What is Art?
Art is a personal creative act

Materials
Journey
Experience

Springwood, UK
What is Design?

Intention

Therapeutic Design of Nature Environments
Design for the spirit

During meaningful, enjoyable activity, a person is creatively engaged. The spirit is alive and well.
Activity is the path to creativity and the route to holistic health: Mind, Body and Spirit
Role of Gardens and Nature in Dementia Prevention
Exposure to nature gardens has time-dependent associations with mood improvements for people with mid- and late-stage dementia: Innovative practice

Piran CL White and Jonathan Wyatt
Environment Department, University of York, York, UK

Garuth Chalfont
Lancaster University, Lancaster, UK

J Martin Bland
Department of Health Sciences, University of York, York, UK

Christopher Neale
Environment Department, University of York, York, UK

Dominic Trepel and Hilary Graham
Department of Health Sciences, University of York, York, UK

Abstract
Exposure to green space and nature has a potential role to play in the care of people with dementia, with possible benefits including improved mood and slower disease progression. In this observational study at a dementia care facility in the UK, we used care-assessed measures to evaluate change in mood of residents with mid- to late-stage dementia following exposure to a nature garden. We found that exposure to nature was associated with a beneficial change in patient mood. There was a non-linear relationship between time spent outdoors and mood outcome. Improvements in patient mood were associated with relatively short duration

Corresponding author:
Piran CL White, Environment Department, Wentworth Way, University of York, York YO10 5NG, UK.
Email: piran.white@yu.ac.uk
A Nature-based Concept for Dementia Care

AIMS:
- To improve quality of life for residents and staff
- To enhance family visits
- To facilitate rehabilitation and therapeutic interventions
- To enable people to regain and maintain lifetime skills and abilities
- To improve happiness, health and wellbeing with an uplifting and diverse year-round outdoor experience
- To provide an openly engaging and accessible environment for the diverse needs of our residents
- To provide an exemplar to challenge current thinking about mental health environments, and raises expectations of staff, managers, owners and designers about the therapeutic role of nature

VERANDA
Add planter boxes, trellises and bird feeders

COLOUR WALL
A large wooden panel for creative painting by residents

TOOL STORE
Keep garden tools and painting supplies nearby

THE LODGE AT OAKBRIDGE
A Nature-based Concept for Dementia Care
PROPOSED COURTYARD LANDSCAPE PLAN
JULY 2010 PAGE 1 of 2 SCALE: 1 to 200

garuth@chalfontdesign.com

NORTH

Disguised gate is easily opened from one side, but looks just like a section of fence from the other side

Oakbridge, UK
PROSPERO International prospective register of systematic reviews

A mixed methods systematic review of multimodal non-pharmacological interventions to improve cognition for people with dementia: protocol
Garuth Chalfont, Christine Milligan, Jane Simpson

Citation

Review question(s)
In adults with a primary diagnosis of dementia, what is the evidence for the effectiveness of multimodal (i.e. complex, more than one mode) non-pharmacological interventions for improving cognitive functioning?

Secondary questions:

• What is the evidence for what works and does not work?

• What is the evidence for different groups of people with dementia (early, mid or late stage) and potentially for different types (Alzheimer’s, vascular, etc.)?

• What are the strengths and limitations of different study designs used in testing these outcomes?

• What are the strengths and limitations of different evaluation tools used to assess the effectiveness of non-pharmacological multimodal interventions (NPMMIs) on improving cognitive functioning?
Physical activity & exercise

Oxygenates the brain (CBF)
Combats frailty, cardiovascular disease
Cerebral blood flow

- Creative or favorite activities
- Concentration

Cognitive stimulation

Oakbridge, UK

Measuring CBF at Nishino Hospital, Japan
Diet and nutrition

Heathy eating – town planning, landscape architecture
Food security – poverty, education
Growing some food - veg, fruit, herbs
Social interaction

Community gardening
Fun & Enjoyment
Maintaining relationships

Oakbridge, UK
Day centre & Community garden

Optimal environment and time to intervene
Treat and rehabilitate
Address root causes and delay decline

Charnley Fold, UK
Focus on gardens and the environment

http://www.thrive.org.uk/
Care gardens - design for use

Download the full Design Handbook here
http://chalfontdesign.com/

Spaces for shelter, sun and thermal comfort

Seeing the outdoors from inside
The Sow and Grow service at Sydenham Garden in London

• Nature-inspired activity programme
• Specifically benefits people with a recent diagnosis

Activities are based in, or are inspired by, the gardens and their produce.
People with dementia can take part in growing, harvesting and seasonal crafts.

In May 2013 they launched the Sow & Grow service, a 6-month therapeutic programme for people recently diagnosed with dementia.

https://www.sydenhamgarden.org.uk/
https://www.sydenhamgarden.org.uk/project/sow-grow/

Dementia Prevention with Nature
Charnley Fold Enhanced Dementia Day Centre
Preston, England

- Maintaining people to live at home longer
- 12 week programs

<table>
<thead>
<tr>
<th># of Programs Attended</th>
<th># of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>3+</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>2+</td>
<td>38</td>
</tr>
</tbody>
</table>

# of People who Maintained Skills across Programs

Secondary prevention

Dementia Prevention with Nature
Charnley Fold Enhanced Dementia Day Centre, Preston, UK

Total % of People who MAINTAINED OR IMPROVED

<table>
<thead>
<tr>
<th># of Programs Attended</th>
<th># of Participants</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>23 out of 30</td>
<td>77%</td>
</tr>
<tr>
<td>3</td>
<td>9 out of 15</td>
<td>60%</td>
</tr>
<tr>
<td>3+</td>
<td>32 out of 45</td>
<td>71%</td>
</tr>
<tr>
<td>2</td>
<td>15 out of 20</td>
<td>75%</td>
</tr>
<tr>
<td>2+</td>
<td>47 out of 65</td>
<td>72%</td>
</tr>
</tbody>
</table>

Outcomes for all 65 People involved in the Programmes at the end of Programme 4

- Still in Programme: 54%
- Residential Nursing: 17%
- Hospital Admission did not return home: 11%
- Deceased: 9%
- Moved out of area: 3%
- Other Day Care: 6%
Design, Research and Community Engagement

Dr. Garuth Chalfont, PhD

www.chalfontdesign.com
g.chalfont@lancaster.ac.uk

dementiapioneers@gmail.com
Facebook – Dementia Beat Camp