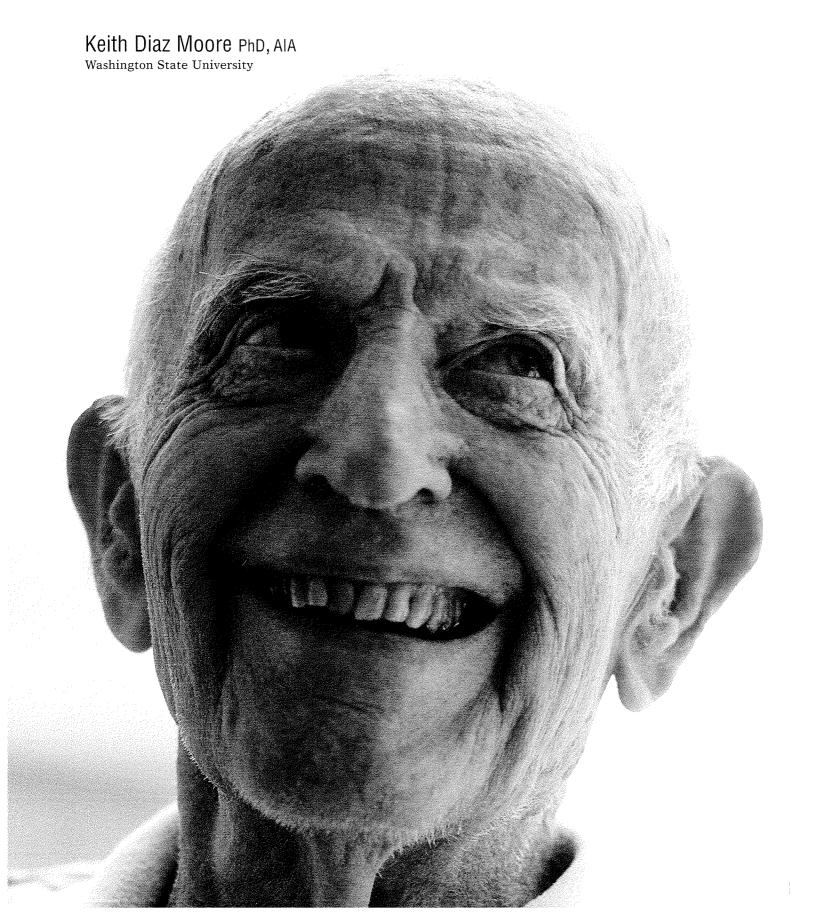
Design Guidelines for Adult Day Services



Aging is a relatively new phenomenon in the history of humankind. When this country was founded in 1776, the average life expectancy was 35. By 1900, that had grown to only 47 years. Currently, the average life expectancy is 77, and for those that today are turning 65, they can anticipate celebrating their 83rd birthday. This phenomenal growth in life span is raises challenging issues for our society; issues that are both social and medical in nature with significant ethical underpinnings.

How do we care for our elderly? Initially, in our agrarian society, the aging were taken care of by loved ones. With industrialization, families became geographically dispersed, and with that, when the aging become unable to be productive, either religious homes or county poor farms took care of the indigent. Thus aging was largely a socio-economic problem. This gave rise to the Social Security Act of 1935 which gave public benefits to those 65 years or older, as long as they did not reside in an institution. Simultaneously, many of the issues of normal aging came to be seen as not necessarily normal, but as chronic health conditions (e.g. arthritis), thus "medicalizing" aging. In response to those elderly that could not take care of themselves due to medical reasons, Nursing Homes were created by the Hill-Burton act of 1954.2 This was an extension of hospital regulations and gave rise to why nursing homes, serving chronic conditions, look and operate like hospitals that are designed to serve acute care needs.

Research in the 1960s and 1970s quickly illustrated the misfit of nursing homes for many elderly residents and a continuum of care settings began to emerge, including assisted living and adult day services.³ Assisted living has received a significant amount of attention from architectural practice and research over the past 15 years.⁴ Yet this model still promotes an institutional model for the elderly requiring assistance. Adult Day Services on the other hand, promotes keeping the elderly in the community fabric, but has flown under the radar within architectural inquiry. This research attempts to rectify this oversight in regard to this intriguing and rapidly-growing model of care.

Figure 1. A prototypical floor plan of adult day services located in an actual church basement

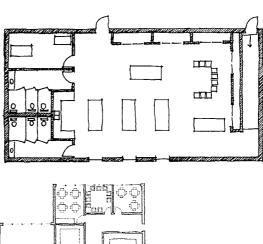
Figure 2. A floor plan of an award-winning facility in a major metropolitan city. Notice the maze-like circulation and the program space that is completely internalized

What is Adult Day Services?

According to the National Adult Day Services Association:

Adult day services are community-based group programs designed to meet the needs of adults with impairments through individual plans of care. These structured, comprehensive, nonresidential programs provide a variety of health, social and related support services in a protective setting. By supporting families and other caregivers, adult day services enable participants to live in the community.⁵

Adult day services (ADSs) typically operate during normal daytime business hours during the day, generally five (business) days a week, although some facilities provide respite care in the evening and on weekends. According to NADSA, the principal services of ADSs are assessment and care planning, assistance with activities of daily living, health-related services, social services, therapeutic activities, nutrition, transportation and emergency care. This expansive conceptualization is intentional: "the purpose, focus, functions and expected outcomes of adult day programs are so broadly defined as to allow a variety of programs to fit under the adult day services umbrella."





Ironically, the desire to be inclusive may be responsible for both geographically inconsistent growth and increased variability among ADSs. This diversity has had two main effects. First, society has no common expectation of what adult day services are. Secondly, while the rich diversity in adult day services reflects the various strategies that ADSs use in responding and adapting to the needs of participants, it has had the less desirable effect of creating ambiguity among regulatory and funding bodies as well as the public at large. As a consequence of this continual economic uncertainty, "ADSs are in a constant state of adaptation in regard to their funding and regulatory environment. In turn, this environment shapes the delivery of ADS services."8 The funding stream 'continues to be inconsistent and fragmented what Kane and Kane refer to as "piecework and patchwork."9 This has historically placed "ADSs in a position of economic uncertainty, focused on survival and maintaining the flow of funding, and on maintaining organizational viability."10

Figure 3. Typical custodial furniture arrangement found in many adult day service facilities

Figure 4. A typical scene in an adult day service facility





However, this is beginning to change. As part of the recently passed "prescription drug benefit," the Department of Health and Human Services was charged with developing a demonstration project to fund adult day services. Currently, both houses of the United States Congress have bi-partisan supported bills pending that will open Medicare "homebound" funding for adult day service participants. It is more a matter of when, than if, this will happen and whenever it does become law, the growth in adult day services will increase dramatically. Why is it inevitable? Because of the cost efficiency associated with Adult Day Services. Currently, the annual cost of nursing home care averages \$57,700, or approximately \$4800 per month, but for many this is covered by Medicaid. For assisted living, costs vary widely, but average approximately \$2000 per month. Golant estimates that only 10 percent of the elderly are able to afford assisted living and that long-term care for moderate income elderly remains a significant challenge.11 This is the fastest growing segment of the elderly and the population best served by ADS' average daily cost of \$46.12 Given the climate of fiscal restraint, it is only a matter of time before government seizes upon what has been termed "the best kept secret in long-term care."

Not that growth has been slow anyway. Adult day services has roughly doubled every decade since 1980, with there currently being approximately 3400 programs nationally.¹³ A recent study suggests an existing unmet need for about 7000 facilities nationwide and one can extrapolate a need of 30,000 facilities by 2050. Given this anticipated growth, it is a good time to critically inquire into how these settings should be designed to be optimally therapeutic for the populations they serve.

The Project

The program of research reported herein was initially funded by the Helen Bader Foundation in 1999 to ascertain the design implications for adult day programs serving people experiencing dementia. Setting the stage for this inquiry was research done for the author's dissertation (funded by the Institute on Aging and Environment and a University of Wisconsin-Milwaukee Dissertation Fellowship) that highlighted the shortcomings in current practice in adult day services. The Baderfunded project had three components: an extensive literature review, development of case studies, and the creation of design guidelines for these settings. This project was completed in 2002 and followed up by a project funded by the Group Health Community Foundation to develop a development process workbook for care providers to become more knowledgeable about this important process in placemaking. Now this assemblage of information has been translated into a book, Designing a Better Day in press with Johns Hopkins University Press.14 This report for the AIA highlights two of these aspects: the current state of design of adult day service settings, and the design guidelines.

The State of Design of Adult Day Services

The current state of design for adult day services is easily summarized by the word "impoverished." As you can see in Figures 1 through 4, both the interiors and the plans are not creatively developed and lack any sense of responsiveness to the needs of the populations which they serve. Yet these are all designed by registered architects. How could this be?

Because of their ill-defined nature, adult day services are very difficult to design. There are not very many good precedents and even if one finds a good precedent, the exact population mix and programming of the adult day service may be quite different. Adult Day Services accommodate a wide range of activities, which we have distilled into eight recurring "Realms of Activity" that are informed by two fundamental strategic orientations found within each adult day service: "Life as Activity" and "Health and Rehabilitation" (See Figure 5). "Life as Activity" includes those activity realms central to daily social life: coming and going, walking and exploring, daily life activities, cooking and dining, and being outside. "Health and Rehabilitation" addresses personal care, both toileting and bathing, as well as physical and related health support activities.

The Difficulties of Diversity

Thus there is a diverse range of activities that facilities for adult day services need to accommodate and hopefully maximize. This diversity is compounded by the heterogeneous participant profiles that ADS serve. Table 1 illustrates some measures of this incredible diversity. Given that ADS develop individualized plans of care for their participants, the diversity within each activity listed above should be seen as quite great, serving people from the developmentally disabled young adult to the octogenarian suffering with Alzheimer's.

This creates a significant design challenge and requires a critical understanding of the "day in the life" of adult day programs. Unfortunately, the design solutions that are typically found in practice are those that take the "lowest common denominator" approach, commonly referred to as the "multi-purpose room." This solution is to provide the largest, most wide-open space possible and suggesting that solution promotes "flexibility." In the end, those spaces are effective for very little, and often provide an impoverished environment for those for whom the environment is an increasingly important therapeutic resource.

The Church Basement

Diaz Moore suggests the prevailing character of most adult day services centers is that of "The Church Basement." This reference to the historical root of many adult day centers is meant to convey the concept of a large space in which different activities take place and from which there is little, if any, variation in either activity or stimulation or in the degree of visual exposure. This character or "personality" of a place has several negative outcomes associated with it.

First, in regard to sociality, such an environment, being so large and with unfettered visual access, makes every interaction seem public. From previous research, we know that public interactions are those of least therapeutic potential.¹⁶ Rather, the design of social settings should try to encourage interactions of an intimate or personal character, difficult in a "church basement." Secondly, the opportunity for competing stimuli to be present in such a cavernous environment is high, and given the lowered sensory acuity experienced by the elderly and developmentally- disabled, this is counter-therapeutic. Additionally, we know large spaces coercively encourage large group activities (even if the design intention is to be flexible, the experienced reality is typically quite fixed). Just in terms of visual and auditory acuity, groups of larger that 12 people are likely to place individuals beyond to distance of their reasonably expected abilities. This coercively thwarts participation in activity and encourages social withdrawal.

Figure 5. To aid in activity programming, we have identified two central strategic orientations commonly found in adult day and a total of eight realms of activity that can be organized into these two strategic orientations

Such a design also negatively influences participant control as there are no choices provided. Without opportunities to express choice and seek respite, people are likely to suffer what Kaplan refers to as "directed attention fatigue."17 Given that the population is frail and likely possessing a "progressively lowered stress threshold" anyway, this again illustrates a manner in which such spaces are likely counter-therapeutic.18 Adding to this is the strong sense of conformity such environments cue. This population suffers a significant level of cognitive impairment and efforts to conform are often quite difficult. To be in an environment without choice and demanding conformity is likely to lead to negative outcomes, such as agitation or withdrawal.

These conditions lead to the following characterization common in many adult day settings:

There is a large group of older adults—oversized for the given activity — within an ill-defined, open space in which staff provide the most salient cueing for what behaviors are appropriate within a highly structured formal program. Activities are unfortunately coercively rigid due to the public nature of the setting and the scarcity of resources (financial, personnel, environmental) found in the place.¹⁹

Problematic in this description is the uniform spatial organization, the scant environmental resources provided and the poor composition of these together which fails to cue expected behavior.

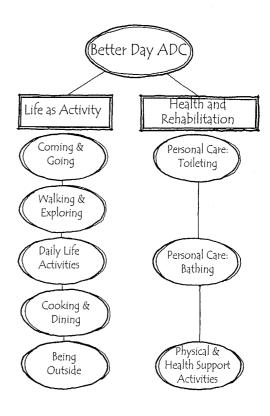


Table 1.

Demographic examples of the diversity in participant profiles*

Age (low-high/average)	18-109 / 72
Percent experiencing dementia	52%
Percent considered frail	41%
Percent Developmentally challenged	24%
Percent Physically challenged	23 %
Percent with HIV	9%
Average number of ADL's that Require assistance	over 2

^{* =} data reported by Cox, 2003

What Adult Day Services Should Be

From a design perspective, adult day service facilities should promote if not maximize the therapeutic intentions of the adult day services program. As we see it, the core problem can be summed up succinctly: Adult Day Services is still an emerging place type. The Adult Day Service Center remains an emerging place type because the concept is still new and unfamiliar - architecfunctionally, organizationally, turally, experientially - relative to other place types. This unfamiliarity breeds design responses that are illinformed and thus hesitant in nature. Our task through this research is to highlight not only what should be done in terms of design, but unveil the complexities of adult day services as places.

The Concept of Place

Through our research and consulting in the area of adult day service design, we uncovered that there is a lack of systemic thinking in regard to creating adult day services as places. We believe the collective focus must go beyond thinking of the building, organizational mission and staffing structure independently, to a focus on the living, breathing place that emerges from the system of interactions between people and physical settings. Place is one of the central, integrating ideas of this research. We define a place in terms of three components -People, Program, and Physical Setting - organized in a coherent fashion. At the intersection of these three components is Place Experience (Figure 6). Thinking in terms of places —and the experiences, good or bad, which they engender - is the best way we know to improve upon lessons learned from the past, and to develop innovative solutions. Solutions that integrate the architectural, programmatic, organizational, and experiential to create supportive settings that successfully meet the needs of the elderly and people with dementia.

Our belief is that when the spatial organization of the setting as well as its "personality" are consistent with and facilitate the organization's program of activities-and the desired qualities of those activities—the setting will fit more tightly with the programmatic intentions and be more likely to facilitate the anticipated therapeutic benefits. Earlier, we presented eight "Realms of Activity" central to most adult day service programming. While not an all-inclusive set of activities that may occur in adult day services, addressing these eight realms efficaciously in terms of both programming and design would go a long way toward foster better quality of life experiences for participants. These activity types need to be understood as involving a system of activities, involving various people having various needs to various degrees and at various times, but orchestrated to achieve certain purposes (or meet certain needs). Thus a first step in architectural programming is to identify the likely needs of all those involved (participants, family, staff, and organization) and clearly articulate the intentions associated with the activity. The second step is to identify the full system of activities that constitute the Realm of Activity and translate that system into a conceptual organization of settings that would enable and hopefully maximize the sequencing of those activities. The third step examines that organization and attempts to define the spatial requirements desired to maximize the intentions of each activity.

Following this method, we have developed a set of normative patterns in our efforts to support the therapeutic enhancement of adult day services, particularly for those serving the cognitively impaired. Figure 7 is a "concept map" that depicts the relationships between the two Strategic Orientations, the eight Realms of Activity, and 22 patterns that we believe are central to the provision of care in a dementia-capable adult day facility. These 22 patterns reflect our best understanding of those activity-setting combinations most relevant to adult day services and with the greatest potential for therapeutic enhancement.

Figure 6. Our Model of Place

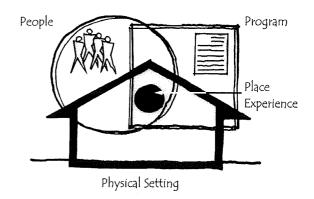
Recognize that not every pattern may be appropriate for every adult day care facility. Placemaking is a site/context specific activity demanding negotiation with local factors. Thus we would like to underscore our assertion that the patterns in this chapter are not the final word, but rather are meant to be a useful beginning repertoire, one that should evolve over time and with experience.

Given the limitations of space, only one pattern will be presented in its entirety and two other key patterns will be summarized. We present *Toilets Distributed Throughout* in its entirety because of our sense that it is the critical thought process shaping these patterns that is as meaningful to creative, quality design as the recommendations themselves. The other two patterns that are summarized are *Socially Supportive Dining and Zone of Transition*.

Patterns for Placemaking

Toilets Distributed Throughout

Toileting is an essential part of everyday life with significant implications on quality of life. This is an activity we engage in independently once trained and expect to do independently throughout life. For many participants in adult day services, this is, of course, not the case. In fact, family caregivers report incontinence as one of the most burdensome effects associated with Alzheimer's Disease and a likely rationale for seeking adult day services. Caregiving practices need to focus on providing support as should the physical environment, but the need to emphasize independence as much as possible in this realm of activity cannot be overlooked.



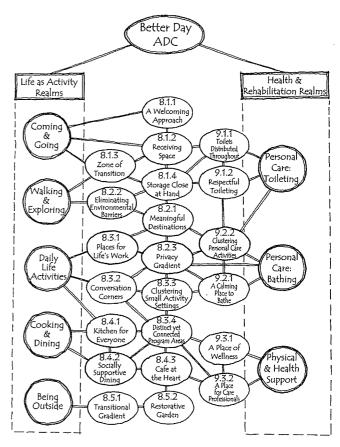


Figure 7. A concept map relating the eight realms of activity to the 22 design patterns developed

There are several essential dimensions to the toileting experience all stemming from the concept of promoting independence. First, a sense of autonomy is enhanced if one perceives a sense of control which may be enhanced through privacy regulation. Independence is also enhanced through the support of functional abilities. Given the heterogeneity of needs found in adult day services suggests the need to provide a range of toilet room types (independent, fully accessible; one-person assist; two-person assist). This will facilitate staff and participant abilities to find the environment most congruent to the presenting needs. Finally, because personal care is such an intimate activity, fear and anxiety can easily be aroused. The need to develop a sense of safety and security associated with the activity is essential to lessen the likelihood of these manifestations.

Problem Statement

Toileting is an important activity in relation to perceived independence. As such, every effort should be made to support participant independence. With regard to location strategy, the toilets that are close and easily recognized are those most likely to be used; those that are centralized or hidden demand greater physical and/or cognitive competence in order to be utilized successfully.

Spatial Requirements

Locomotion to the toilet is heavily impacted by way finding abilities and the presence of environmental barriers. In response to these issues, the spatial placement of toilets is critical to how well they may foster sustained levels of independence in toileting. Providing toilet rooms that are visible and a short distance from activity areas and are along clear circulation paths may effect independent use, perhaps requiring only verbal prompts from staff for some participants who otherwise may need assistance in another environment.

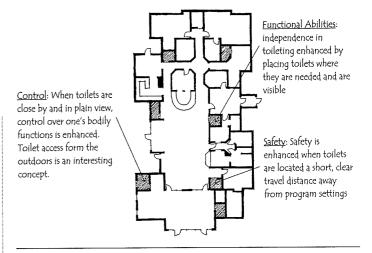


Figure 8. Diagram of "Toilets Distributed Throughout"

Design Response

Toilets Distributed Throughout (Figure 8) conveys the need to provide an appropriate number of private, home-like toilet rooms that are distributed throughout the facility, proximate to activity areas and/or circulation paths, and that serve a range of assistance needs (e.g., independent, accessible; one-person assist toilets; and two-person assist toilets). Toilet rooms should be visible from the program spaces, and toilet-related sounds and smells controlled without impeding visual access or privacy. In accord with 2002 NADSA guidelines for serving those with cognitive impairments, Accessible, Respectful Toileting should, at minimum, provide a ratio of at least one toilet for every six participants, and locate toilet rooms within 40 feet of program spaces.22

The remaining two patterns will only be presented in regard to the problem statement and the proposed design response. We hope you will refer to *Designing a Better Day*, soon to be published by Johns Hopkins University Press for further information such as space requirements and other useful recommendations.

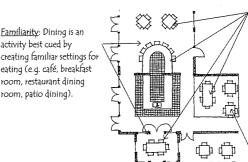
Socially Supportive Dining

Problem Statement

Dining is a crucial element of any adult day service program. It is a multi-faceted activity with psychosocial, cognitive, and physical dimensions. Dining is also the most staff intensive period of the day. This highly complex and critically important experience is too often standardized in adult day settings and conducted in one large area. Such an approach hinders the ability of the organization to target and provide appropriate levels of care to individual participants.

Design Response

Socially Supportive Dining (Figure 9) suggests that both the physical and organizational design respond to the range in eating abilities present in adult day settings serving those with dementia. Dining should occur in a space that is visually and spatially distinct from other program settings. Multiple settings suitable for dining should be provided as necessary to accommodate the daily census. No single dining setting should serve more than 16 participants, as unpredictable social and sensory stimulation is likely to result. Participants should be allowed to choose where and with whom they sit during meals and snacks. Dining tables (seating for four to six people) should be reserved for meals and snacks, and rarely, if ever, used for other programmed activities. Typical residential or restaurant-style tableware (no paper plates, plastic silverware or plastic trays) should be used. Mealtime assistance, whether individual or provided to the group at a table, should be natural, dignified and unobtrusive.



Functional Abilities: Providing four dining areas, each responding to different functional abilities, enhances the likelihood of optimizing independence

Social Interaction: Social contact is most likely to occur in distances of four feet or less and in small groups, meaning dining is best done in tables of four people or less. and in spaces occupied by 16 or less

Figure 9. Diagram of "Socially Supportive Dining"

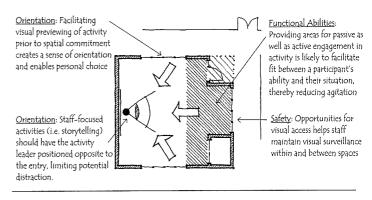


Figure 10. Diagram of "Zone of Transition"

Zone of Transition

Problem Statement

Participants are easily agitated during the coming and going transitions found in adult day service settings. Many cues (i.e., donning coats inside the program space in preparation for departure, and having the exit door readily in view of participants) may contribute to agitation. Easing transition by affording participants time and space to incrementally adapt to different areas and reducing cues that may trigger adverse activity (such as elopement) are essential.

Design Response

Zone of Transition (Figure 10) refers to creating a spatial "buffer" area between entry spaces and program spaces as well as an experiential "buffer" that signals the transition from home to day care program. The entry and reception area should be separate from the primary program space and not visually accessible from it. Security measures that are located within that transition zone should not give an institutional impression but be discreet in appearance and tone. The Zone of Transition should, at minimum, be facilitated by these three features: (1) a buffered entry; (2) opportunities for visually "previewing" program areas, and (3) be supported programmatically by conducting activities some distance and oriented away from points of entry and exit.

Evaluation: An Ending...and a Beginning

As may be seen above, each design pattern is actually a set of bundled design ideas crafted to forward a particular aspect of a particular realm of activity with specific design intentions driving the proposals. Together, these form "bundled hypotheses" between design action and anticipated outcomes. These hypotheses are more clearly expressed in the 164 item evaluation assessment called the Adult Day Center Environmental Design Assessment (ADC EA). The ADC EA is organized in relation to a common set of Attributes of Place Experience described in the book. For each Attribute, the ADC EA lists a series of statements that describe certain elements, qualities, characteristics or attributes of the environment. Each statement reflects an aspect of an adult day service setting that we believe contribute to positive place experience, and which we consider necessary to providing quality dementia-capable adult day care. Yet what is important is the hypothetical nature. While the recommendations are "strong inferences" based upon a solid combination of empirical research and theoretical linkages, they remain hypotheses to be either validated or falsified. We would hope to see these ideas tried and evaluated, so that we may continuously improve the state of the environment for those in society who need a quality environment the most. For we believe that quality of life is enhanced by quality places and that "the right to a decent environment is an inalienable right and requires no empirical justification."23

Notes

- See National Center for Health Statistics, Health, United States, 2004 (Hyattsville, Md.: Department of Health and Human Services, 2004).
- See Bruce Vladeck, Unloving Care: The Nursing Home Tragedy (New York, N.Y.: Basic Books, 1980).
- See Erving Goffman, Asylums (Garden City, N.Y.:
 Anchor Press, 1961) and Jaber Gubrium, Living and Dying at Murray Manor (New York, N.Y.: St. Martin's Press, 1975).
- 4. See William Brummett, The Essence of Home: Design Solutions for Assisted Living Housing (New York, N.Y.: Van Nostrand Reinhold, 1997); Victor Regnier, Assisted Living Housing for the Elderly: Design Innovations from the United States and Europe (New York, N.Y.: Wiley, 1994); and Victor Regnier, Design for Assisted Living: Guidelines for Housing the Physically and Mentally Frail (New York, N.Y.: Wiley, 2002).
- See National Adult Day Services Association, Standards and Guidelines for Adult Day Services (Washington, D.C.: National Adult Day Services Association, 2002).
- 6. Ibid
- Shirley Travis, et. al., "Adult Day Services in a Frontier State," in Nursing Economics 19 (2001): 62–67.
- Julia Bradsher, Carol Estes, and Margaret Stuart, "Adult Day Care: A Fragmented System of Policy and Funding Streams," in *Journal of Aging & Social Policy 7* (1995): 17–38.
- See Robert Kane and Rosalie Kane, Long-term Care: Principles, Programs, and Policies (New York, N.Y.: Springer, 1987).
- 10. Bradsher, "Adult Day Care": 20.
- Stephen Golant, "The Promise of Assisted Living as a Shelter and Care Alternative for Frail American Elders: A Cautionary Essay," in B. Schwarz and R. Brent, eds., Aging, Autonomy, and Architecture: Advances in Assisted Living (Baltimore, Md.: The John Hopkins University Press, 1999), 32–59.
- See Nancy Cox, "A National Study of Adult Day Services," presented at the First Annual Conference of the National Adult Day Services Association, Miami Beach, Fla., 2003.

- 13. *Ibid*.
- 14. See Keith Diaz Moore, Lyn Dally Geboy, and Gerald Weisman, Designing a Better Day: Planning and Design Guidelines for Adult and Dementia Day Centers (Baltimore, Md.: The Johns Hopkins University Press, forthcoming).
- See Keith Diaz Moore, The Hidden Program of Adult Day Care for the Cognitively-impaired: A Comparative Case Study into the Negotiation of Place (Ann Arbor, Mich.: UMI, 2000).
- See David Unruh, Invisible Lives: Social Worlds of the Aged, (Beverly Hills, Calif.: Sage, 1983).
- Stephen Kaplan, "The Restorative Benefits of Nature: Towards an Integrative Framework," in *Journal of Environmental Psychology 15* (1995): 169–182.
- Geri Hall and Kathleen Buckwalter, "Progressively Lowered Stress Threshold: A Conceptual Model for Care of Adults with Alzheimer's Disease," Archives of Psychiatric Nursing 1 (1987): 399–405.
- 19. Keith Diaz Moore, The Hidden Program, 313.
- See Christopher Alexander, A Pattern Language (Oxford: Oxford University Press, 1977).
- See Jon Pynoos and C. Stacey, "Specialized Facilities for Senile Dementia Patients" in M. Gilhooly, S. Zarit, and J. Birren, eds., *The Dementias: Policy and Management* (Englewood Cliffs, N.J.: Prentice-Hall, 1986).
- 22. See National Adult Day Services Association, Standards and Guidelines.
- M. Powell Lawton, Environment and Aging, Albany, NY: Center for the Study of Aging, 1986.

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