpose (add to dining room with movable partition)	400
	stage	300
	dressing (combine with storage 2 @ 100 sq.ft. each	200
	library (and quiet lounge)	300
	lounge (loud lounge and games)	----
	t.v. lounge	240

MONTANA STATE UNIVERSITY LIBRARIES
stks 720.6.M76L652 CA
Community of rural elders : a retirement



3 1762 00158018 0

11/18/80
11/18/80
11/18/80
11/18/80

