ARCHETYPAL PLACE CONCEPT FOR ASSISTED LIVING PRIVATE DWELLINGS

by
Lauren Taliaferro

Thesis submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

Masters of Science

in

Near Environments

APPROVED: _____
Dr. Julia Beamish, Chairperson

_____ _____
Dr. Joan McLain-Kark Dr. Lennie Scott-Webber

December, 1998

Blacksburg, Virginia

ARCHETYPAL PLACE CONCEPT FOR ASSISTED LIVING PRIVATE DWELLINGS

By
Lauren Taliaferro
Dr. Julia Beamish, Chairperson
Department of Near Environments

(ABSTRACT)

The purpose of this study was to determine which archetypal settings independent living residents of facilities that provide assisted living need and expect in the private living spaces of assisted living residences. The researcher developed an Archetypal Place Concept for Assisted Living Private Dwellings, based on work by Spivak (1984), which included eight archetypal categories with four sub-categories each. This concept was then used as a tool to evaluate scale models of assisted living dwellings constructed by independent living residents of retirement communities that offer assisted living. Seventeen residents in four retirement communities in Southwest Virginia participated in the research.

The findings revealed that sample members believed all eight archetypal categories should be included in assisted living private dwellings. However, the degree to which the archetypal categories should be developed in a dwelling varied depending on whether the sample members were familiar with large or small assisted living dwellings. The most popular combination of sub-categories for sample members familiar with large assisted living dwellings was: multiple rooms not shared by unrelated adults, with separate sleep and living areas; separate sleep areas out of the living room with a door; bathrooms with a toilet, sink, shower, vanity closet, and linen closet; food storage with cooking appliances; two built-in closets; windows facing one direction, some with an outdoor area; separate seating for living and dining out of the sleep area; and kitchenettes with a refrigerator, sink, and cooking appliances. The most popular combination of sub-categories for sample members familiar with large assisted living dwellings was: one room not shared; a sleep area not shared, with no separate living room; a bathroom with a toilet, sink and shower, tied with toile, sink, shower, vanity storage, and linen closet; food storage with no cooking appliances; two built-in closets; windows facing one direction; designated seating arrangement within sleep area; and no kitchen, possible food storage.

It was concluded that assisted living facilities should include a variety of dwelling types to meet different people's needs. However, any assisted living dwelling should include all eight archetypal categories to allow residents to function more comfortably.

ACKNOWLEDGEMENTS

I would have never finished this project without the time, encouragement, and support of many people. Dr. Beamish, my committee chair, was a constant source of inspiration. Without her assurance, this thesis would not have been a success. My other committee members, Dr. Joan McLain-Kark and Dr. Lennie Scott-Webber, were great sources of information and support. They helped me overcome the adventure of doing a qualitative study, and challenged my thinking. Many other members of the faculty and staff provided me with encouragement and motivation, and I am truly grateful.

I would like to thank my husband, John. His love and support meant more to me than he knows. Also, my family and friends were always there for me throughout this time, and I can never thank them enough.

Finally, I would like to thank the friendly people who took the time to participate in this study. Without them, this research could never have been done.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

Introduction

A good understanding of the needs and wants of a person or persons is imperative for designing appropriate environments for them, this includes understanding older adults, as well (Lawton, 1975). Older adults are often thought of as a homogenous group, leading to the notion that what is good for one older person is good for all older persons. Research shows that not only is this notion untrue, but that there is great diversity among people in their older years (Blank, 1988). The population of older adults is growing larger, in absolute numbers and as a percentage of the population. As of 1994, the population of older adults that existed in 1900 had more than tripled (AARP, 1995). As the older population grows, so does the diversity among it. This diversity has an impact on housing accommodations for older adults.

Although consumers must be provided with a variety of options in accommodations, due to the diversity among them (Thornton, 1996), it is imperative for those who plan housing for older people to determine which behavioral characteristics are intrinsic to the specific population before planning their environments (Carp, 1966). Assisted living facilities are one type of housing for older adults that have been available for the past few decades. They provide care in a group setting that is often licensed as an adult home and not licensed as a nursing home. They usually offer homelike and normalized settings for people who in the past would be eligible to receive nursing home care due to their disabilities (Kane & Wilson, 1985).

Assisted living is a market that is growing in popularity, leading some to believe that nursing homes are quite likely to lose some of their current residents to this care choice (Tinsley, 1996). However, many leaders of the nursing home industry believe that people with moderate cognitive impairments or needing assistance with activities of daily living (ADLs), who in the past were admitted to nursing homes, are no longer an appropriate market for them (Clemmer, 1995). The assisted living facilities market is the group of older people who have moderate cognitive impairments and problems with ADLs, as well as a wide range of others who cannot live independently, but are not eligible for nursing home living (Thornton, 1996). Thus, there is a market for assisted living.

There are, however, misconceptions about exactly who is cared for in assisted living because of the industry's use of so many different terms, definitions, and service models (Thornton, 1996). The term has been used to describe many different levels of congregate care, which in turn may create confusion among the consumer in regards to what "assisted living" means in practice. This confusion has resulted in a range of physical settings for assisted living (Kane & Wilson, 1985). According to Blank (1988), housing needs and preference should be one of the overriding determinants of planning a group housing facility for the older population. Unfortunately, development of the dwelling units are generally made according to the sponsor, financing, and location, not the user needs (AIA, 1985).

Lawton and Nahemow (1973) state that older adults must be properly matched with their housing environment. If people *fit with* their environment it would be expected that they would be satisfied, and could use the environment in a productive way (Lawton & Nahemow, 1973). However, a designer cannot plan a productive living environment in

the absence of knowledge about the group of adults the facility is marketing towards (Lawton, 1975). When people live in environments restricted to a severely limited range of settings in which to carry out all behavior that constitute the human repertoire, their ability to function as individuals is limited (Spivak, 1984). Based on Roger Barker's (Schoggen, 1989) research on ecological environments and any individual's connection to environments, Mayer Spivak (1984) identified and defined the functional places used by people in his list of archetypal places. This list of archetypal places is the smallest mutually exclusive set of all possible spaces associated with needs, drives and their realization, social life motifs, biological existence, and maintenance of species population level (Spivak, 1973). A study of how older people use their living space (Lawton, 1975), and what archetypal spaces they need to positively function is necessary to provide the best level of care possible in assisted living facilities.

Statement of the Problem

It is known that by providing an older adult with an environment in which they can be productive, high levels of satisfaction can be achieved. Though many facilities have improved the environments older adults live in, the environmental needs of older adults in private dwellings of assisted living facilities, as well as other facilities for older adults, has been developed intuitively, without empirical support. Guidelines for archetypal settings found important by older adults are necessary to support efforts to create a functional, aesthetically pleasing private living unit for residents of assisted living facilities. This research will identify the design components that older adults perceive as important for proper functioning within an assisted living dwelling, and what archetypal settings are therefore needed.

Purpose of the Study

The purpose of this study is to determine which archetypal settings independent living residents of facilities that provide assisted living need and expect in the private living spaces of assisted living residences. A list of design guidelines based on the independent living residents' perceptions will then be compiled. There are six objectives for this study:

1. To analyze existing floor plans of assisted living private spaces using Spivak's Archetypal Place Concept.
2. To develop an archetypal place concept for private dwellings in assisted living facilities, and test it.
3. To identify the perceived level of importance of each archetypal category for private dwellings of assisted living, according to independent residents living in communities with assisted living facilities.
4. To identify the level of development for each perceived important archetypal category independent residents desire for private dwellings of assisted living.
5. To determine whether the independent living residents' familiarity with assisted living affects the needs and expectations of spaces they believe to be important for the private dwellings of assisted living.
6. To determine whether the inclusion of perceived important archetypal categories for private dwellings of assisted living requires the independent residents to make trade-offs.

Significance of the Study

Providing a comprehensive list of what residents need and want could aid in identifying conflicts or confusion between designers and sponsors of assisted living facilities. Supplying guidelines for perceived important components, based on the results of this study, will allow for designs to increase residents' ability to function within the environments. This heightened functioning may raise levels of fit between resident and environment, resulting in greater satisfaction levels among residents. It also may reduce the inclusion of unnecessary components that increase cost, resulting in extra funds for use elsewhere in the facility.

Research Questions

Four primary questions will direct the research:

1. Which archetypal categories do independent living residents perceive to be important for the private dwellings of assisted living facilities?
2. How developed are the archetypal categories that independent living residents perceive to be important for the private dwellings of assisted living facilities?
3. Are independent living residents' perceptions about wants and needs of the private dwellings of assisted living the same regardless of their familiarity with assisted living?
4. Are trade-offs being made in the decision making of important archetypal categories for private dwellings of assisted living?

Delimitations

This study is limited by the specific environment being evaluated, personal and private spaces within assisted living facilities. Therefore, the findings will only be relevant to the private spaces of assisted living facilities, and not all housing for older adults. It will also be the evaluation of the specified environment based on possible consumers' perceptions, not the perceptions of residents living in assisted living facilities. The residents' impressions of assisted living may vary depending on the assisted living facility within their own community, and how familiar they are with it. Therefore, residents' from communities with small assisted living facilities and large assisted living facilities will be sampled. Nevertheless, these perceptions may limit the results of the study if the participants fail to have an understanding of the needs of assisted living residents.

Limitations

The convenience sample being used in this study decreases the generalizability of the findings. This study will not be generalizable to all types of assisted living, but will provide a basis for making design recommendations.

CHAPTER TWO

Literature Review

The review of literature for this research is a compilation of information about assisted living, and theoretical perspectives related to environments. It is the framework around which this research will be developed. First, a descriptive analysis of assisted living environments will be given. Then the environmental perspectives of Roger Barker, M.P. Lawton, and Mayer Spivak will be reviewed.

Assisted Living

The need to exercise personal control is a central factor in human development and quality of life (Clemmer, 1995). The concept of assisted living recognizes this need by promoting the philosophy of personal control and responsibility for frail older persons in a home-like group setting (Clemmer, 1995). Assisted living fills a void in housing options at a level between congregate independent living and skilled care or nursing homes (Regnier, 1994). However, assisted living is a relatively new term and has been used in a variety of ways (Kane & Wilson, 1993).

Although environmental adaptations of the term *assisted living,* and its multiple uses is needed for this research, a working definition is essential. The Assisted Living Facilities Association of America, or ALFAA, definition will be used, and defines assisted living as a special combination of housing and personalized health care designed to respond to the individual needs of those who need help with activities of daily living (Kane & Wilson, 1993). Care is provided in a professionally managed group living environment in a way that promotes maximum independence and dignity. Services normally include three meals a day and comprehensive living services (Kane & Wilson, 1993).

The ALFAA's definition does not specifically define "services", and therefore is general enough to embrace a wide variety of environmental settings, with different levels of care. The overall philosophy of assisted living is one of personal self-management, with most facilities allowing residents, or families of residents, to seek ways to manage a diverse range of health care services to be provided on an occasional or ongoing basis (Regnier, 1994). Examples of services that can be provided are meals, assistance with ADLs, help with medications, transportation, shopping, housekeeping, laundry, and planned activities (AAHSA, 1996).

Assisted living is referred to as a housing type for both the physically impaired and the mentally impaired. It is an appropriate living environment for those persons in the early stages of Alzheimer's disease and with other forms of dementia. Yet, persons experiencing difficulties due to memory lapses, disorientation, confusion, agitation, and frustration will benefit from assisted living as well (Regnier, 1994). Other older persons who can benefit by choosing this type of living are those with physical limitations. They may include persons with arthritis, hypertension, heart decease, diabetes, or hearing and visual impairments. These chronic ailments may restrict mobility, limit ability to carry out motor tasks, or cause problems with balance, all of which assisted living strives to improve (Regnier, 1994).

Living arrangements of assisted living facilities often reflect the philosophy of promoting independence. Residents usually live in private rooms with baths, individual temperature controls, and doors that lock or in small apartments with kitchenettes. Often, the residents choose the decor and use their own furniture. The scale of the facilities are home-like, often with small sitting rooms and dining rooms that encourage residents to interact with one another and with guests (Clemmer, 1995).

Fluorescent lighting, long corridors, tiled floors, and nursing stations are explicitly avoided to eliminate the feeling associated with nursing homes. Facilities do provide handrails, wide hallways, grab bars, and emergency call systems which help assure safety as well as promote independence (Clemmer, 1995).

Ecological Environment

The term environment has different meanings both in everyday usage and in the social sciences. Roger Barker's (Schoggen, 1989) research embodies the ecological environment. The ecological environment is concerned with the physical and geographical environment, but also includes the objectively observable *standing patterns of behavior*. Standing patterns of behavior are specific sequences of people's behavior that regularly occur within a particular setting. For example, in a classroom, children listen, read, and write and teachers lecture and teach (Schoggen, 1989).

Behavior patterns occurring within a specific setting are as much a part of the environment to an individual in the setting, as are the physical and temporal components of the setting. Yet the ecological environment is not equivalent to the psychological environment, which refers to the subjective representation of the objective environment by a given person and a particular time. In contrast, the ecological environment has a durable existence in the objective, perceptual world independent of the psychological processes of any particular person (Schoggen, 1989).

In order to study Barker's ecological environment, one must understand what he refers to as behavioral settings. Barker believes that defining properties of behavior settings is a crucial step in their understanding and evaluation. Any two behavior settings will differ in many respects, however in their defining properties they are identical. All behavior settings consist of *standing patterns of behavior*, which were defined earlier. They also include *milieu*, which are physical and geographical non-behavioral parts of the setting, for example buildings, books, chairs, grass, and mountains. The behavior patterns are attached to these milieu, this attachment is referred to as *standing patterns of behavior-and milieu*. In a basketball game, for example, the playing behavior is focused on the ball, the baskets, and the court boundaries; while the scorekeeping pattern of behavior is attached to the scoresheets and other recording devices (Schoggen, 1989).

The milieu is not only attached, but *circumjacent* to the behavior pattern. Circumjacent means surrounding and describes an essential property of the physical-geographical-temporal milieu of a behavior setting. Some milieu are also *synomorphic* with the behavior pattern. Synomorphic means similar in shape, form, and structure. The synomorphy of behavior and milieu extends to the fine, interior structure of a behavior setting. Basketball, for example requires a specifically shaped ball, court, and other milieu for the game to be played. These behavior-milieu parts, or specific objects required for certain behaviors, are called synomorphs. Barker states if an environment does not include these properties it is not a behavior setting. Therefore, it is important

not to separate environmental components from individual components when studying one or both (Schoggen, 1989).

The definition of a behavioral setting according to Barker (Schoggen, 1989) is one or more standing patterns of behavior - and - milieu, with the milieu circumjacent and synomorphic to the behavior and with a specified degree of interdependence among the synomorphs. In other words, the non-behavioral parts of a setting (objects) must surround and fit unequivocally with the specific sequences of people's behavior that regularly occur within a particular setting, allowing the behavior and the objective environmental parts to be congruent, while being mutually dependent on each other. Lawton and Nahemow (1973) address a similar idea with Individual - Environment Transactions.

Individual- Environment Transaction

Ecology refers to the study of natural systems, emphasizing the interdependence of one element in a system upon every other element. Ecologists, therefore, argue that one cannot understand one element in nature without considering its surroundings. This argument is seen throughout Barker's definition for studying behavior settings, and is also apparent in the work of Lawton and Nahemow (1973). A major part of Lawton and Nahemow's research has included a concern for what constitutes not matching individuals with environments meeting their needs.

The ability to match individuals to environments is enhanced by Lawton and Nahemow's consideration of the individual being linked to the ecological system. An individual's sensory, perceptual, and cognitive processes function to deal with environmental information, which in turn has an affect on the individual's response to an environment. Lawton and Nahemow's research on environmental dimensions, individual environmental information-processing characteristics, and older people's behavior in specific environments led to a theory of man-environment transactions (Lawton & Nahemow, 1973).

This transactional model relating the aging individual to his or her environment includes five components. The first is one's *degree of competence*, or the diverse collection of abilities residing within the individual including cognitive ability, psychological adjustment, and physical health. The second is *environmental press*, or the forces in the environment that together with an individual need evoke a response. *Adaptive behavior* is a resultant of the individual-environment transaction. The fourth component is *affective responses.* These are the inner aspects of the individual-environment transaction, and include any internal emotional states that are involved in the environment-behavior transaction. *Adaptation level* is the last component, and is simply the level to which one can adapt based on affective, perceptual, and cognitive experience (Lawton & Nahemow, 1973).

The overall concept of this transactional model is rather specific. Broadly, it states that each individual has a adaptation level which creates a positive affect, and results in adaptive behavior. This level varies from person to person and is based on their competence level. A person at a given competence level can only adapt to environmental presses if the presses are neither too great, nor too small. The adaptation level of any individual includes a range of both slightly higher and slightly lower levels, as well, to compensate for changes that occur from day to day. In order to find the correct match

between an individual and an environment, the environmental presses must fall in the adaptation level range for the individual. Being in the correct range allows the individual to perform adaptive behavior. If the environmental presses fall at either too high or too low a level, it has a negative affect on the individual and maladaptive behavior occurs (Lawton & Nahemow, 1973).

Lawton and Nahemow (1973) agree that the *minimum goals* approach to rehabilitation for older adults may be the most effective. This approach suggests an environmental demand with a slightly noticeable difference above the individuals accustomed performance level. This increased demand provides a level of environmental press within the individual's adaptation level range, and is thought to be an individual's *zone of maximum performance potential*. Slight deviations from the adaptation level, with either higher or lower levels of environmental press, produce equally positive responses. However, by lowering environmental demands, rather that utilizing the zone of maximum performance potential, an individual may simply accept a situation in which the maximum behavioral potential is not realized.

Unfortunately, as one's competence level decreases, the area for adaptive behavior decreases as well, which in turn reduces the size of the zone of maximum performance potential. Also, with individuals of low competence levels, negative outcomes are more likely with excessively strong, rather than weak environmental press. These negative outcomes bring question to the idea of utilizing the zone of maximum performance potential. With lower levels of competence, small changes in environmental press levels may evoke great changes in quality of affect or behavior (Lawton & Nahemow, 1973). Nevertheless, although concepts such as *competence* and *environmental press* are difficult to measure, Lawton & Nahemow (1973) encourage careful assessment of individuals to ensure the best match of individuals with their environments. Meyer Spivak (1984) addresses a similar idea about matching individuals with their environment by ensuring the individual is provided with support from the proper archetypal places.

Archetypal Places

Environments are capable of structuring and supporting human behavior patterns, such as family life, meaningful work life, and educational settings, at their optimum levels. However, this support can only be accomplished when all of the components or behavior places necessary for the fullest kind of human existence are present. Without these components the users of such environments can be said to be in state of *setting depravation* (Spivak, 1984).

Setting depravation can result when environments are in conflict with the desires and capabilities of the users. Spivak (1984) states that while our informed behavior can modify environments, environments lacking functional places used by humans reduce our expectations, and they in turn modify our behavior. Therefore, according to Spivak (1984), setting depravation has in some cases resulted in mental and physical illness, depression, and general misery. Setting depravation can be eliminated through the understanding and application of *archetypal places* (Spivak, 1984).

Archetypal places are the fundamental collection of functional places used by humans and other animals in daily life. They denote space with highly specific sets of specifications (Spivak, 1984). The total set of behaviorally defined archetypal places

includes thirteen place types (see Table 1). Spivak (1984) states that this set of archetypal places is the smallest mutually exclusive set of all possible spaces associated with drives, needs, and their realization, social life, psychological existence, and maintenance of species population levels. The thirteen place types are conceived as the minimum group of settings that together are necessary for support of the healthy life of a human. However, for any given species, some archetypes may be compressed and contained with others (Spivak, 1984).

TABLE 1.

Archetypal Places

Place	Activity Performed Within *Place*
Shelter	elemental protection; protection for nesting activities; retreat from stimulation, aggression, threat, social contact; emotional recuperation
Sleep	neurophysiological processes; recuperation, rest; reduced stimulation; labor and birth, postnatal care of mother and child; death
Mate	courting rituals; pair bonding; copulation; affectionate behavior; communication
Groom	washing; mutual grooming
Feed	eating, satisfy thirst; communication; social gathering; feeding others
Excrete	excreting; territorial marking
Store	hiding food and other property; storage; hoarding
Territory	spying; contemplation; meditation; planning; waiting; territorial sentry; defending; observing
Play	motor satisfaction; role testing; rule breaking; fantasy, exercise; creation; discovery; dominance testing; synthesis
Route	perimeter checking; territorial confirmation; motor satisfaction; social and community control
Meet	communication; dominance testing; governing; education; worship; socialization; meditation; cosmic awe; moral concerns
Compete	agnostic ritual; dominance testing; ecological competition; inter-species defense; intra-species defense and aggression; mating; chauvinistic conflict
Work	hunting; gathering; earning; building; making

SOURCE: Spivak (1984), *Archetypal Place*

Although, archetypes may overlap, the total range of all thirteen archetypal places must be available at all times, even if their use is merely periodic. The degree to which each archetype is present may vary, however, as an individual passes through different phases of the life cycle. Each life cycle phase has a central, drive related task (such as child rearing) and a corresponding appropriate physical environment for the support of such tasks. The adequacy of these environments should be evaluated, to ensure proper support for life cycle phases. This evaluation can be done by addressing each archetypal place offered to the individual (Spivak, 1984).

Spivak has used his archetypal place concept only to evaluate the behavioral responses of individuals or groups in certain environments. For example, he conducted

an experiment in which he placed emotionally disturbed children in a variety of archetypal environments to determine which would support the needs of the children. He has not used the archetypal place concept in a research instrument to determine individual needs prior to construction of an environment as it will be used in this study, along with ideas drawn from Barker (Schoggen, 1989) and Lawton and Nahemow's (1973) research.

Summary

Assisted living facilities often reflect the philosophy of promoting independence (Kane & Wilson, 1993). However, this independence cannot be achieved without proper support from the environment. Barker (Schoggen, 1989), Lawton and Nahemow (1973), and Spivak (1984) agree that the environment has an important impact on an individual's competence and ability to prosper. Barker's idea of studying environmental components and individual components together (Schoggen, 1989), supports Lawton and Nahemow's (1973) consideration of the individual being linked to the ecological system. Thus, this idea advocates Lawton and Nahemow's (1973) idea that individuals must *fit* with their environment in order to have a positive affect and allow the individual to adapt. Both, Barker, and Lawton and Nahemow's research supports Spivak's (1984) archetypal place concept. The archetypal place concept does not separate environmental components from individual components, and assists in finding an individual's proper *fit* with an environment. Through the utilization of the research of Barker (Schoggen, 1989), Lawton and Nahemow (1973), and Spivak (1984) information can be attained to design assisted living facilities' private spaces in such a way that independence can be promoted.

CHAPTER THREE

Methodology

The goal of this research was to determine which archetypal settings independent living residents believe they need and expect in the private living spaces of assisted living residences, and compile a list of design guidelines based on the potential residents' perceptions. In order to accomplish this task, existing floor plans of assisted living private spaces were evaluated using Spivak's archetypal place concept, and an archetypal concept for assisted living dwellings was developed. Older adults currently living in independent dwellings of retirement communities with assisted living were interviewed in reference to the archetypal categories. They reported on the components that they considered critical in a private dwelling to optimize the physical and psychological independence of residents in assisted living. Design guidelines were based on that data.

Step One: Development of Archetypal Place Concept

Providing guidelines for design components of assisted living dwellings could not be accomplished without first compiling a list of the components. The list was compiled by following a specific methodology (see Figure 1). A list of archetypal places for assisted living was needed to evaluate the plans designed by research participants during the interview. This list was compiled by altering Mayer Spivak's *Archetypal Place* concept. Spivak (1984) states that any researcher should attempt their own definition of what criteria uniquely constitute an environmental setting, while retaining the basic list of archetypal categories, if the criteria prove adequate.

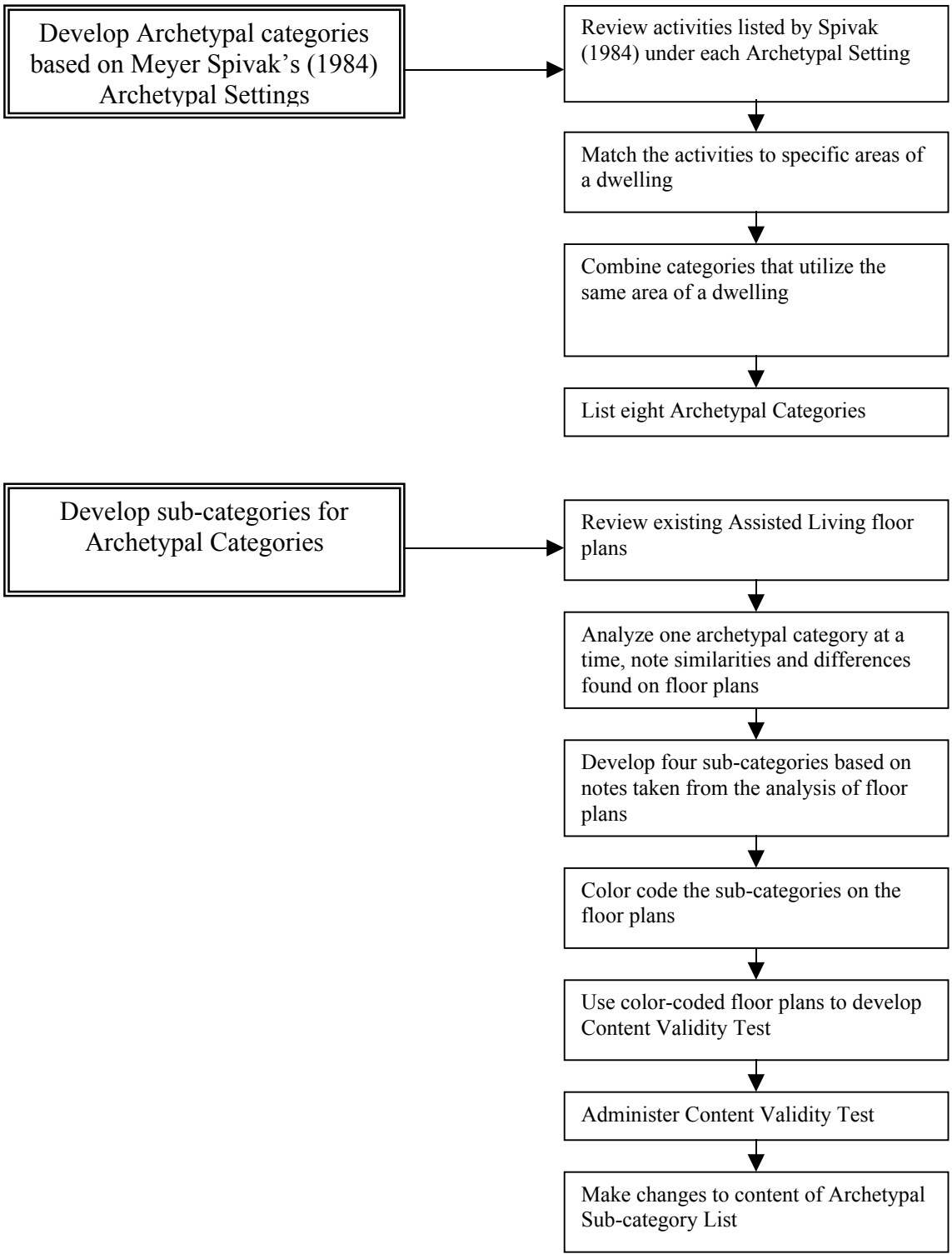


Figure 1. Graphic of methodology for development of Archetypal Place Concept for Assisted Living

Development of Archetypal Categories

The researcher's list of archetypal categories for assisted living was developed by first considering the existing list provided by Spivak, which includes: shelter, sleep, mate, groom, feed, excrete, store, territory, play, route, meet, compete, and work. The activities, which take place under each category heading, were also considered, as well as changes due to aging and maturity (see Table 2). These changes include the possible need for help with grooming, passive observation, new leisure activities to fit abilities, possible withdrawal from competition, and less active work roles (Spivak, 1984).

Understanding the activities allowed the researcher to apply an area of a dwelling to each archetypal category (see Table 3). It was noted that many of the activities took place in overlapping areas of the dwelling. For example, *sleep* and *mate* both utilized the bed room; *play*, *meet*, and *compete* can use the living area; and *groom* and *excrete* are activities done primarily in the bathroom. These categories were therefore combined.

TABLE 2.

Archetypal Places: Aging Maturity

Place	Activity Performed Within *Place*
Shelter	maintain location or adjust to imposed change; adapt surroundings to needs
Sleep	more time in bed, sleep less; possible confinement, compression of world to bedside
Mate	adjust sexuality to changing libido; possible illness or loss of mate (see sleep)
Groom	possible inability to care for self
Feed	arrange special diet; reduction of taste, smell spectra
Excrete	possibly require aid and equipment; lowered mobility may reduce functional dependability
Store	possibly require assistance gathering and preparing food
Territory	passive observation of archetypal activities performed by others
Play	new leisure activities to fit changing capacities
Route	reduction in home range scale; fear of exposure to attack
Meet	need for contact with and support from peers
Compete	probable withdrawal from competition/defeat by young; defensive, evasive postures
Work	less active roles within former context; fend off retirement

SOURCE: Spivak (1984), *Archetypal Place*

TABLE 3.

Areas within Dwelling for Archetypal Place Activities
Developed by Researcher

Place	Area Within Dwelling
Shelter	Entire dwelling
Sleep	Bedroom/ bed area
Mate	Bedroom/ bed area
Groom	Bathroom
Feed	Kitchen/dining area
Excrete	Bathroom
Store	Closet space
Territory	Window space
Play	Living area
Route	Corridors
Meet	Living area
Compete	Living area
Work	Kitchen

The researcher's list entails eight categories: shelter, sleep/mate, groom/ excrete, feed, store, territory, play/meet/compete, and work (see Table 4). The category entitled *route* in Spivak's original list was omitted from the researchers list because it is an activity primarily done outside the private dwelling.

TABLE 4.

Archetypal Places for Assisted Living based on Mayer Spivak (1984)
Developed by Researcher

Place	Activities Performed Within *Place*
Shelter	retreat from stimulation, aggression, threat, social contact; emotional recuperation; elemental protection
Sleep/ Mate	quiet, privacy for rest and recuperation, with ability to compress world to bedside; privacy for affectionate behavior
Groom/ Excrete	excreting, washing and mutual grooming, need room for assistant or assistive devices
Feed	eating; communication; social gathering; feeding others
Store	storage, hoarding, hiding of food and belongings
Territory	passive observation; spying; contemplation; waiting
Play/Meet/ Compete	motor satisfaction; role testing; fantasy; creation; communication; dominance testing; socialization; defense
Work	making; cooking; cleaning; gathering

Development of Archetypal Sub-categories

The eight general archetypal categories were not enough to evaluate the degree to which each category is developed in the existing assisted living floor plans. Sub-categories for each archetypal category needed to be developed to offer some degree of evaluation. The development of these sub-categories was accomplished by comparing fifty-eight assisted living floor plans of private spaces currently available on the market in Virginia. These plans were attained from prior research conducted by Dr. Joan McLain-Kark, Dr. Julia Beamish, and Dr. Lennie Scott-Webber at Virginia Polytechnic Institute and State University in 1995. In order to evaluate the eight archetypal categories, each was considered separately. Each category utilized its own set of the fifty-eight plans.

The development of four archetypal sub-categories for each archetypal category was done one category at a time. First, the area representing the specified category, if it existed, was highlighted on each of the fifty-eight floor plans. Notes were then taken on each plan describing the degree to which the specified category was developed. The researcher compared the notes for that category, and compiled similar groups into four sub-categories based on the differences in development of the archetypal category. A color was assigned to each sub-category, and the fifty-eight plans were color-coded according to the sub-category represented on the plan.

For example, the category *sleep* was considered. Therefore, the sleep areas were highlighted on each of the fifty-eight plans'. The researcher then evaluated these highlighted areas. Notes were taken on each plan as to the type of sleep area offered. These notes were compiled into groups and separated into four sub-categories:

1. Shared sleep areas in living space
2. Private sleep area in living space
3. Private sleep area out of living space, no door
4. Private sleep area out of living space, with door

Each plan was then color coded as to its sub-category (see Appendix A).

This procedure was followed to attain four sub-categories in each of the eight archetypal categories (see Table 5). The color-coded plans were used in the assessment of floor plans for their inclusion in the content validity test, described in the next section.

TABLE 5.

Archetypal Place Sub-categories for Assisted Living

Place	Sub-category
Shelter	one room, shared
	multiple rooms, shared, private sleep area
	one room, not shared
	multiple rooms, not shared, private sleep area
Sleep/ Mate	shared sleep area in living space
	private sleep area in living space
	private sleep area out of living space, no door
	private sleep area out of living space, with door
Groom/Excrete	toilet, sink, no shower
	toilet, sink, shower, no vanity storage
	toilet, sink, shower, vanity storage
	toilet, sink, shower, vanity storage, linen closet
Feed	no food storage
	food storage, no cookware
	kitchenette within living area
	separate kitchen, out of living area
Store	no storage
	one closet
	two closets
	three or more closets
Territory	windows facing one direction
	windows facing more than one direction
	outdoor area
	all of the above
Play/ Meet/ Compete	ability to have unobtrusive guests
	designated seating area within sleep/living area
	seating area separate from sleep area
	separate seating for living and dining
Work	lack kitchen
	kitchenette with refrigerator and/or sink, no cookware
	kitchenette with refrigerator, sink, and cookware
	full kitchen

Content Validity Test

The content of the researcher's Archetypal Place Concept for Assisted Living Dwellings was validated in order to ensure proper interpretation of the floor plans, and correct use of terminology. To acquire this validation, a group of graduate students in the Interior Design Program at Virginia Polytechnic Institute and State University were surveyed. This survey took place during an Advanced Design Research class, and was administered to ten students. The survey asked the graduate students to evaluate seven plans using the researcher's archetypal place concept, and allowed them the opportunity to give feedback on its content.

Survey instrument: The survey instrument was developed by the researcher to conduct this test. The researcher reviewed the color-coded plans that resulted from the development of the archetypal sub-categories. The color-coded plans easily allowed the researcher to choose a small group of plans that jointly included the best representation of all the archetypal place sub-categories. These seven plans were chosen for use in the survey instrument which included the seven plans and seven archetypal sub-category evaluation forms. The archetypal-sub-category evaluation forms were merely lists of the archetypal sub-categories for students to evaluate the floor plans. A booklet was formed containing a description of the research, the archetypal place concept for assisted living dwellings, seven plans, and seven evaluation forms (see Appendix B).

Procedure: The procedure for the content validity test was quite simple. After the researcher described the study and the development of the archetypal place concept for assisted living, the students were asked to use an archetypal sub-category evaluation form to evaluate the design components for each plan. If the content was comprehensive, each student should have evaluated the plans in the same manner as the researcher. The researcher assessed the completed surveys. Changes were made based on any discrepancies in the evaluation, and are listed with the results in Chapter Four.

Step Two: Identification of Important Archetypal Place Categories

The identification of perceived important archetypal place categories for assisted living dwellings was accomplished through interviews and scale model sessions with independent residents of communities with assisted living facilities. After completion of the interviews, the results were analyzed and design guidelines for components of assisted living dwellings were compiled.

Sample

A sample of independent residents living in communities with assisted living facilities was needed in order to conduct the interviews. The sample needed to be drawn from independent living residents in retirement communities, in Southwest Virginia, that offered assisted living, as well. The researcher needed to interview residents from facilities with small assisted living dwellings, and residents from facilities with large assisted living dwellings to make comparisons required by the researcher. Small dwellings were considered to be a dwelling with one room containing a non-private or semi-private sleep area. Large dwellings were considered to be a multiple room dwelling with a private sleep area.

The different sized facilities would enable the researcher to determine whether the independent living residents' familiarity with assisted living effects the choices made for assisted living private dwellings. Therefore, the researcher could include in the results whether the responses from the participants were skewed by impressions they may have about the assisted living facilities they are most familiar with currently.

Six communities were initially invited to participate in the study. Three of the communities chosen offered large assisted living private accommodations, while three offered small assisted living private accommodations. Six communities were chosen to ensure a total of twenty interviews. Based on previous research with older adults living in retirement communities done by Dr. Julia Beamish at Virginia Tech, it was expected that each community would provide the researcher with five to ten interview participants. A total of ten residents would be interviewed from facilities with large assisted living private accommodations. This group would be abbreviated LALF. Ten residents would be interviewed from facilities with small assisted living private accommodations. This group would be abbreviated SALF. However, there was a problem attaining this sample size.

Sample Selection

The sample selection began by screening a list of retirement communities in Southwest Virginia compiled by the researcher from listings in the phonebook, on the internet, and personal contacts. Phonebooks from both Mongomery county and the Roanoke area were used. Also, lists of facilities provided by the Local Agency on Aging, the Virginia Association for Non-profit Homes for the Aged, *The Roanoker* magazine's internet web page, and the Center for Gerontology at Virginia Tech were used to locate appropriate facilities. Twelve retirement communities were located in Southwest Virginia that fit the requirements for the sample selection. The researcher contacted these facilities by phone and requested floor plans of the assisted living residences. The floor plans were used to determine if the facility provided large or small assisted living dwellings.

The researcher narrowed the selection to six facilities that fit the sample requirements. The directors of the six chosen communities were sent a letter requesting their facilities involvement in the research (see Appendix C). Also, included in the letter were a description of the research, a description of the interview and scale model session, and a response card. It was expected that two-thirds would agree to participate in the study, with five to ten residents at each facility. However, the response from the initial request sent to the six facilities was not as expected.

Only half of the facilities agreed to participate in the research: two facilities with large assisted living accommodations and one facility with small assisted living accommodations. After contact with the three facilities that agreed to participate, there were sixteen residents tentatively scheduled for interviews. Therefore, a second mailing of requests was completed to the remaining six facilities. Unfortunately, none of the facilities from the second mailing would agree to participate in the research.

Further searching for retirement communities that fit the requirements of the sample selection was done. Only one other community was located. Due to time constrictions, the researcher visited the facility in person to discuss the research with the director, and ask for their participation in the research. The directors did agree to allow

the researcher to interview at the facility, and provided a phone list of residents who may want to participate. All of the residents on the list were called, and two agreed to be a part of the research. This brought the sample size to seventeen people, because one participant had decided not to be interviewed. Ten of the seventeen residents were from facilities with large assisted living accommodations, and seven were from facilities with small assisted living accommodations.

After exhausting all resources, the researcher decided to use the small sample. Although, some quantifying will be done from the data collection, the majority of the research is qualitative and will not be drastically effected by the small sample size. Due to the voluntary nature of the retirement communities and the independent living residents' participation in the research, this study had a sample of convenience and was not stratified.

Human Subjects Review

A human subjects review was submitted to the Institutional Review Board to insure the ethical conduct of the research and protect the participants from any risk. Precautions were made to ensure the rights of the participants and to secure their privacy. Each member of the sample was given a three-digit code number. The first digit of the code represented the facility in which they live, and the second two digits represented the order in which they were interviewed. For example the first person interviewed at the first facility was coded 101. This number was used to identify participants in the data analysis. Also, all video and audiotapes made during the interviews were destroyed. The Institutional Review Board approved the research.

Scale Model Instrument

The researcher gathered information about the needs and expectations of potential residents of assisted living through the participants' construction of a scale model. The model included pre-constructed parts of an assisted living private dwelling such as walls, windows, doors, bedroom furniture, dining room furniture, living room furniture, kitchen appliances and cabinets, and the pieces to make a full bathroom (see Table 6).

Table 6.

List of Pre-constructed Parts for Scale Model

Object	Number Provided
Side chair (dining chair)	8
Sofa	1
Loveseat	1
Arm Chair	2
Full bed	1
Twin bed	2
Tall bookcase	2
Single drawer end table	1
No drawer end table	1
Three drawer night stand	1
18”x 42” coffee table	1
Small chest of drawers	1
Credenza	1
Standing armoire	1
30”x 48” table or desk	2
24” closet	2
48” closet	1
72” closet	1
90” closet	1
Bathtub	1
Bath sink	1
Toilet	1
Kitchen sink	1
Refrigerator	1
Range	1
Pre-constructed 6ft. kitchenette with cabinets and sink	1
Pre-constructed 10 ft. kitchenette with cabinets, sink, range, and refrigerator	1
Pre-constructed 11 ft. by 7 ft. kitchen with cabinets, pantry, sink, range. and refrigerator	1
Pre-constructed 5 ft. by 8 ft. bathroom with toilet, sink, and shower/tub	1
Pre-constructed 6 ft. by 8 ft. bathroom with toilet, sink and vanity, and shower/tub	1
Pre-constructed 7.5 ft. by 8 ft. bathroom with toilet, sink and vanity, and shower/tub, and linen closet	1
24” interior wall section	14
36” door	2
30” window	5
48” window	3
Representational blocks	38

A 36”x 24” sheet with a title block to record the participant code number, and the time and place of the interview was attached to an equal size, one-inch thick piece of Styrofoam. The sheet also had printed on it the outer shell of a floor plan. This plan was a medium sized assisted living private dwelling. The size of the scale model dwelling was determined by the assessment of the fifty-eight existing assisted living floor plans used previously in the study. The researcher discovered the plans ranged in size from approximately 200 square feet to 900 square feet. Therefore, the medium sized plan, which was chosen for the scale model session, was approximately 550 square feet.

The base plan used for the scale model was able to accommodate all eight of the archetypal places in one plan. However, the square footage of the base plan only accommodated all eight archetypal places in the form of the smaller, less developed sub-categories listed by the researcher. This limited square footage forced some of the participants to make trade-offs to allow for a more developed form of one or more archetypal places.

The interior walls and furniture were left out of the floor plan, leaving a void in which the participant could build. The exterior walls, which were made of one-half inch foam core board, were placed on the 36”x 24” sheet and foam core prior to the beginning of an interview. Furniture could be placed in the scale model and easily arranged. Each *interior wall* piece, made of one-quarter inch foam core board, was furnished with pins at the base to enable them to be attached to the Styrofoam board, or *floor*. Two of the exterior walls were designed to allow the attachment of doors and windows. Doors and windows were made attachable by lining the exterior walls with the hook side of self adhesive Velcro strips. The doors and windows were lined with the loop side of self-adhesive Velcro. The Velcro allowed for easy placement and removal of the doors and windows.

Procedure for Interview and Scale Model Sessions

The researcher contacted the retirement communities that agreed to participate in the study to arrange a meeting time for the residents and the researcher. At the pre-arranged time, the researcher traveled to the retirement community to conduct the interview and scale model sessions. Each resident was scheduled for a sixty-minute session with the interviewer. The sessions were video and audio taped for transcribing purposes. Each participant read and signed an informed consent form to ensure their understanding of the interview process and the purpose of the research. The participant signed the form before the researcher started the interview.

The seventeen interview sessions followed the same format (Appendix D) approved by the Human Subjects Committee. The interview consisted of five steps:

1. A short description of assisted living
2. A brief description of what was being researched
3. An explanation of the scale model process
4. Building of the scale model
5. Follow up questions

Steps one and two of the scale model procedure

First, the researcher gave a description of assisted living to the resident participating in the interview. The description was brief, and used simple words. This helped ensure each participant understood the description. The research was explained to the resident. Explaining the research provided the participant with a better understanding of why they were being interviewed. Instructions, for the scale model construction, were the next step of the procedure.

Step three and four of the scale model procedure

Each participant was told to design a dwelling suitable for an assisted living resident. The participants were told to use the parts and pieces provided by the researcher. The parts and pieces were displayed on a large table to allow for participants to easily access them (see Figures 2, 3,and 4). Instructions were given on how to provide interior walls. Also, a demonstration of how to install the windows and doors into the models was given. The researcher answered questions before the participant began to build their scale model.

The only rule in building the scale model was that the participant must keep within the square footage of the given floor plan. The researcher did not lead the participants. The researcher told each participant that there were no right or wrong answers, and what was needed was their opinion about assisted living. After the model process was explained to the participant, they were given time to build a residence from the parts supplied to them by the researcher.

Figure 2. Scale model session set-up.

Figure 3. Scale model session set-up, second angle.

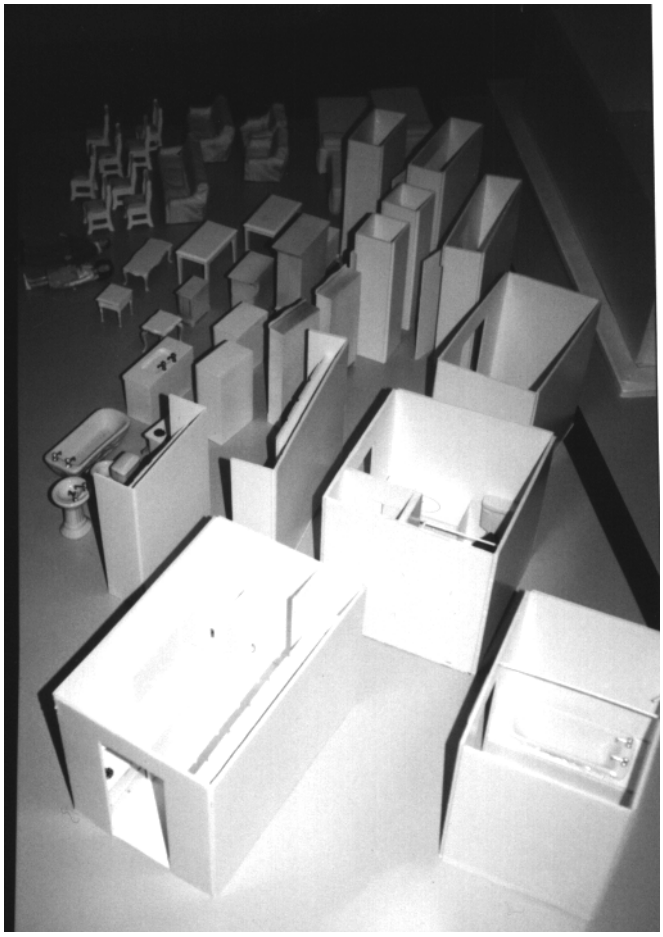


Figure 4. Scale model session set-up, model pieces.

Step five of the scale model procedure

When the resident appeared to have completed their model, the researcher asked if they were finished. If the model was complete, the researcher asked the participant to walk through the residence using a scale figure. During this "walk through", the researcher asked the residents to explain their choices. After the "walk through" the researcher asked the following five questions, and recorded the responses in a notebook on a page with the resident's code number:

1. What is the most important area of your scale model?
2. If an area had to be omitted from the plan, why was it chosen?
3. Why was the omitted area chosen over other areas included in the plan?
4. How important was the design of the assisted living private dwellings in your decision to move to the community?
5. Why was the design of the assisted living private dwellings important or not important in the participant's decision to move to the community?

The responses to the first three questions helped the researcher understand the participants' choices. Responses from the last two questions help determine the participants' understanding of assisted living and therefore increase or decrease the reliability of their decisions.

After the sample members left the room, the researcher photographed the model, and traced the scale model onto the 36"x 24" sheet containing the participant's code number. The floor plan tracings were used for further data analysis.

Data Analysis of Interview and Scale Model Session

The data from the scale model-sessions was analyzed to determine responses to the four research questions stated in Chapter One. The data analysis consisted of coding responses to the scale model sessions and using frequencies and percentages to determine patterns among the responses. This coding allowed the researcher to systematically illustrate qualitative data in a manner that could be more easily analyzed (Drew, Hardman, and Hart, 1996). The patterns were determined through the use of frequencies and percentages. However, different coding analysis was required for each of the four research questions. Therefore, each question will be discussed separately.

Analysis of research question one

Which archetypal categories do independent living residents perceive to be important for the private dwellings of assisted living facilities?

The response to this question relied on the analysis for research question two to be done first. The analysis of research question one is a summation of the responses for question two. Once the summation was finished, this question could be responded to in descriptive terms alone.

Analysis of research question two

How developed are the archetypal categories that independent living residents perceive to be important for the private dwellings of assisted living facilities?

This question required the floor plan tracings from the scale model sessions to be coded and analyzed. The researcher coded floor plan tracings using the coding system described thoroughly in Chapter Four. The coded plans were then evaluated by 33 reviewing each plan and counting the archetypal sub-categories represented on the plans. Each time an archetypal place sub-category code appeared on the floor plans the researcher placed a "tick mark" next to that code on an Archetypal Place Sub-categories for Assisted Living Data Summary Sheet (see Appendix E). Totals were entered into a database and analyzed.

Analysis of research question three

Are independent living residents' perceptions about wants and needs of the private dwellings of assisted living the same regardless of their familiarity with assisted living?

This question was answered by using the same coding system for responding to question two. However, the researcher separated the coded floor plan tracings into two groups. The first consisted of the floor plans from those members of the sample who lived in a facility with small assisted living accommodations (SALF). The second group consisted of the floor plans from those members of the sample who lived in a facility with large assisted living accommodations (LALF). The researcher reviewed the floor plan tracings one group at a time, and recorded the number of times each archetypal place sub-category code appeared in the floor plans. Each time a specific code appeared on a floor plan tracing, the researcher placed a "tick mark" next to that code on an Archetypal Place Sub-categories for Assisted Living Data Summary Sheet for LALF an SALF (see Appendix F). The researcher then entered the numbers into a database for analysis.

Analysis of question four

Are trade-offs being made in the decision making of important archetypal categories for private dwellings of assisted living?

The researcher had planned to use a coding method based on codes for archetypal sub-categories developed by the researcher. However, the coding process was not used due to the manner in which the trade-offs were made. The researcher had expected one Archetypal Sub-category to be given up for another. However, this was not the case.

The researcher, therefore, recorded all trade-offs in a logbook. The trade-offs were then placed in the form of a table. The researcher analyzed the trade-offs, using a method described in Chapter Four, for patterns among them. Descriptions of any patterns are in the body of the text.

Internal Validity

The researcher conducted interviews at four different retirement communities. Each of the four communities offered independent living and assisted living. The researcher interviewed people from different environments to ensure a variety of viewpoints. Yet, each community offered assisted living to provide participants who were familiar with the type of housing in question.

The interview not only included the scale model session, but follow-up questions. These questions served four purposes:

1. They allowed the participant to rethink their model.
2. They allowed the participant to make certain their model was designed correctly (according to them).
3. They allowed the researcher to understand the importance of assisted living to the participant.
4. They allowed the researcher to gain better knowledge of how familiar the participant was with assisted living.

The researcher used a rehearsed script while explaining the scale model session to the members of the sample. This script ensured each participant in the scale model session had the same information about the research and assisted living. Characteristics of assisted living and people in assisted living were explained at the same time. If participants were biased in any way, it was because they were unable to put themselves fully into the position of designing for a person needing assisted living. This could have been due to the denial of ever needing assisted living, or simply not understanding the explanation of the study.

External Validity

This study is unique in its method to use Meyer Spivak's (1984) Archetypal Places to categorize and code settings in an Assisted Living Facility. The Archetypal Place Concept for Assisted Living Categories and Sub-categories, developed by the researcher, seemed to allow the researcher to attain the information being studied. Although it is new, it appears as though the coding and categorizing method designed by the researcher is valid.

CHAPTER FOUR

Findings

This chapter reviews the findings from step one of the research, the development of the Archetypal Place Concept, and step two of the research, the identification of important archetypal place categories. The chapter includes the results of the content validity test for the development of the Archetypal Place Sub-categories List, and the results of the scale model session and interview.

Results of Step One: The Content Validity Test

The researcher found that a number of problems with the original archetypal sub-category form were evident based on the content validity survey. Students who completed the content validity test noted that the wording in some of the sub-categories was misleading, and difficult to understand. Appropriate changes were made to correct these problems (Table 7). For instance, the sub-categories under the heading *shelter* were not specific enough. Many students felt that if there was a double bed represented on the given floor plan, the dwelling unit could be shared. This was corrected by adding the phrase *shared by unrelated adults* to the sub-categories. Another problem was found with the descriptions of the sub-categories for the headings *feed* and *work*, which were worded similarly to one other. The students were misled by the word *cookware*, and had problems determining the difference between *kitchen* and *kitchenette*. Suitable changes were made to describe these terms more appropriately.

TABLE 7.

Archetypal Place Sub-categories for Assisted Living

Place	Sub-category
Shelter	___ one room, shared by unrelated adults
	___ multiple rooms, shared by unrelated adults, each has private sleep area
	___ one room, not shared
	___ multiple rooms, not shared by unrelated adults, separate sleep and living areas
Sleep/ Mate	___ sleep area shared by unrelated adults, no separate living room
	___ sleep area not shared, no separate living room
	___ sleep area separate from living room but with no door
	___ separate sleep area out of living room, with door
Groom/ Excrete	___ toilet, sink, no shower
	___ toilet, sink, shower, no vanity storage
	___ toilet, sink, shower, vanity storage
	___ toilet, sink, shower, vanity storage, linen closet
Feed	___ no food storage
	___ food storage with no cooking appliances
	___ food storage with cooking appliances
	___ full kitchen, separate from the living room
Store	___ no built-in storage
	___ one built-in closet
	___ two built-in closets
	___ three or more built-in closets
Territory	___ windows facing one direction
	___ windows facing more than one direction
	___ windows facing one direction with an outdoor area
	___ windows facing more than one direction with an outdoor area
Play/ Meet/ Compete	___ small seating arrangement among sleep area
	___ designated living area within sleep area
	___ living room separate from sleep area
	___ separate seating for living and dining out of sleep area
Work	___ no kitchen, possible food storage
	___ kitchenette with refrigerator and sink, no cooking appliances
	___ kitchenette with refrigerator, sink, and cooking appliances
	___ separate full kitchen out of living room

Results of Step Two: Identification of Important Archetypal Place Categories

This section describes the data attained through the scale model sessions and follow-up questions. The results were separated by research question. Tables and graphs were used to help visually support the text.

Research Question One

Which archetypal categories do independent living residents perceive to be important for the private dwellings of assisted living facilities? The result of this question was determined by recording the total number of responses in each archetypal place category. The total number of responses in each archetypal category was attained through summing the archetypal sub-categories, counted for research question two. The sums of the sub-categories for each archetypal category provided the researcher with the archetypal settings independent living resident perceive to be important for private dwellings of assisted living facilities.

Meyer Spivak (1984) stated that any human being needs each archetypal place setting for the support of a healthy life. The sample in this study demonstrates Spivak's statement through their choices of archetypal place settings in their scale models. All the participants in the sample, except one, included each archetypal place category in their scale models. One sample member did not include the archetypal category *Territory*. This participant, who did not state that he did not wish to have windows, also did not include an entrance door. It is therefore possible that this person merely forgot to include doors and windows in their plan. Considering that all but one member of the sample included each archetypal category in their scale models leads the researcher to conclude that all eight archetypal categories are perceived as important to the sample.

Research Question Two

How developed are the archetypal categories that independent living residents perceive to be important for the private dwellings of assisted living facilities? This question required a system to code the responses to the scale model sessions. This coding system allowed the researcher to look for patterns among the responses.

Coding: The coding system established by the researcher to analyze the plans of the scale models was developed by simply giving each archetypal category a number, and each of its sub-categories a letter: A, B, C, or D. For example (see Table 8), *Shelter* is first on the list of archetypal categories. Therefore, *Shelter* was given the number *1*. *Shelter*, as in all eight categories, has four sub-categories. Each sub-category was given either the letter A, B, C, or D. This letter, along with the number representing the archetypal category became the code to identify the thirty-two different archetypal sub-categories (see Appendix G).

The Archetypal Place Sub-categories list was developed to include nearly any scenario designed by the resident participating in the research. However, any setting presented in a resident's scale model, not on the researcher's original list of Archetypal Places for Private Spaces of Assisted Living, was noted and coded with an X followed by a number.

Table 8.

Example of Archetypal Sub-category Coding System

Archetypal category and category number	Archetypal sub-category letter	Archetypal sub-category	Archetypal sub-code
1) Shelter	A	one room, shared by unrelated adults	1A
	B	multiple rooms, shared by unrelated adults, each has private sleep area	1B
	C	one room, not shared	1C
	D	multiple rooms, not shared by unrelated adults, separate sleep and living areas	1D

The researcher reviewed each of the sample member's floor plan tracings and coded the archetypal sub-categories found. The researcher marked the number-letter codes directly on the floor plan tracing. Photographs of the scale models helped verify any discrepancies on the floor plan tracings. Each archetypal sub-category was counted on the floor plan tracings and recorded on an Archetypal Place Sub-categories for Assisted Living Data Summary Sheet (see Appendix F). The total number for each category was entered into a database for analysis.

Results: Percentages for each sub-category's response were converted from totals entered into the database. The percentages are presented in the form of a table to numerically show the responses of the sample (see Table 9). The sub-categories chosen most often by the sample were:

- *Shelter*: Multiple rooms, not shared by unrelated adults, separate sleep and living area
- *Sleep/Mate*: Separate sleep area out of living room, with door
- *Groom/Excrete*: Toilet, sink, shower, vanity storage, linen closet
- *Feed*: Food storage with cooking appliances
- *Store*: Two built-in closets
- *Territory*: Windows facing one direction
- *Play/Meet/Compete*: Separate seating for living and dining out of sleep area
- *Work*: Kitchenette with refrigerator and sink, and cooking appliances

These sub-categories are italicized in Table 9.

The percentages of response show that in most cases one sub-category was clearly chosen more often by the sample. The category Territory, for instance, had 64% (n=11) of the sample choosing windows facing one direction. The remainder of the sample was divided between the other sub-categories.

Characteristics of the wants and needs of the sample are evident through the archetypal sub-categories chosen most often for the scale models of assisted living dwellings. However, there are clearly sub-categories that were not chosen for inclusion in the scale models, proving that the sample expects the archetypal

categories to be developed beyond the basic provision of space. For example, the results show that 47% (*n*=8) of the sample chose to have a toilet, sink, shower, vanity storage, and a linen closet in the category Groom/Excrete. However, the other 53% (*n*=9) of the sample chose either to have a toilet, sink, and shower, or a toilet, sink, shower, and vanity storage. It is clear that although a larger percentage of the sample chose to have a bathroom with a toilet, sink, shower, vanity storage, and a linen closet, this archetypal category needs to include at least a toilet, sink, and shower. Obviously, the inclusion of a private shower was very important to the sample.

The Sleep/ Mate category showed that no one in the sample wanted a sleep area shared by unrelated adults. The majority of the sample, 53% (*n*=9), chose to have a separate sleep area out of the living room, with a door. The other 47% (*n*=8) of the sample chose to have either a sleep area separate from the living room, with no door, or a sleep area with no separate living room that is not shared. It is clear the sample finds privacy for sleeping to be important.

The Feed category shows that 52% (*n*=9) of the sample selected to have food storage with cooking appliances, and 18% (*n*=3) selected to have a full kitchen, separate from the living room. Although a small percentage chose to have a full kitchen, a full kitchen does have food storage and cooking appliances. Therefore, it can be concluded that 70% (*n*=12) of the sample find food storage and cooking appliances to be an appropriate level of the archetypal category Feed. Only 12% (*n*=2) of the sample chose not to have any food storage at all.

Only one category had similar percentages of responses in two very different sub-categories. The Shelter category divided the sample into two different groups. Fifty-three percent, 53% (*n*=9), of the sample wanted multiple rooms, not shared by unrelated adults, with separate sleep and living areas. Forty-one percent, 41% (*n*=7), of the sample chose one-room dwellings, not shared by unrelated adults. Although, 94% (*n*=16) of the sample wanted dwellings not shared by unrelated adults, the sample is divided on whether the dwellings should have multiple rooms or only one.

Table 9.

Percentages of Archetypal Sub-category Responses (*N*=17)

Category	Sub-category	Response	
		f	%
Shelter	One room, shared by unrelated adults	0	0
	Multiple rooms, shared by unrelated adults, each has private sleep area	1	6
	One room, not shared	7	41
	Multiple rooms, not shared by unrelated adults, separate sleep and living area	***9***	***53***
Sleep/Mate	Sleep area shared by unrelated adults, no separate living room	0	0
	Sleep area not shared, no separate living room	5	29
	Sleep area separate from living room but with no door	3	18
	Separate sleep area out of living room, with door	***9***	***53***
Groom/ Excrete	Toilet, sink, no shower	0	0
	Toilet, sink, shower, no vanity	5	29
	Toilet, sink, shower, vanity storage	3	18
	Toilet, sink, shower, vanity storage, linen closet	***8***	***47***
	*Two separate bathrooms in one apartment	1	6
Feed	No food storage	2	12
	Food storage with no cooking appliances	3	18
	Food storage with cooking appliances	***9***	***52***
	Full kitchen, separate from the living room	3	18
Store	No built in storage	3	18
	One built-in closet	2	12
	Two built-in closet	***10***	***58***
	Three or more built-in closets	2	12
Territory	***Windows facing one direction***	***11***	***64***
	Windows facing more than one direction	1	12
	Windows facing one direction with an outdoor area	3	18
	Windows facing more than one direction with an outdoor area	0	0
	*No windows	1	6
Play/Meet/ Compete	Small seating arrangement among sleep area	2	12
	Designated living area within sleep area	5	29
	Living room separate from sleep area	2	12
	Separate seating for living and dining out of sleep area	***8***	***47***
Work	No kitchen, possible food storage	5	29
	Kitchenette with refrigerator and sink, no cooking appliances	0	0
	Kitchenette with refrigerator and sink, and cooking appliances	***9***	***53***
	Separate full kitchen, out of living room	3	18

*Not on the archetypal sub-category list developed by the researcher

Research Question Three

Are independent living residents' perceptions about wants and needs of the private dwellings of assisted living the same regardless of their familiarity with assisted living? This question required the sample to be separated into two groups. The first group consisted of those participants who lived in communities with large assisted living facilities, the LALF group (*N*=10). The second group consisted of those participants who lived in communities with small assisted living facilities, the SALF group (*N*=7). The coding system used for research question two was also used for question three. Totals recorded on the Archetypal Place Sub-categories for Assisted Living Data Summary Sheet for LALF and SALF (see Appendix G) were entered into a database. The results are shown numerically in Table 10.

Comparison of sub-categories by individual archetypal category: The researcher compared the percentages of the choices made by the members of the LALF and SALF groups. There were differences between the two groups that reflect the sample members' familiarity with their current community. Perhaps the most recognizable difference between the two groups is in the category Shelter. The majority of the LALF group, 60% (*n*=6), chose to design their scale models with multiple rooms, not shared by unrelated adults, with separate sleep and living areas. The majority of the SALF group, 57% (*n*=4), designed models that have one-room dwellings that are not shared (see Figure 5). It was stated earlier by the researcher that members from the LALF group currently lived in communities where the assisted living dwellings had multiple rooms and a private sleep area. Members from SALF group currently lived in communities where the assisted living dwellings had one room containing a non-private or semi-private sleep area. This clearly shows that the sample members' familiarity with assisted living influenced their choice for Shelter. The influence is more apparent in the LALF group where only 30% (*n*=3) of the group chose to design one room dwellings that were not shared. The remaining 10% (*n*=1) designed multiple room dwellings, shared by unrelated adults, where each has a private sleep area. Many members of the LALF group stated that there "just wasn't enough room for everything they want to put in the space". Perhaps this was often stated because the LALF group's familiarity with larger assisted living dwellings.

The Sleep category, which is closely related to the Shelter category, also had differences between the two sample groups. Seventy percent, 70% (*n*=7), of the LALF group designed dwellings with separate sleep areas out of the living room, with a door, while only 29% (*n*=2) of the SALF group chose to include the same category in their designs. The sub-category chosen most often by the SALF group, 57% (*n*=4), was a sleep area not shared, without a separate living room (see Figure 6). Again, the choices reflect the group members' current communities.

Table 10.

Percentages of Archetypal Sub-categories for LALF and SALF

Category	Sub-category	Percent LALF (N =10)	Percent SALF (N =7)
Shelter	One room, shared by unrelated adults	0	0
	Multiple rooms, shared by unrelated adults, each has private sleep area	10	0
	One room, not shared	30	57
	Multiple rooms, not shared by unrelated adults, separate sleep and living area	60	43
Sleep/Mate	Sleep area shared by unrelated adults, no separate living room	0	0
	Sleep area not shared, no separate living room	10	57
	Sleep area separate from living room but with no door	20	14
	Separate sleep area out of living room, with door	70	29
Groom/Excrete	Toilet, sink, no shower	0	0
	Toilet, sink, shower, no vanity	30	29
	Toilet, sink, shower, vanity storage	20	14
	Toilet, sink, shower, vanity storage, linen closet	40	57
	*Two separate bathrooms in one apartment	10	0
Feed	No food storage	10	14
	Food storage with no cooking appliances	10	29
	Food storage with cooking appliances	60	43
	Full kitchen, separate from the living room	20	14
Store	No built in storage	20	14
	One built-in closet	20	0
	Two built-in closet	40	86
	Three or more built-in closets	20	0
Territory	Windows facing one direction	60	72
	Windows facing more than one direction	10	14
	Windows facing one direction with an outdoor area	20	14
	Windows facing more than one direction with an outdoor area	0	0
	*No windows	10	0
Play/Meet/ Compete	Small seating arrangement among sleep area	10	14
	Designated living area within sleep area	20	43
	Living room separate from sleep area	20	0
	Separate seating for living and dining out of sleep area	50	43
Work	No kitchen, possible food storage	20	43
	Kitchenette with refrigerator and sink, no cooking appliances	0	0
	Kitchenette with refrigerator and sink, and cooking appliances	60	43
	Separate full kitchen, out of living room	20	14

* Not on the archetypal sub-category list developed by the researcher

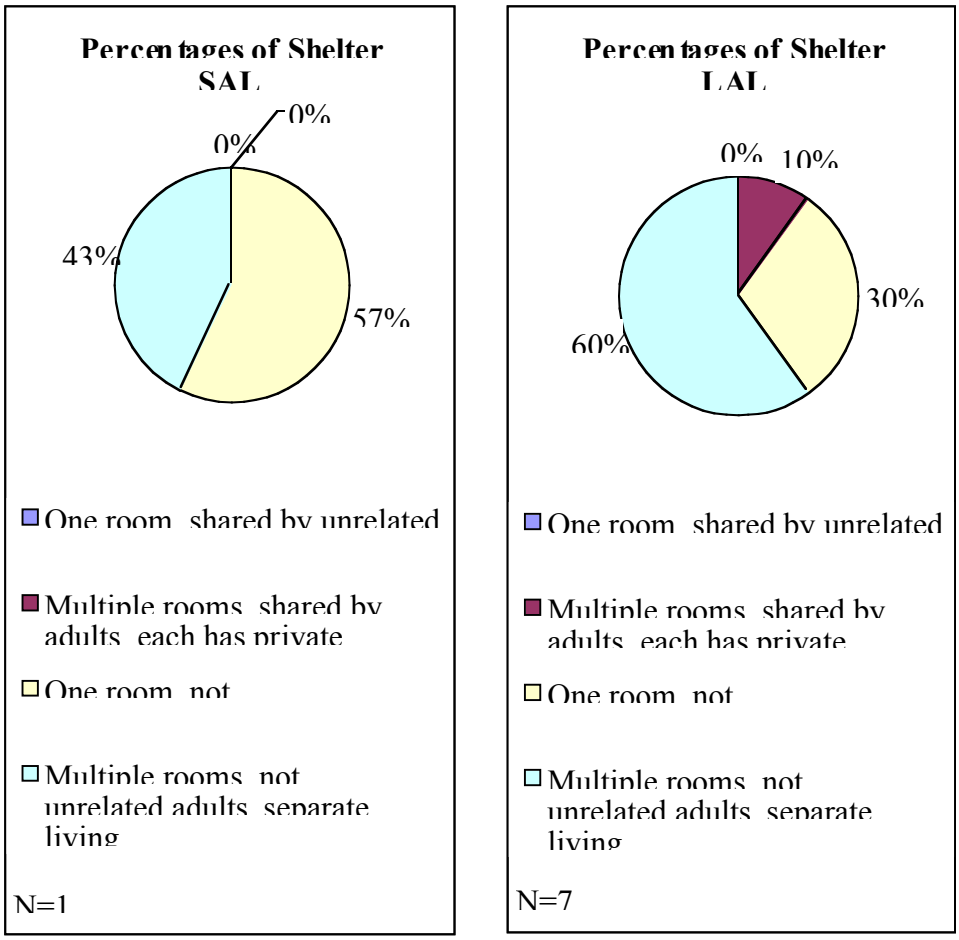


Figure 5. Chart comparing sub-categories of Shelter for LALF and SALF

Another area of the dwelling that was designed differently by the two groups was the kitchen. The categories Feed and Work were both impacted by choices made for the kitchen. The Feed category showed that 60% (*n*=6) of the LALF group designed scale models with food storage and cooking appliances, while another 20% (*n*=2) included full kitchens, separate from the living area. These numbers added together show that 80% (*n*=8) wish to have the ability to cook in their own dwellings. However, only 57% (*n*=4) of the SALF group wish to cook in their dwellings. Forty-three percent, 43% (*n*=3), desired food storage with cooking appliances in their dwellings, while 14% (*n*=1) selected full kitchens, separate from the living area. The other 43% (*n*=3) chose either no food storage at all, or food storage with no cooking appliances (see Figure 7). Although a larger percentage of the LALF group wants the ability to cook in their dwellings, the desire to cook is seen in both groups. However, many members from both groups stated that even if they did not cook much, "the convenience of being able to make coffee, tea, or a snack at any time is important".

The category Work had similar responses to those of Feed. The most interesting comparison, between the LALF group and the SALF group in the Work category, is in the first sub-category. Forty-three percent, 43% (*n*=3), of the SALF group designed scale models with no kitchens, only possible food storage. Only 20% (*n*=2) of the LALF group designed apartments without kitchens. The remaining percent in both categories designed their dwellings with either a kitchenette including a refrigerator, sink, and cooking appliances, or full kitchens out of the living area (see Figure 8). Therefore, the members of the SALF group, who are familiar with assisted living dwellings without cooking appliances, designed more dwellings without kitchens.

One other category offered comparisons between the SALF group and the LALF group, the Store category. Members of the SALF group who were more familiar with small assisted living dwellings, often designed their scale models with two built-in closets, 86% (*n*=6). Forty percent, 40% (*n*=4), of the LALF group designed their scale models with two built-in closets, while 20% (*n*=2) each designed models with the three other sub-categories: no built-in storage, one built-in closet, and three or more built-in closets (see Figure 9). In this case, the researcher concludes that the members of the SALF group realized what was missing from the small facilities, and included it in their scale models.

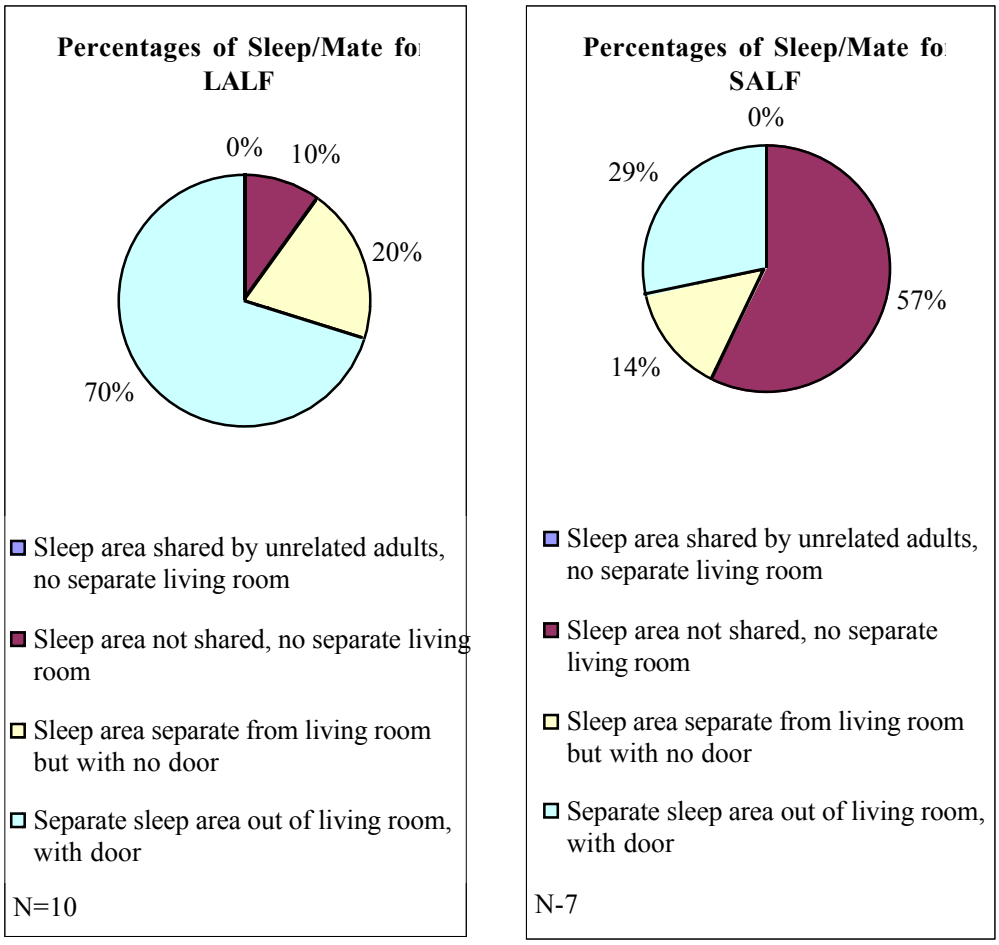


Figure 6. Charts comparing sub-categories of Sleep/Mate for LALF and SALF

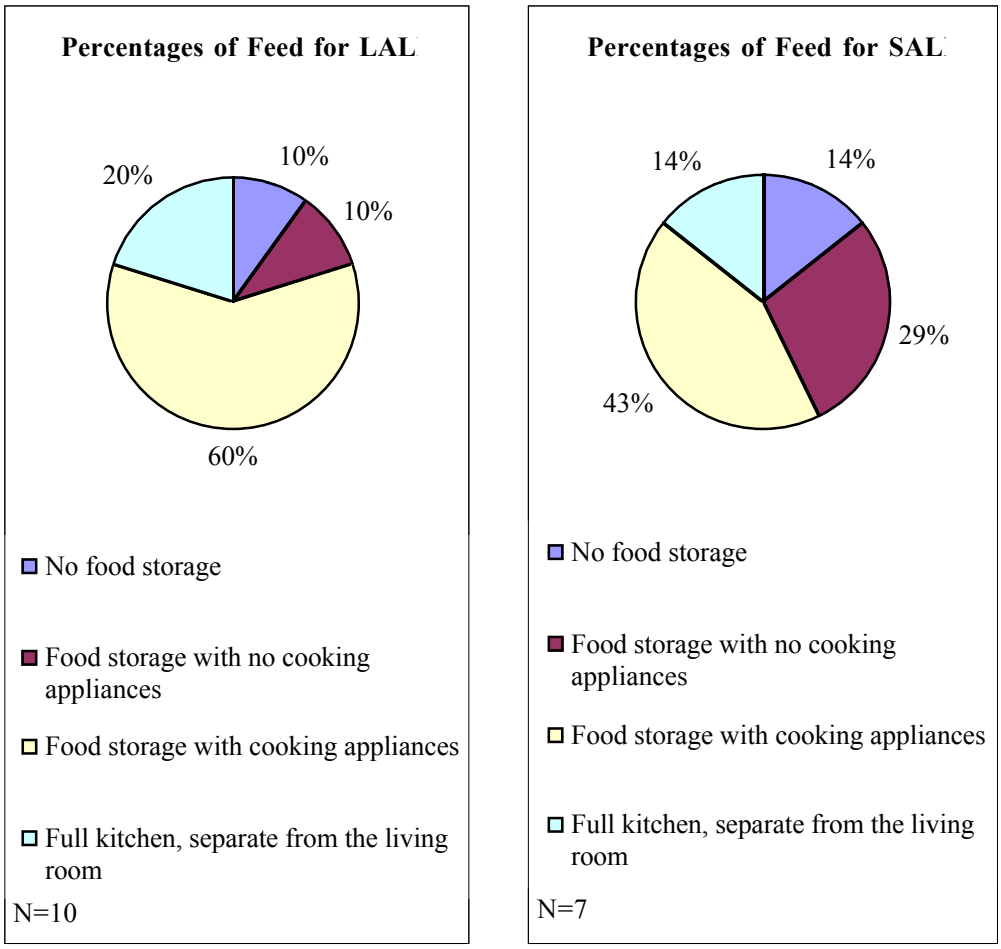


Figure 7. Charts comparing sub-categories of Feed for LALF and SALF

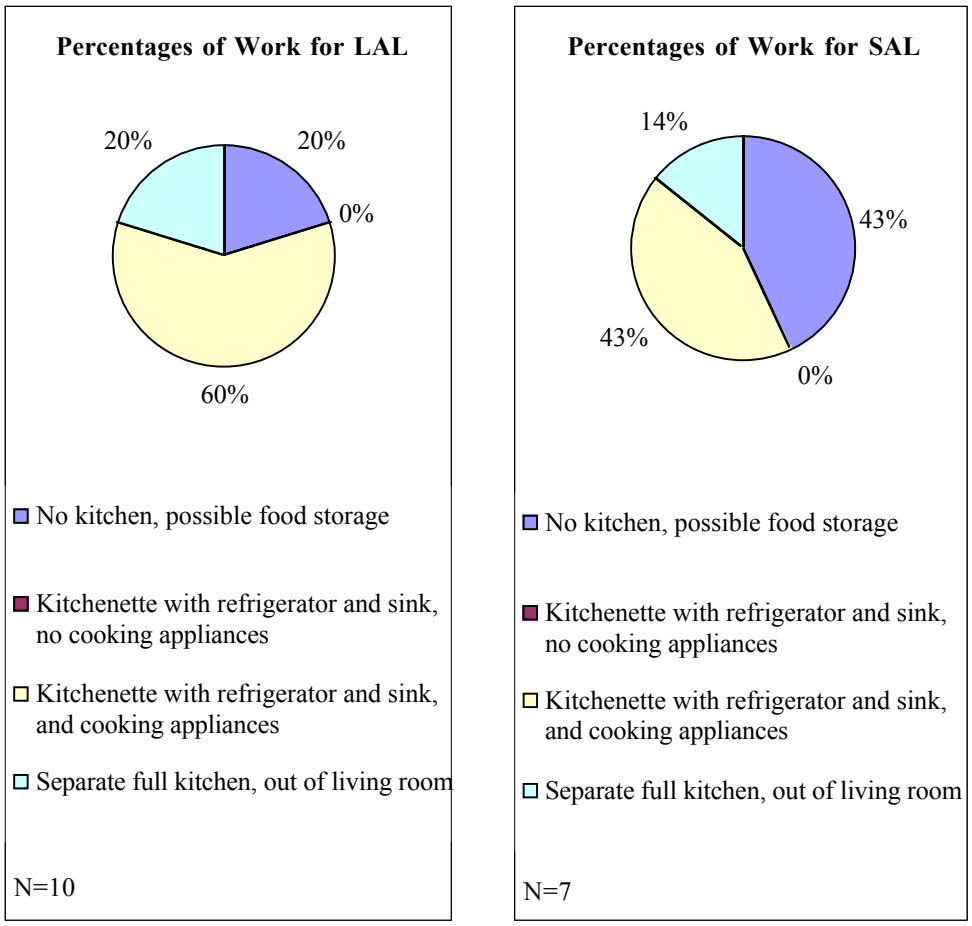


Figure 9. Charts comparing sub-categories of Work for LALF and SALF

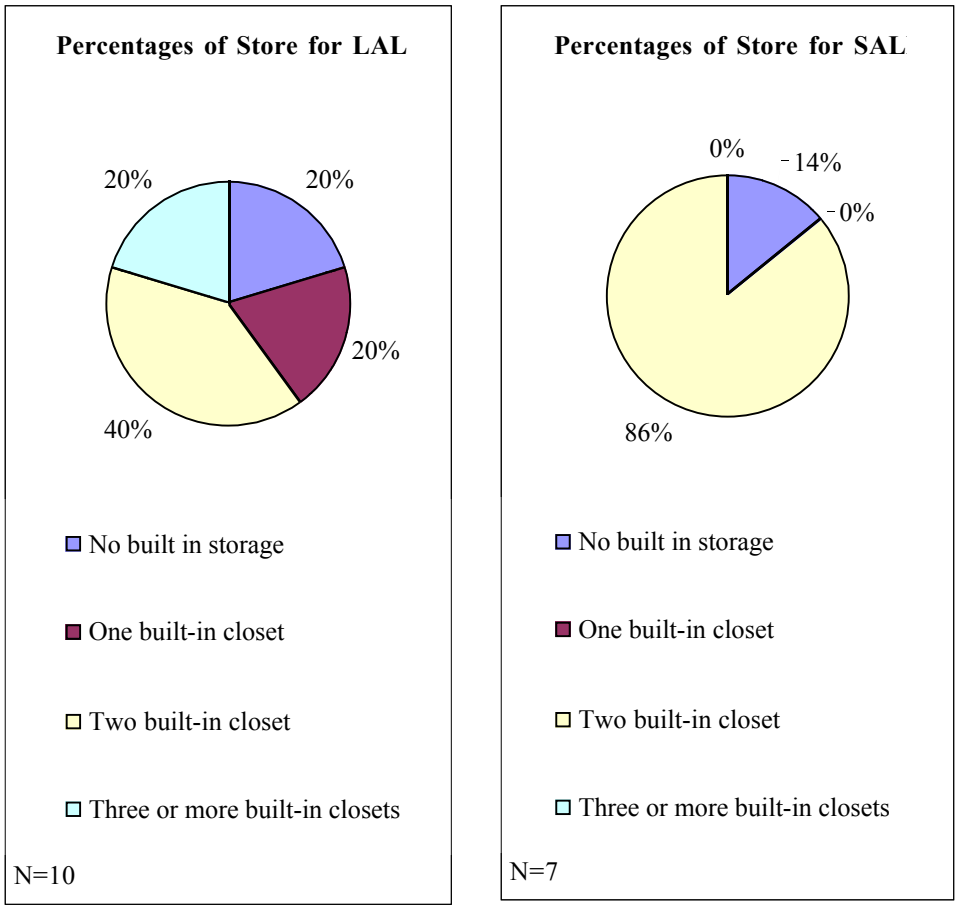


Figure 9. Charts comparing sub-categories of Store for LALF and SLAF

Comparison of sub-category groupings: Although comparisons of sub-categories have been made between the LALF group and SALF group for individual categories, the archetypal categories have not been compared in entirety. The previous section compared the sub-categories chosen most often by both sample groups, under each archetypal category. However, each sample member chose sub-categories from eight archetypal categories for their scale model design. The combinations of the sub-categories in each plan help determine what type of dwelling the sample members portrayed in their scale models, and the difference between the two sample groups.

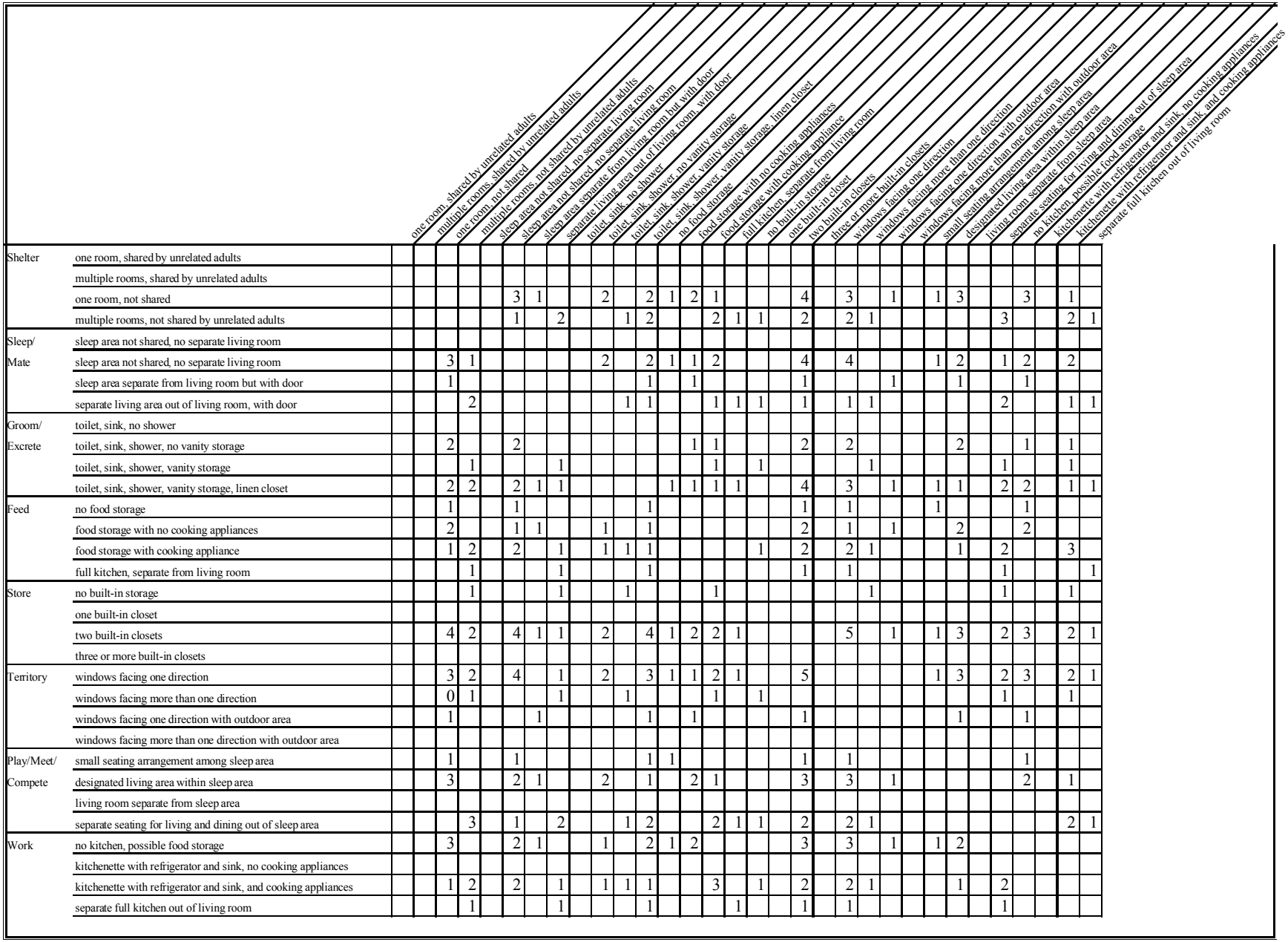
The relationships between the sub-categories chosen by each of the two sample groups can be seen best as a matrix. One matrix shows the relationships of the sub-categories chosen by the LALF group (Figure 10), and one matrix shows the relationships of the sub-categories chosen by the SALF group (Figure 11). Each matrix lists the archetypal categories and their sub-categories vertically in a column and horizontally in a row. Each number in a cell represents the number of scale models a sub-category in a column was included with the corresponding row sub-category.

For example, on the LALF matrix, the Territory sub-category, *windows facing one direction* was included in three scale models with the Shelter sub-category *one room, not shared*. This is determined by looking at the *windows facing one direction* row in the column of sub-categories. This row is followed across until it meets the *one room, not shared* column of the row of sub-categories. The number found in that cell is three.

The two matrixes helped determine the most commonly found combination of sub-categories in the design of the scale models. The combinations were based on the relationships seen in the scale models built by the members of the LALF group and the SALF group. It was determined through analysis of the archetypal category Shelter that the two types of dwellings chosen most often were: 1) *one room, not shared*, and 2) *multiple rooms, not shared by unrelated adults, separate sleep and living areas.* Therefore, the combination of sub-categories will be based on these two types of dwellings.

		one room, shared by unrelated adults	multiple rooms, shared by unrelated adults	one room, not shared	multiple rooms, not shared by unrelated adults	sleep area not shared, no separate living room	sleep area not shared, no separate living room	sleep area separate from living room but with door	separate living area out of living room, with door	toilet, sink, no shower	toilet, sink, shower, no vanity storage	toilet, sink, shower, vanity storage	toilet, sink, shower, vanity storage, linen closet	no food storage	food storage with no cooking appliances	food storage with cooking appliance	full kitchen, separate from living room	no built-in storage	one built-in closet	two built-in closets	three or more built-in closets	windows facing one direction	windows facing more than one direction	windows facing one direction with outdoor area	windows facing more than one direction with outdoor area	small seating arrangement among sleep area	designated living area within sleep area	living room separate from sleep area	separate seating for living and dining out of sleep area	no kitchen, possible food storage	kitchenette with refrigerator and sink, no cooking appliances	kitchenette with refrigerator and sink, and cooking appliances	separate full kitchen out of living room
Shelter	one room, shared by unrelated adults																																
	multiple rooms, shared by unrelated adults								1							1		1				1							1			1	
	one room, not shared						1	2			2		1	1	1	1		1	1		1	3				1	2			2		1	
	multiple rooms, not shared by unrelated adults								6		1	2	3			4	2		1	4	1	2	1	2				2	4			4	2
Sleep/ Mate	sleep area not shared, no separate living room																																
	sleep area not shared, no separate living room			1							1				1			1				1				1				1			
	sleep area separate from living room but with door			2							1		1	1		1			1		1	2					2			1		1	
	separate living area out of living room, with door		1		6						1	2	3			4	2		1	4	1	2	1	2				2	4			4	2
Groom/ Excrete	toilet, sink, no shower																																
	toilet, sink, shower, no vanity storage			2	1		1	1	1					1	1	1		1	1	1		2				1	1	1		2		1	
	toilet, sink, shower, vanity storage				2				2							1	1			2		1		1					2			1	1
	toilet, sink, shower, vanity storage, linen closet			1	3			1	3							3	1		1	1	2	2	1	1			1	1	2			3	1
Feed	no food storage			1				1			1								1			1					1			1			
	food storage with no cooking appliances			1			1				1							1				1				1				1			
	food storage with cooking appliance		1	1	4			1	4		1	1	3						1	3	1	3	1				1	2	2			5	
	full kitchen, separate from living room				2				2			1	1							1	1	1		2					2				2
Store	no built-in storage		1	1			1				1				1							1				1				1			
	one built-in closet			1	1			1	1		1		1	1		1						1	1				1		1	1		1	
	two built-in closets				4				4		1	2	1			3	1					2		1				2	2			3	1
	three or more built-in closets			1	1			1	1				2			1	1					1		1			1		1			1	1
Territory	windows facing one direction		1	3	2		1	2	2		2	1	2	1	1	3	1	1	1	2	1					1	2	1	1	2		3	
	windows facing more than one direction				1				1				1			1			1										1	1		1	
	windows facing one direction with outdoor area				2				2			1	1				2			1	1								2				2
	windows facing more than one direction with outdoor area																																
Play/Meet/ Compete	small seating arrangement among sleep area			1			1				1				1			1				1								1			
	designated living area within sleep area			2				2			1		1	1		1			1		1	2								1		1	
	living room separate from sleep area				2				2		1		1			2				2		1										2	
	separate seating for living and dining out of sleep area		1		4				4			2	2			2	2		1	2	1	1	1	2								2	2
Work	no kitchen, possible food storage			2			1	1			2			1	1			1	1			2	1			1	1						
	kitchenette with refrigerator and sink, no cooking appliances																																
	kitchenette with refrigerator and sink, and cooking appliances		1	1	4			1	4		1	1	3			5			1	3	1	3	1				1	2	2				
	separate full kitchen out of living room				2				2			1	1				2			1	1			2					2				

Figure 10. Matrix showing relationships of sub-categories for the LALF group



		one room, shared by unrelated adults	multiple rooms, shared by unrelated adults	one room, not shared	multiple rooms, not shared by unrelated adults	sleep area not shared, no separate living room	sleep area not shared, no separate living room but with door	sleep area separate from living room	separate living area out of living room, with door	toilet, sink, no shower	toilet, sink, shower, no vanity storage	toilet, sink, shower, vanity storage	toilet, sink, shower, vanity storage, linen closet	no food storage	food storage with no cooking appliance	food storage with cooking appliance	full kitchen, separate from living room	no built-in storage	one built-in closet	two built-in closets	three or more built-in closets	windows facing one direction	windows facing more than one direction	windows facing one direction with outdoor area	windows facing more than one direction with outdoor area	small seating arrangement among sleep area	designated living area within sleep area	living room separate from sleep area	separate seating for living and dining out of sleep area	no kitchen, possible food storage	kitchenette with refrigerator and sink, no cooking appliances	kitchenette with refrigerator and sink, and cooking appliances	separate full kitchen out of living room
Shelter	one room, shared by unrelated adults																															
	multiple rooms, shared by unrelated adults																															
	one room, not shared					3	1		2		2	1	2	1				4		3		1		1	3			3		1		
	multiple rooms, not shared by unrelated adults					1		2			1	2			2	1	1		2		2	1					3			2	1
Sleep/	sleep area not shared, no separate living room																															
Mate	sleep area not shared, no separate living room			3	1					2		2	1	1	2			4		4			1	2			1	2		2		
	sleep area separate from living room but with door			1								1		1				1				1		1				1				
	separate living area out of living room, with door				2						1	1			1	1	1	1		1	1						2			1	1	
Groom/	toilet, sink, no shower																															
Excrete	toilet, sink, shower, no vanity storage			2			2							1	1			2		2				2				1		1		
	toilet, sink, shower, vanity storage				1			1							1		1				1						1			1		
	toilet, sink, shower, vanity storage, linen closet			2	2		2	1	1				1	1	1	1		4		3		1		1	1		2	2		1	1	
Feed	no food storage			1			1					1						1		1				1				1				
	food storage with no cooking appliances			2			1	1		1		1						2		1		1			2			2				
	food storage with cooking appliance			1	2		2		1		1	1					1	2		2	1				1		2			3		
	full kitchen, separate from living room				1				1			1						1		1							1					1
Store	no built-in storage				1				1			1				1					1						1			1		
	one built-in closet																															
	two built-in closets			4	2		4	1	1		2		4	1	2	2	1			5		1		1	3		2	3		2	1	
	three or more built-in closets																															
Territory	windows facing one direction			3	2		4		1		2		3	1	1	2	1			5				1	3		2	3		2	1	
	windows facing more than one direction			0	1				1			1				1		1									1			1		
	windows facing one direction with outdoor area			1				1					1		1				1						1			1				
	windows facing more than one direction with outdoor area																															
Play/Meet/	small seating arrangement among sleep area			1			1						1	1				1		1								1				
Compete	designated living area within sleep area			3			2	1			2		1		2	1			3		3		1					2		1		
	living room separate from sleep area																															
	separate seating for living and dining out of sleep area				3		1		2			1	2			2	1	1		2		2	1								2	1
Work	no kitchen, possible food storage			3			2	1			1		2	1	2					3		3		1		1	2					
	kitchenette with refrigerator and sink, no cooking appliances																															
	kitchenette with refrigerator and sink, and cooking appliances			1	2		2		1		1	1	1			3		1		2		2	1				1			2		
	separate full kitchen out of living room				1				1				1				1			1		1								1		

Figure 11. Matrix showing relationships of sub-categories for SALF group

Most commonly selected combination of sub-categories for the LALF group: The most common form of shelter for the LALF group was *multiple rooms not shared by unrelated adults, separate sleep and living areas*. The LALF matrix helped determine the most commonly selected sub-categories included in the scale models representing this type of dwelling. They are:

- *Sleep/Mate*: separate sleep area out of living room, with door
- *Groom/Excrete*: toilet, sink, shower, vanity storage, and linen closet
- *Feed*: food storage with cooking appliances
- *Store*: two built-in closets
- *Territory*: windows facing one direction *tied with* windows facing one direction with an outdoor area
- *Play/Meet/Compete*: separate seating for living and dining out of sleep area
- *Work*: kitchenette with refrigerator, sink, and cooking appliances

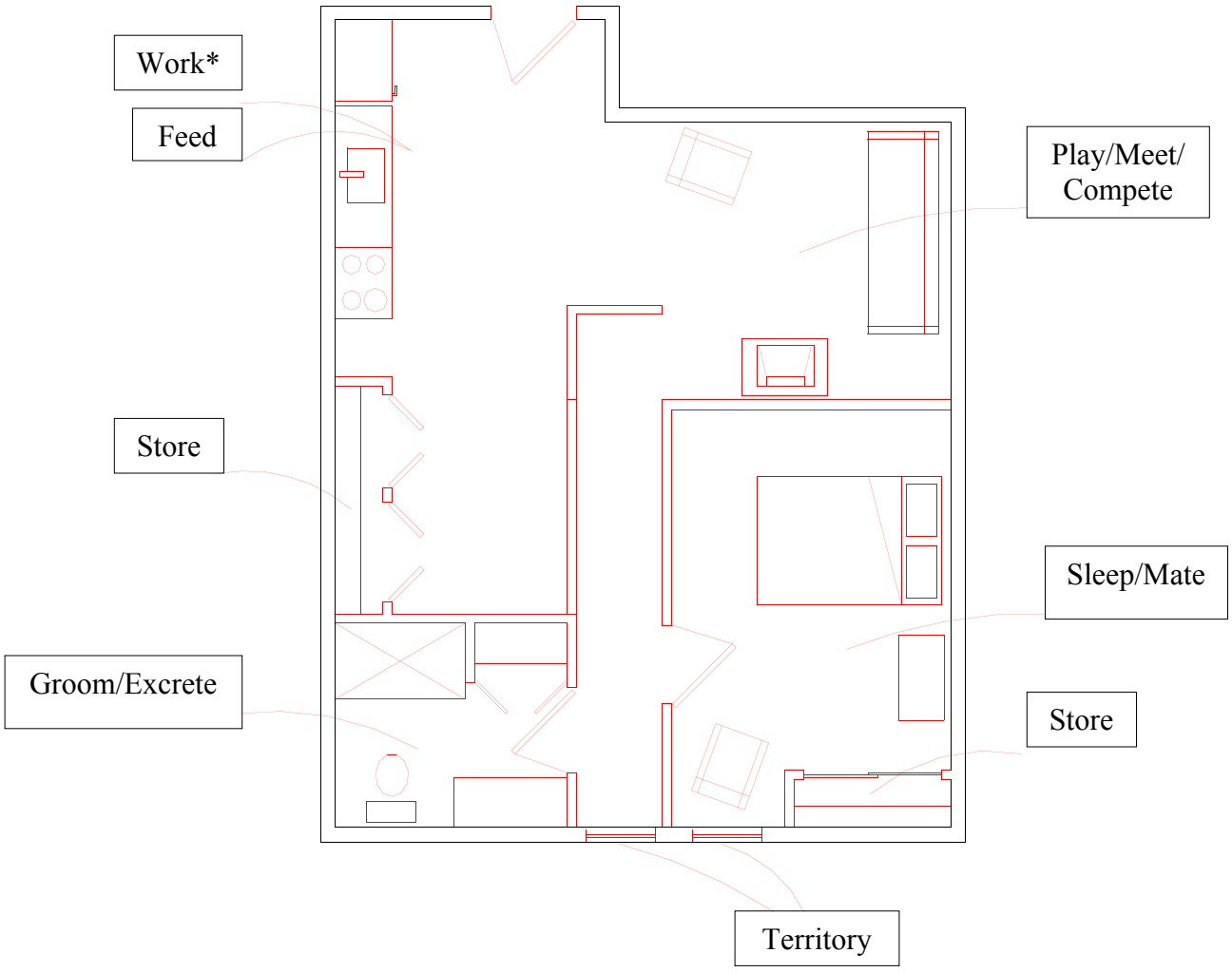
No member of the LALF sample group designed their scale models to include all seven of the most commonly selected sub-categories. However, two sample members' actual floor plan tracings illustrate designs with sub-categories similar to those in the list above (see Figure 12 and Figure 13).

Most commonly selected combination of sub-categories for the SALF group: The most commonly selected form of Shelter for the SALF group was *one room, not shared*. The SALF matrix helped determine the most commonly selected sub-categories included in the scale models representing this type of dwelling. They are:

- *Sleep/Mate*: sleep area not shared, no separate living room
- *Groom/Excrete*: toilet, sink, shower, no vanity storage *tied with* toilet, sink, shower, vanity storage, and linen closet
- *Feed*: food storage with no cooking appliances
- *Store*: two built-in closets
- *Territory*: windows facing one direction
- *Play/Meet/Compete*: designated living area within sleep area
- *Work*: no kitchen, possible food storage

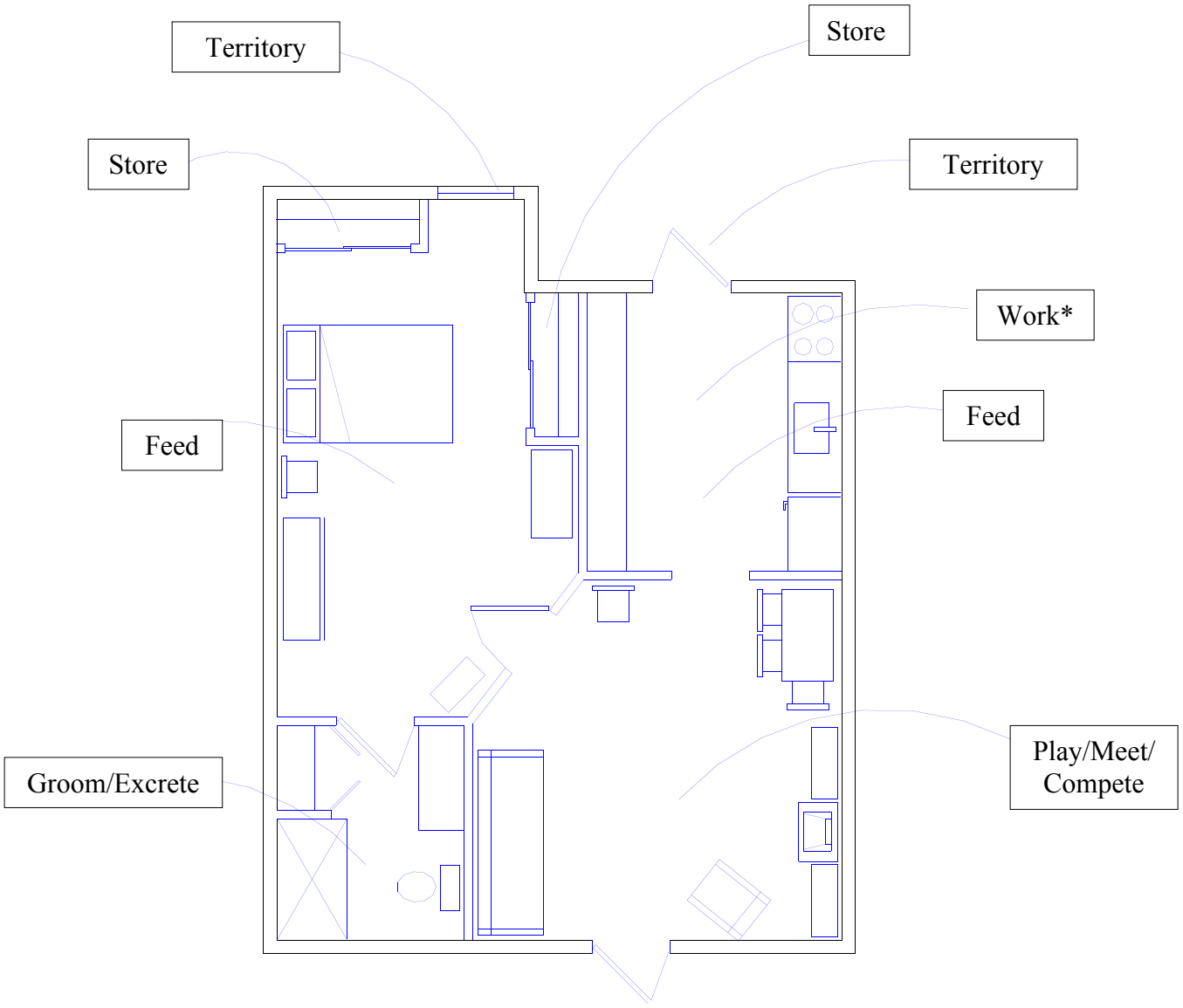
One member of the SALF sample group designed their scale models to include all seven of the most popular sub-categories. This sample members' actual floor plan tracing illustrates a design with sub-categories matching those in the list above (see Figure 14).

The scale model designs used to illustrate the most commonly selected sub-categories for both the LALF group and the SALF group were designed by sample members and are not the best designs. However, they represent the combination of the most commonly selected sub-categories as designed by members of the sample.



* Not on the list of most common sub-categories

Figure 12. Example of a sample member's scale model, designed with the most commonly selected sub-categories in the LALF group



* Not on the list of most common sub-categories

Figure 13. Example of a sample member's scale model, designed with the most commonly selected sub-categories in the LALF group

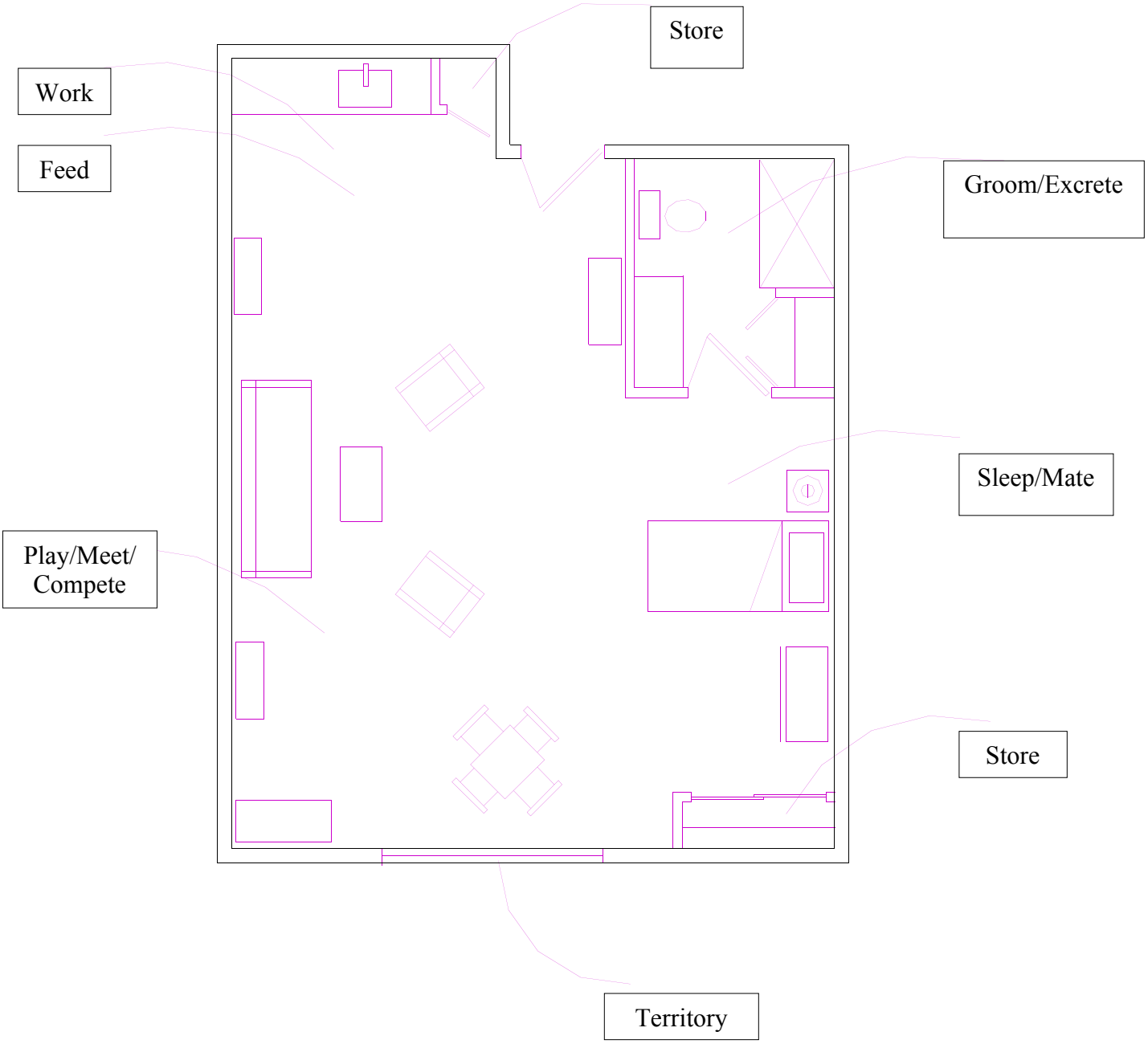


Figure 14. Example of a sample member's scale model, designed with the most commonly selected sub-categories in an SALF group

Research Question Four

Are trade-offs being made in the decision making of important archetypal categories for private dwellings of assisted living? Trade-offs are defined in this research as giving up some part of the scale model to add something, of seemingly greater importance to the participant. Initially the researcher thought that specific archetypal sub-categories would be traded for other sub-categories. A participant may have, for example, replaced a *separate full kitchen, out of the living room* with *a kitchenette with a refrigerator and sink, and no cooking appliances* to allow space for a bathroom with a *toilet, sink, shower, and vanity storage*. The participant trades one large archetypal sub-category for two smaller sub-categories. However, many of the trade-offs were implied items. For example, a participant might realize that a large *separate sleep area out of the living room, with a door* would force the participant to have a small living area. This living area still fit into the category of *living room separate from sleep area,* yet it was a trade-off. The participant traded a large living area for a large sleep area.

The researcher had planned to code the trade-offs using a method similar to the coding of the archetypal sub-categories. However, due to the implied trade-offs, a different method for evaluation needed to be devised.

The evaluation of the video recordings from the interview sessions determined the trade-offs made by the sample. To identify these trade-offs, the researcher watched the videos (audio-tapes were used if video sound was obstructed) and transcribed what each participant said while a trade-off was made. Since participants did not always verbalize the trade-off, the researcher watched carefully for the participant removing parts of the model, to allow for another item. The researcher described these trade-offs. The trade-offs made by participants were listed in a logbook, and similar trade-offs were grouped.

The researcher expected more trade-offs than were made by participants. Perhaps this was due to sample members settling for the first layout of their scale model. Nevertheless, trade-offs were made by many of the sample members (see Table 11).

Table 11.

Trade-offs Made During Scale Model Sessions

Trade-off	Times made
Removed internal walls to provide room for more furniture	1
Decreased the size of the dwelling to allow for convenience of items to bed	2
Traded separate sleep area out of the living room with no door for a sleep area not shared with no separate living room	2
Reduced the amount of storage to include other areas	3
Removed furniture items to provide safer traffic patterns	1
Reduced the size of living room to allow space for other areas	2
Traded separate seating for living and dining for a separate full kitchen	1

Some of the trade-offs made by the sample members traded one archetypal sub-category for the inclusion of another. However, many of the trade-offs made by participants merely reduced the area of one room to allow for another. The members still made trade-offs, but generally they traded space in one room for more space in another room or area.

Additional Findings

The five follow-up questions asked by the researcher, after each sample member had completed their scale model provided additional important information. The responses to the questions were recorded on Data Summary Sheets for Open Ended Interview Questions (Appendix H). The members of the sample had different ideas about the most important area included in their scale models (see Table 12). The majority of the participants, 53% (*n*=8), stated that the most important part about their scale models was the relationship between the bed and the bathroom. However, there were other responses including the kitchenette, the den, the traffic areas, conversation (living) area, and the non-shared sleep area.

Table 12.

Most Important Area for the Scale Model of Assisted Living Dwelling

Area	%	*f*
Bed / bath relationship	53	8
Conversation (living) area	13	2
Non-shared sleep area	13	2
Kitchenette	7	1
Den	7	1
Traffic area	7	1

Note: two sample members stated that all the areas were important

The members of the sample were also divided on which area of the scale model was the least important, or which area could be omitted (see Table 13). Thirty-three percent, 33% (*n*=5), stated that the least important part about their plan was having a living room separate from the sleep area. They would design the dwelling as an efficiency apartment if they had to omit an area. Twenty-seven percent, 27% (*n*=4), stated that the least important area was the kitchenette. Twenty percent, 20% (*n*=3), would omit some storage, and the other 20% (*n*=3) would omit the separate dining area. When the researcher asked sample members why they would omit the chosen item the most popular response was similar to, “Well, I wouldn’t want to, but you said I had to pick something. This is what I would need the least.”

Table 13.

Least Important Area for the Scale Model of Assisted Living Dwelling

Area	%	*f*
Separate living and bedrooms	33	5
Kitchenette	27	4
Dining		20
3		
Storage	20	3

Note: two sample members stated that all the areas were important

Interestingly, the two most commonly selected areas omitted from completed scale models were two of the sub-categories included most often in sample members' original designs. Sample members may have utilized more developed sub-categories in their models even if they may never be used. For example, although having a *separate sleep area, out of the living room* was the Sleep category included in scale models most often by the sample, it was also the thing the majority of the sample would omit from their models. Also, the sub-category chosen most often by the sample in the Work category was a *kitchenette with a refrigerator, sink, and cooking appliances.* However, it was often selected to omit from the models, too.

The researcher asked the members of the sample if the Assisted Living Facility at their current community had any impact on their choice to live there. Sixty-five percent, 65% (*n*=11), stated that the Assisted Living facility did influence their decision to move to the community. These members of the sample wanted a community that offered assisted living due to loved ones with current medical problems, or due to the possibility of future medical problems.

Summary

The data collected through the scale model sessions with the sample members provided sufficient information to answer the four research questions. It was determined that all eight archetypal categories are perceived to be important in an assisted living private dwelling. However, the development of each archetypal category varied depending on the samples' familiarity with small or large assisted living dwellings. Also, it was determined that trade-offs were an important part of the decision making process for which archetypal sub-categories to include in scale models.

CHAPTER FIVE

Summary, Conclusions, and Implications

This chapter begins with a summary of the research and findings. Then, conclusions from the findings are presented. Design recommendations and implications are provided. Finally, recommendations for further research are given.

Summary

The purpose of this study was to determine which archetypal settings independent living residents of facilities that provide assisted living need and expect in the private living spaces of assisted living residences. The objectives of the research were: (1) to analyze existing floor plans of assisted living private spaces using Spivak's Archetypal Place Concept, (2) to develop an archetypal place concept for private dwellings in assisted living facilities, and test it, (3) to identify the perceived level of importance of each archetypal category for private dwellings of assisted living, according to independent residents living in communities with assisted living facilities, (4) to identify the level of development for each perceived important archetypal category independent residents desire for private dwellings of assisted living, (5) to determine whether the independent living residents' familiarity with assisted living affects the needs and expectations of spaces they believe to be important for the private dwellings of assisted living, and (6) to determine whether the inclusion of perceived important archetypal categories for private dwellings of assisted living requires the independent residents to make trade-offs.

There were two major steps for this research. The first step was the development of an Archetypal Place Concept for Assisted Living based on Meyer Spivak's (1984) Archetypal Settings. The researcher modified Spivak's list of Archetypal Settings to eight archetypal categories. Four sub-categories were developed for each archetypal category. This list of categories and sub-categories was named The Archetypal Place Concept for Assisted Living. The second step was the identification of important archetypal place categories. The Archetypal Place Concept for Assisted Living was used as the bases for an interview and scale model session administered to a convenience sample. This interview and scale model session provided the data to answer the four research questions.

The sample for the interviews was drawn from independent living residents in retirement communities, in Southwest Virginia, that offered assisted living. The researcher interviewed seven residents from facilities with small assisted living dwellings, and ten residents from facilities with large assisted living dwellings in order to make comparisons required by the research. The interviews took place at the communities in which the sample members lived.

Research question one asked: Which archetypal categories do independent living residents perceive to be important for the private dwellings of assisted living facilities? It was determined that the entire sample group found it important to include all eight archetypal categories in an assisted living dwelling.

Research question two asked: How developed are the archetypal categories that independent living residents perceive to be important for the private dwellings of assisted

living facilities? The sample members each developed the categories differently in their scale model designs. The sub-categories found most often in the scale models were:

- *Shelter*: Multiple rooms, not shared by unrelated adults, separate sleep and living area
- *Sleep/Mate*: Separate sleep area out of living room, with door
- *Groom/Excrete*: Toilet, sink, shower, vanity storage, linen closet
- *Feed*: Food storage with cooking appliances
- *Store*: Two built-in closets
- *Territory*: Windows facing one direction
- *Play/Meet/Compete*: Separate seating for living and dining out of sleep area
- *Work*: Kitchenette with refrigerator and sink, and cooking appliances

Research question three asked: Are independent living residents' perceptions about wants and needs of the private dwellings of assisted living the same regardless of their familiarity with assisted living? The sample was split into two groups, the LALF group and the SALF group, to determine whether each groups familiarity with a certain sized assisted living dwelling affected the choices in their own designs. There were differences found between the two groups. These differences were seen mostly in the archetypal categories Shelter, Sleep/Mate, Feed, Work, and Store. However, the best comparisons were seen through looking at the most commonly selected combination of sub-categories chosen by each group. The most commonly selected combination of sub-categories chosen by the LALF group consisted of:

- *Shelter*: multiple rooms, not shared by unrelated adults, separate sleep and living areas
- *Sleep/Mate*: separate sleep area out of living room, with door
- *Groom/Excrete*: toilet, sink, shower, vanity storage, and linen closet
- *Feed*: food storage with cooking appliances
- *Store*: two built-in closets
- *Territory*: windows facing one direction *tied with* windows facing one direction with an outdoor area
- *Play/Meet/Compete*: separate seating for living and dining out of sleep area
- *Work*: kitchenette with refrigerator, sink, and cooking appliances

The most commonly selected combination of sub-categories chosen by the SALF group was:

- *Shelter*: one room, not shared
- *Sleep/Mate*: sleep area not shared, no separate living room
- *Groom/Excrete*: toilet, sink, shower, no vanity storage *tied with* toilet, sink, shower, vanity storage, and linen closet
- *Feed*: food storage with no cooking appliances
- *Store*: two built-in closets
- *Territory*: windows facing one direction
- *Play/Meet/Compete*: designated living area within sleep area
- *Work*: no kitchen, possible food storage

Research question four asked: Are trade-offs being made in the decision making of important archetypal categories for private dwellings of assisted living? Sample members made trade-offs during the building of their scale models. These trade-offs allowed for the inclusion of specific archetypal sub-categories that members of the sample felt were needed in their designs. Many of the trade-offs made by the sample

included a reduction of the size of one archetypal sub-category to add or increase the size of another.

In addition to the results of the four research questions, the research also determined that according to the sample, the most important aspect of the scale models of assisted living dwellings was the relationship of the bed to the bathroom. The area most likely to be omitted from a completed scale model was the separation between the living and bedrooms. The majority of the sample was familiar with Assisted Living. They chose their current residence due to the fact that the community offered assisted living.

Conclusions and Design Recommendations

Based on the finding of the study, all eight archetypal categories should be included in assisted living private dwellings. However, there is some controversy as to exactly how developed each archetypal category should be. The data provided information implying that the development of the archetypal places in scale models built by the sample often reflected the sample members' familiarity with the assisted living facility in their own retirement community. Therefore, it is possible that the choices made about archetypal places were based on what each sample member has grown accustomed to, rather than actual wants and needs.

However, similarities about wants and needs, in general, can be made. Privacy proved to be an important factor in the designs of sample members' scale model designs. This can be seen through choices made in the archetypal categories Shelter, Sleep, and Groom/Excrete. Only one sample member designed a dwelling to be shared by two unrelated adults. However, the design for the two person dwelling had two private sleep areas, and two full bathrooms. The other sample members designed assisted living dwellings for one person. Some of the sample members provided separate sleep areas, while others included the sleep area within the living area. Nevertheless, the dwellings were not shared. Also, each sample member included bathrooms with at least a toilet, sink, and shower. Again, providing support to the fact that privacy is important.

Also, privacy was something sample members were unwilling to give up. The inclusion of space for a roommate was only mentioned by two sample members, and only if they did not have the resources to pay for a private dwelling. It can be concluded that privacy is important to older adults, perhaps due to the fact that many of them have lived in private dwellings for most of their lives. Privacy is a factor that, if resources allow, people do not want to give up simply because they live in a congregate living community.

Another important characteristic needed in the design of assisted living dwellings, determined through this research, is design flexibility. This entails the use of multi-functional areas within a dwelling. The need for design flexibility can be seen through the data attained through the scale model designs, as well as information from the follow-up questions. When sample members were asked to omit something from their scale model, many people chose to omit the wall between the living area and sleep area. Hence, giving up the sense of privacy gained through having that wall. Although privacy seemed to be the most important factor that sample members based their scale model designs on, many sample members were willing to give up this in-unit privacy to keep the other archetypal places included in their scale models. This privacy could be attained through having a retractable wall between the sleep and living areas, or using an alcove to provide a sense of privacy when a separate room cannot be provided.

Although, the decision to omit an archetypal category included in a scale model seemed difficult for some sample members, many of the areas included in sample members' scale model were based on the possible need for the archetype. Therefore, when archetypal places were omitted from the plan, many sample members suggested reducing the size of the chosen item, rather than completely removing it. A sincere attempt to keep all eight archetypal categories in a scale model was made. For example, one sample member included a full kitchen in his plan although he stated, "I will probably never cook, seeing how I'll get three meals a day. But it will be nice to have some type of cooking ability if I want a snack in the middle of the night." The idea of having a kitchen seemed more important to many sample members than the fact that it would actually be used. Therefore, through the use of a multi-functional area, perhaps a small refrigerator and range top could be provided. This would take up minimal space, and could be located near a bathroom for the convenience of a sink. Also, providing a range top that is electric and has an automatic shut-off, would reduce accidents caused by forgetfulness and problems with smell.

An archetypal category that also seemed of great importance to sample members was Store. Many scale models included at least two built-in closets. Although many sample members stated that much storage was desirable, what they wanted to store is still in question. Storage for clothing is obvious. However, it is possible that other storage could be for memorabilia, boxes, food, and any number of other items. A small cabinet for food storage could be provided near a small kitchenette. Storage for boxes and large unused items does not need to be in the private dwelling. As for other storage, it could be provided as part of a built-in entertainment center, under window seats, or even in soffits to not take away floor space. Through the use of multi-functional places, design flexibility in an assisted living private dwelling would help reduce the size of a dwelling without depriving residents of any archetypal place.

One final important aspect of the design assisted living private dwellings is the relationship between the bed and the bathroom. The majority of the sample members stated this to be the most important aspect of the scale model design. Sample members stated that the bathroom should be near the bed. Although, a reason for this relationship was never given, it is concluded that the sample members realize the importance of the bed. They accept that with age, and possible medical problems, more time is spent in bed. Therefore, a compression of the world to their bedside is important, and this compression starts with the bathroom.

In summary, it is concluded that specific design guidelines cannot be made based on this research. However, basic design recommendations, based on the findings, have been determined. Privacy is considered very important. Assisted living private dwelling should be designed in such a manner that one's privacy does not have to come second to the price of a unit. This could be accomplished through the use of multi-functional designs, which in turn would reduce the cost of a unit without depriving the environment or the resident of the eight archetypal places.

The use of multi-functional designs would allow assisted living facilities to get back to their basic goal, providing environments that promote maximum independence and dignity for their residents. The environmental perspectives of Roger Barker, M. P. Lawton, and Meyer Spivak similarly state that environmental settings have an important

impact on the behavior of its inhabitant. The impact can have positive results if dwellings are designed properly, based on the clients' needs and expectations.

The definition of assisted living that was used for this research is: a special combination of housing and personalized health care designed to respond to the individual needs of those who need help with activities of daily living. A key aspect of the definition is that assisted living is designed to respond to the individual's needs. Therefore, it is concluded that developers and designers should focus on the resident when designing assisted living facilities.

Members of the sample for this research made trade-offs in designing their scale models, and would probably make trade-offs while choosing an assisted living private dwelling in which to live. Every person is different, and there should be some variation in the private dwellings of assisted living facilities to allow people to make trade-offs and choose a dwelling that is right for them. However, there should be certain things about all dwellings in assisted living facilities a person can count on, including all eight archetypal categories in some size, shape, and form.

It would be simple to design an assisted living facility based on the findings of this study. However, a target market, with specific characteristics of possible residents, needs to be determined before the design process begins. This target market will allow the developers and designers to know their client's needs in the private dwelling. Therefore, an environment can be provided that will support the needs and wants of the future residents.

Implications

In addition to the design recommendations and implications they have for designers and developers, the findings from this study lead to implications for residents and their families, and assisted living facility managers.

Implications for Possible Residents and Their Families

The information from this study may be useful to older adults and their families when they are looking for an assisted living facility. An older adult may be moving to a retirement community or directly into assisted living. In either case, if they or their family understands what the archetypal places are, and why they are needed it may help in deciding on an appropriate living environment for the older adult. The information provided in this study, may force older adults and their families to consider what the older adult's needs in an assisted living dwelling. This study may make people realize that a dwelling that allows the resident to fit comfortably with the environment will result in greater levels of satisfaction for the resident.

Implications for Facility Managers

The information in this study could help facility managers of assisted living facilities in the renovations of existing facilities. The Archetypal Place Concept for Assisted Living could be used to assess the private dwellings provided in an assisted living facility. If archetypal places are missing from the dwellings, the design guidelines could be used in the planning for renovations.

Recommendations for Further Research

Based on the findings of this study, the following topics are recommended for further research.

1. The sample for this research is quite small due to the restrictions placed on selection of the sample. It is also a sample localized to Southwest Virginia. Therefore, the findings from this particular study could not be generalized. Future research should be done using a larger sample.
2. Finding adults living in retirement communities to participate in interviews was a difficult task. Also, sample members in this study seemed to either model their designs based on their current apartment, or a friend's apartment in assisted living. It is possible that making choices for an assisted living dwelling was too sensitive an area. In future research, a study should be done with adults who have not yet moved into a retirement community. They could be provided with different characteristics of health problems and asked to design assisted living facilities based on those scenarios.
3. In addition to using The Archetypal Place Concept for Assisted Living to evaluate perceptions about wants and needs for assisted living private dwellings, research should be done evaluating the relationships between archetypal places in the design of the scale models. This should include the square footage used for each archetypal category.
4. The findings from this research revealed that the archetypal sub-categories chosen to omit from the scale model, when asked, were those that seemed important in the original plans. A sample should rank the importance of archetypal categories to determine their importance. Also, post-occupancy evaluations could be done in facilities that have private dwellings including the archetypal sub-categories recommended in the design guidelines. This should be done to determine if all eight archetypal places, and their corresponding sub-categories are necessary in the private dwellings.
5. The scale model designed by the sample in this study was a relatively large square footage. Using a smaller scale model could force sample members to make more trade-offs, or use the space differently.
6. Finally, mock-ups of the two recommended dwelling types could be built. People from both of the suggested target markets could be asked to choose which they would prefer to live in, based on their needs and wants. This could also be done using more than the two dwelling types.

REFERENCES

American Association of Homes and Services for the Aging. (1996). http://www.seniorsites.com/AAHSA/assistedliving.html

American Institute of Architects. (1985). Design for aging: An architect's guide. Washington, D.C.: The AIA Press.

Blank, T.O. (1988). Older persons and their housing: Today and tomorrow. Springfield, IL.: Charles C. Thomas Publisher.

Carp, F.M. (1966). A future for the aged: Victoria plaza and its residents. Austin, TX: University of Texas Press.

Clemmer, E. (1995). Assisted living and its implications for long-term care. Public Policy Institute, 20.

Drew, C. J., Hardman, M. L., Hart, A. W. (1996). Designing and conducting research. Boston: Allyn and Bacon.

Lawton, M.P. (1975). Planning and managing housing for the elderly. New York: John Wiley and Sons.

Lawton, M.P. (1987). Methods in environmental research wtih older people. In R.B. Bechtel, R.W. Marans, & W. Michelson (eds.), Methods in environmental and behavioral research. Malabar, FL: Robert E. Krieger Publishing Company.

Lawton, M.P., & Nahemow,L. (1973). Ecology and the aging process. In C. Eisdorfer and M.P. Lawton (eds.), Psychology of adult development and aging (pp.619-674). Washington, D.C.: American Psychological Association.

Regnier, V. (1994). Assisted living housing for the elderly: Design innovations from the United States and Europe. New York: Van Nostrand Reinhold.

Schoggen, P. (1989). Behavioral settings. Stanford, CA: Stanford University Press.

Spivak, M. (1984). Institutional settings: An environmental design approach. New York: Human Sciences Press, Inc.

Tinsley, R. (1996). Sizing up assisted living. Nursing Homes, 45, 9.

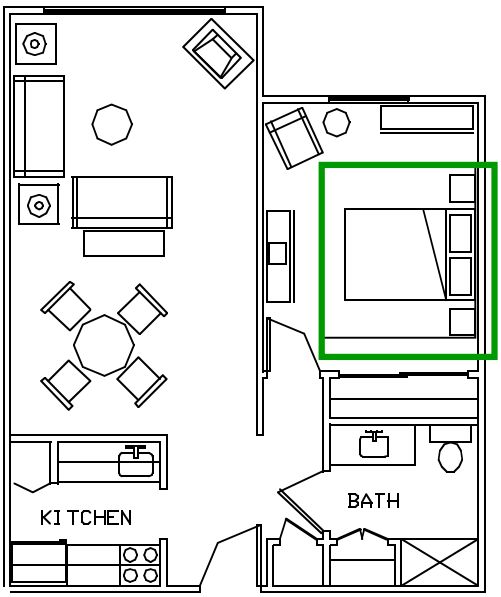
Thornton, P. (1996). Assisted living marketing. Nursing Homes, 45, 30.

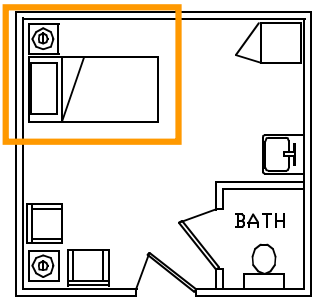
APPENDIX A

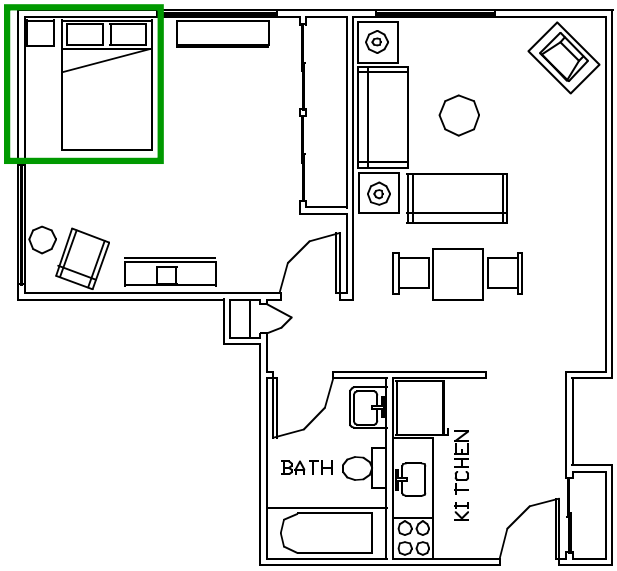
Example of Color Coding *Sleep* to Determine Archetypal Sub-Categories

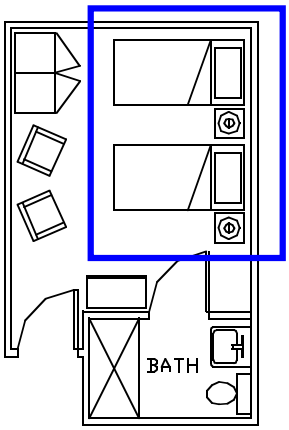
LEGEND.

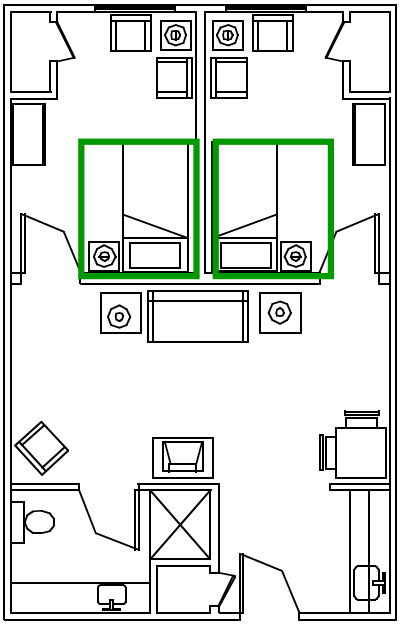
Color Key	Description
	shared sleep area in living space
	private sleep area in living space
	private sleep area out of living space, no door
	private sleep area out of living space, with door

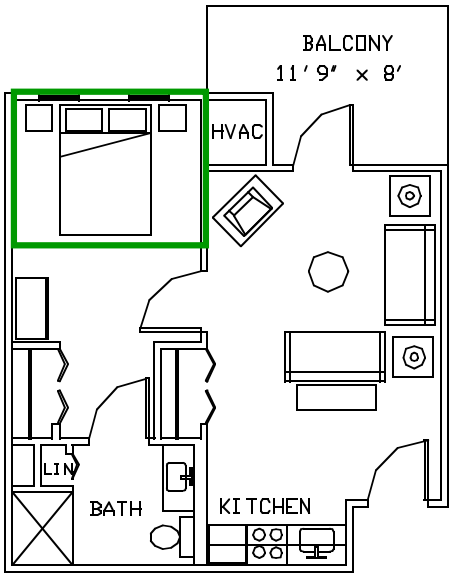


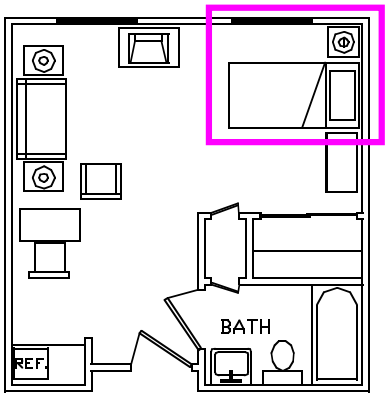





BATH




BALCONY
11' 9" x 8'
HVAC
LIN
BATH
KITCHEN


BATH
REF.

APPENDIX B

Content Validity Test

Content Validity Test of Archetypal Sub-Categories

Step One: Please read the set of *archetypal places for assisted living* listed below to acquaint yourself with subject matter being addressed in this study.

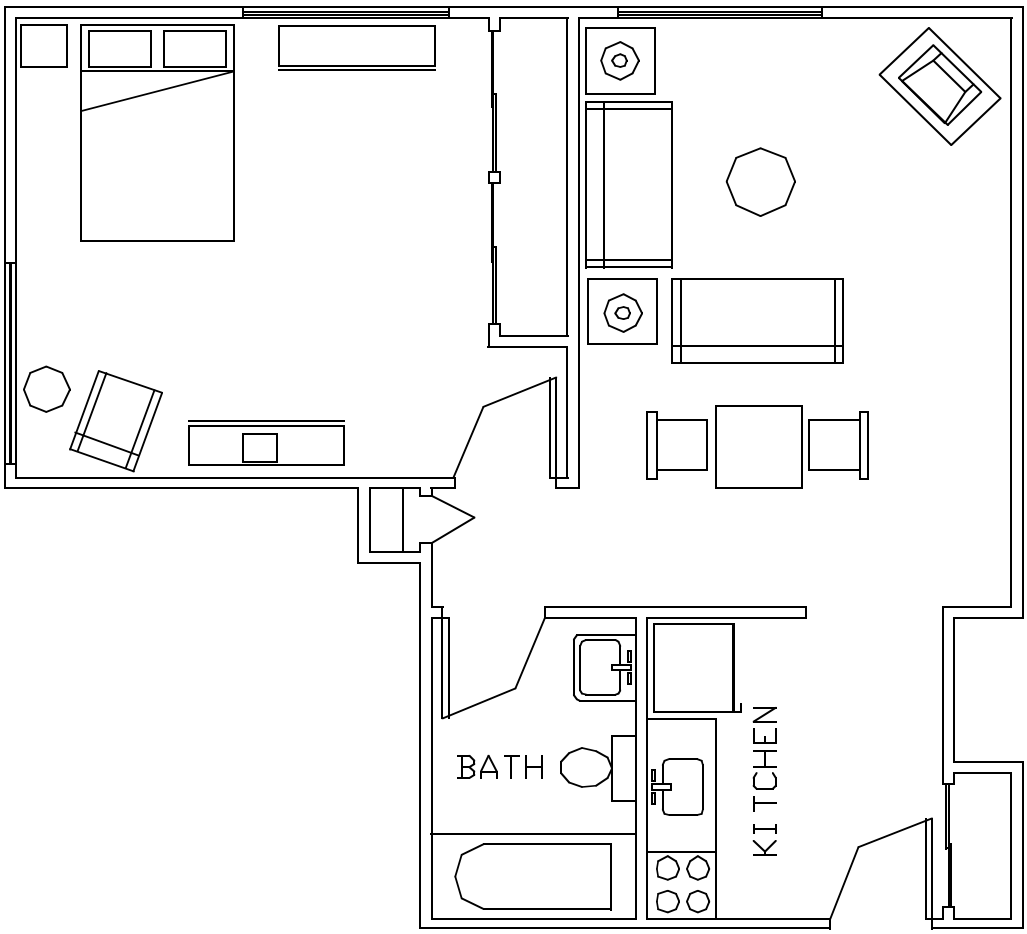
Archetypal Places for Assisted Living based on Mayer Spivack (1984)

Place	Activities Performed Within *Place*
Shelter	retreat from stimulation, aggression, threat, social contact; emotional recuperation; elemental protection
Sleep/ Mate	quiet, privacy for rest and recuperation, with ability to compress world to bedside; privacy for affectionate behavior
Groom/ Excrete	excreting, washing and mutual grooming, need room for assistant or assistive devices
Feed	eating; communication; social gathering; feeding others
Store	storage, hoarding, hiding of food and belongings
Territory	passive observation; spying; contemplation; waiting
Play/Meet/ Compete	motor satisfaction; role testing; fantasy; creation; communication; dominance testing; socialization; defense
Work	making; cooking; cleaning; gathering

Step Two: For each plan provided on the following pages, use the attached *archetypal sub-category evaluation form* to evaluate the components of each plan. Check only **one** response for each sub-category.

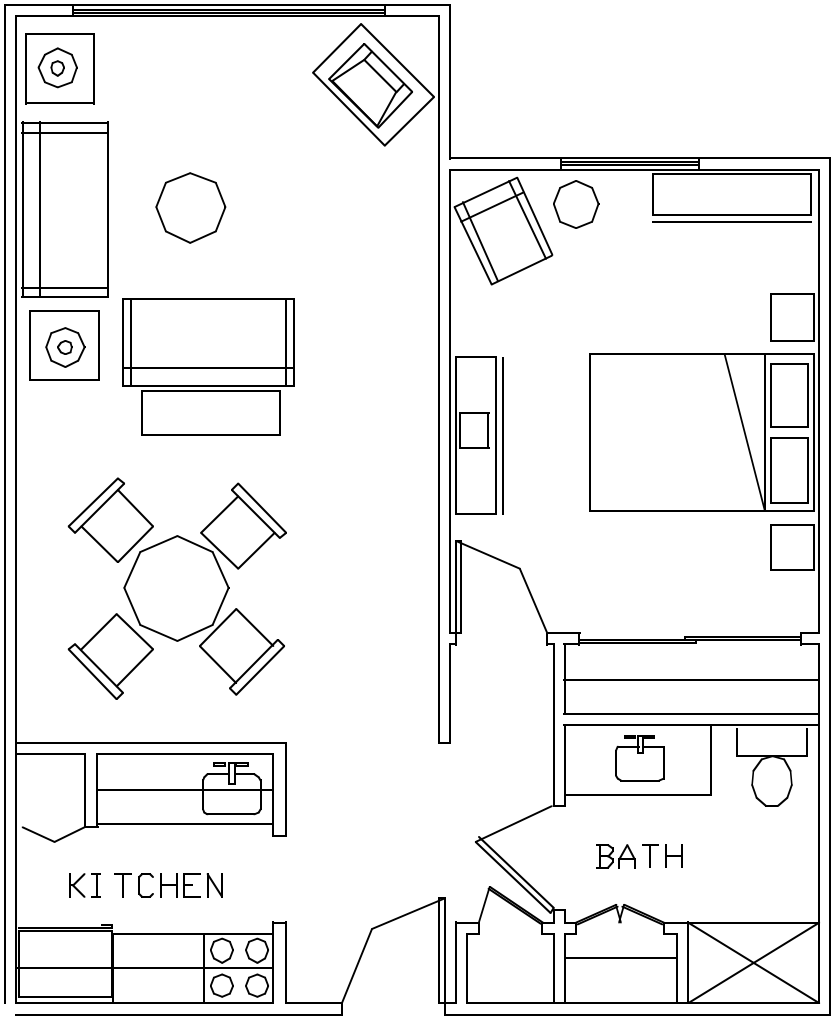
Archetypal Sub-category Evaluation Form

Shelter	___ one room, shared
	___ multiple rooms, shared, private sleep area
	___ one room, not shared
	___ multiple rooms, not shared, private sleep area
Sleep/ Mate	___ shared sleep area in living space
	___ private sleep area in living space
	___ private sleep area out of living space, no door
	___ private sleep area out of living space, with door
Groom/Excrete	___ toilet, sink, no shower
	___ toilet, sink, shower, no vanity storage
	___ toilet, sink, shower, vanity storage
	___ toilet, sink, shower, vanity storage, linen closet
Feed	___ no food storage
	___ food storage, no cookware
	___ kitchenette within living area
	___ separate kitchen, out of living area
Store	___ no storage
	___ one closet
	___ two closets
	___ three or more closets
Territory	___ windows facing one direction
	___ windows facing more than one direction
	___ outdoor area
	___ all of the above
Play/ Meet/ Compete	___ ability to have unobtrusive guests
	___ designated seating area within sleep/living area
	___ seating area separate from sleep area
	___ separate seating for living and dining
Work	___ lack kitchen
	___ kitchenette with refrigerator and/or sink, no cookware
	___ kitchenette with refrigerator, sink, and cookware
	___ full kitchen


BATH
KITCHEN

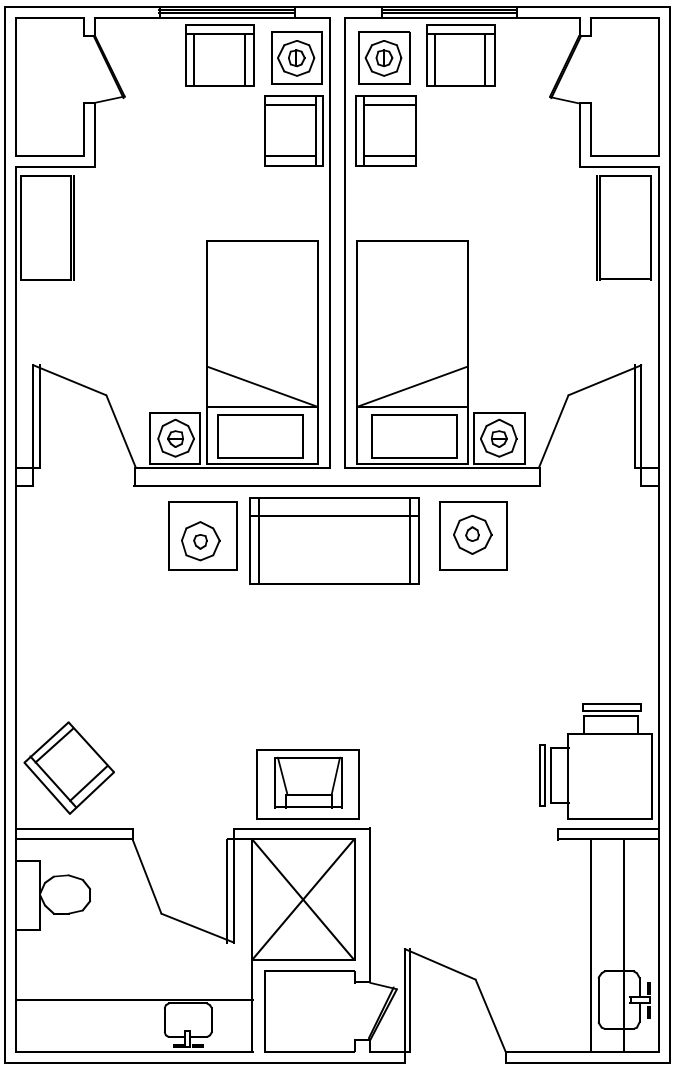
Archetypal Sub-category Evaluation Form

Shelter	___ one room, shared
	___ multiple rooms, shared, private sleep area
	___ one room, not shared
	___ multiple rooms, not shared, private sleep area
Sleep/ Mate	___ shared sleep area in living space
	___ private sleep area in living space
	___ private sleep area out of living space, no door
	___ private sleep area out of living space, with door
Groom/Excrete	___ toilet, sink, no shower
	___ toilet, sink, shower, no vanity storage
	___ toilet, sink, shower, vanity storage
	___ toilet, sink, shower, vanity storage, linen closet
Feed	___ no food storage
	___ food storage, no cookware
	___ kitchenette within living area
	___ separate kitchen, out of living area
Store	___ no storage
	___ one closet
	___ two closets
	___ three or more closets
Territory	___ windows facing one direction
	___ windows facing more than one direction
	___ outdoor area
	___ all of the above
Play/ Meet/ Compete	___ ability to have unobtrusive guests
	___ designated seating area within sleep/living area
	___ seating area separate from sleep area
	___ separate seating for living and dining
Work	___ lack kitchen
	___ kitchenette with refrigerator and/or sink, no cookware
	___ kitchenette with refrigerator, sink, and cookware
	___ full kitchen


KITCHEN
BATH

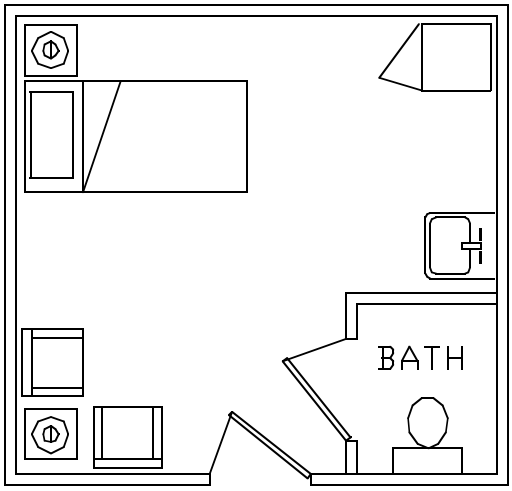
Archetypal Sub-category Evaluation Form

Shelter	___ one room, shared
	___ multiple rooms, shared, private sleep area
	___ one room, not shared
	___ multiple rooms, not shared, private sleep area
Sleep/ Mate	___ shared sleep area in living space
	___ private sleep area in living space
	___ private sleep area out of living space, no door
	___ private sleep area out of living space, with door
Groom/Excrete	___ toilet, sink, no shower
	___ toilet, sink, shower, no vanity storage
	___ toilet, sink, shower, vanity storage
	___ toilet, sink, shower, vanity storage, linen closet
Feed	___ no food storage
	___ food storage, no cookware
	___ kitchenette within living area
	___ separate kitchen, out of living area
Store	___ no storage
	___ one closet
	___ two closets
	___ three or more closets
Territory	___ windows facing one direction
	___ windows facing more than one direction
	___ outdoor area
	___ all of the above
Play/ Meet/ Compete	___ ability to have unobtrusive guests
	___ designated seating area within sleep/living area
	___ seating area separate from sleep area
	___ separate seating for living and dining
Work	___ lack kitchen
	___ kitchenette with refrigerator and/or sink, no cookware
	___ kitchenette with refrigerator, sink, and cookware
	___ full kitchen



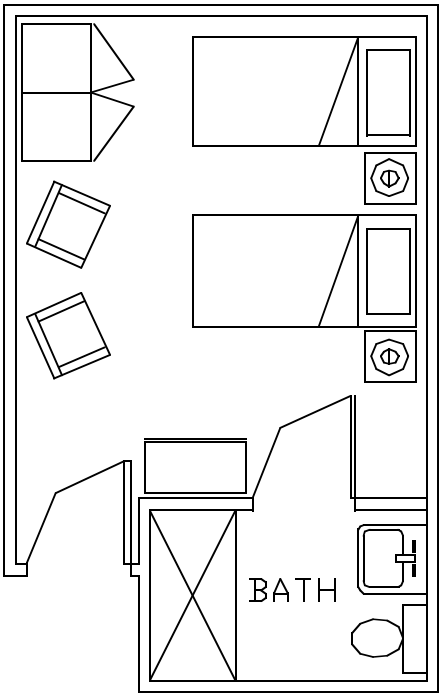
Archetypal Sub-category Evaluation Form

Shelter	___ one room, shared
	___ multiple rooms, shared, private sleep area
	___ one room, not shared
	___ multiple rooms, not shared, private sleep area
Sleep/ Mate	___ shared sleep area in living space
	___ private sleep area in living space
	___ private sleep area out of living space, no door
	___ private sleep area out of living space, with door
Groom/Excrete	___ toilet, sink, no shower
	___ toilet, sink, shower, no vanity storage
	___ toilet, sink, shower, vanity storage
	___ toilet, sink, shower, vanity storage, linen closet
Feed	___ no food storage
	___ food storage, no cookware
	___ kitchenette within living area
	___ separate kitchen, out of living area
Store	___ no storage
	___ one closet
	___ two closets
	___ three or more closets
Territory	___ windows facing one direction
	___ windows facing more than one direction
	___ outdoor area
	___ all of the above
Play/ Meet/ Compete	___ ability to have unobtrusive guests
	___ designated seating area within sleep/living area
	___ seating area separate from sleep area
	___ separate seating for living and dining
Work	___ lack kitchen
	___ kitchenette with refrigerator and/or sink, no cookware
	___ kitchenette with refrigerator, sink, and cookware
	___ full kitchen


BATH

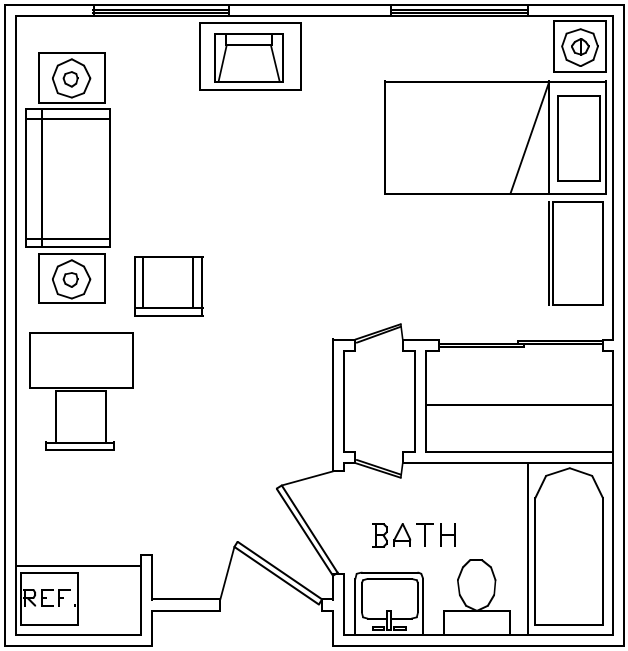
Archetypal Sub-category Evaluation Form

Shelter	___ one room, shared
	___ multiple rooms, shared, private sleep area
	___ one room, not shared
	___ multiple rooms, not shared, private sleep area
Sleep/ Mate	___ shared sleep area in living space
	___ private sleep area in living space
	___ private sleep area out of living space, no door
	___ private sleep area out of living space, with door
Groom/Excrete	___ toilet, sink, no shower
	___ toilet, sink, shower, no vanity storage
	___ toilet, sink, shower, vanity storage
	___ toilet, sink, shower, vanity storage, linen closet
Feed	___ no food storage
	___ food storage, no cookware
	___ kitchenette within living area
	___ separate kitchen, out of living area
Store	___ no storage
	___ one closet
	___ two closets
	___ three or more closets
Territory	___ windows facing one direction
	___ windows facing more than one direction
	___ outdoor area
	___ all of the above
Play/ Meet/ Compete	___ ability to have unobtrusive guests
	___ designated seating area within sleep/living area
	___ seating area separate from sleep area
	___ separate seating for living and dining
Work	___ lack kitchen
	___ kitchenette with refrigerator and/or sink, no cookware
	___ kitchenette with refrigerator, sink, and cookware
	___ full kitchen


BATH

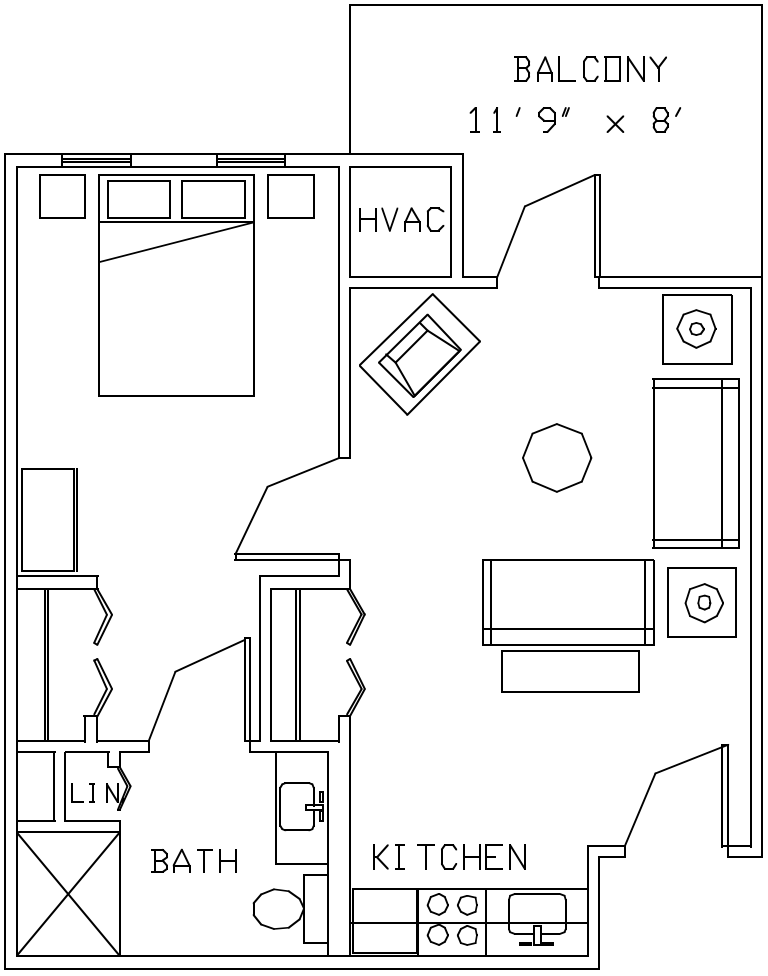
Archetypal Sub-category Evaluation Form

Shelter	___ one room, shared
	___ multiple rooms, shared, private sleep area
	___ one room, not shared
	___ multiple rooms, not shared, private sleep area
Sleep/ Mate	___ shared sleep area in living space
	___ private sleep area in living space
	___ private sleep area out of living space, no door
	___ private sleep area out of living space, with door
Groom/Excrete	___ toilet, sink, no shower
	___ toilet, sink, shower, no vanity storage
	___ toilet, sink, shower, vanity storage
	___ toilet, sink, shower, vanity storage, linen closet
Feed	___ no food storage
	___ food storage, no cookware
	___ kitchenette within living area
	___ separate kitchen, out of living area
Store	___ no storage
	___ one closet
	___ two closets
	___ three or more closets
Territory	___ windows facing one direction
	___ windows facing more than one direction
	___ outdoor area
	___ all of the above
Play/ Meet/ Compete	___ ability to have unobtrusive guests
	___ designated seating area within sleep/living area
	___ seating area separate from sleep area
	___ separate seating for living and dining
Work	___ lack kitchen
	___ kitchenette with refrigerator and/or sink, no cookware
	___ kitchenette with refrigerator, sink, and cookware
	___ full kitchen


BATH
REF.

Archetypal Sub-category Evaluation Form

Shelter	___ one room, shared
	___ multiple rooms, shared, private sleep area
	___ one room, not shared
	___ multiple rooms, not shared, private sleep area
Sleep/ Mate	___ shared sleep area in living space
	___ private sleep area in living space
	___ private sleep area out of living space, no door
	___ private sleep area out of living space, with door
Groom/Excrete	___ toilet, sink, no shower
	___ toilet, sink, shower, no vanity storage
	___ toilet, sink, shower, vanity storage
	___ toilet, sink, shower, vanity storage, linen closet
Feed	___ no food storage
	___ food storage, no cookware
	___ kitchenette within living area
	___ separate kitchen, out of living area
Store	___ no storage
	___ one closet
	___ two closets
	___ three or more closets
Territory	___ windows facing one direction
	___ windows facing more than one direction
	___ outdoor area
	___ all of the above
Play/ Meet/ Compete	___ ability to have unobtrusive guests
	___ designated seating area within sleep/living area
	___ seating area separate from sleep area
	___ separate seating for living and dining
Work	___ lack kitchen
	___ kitchenette with refrigerator and/or sink, no cookware
	___ kitchenette with refrigerator, sink, and cookware
	___ full kitchen


BALCONY
11' 9" x 8'
HVAC
LIN
BATH
KITCHEN

APPENDIX C

Letter to Retirement Homes Requesting Participation

240 Wallace Hall
Virginia Tech
Blacksburg, VA 24060
July 27, 1998

Address

Dear Sir or Madam::

As assisted living facilities are becoming more common in response to a growing need among older adults, a variety of designs and living arrangements are being developed. The types of living spaces that are most desirable and suitable for people seeking this option is not really known. A research study in the Department of Near Environments is focusing on developing guidelines for the private dwelling areas of assisted living facilities. We plan to attain this information through interviews with independent living residents. Your community's participation in this project could help us develop these guidelines so that assisted living facilities could be better planned.

We would like to interview four to seven residents in your independent living retirement community during scheduled times at your facility. Each resident participating in the interviews would be scheduled for a sixty minute session, although the full hour may not be needed. The sessions would include a description of the research, construction of a scale model from pieces provided by the researchers, and responding to five open-ended questions.

We would greatly appreciate your involvement in this project, and hope that you will return the attached card indicating your willingness to participate in the study. If you agree to participate, we will contact you to schedule appointments with residents. A more detailed description of the interview process is included for your approval, and a brief report of findings will be provided to the management of the facilities that participate. If you have questions, please feel free to call at the numbers below, or contact us at our e-mail addresses.

Thank you for considering our request. We look forward to hearing from you.

Sincerely,

Lauren Taliaferro
Graduate Student
540-951-4524
Ljensen55@aol.com

Julia Beamish
Associate Professor
540-231-8881

APPENDIX D

Procedure for Interview and Scale Model Sessions

1. Description of Assisted Living

You are probably familiar with Assisted Living from the facility here at (name of facility). However, in case you are not, let me share with you some information. Assisted living is a type of housing for people having difficulties with activities in daily living. These people may need help with dressing, bathing, eating, grooming, cleaning, cooking, and similar daily activities, because they are either physically or mentally unable to do it themselves. These facilities may also provide meals. It is not a nursing home, but people are usually not as active as those living in independent housing. Do you have any questions?

2. Explanation of the Study

I am doing this research to find out what parts of a private dwelling should be included in Assisted Living individual apartments. I have learned that there is a large range of room types for people in Assisted Living, ranging from small hospital type rooms to large apartments. I want to know what you think people living in Assisted Living should have in their private environment. In order to do this investigation, I would like you to help me out. You will be asked to design this space using a scale model. I will explain that process in a moment. Do you have any questions about my research, now?

3. Scale Model Instructions

In front of you is a piece of Styrofoam with a sheet of paper attached to it (researcher points it out). On this sheet of paper, you see a box which represents the floor of an assisted living dwelling (pointed out by researcher). Keeping in mind the things I told you about an assisted living facility. Now, I want you to design a space using a scale model. This design is what you think would be most appropriate for some one living in an Assisted Living facility.

Here, in front of you (point out furniture, etc.), are all the parts you will need to design a dwelling. There are furniture pieces, walls, doors, and windows (point out all the items). There are components to include a bath or a kitchen if you wish. I have also included some pre-designed bathroom and kitchen combinations that are already put together if you feel that one of them is more appropriate.

The existing walls on the long side of the room (point out), are the walls that are adjacent to other rooms. The two short walls are exterior walls, one to a hallway and one to the outside. They have Velcro on them so you may add doors and windows (demonstrate).

Remember, there are no right or wrong designs. I am asking for your opinion on an independent assisted living space. It may help to think about what a person living in assisted living would do in their daily routine, but you are free to use whatever method to design you feel is best.

I have a scaled figure you can use if it helps you with your decisions.

Please feel free to ask questions as you build. Do you have any questions now?

(Allow time for building)

Are you finished with your design?

4. Walk Through

Now that you have finished the construction of your dwelling. Please take this scale figure and explain to me your choices, while "walking" the figure through the model.

5. Open-ended Questions

1. What is the most important area included in your scale model?
2. If an area had to be omitted from the plan, why was this thing chosen?
3. Why was the omitted area chosen over other included areas in the plan?
4. How important was the design of the assisted living private dwellings at this facility in your decision to move to the community?
5. Why was the design of the assisted living private dwellings important or not important in your decision to move to the community?

6. Thank You

APPENDIX E

Archetypal Place Sub-categories for Assisted Living Data Summary Sheet

Archetypal Place Sub-categories for Assisted Living Data Summary Sheet

Place	Sub-category Code	Number of Responses
1) Shelter	1A	
	1B	/
	1C	///////
	1D	/////////
2) Sleep/ Mate	2A	
	2B	/////
	2C	///
	2D	/////////
3) Groom/ Excrete	3A	
	3B	/////
	3C	///
	3D	////////
4) Feed	4A	//
	4B	///
	4C	////////
	4D	///
5) Store	5A	///
	5B	//
	5C	//////////
	5D	//
6) Territory	6A	//////////
	6B	/
	6C	///
	6D	
7) Play/ Meet/ Compete	7A	//
	7B	/////
	7C	//
	7D	////////
8) Work	8A	/////
	8B	
	8C	/////////
	8D	///

APPENDIX F
Archetypal Place Sub-categories for Assisted Living
Data Summary Sheet for LALF and SALF

Archetypal Place Sub-categories for Assisted Living Data Summary Sheet for LALF and SALF

Place	Sub-category Code	Number of Responses	
		LALF	SALF
1) Shelter	1A		
	1B	/	
	1C	///	////
	1D	//////	///
2) Sleep/ Mate	2A		
	2B	/	////
	2C	//	/
	2D	///////	//
3) Groom/ Excrete	3A		
	3B	///	//
	3C	//	/
	3D	////	////
4) Feed	4A	/	/
	4B	/	//
	4C	//////	///
	4D	//	/
5) Store	5A	//	/
	5B	//	
	5C	////	//////
	5D	//	
6) Territory	6A	//////	/////
	6B	/	/
	6C	//	/
	6D		
7) Play/ Meet/ Compete	7A	/	/
	7B	//	///
	7C	//	
	7D	/////	///
8) Work	8A	//	///
	8B		
	8C	//////	///
	8D	//	/

APPENDIX G

Archetypal Place Sub-categories for Assisted Living Coding

Archetypal Place Sub-categories for Assisted Living Coding

Place	Sub-category
1) Shelter	1A. one room, shared by unrelated adults
	1B. multiple rooms, shared by unrelated adults, each has private sleep area
	1C. one room, not shared
	1D. multiple rooms, not shared by unrelated adults, separate sleep and living areas
2) Sleep/ Mate	2A. sleep area shared by unrelated adults, no separate living room
	2B. sleep area not shared, no separate living room
	2C. sleep area separate from living room but with no door
	2D. separate sleep area out of living room, with door
3) Groom/ Excrete	3A. toilet, sink, no shower
	3B. toilet, sink, shower, no vanity storage
	3C. toilet, sink, shower, vanity storage
	3D. toilet, sink, shower, vanity storage, linen closet
4) Feed	4A. no food storage
	4B. food storage with no cooking appliances
	4C. food storage with cooking appliances
	4D. full kitchen, separate from the living room
5) Store	5A. no built-in storage
	5B. one built-in closet
	5C. two built-in closets
	5D. three or more built-in closets
6) Territory	6A. windows facing one direction
	6B. windows facing more than one direction
	6C. windows facing one direction with an outdoor area
	6D. windows facing more than one direction with an outdoor area
7) Play/ Meet/ Compete	7A. small seating arrangement among sleep area
	7B. designated living area within sleep area
	7C. living room separate from sleep area
	7D. separate seating for living and dining out of sleep area
8) Work	8A. no kitchen, possible food storage
	8B. kitchenette with refrigerator and sink, no cooking appliances
	8C. kitchenette with refrigerator, sink, and cooking appliances
	8D. separate full kitchen out of living room

APPENDIX H

Summary Sheets for Open Ended Interview Questions

Question 1. What is the most important area of your scale model?

Kitchenette

Bed / bathroom relationship

Den

Bed /bathroom relationship

Bed /bathroom relationship

Bed /bathroom relationship

Conversation area

Bed /bathroom relationship

Bed /bathroom relationship

Traffic area

Conversation area

Bed /bathroom relationship

Bed /bathroom relationship

Question 2. If an area had to be omitted from the plan, why was it chosen?

Dining area

Having separate living and bedrooms

Dining area

Dining area

Storage

Storage

Kitchenette

Kitchenette

Kitchen

Storage

Having separate living and bedrooms

Kitchenette

Having separate living and bedrooms

Having separate living and bedrooms

Having separate living and bedrooms

Question 3. Why was the omitted area chosen over other areas included in the plan?

Least favorite area

Not as important as other areas

If I have to omit something, this is the only thing I'd choose

Least favorite area

I didn't want to omit anything, you said I had to

I didn't want to omit anything, but I had to pick something

Question 4. How important the design of the assisted living private dwellings in their decision to move to the community?

It was important	It was not important
It was important	It was not important
It was important	It was not important
It was important	It was not important
It was important	It was not important
It was important	It was not important
It was important	
It was important	
It was important	
It was important	
It was important	

Question 5. Why was the design of the assisted living private dwellings important or not important in the participant's decision to move to the community?

My wife has Parkinson's Disease

Incase of future problems

In case I need it, it's there

I won't have to move if I need it

My wife's health was failing

In case of future health problems

Future problems

I have problems with balance and fall a lot

If I fall or get sick, I won't have to move

Future health problems

In case of health problems

VITA

Lauren Taliaferro, daughter of Anne and Oswald Jensen, was born on June 30, 1972 in Denville, NJ. She received her Bachelor of Science degree in Interior Design at Virginia Tech in May, 1994. After completing an internship at Medical Interior in the summer of 1993, she decided to pursue a career in designing housing for older adults.

Lauren was accepted to the graduate program at Virginia Tech in the summer of 1995. During her three and a half years in grad school Lauren did many things. She was a graduate assistant for two years. She became a member of Sigma Phi Omega, The National Gerontology Academic Honor and Professional Society. During the summer of 1996, Lauren interned for Carilion Health Care Interiors. The next summer, she worked on the design of The Real Life Kitchen Design Center at Virginia Tech.

Lauren plans to enter into a career that will allow her to design housing for older adults. It is something she believes in and hopes she can make a difference.