Designing Outdoor Spaces For Those Affected With Alzheimer's Disease

Jane Christian Parke Retirement Home
Zionsville, Indiana

Hance Park
Regional Landscape Design Project
May of 1998
The Little Boy and the Old Man

Said the little boy, “Sometimes I drop my spoon.”
Said the little old man, “I do that too.”
The little boy whispered, “I wet my pants.”
“I do that too,” laughed the little old man.
Said the little boy, “I often cry.”
The old man nodded, “So do I.”
“But worst of all,” said the boy, “it seems
Grown-ups don’t pay attention to me.”
And he felt the warmth of a wrinkled old hand.
“I know what you mean,” said the little old man.

Shel Silverstein

from: A Light in the Attic
Problem

Current landscaping around nursing homes have received inadequate attention and has been done as an embellishment or an after thought.

Problem Statement

- Understanding the specific deterioration process of Alzheimer's disease, how can we, as designers, create landscapes tailored to those symptoms as well as incorporate horticultural activities as a new method of therapy.
Importance of the Study

- A rapid increase in the elderly population.
- The number of persons with A.D. is expected to increase.
- Improve the quality of care and the quality of life for the patients.
- To improve patients connection with the outdoors.
What is Alzheimer's Disease?

- Degenerative disorder that attacks the brain
- 1st recognized by forgetfulness & confusion
- Soon cognitive & physical functions become impaired
- Affects over 5 million Americans age 65 & older
- Consists of three main progressive stages
Stage 1 - Early Dementia

- Main Symptoms - Loss of short term memory; Depression & anger; Confusion & loss of initiative; Withdrawal & isolation

- Main Goals - Decrease individual's stress; Increase self-esteem; Maximize remaining physical, mental, and social skills
Stage 2- Moderate Dementia

- Main Symptoms- All cognitive abilities decrease- memory loss & attention span;
  Excessive wandering;
  Increased disorientation

- Main Goals- Provide sense of freedom & autonomy;
  Provide sense of safety & security;
  Provide visual cues that will assist in daily functioning
Stage 3 - Late Dementia

- Main Symptoms - Lose control of all bodily functions walking, standing, sitting - may result in immobility; Does not recognize self or others

- Main Goals - Provide sensory stimulation; Provide individual with a feeling of dignity, peace, safety and security.
What is Horticultural Therapy?

"Horticultural Therapy is a medical discipline that uses plants, gardening activities, and the natural world as vehicles for professionally conducted programs in therapy and rehabilitation."

- Steven Davis, President of the American Horticultural Therapy Assoc.

It has been documented that many patients have an interest in gardening or have some past experience with plants and would like to continue doing so.
Inventory- Stage 2 Courtyard

- This wing is currently home to those who wish to maintain as much independence as possible, but may need occasional assistance.
- The courtyard measures 59’ x 68’ and is surrounded by two story residential apartments.
- The residents have full time access to the courtyard.
Inventory - Stage 3 Courtyard

- This wing contains the “Genesis Unit” that serves individuals in the early stages of dementia.
- The courtyard measures 59’ x 68’ and is surrounded by 2 story residential apartments.
- Access into the courtyard for these individuals is only available by the 2 south doors.
Horticultural Activities

- Nature studies
- Hands on plant propagation
- Flower arranging
- Nature crafts
- Corsage making
- Smell and tell sessions
- Outdoor garden planting

Benefits of Horticultural Therapy

The horticultural setting:
- Improves social development
- Increases psychological well being
- Improves physical abilities
- Contributes to the overall quality of life for the patients
Project Goals

- Design 3 gardens that represent each stage of the disease.
- Understand the specific symptoms of A.D. and create design guidelines tailored to those symptoms.
- Determine general design principles that will apply to all 3 courtyards
- Include horticultural therapy as a critical program element for this project.
- Address the needs of the administration and staff.
Client

Residents of the facility, in particular those with Alzheimer’s disease
- Administration and staff of Village Christian Parke Retirement Home in Zionsville Indiana
- Families of the patient

Client Goals

- Maximize the patients remaining physical, mental, and social skills
- Provide a calming environment that decrease stress and depression
- Create opportunities that optimize memory & orientation
- Provide sensory stimulation
- Provide purposeful activities that allow the patients to feel a sense of control and fulfillment
Site Location

Village Christian Parke Retirement Home is located in Zionsville, Indiana just 30 miles northwest of Indianapolis.
Site Selection

Village Christian Parke Retirement Home was chosen for several reasons:

- The site has 3 existing courtyards that currently serve Alzheimer patients
- The courtyards are enclosed providing a pleasant microclimate
- The courtyards have level topography
- There are a number of access points into the site
The wing contains the “Good Shepherd Unit” is for individuals in the later stages of dementia.

- The courtyard measures 74’ x 76’ and is surrounded by 16 residential apartments.
- Access into the courtyard is difficult; the doors are generally locked.
Site Analysis

The existing courtyards present a range of problems for patients with Alzheimer’s disease. Careful planning of the site is essential if it is to meet the needs of the users. It is obvious from the current designs that this did not take place, and therefore resulted in a poor design and a wasted landscape.
Stage 1 Courtyard

Features:
- Change in topography
- Gazebo provides shade
- Handrails around the site

Stage 2 Courtyard

Features:
- Narrow walkways
- Confusing layout
- No seating

Stage 3 Courtyard

Features:
- Circular path system
- Four walkways to doors confusing
- Benches uncomfortably placed
Safety and Security

Paths
- 5-6' wide nonslip, nonglare stained broom finished concrete

Openings
- Power sliding doors when possible or doors with lever type handles

Handrails
- 26-35” tall

Accessibility

Raised Beds
- variety of sizes & heights
- Minimum 30” or at grade
- Maximum 40” to limit obstruction of views
Comfort

Seating
- Variety of seating arrangements: both fixed and movable, sun and shade
- Provide areas for wheelchairs

Shade
- Protection from sun, cold, wind with trees or trellises

Orientation and Wayfinding

Layout
- A simple garden layout
- Spaces arranged in hierarchies
- Continuous, looping
- Low plantings to ensure visibility
- Use of distinctive landmarks
Diversity of Plant Material

- **Purpose:** complement garden’s shape, accentuate garden’s structure, define spaces
- **Seasonal Interest:** year round
- **Safety:** non-hazardous plant material - thorny, poisonous, messy
- **Materials for Activities:** will have aesthetic & functional value
- **Wildlife:** encourage
Sensory Stimulation

*Sight*
- Seasonal blooming plants with variety of colors & textures

*Sound*
- Water features
- Vegetation will encourage wildlife
- Wind sculptures

*Touch*
- Variety of textures: dull, shiny, rough, smooth, stone, natural, hot, cold
- A cat to stimulate touch therapy
- Interactive water feature

*Smell*
- Not overwhelming

*Taste*
- With desecration
Concepts
Stage 1 - Therapeutic Courtyard

- Concept 1
- LABORATORY
  - Garden is designed to enhance the feeling of control the patients have over their lives
  - Central open space with activities surrounding it
  - Includes: a working greenhouse Fe vegetable garden, herb and cutting garden, raised beds, a passive seating area

- Concept 2
- RETREAT
  - This garden is more passive.
  - There is a central core of activity with a walkway serving as a buffer between the windows and the activity
  - Easier access to the activities from the lounge/patio
Stage 2- The Reminiscent Courtyard

- Concept 1
- CURVILINEAR
  - Concept focuses on the patients need to wander
  - Gives them multiple choices for walking for those patients that want to push the limits of wayfinding & orientation

- Concept 2
- GEOMETRIC
  - This garden focuses on the patients need for orientation
  - The layout is ordered with minimal chance of getting lost
  - There are main focal points that will serve as a reference for wanderers
Stage 3- Contemplative Courtyard

- Concept 1
- PICTURESQUE
  - This garden focuses on views & sensory stimulation.
  - Simple garden layout with minimal choices to make
  - There is a main patio to roll out beds that looks out onto a colorful landscape

- Concept 2
- INTIMACY
  - This garden focuses on the patients strong desire for intimacy by providing several smaller patios
  - There are several smaller patios
The Therapeutic Courtyard
Stage I
Stage 1 - Therapeutic Courtyard

Encourages patients to remain physically and mentally active by providing a variety of challenging activities.

Features:
- A looping path
- Benches located at intervals
- A central lawn area for enjoyment and physical therapy
- Generous patio off of the lounge for easy access
- Raised planters for standing, sitting, or wheelchair position
- A working greenhouse
- A vegetable garden, herb garden and a cutting garden to add variety and stimulation
- Plant material was chosen for many uses.
Stage 2 - Reminiscent Courtyard

Focuses on providing focal points throughout the garden to help individuals navigate through the site.

Features:
- A looping path to accommodate wanderers
- Benches located at intervals
- A central lawn area
- Generous patio off of the lounge with a trellis
- Two raised planters due to low level of functioning
- A gazebo for a private retreat
- A bird feeder
- A sculpture in center of lawn serving as a reference point
- Handrails around the site
- Plant material was chosen for many uses
The Contemplative Courtyard

Stage 3
Stage 3 -

The Contemplative Courtyard

Focuses on providing visual and sensory stimulation. This courtyard tries to enhance this experience.

Features:
- Controlled looping path
- A patio with power-assisted double doors that allow beds to be rolled out into the courtyard
- A conservatory
- A quiet rest area that serves as a transition between indoors and outdoors
- Handrails surround the site
- A gently sloped area adds interest