THE ROOM OUTSIDE

Designing outdoor living for older people and people with dementia

Annie Pollock with Colm Cunningham

DEMENTIA DESIGN ESSENTIALS

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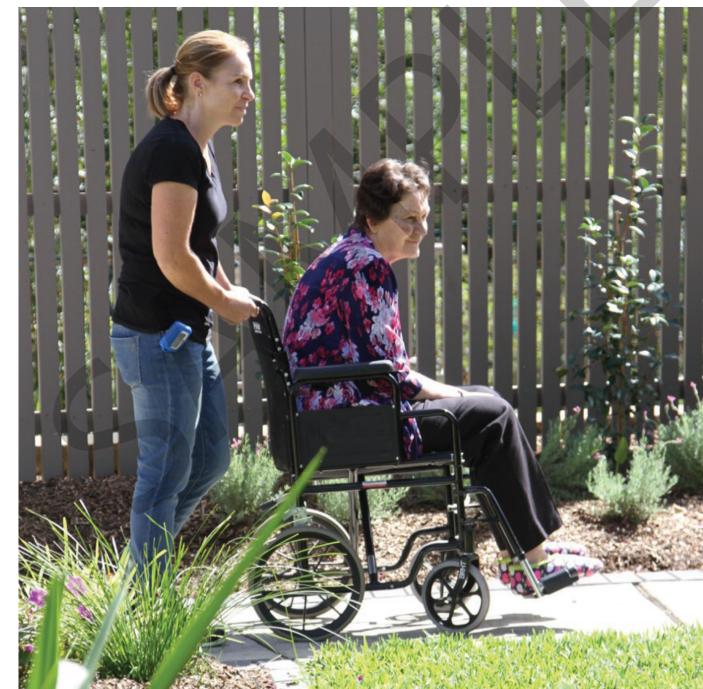
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01 Impairments of Dementia and older age





It is essential to understand that dementia is not only a condition impacting on memory, but affects the person's physical and psychological wellbeing. Progressive changes in a person's 'functioning' have traditionally been attributed to the inevitable decline of dementia. Increasingly it has been recognised that we need to investigate and treat other causes of change in the person's abilities. At times, dementia can simply make it harder for the person to identify what is causing the change, compensate for this or ask for help.

People with dementia will experience significant sensory challenges² and one example is hypersensitivity to sound. This can result in people with dementia being referred for 'behaviour management' for constantly walking away and leaving noisy and busy spaces.³ When hypersensitivity is considered alongside the levels of noise in these spaces, then this 'behaviour' is not an unreasonable choice given the circumstances. Lack of access to the outdoors is routinely assessed as a contributing factor to the escalation of this 'behaviour' as an issue for the person and those supporting them.⁴

To help design enabling environments for people with dementia, it is vital to understand the impairments of dementia and the additional complexities when conditions of age are also present. We have to always think of the parallel sensory, physical and environmental circumstances impacting on the person.

Dementia

People living with dementia can experience a variety of impairments due to damage caused in the brain. These can include:

- impaired memory—both shortterm and long-term memory
- difficulty learning new information
- poor concentration
- shorter attention span
- disorientation—time, dates, location
- difficulty identifying and naming objects
- word-finding difficulties
- difficulty planning and organising movements, including coordination
- difficulty with planning and sequencing steps to complete a task
- changes in personality and mood
- Visuoperceptual problems—not understanding patterns or tonal changes
- impaired judgement.

Older age

People living with dementia may also experience aged-related changes and impairments, which can include:

- hazy vision (e.g. a yellowing lens and impairments caused by glaucoma, cataracts and macular degeneration)
- poor hearing (e.g. presbycusis, an inability to hear particularly high pitch sounds)—hearing aids amplify all sound/noise, often causing further confusion
- diminishing efficiency of lung function, affecting breathing capacity
- diminishing muscle volume, affecting exercise tolerance
- impaired proprioception (perception of where one's body is and what it is doing)
- poor mobility and balance (e.g. shuffling gait, reduced sensation in feet, slower reaction to adjusting balance/ centre of gravity)
- an increased need to go to the toilet because of less efficient pelvic floor muscles in women and enlarged prostates in men.

In addition to these, many people have illnesses, side effects of medication and other conditions.

Changes in experiences of smell, touch and taste are just some of the senses that can be altered. A pleasant perfume for one person could be perceived as foul odour to another, so we cannot assume the positive experience of fragrance in a sensory garden will be the same for each individual with dementia. Recent work by people with dementia has provided significant insight into changes in sensory perception.⁵

A complex design problem!

When the complex impairments of dementia are added to those of older age, the risk of a person becoming overwhelmed, frightened or increasingly dependent upon others is all too clear. This can be compounded by the possibility that a person with dementia may not recall that they have any of these issues and be unable to problem-solve how to overcome them or what to do about them.

If we do not provide an enabling and supportive environment for a person with dementia, they will experience a higher level of disability (referred to as excess disability), which in turn can negatively impact on their self-esteem, confidence and self-worth.

It is usually an unsuitable, confusing or debilitating environment that creates issues for a person with dementia physically, cognitively and emotionally, rather than their dementia alone.

This is why creating enabling and supportive environments is one of the key non-pharmacological interventions.

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03 Planning for 'Rooms outside'



People adapt to the climates they live in. Their dwellings normally reflect their particular needs in ensuring a comfortable environment. However, with density, land cost and other commercial pressures, outdoor areas are increasingly illconsidered and treated more as 'left-over' space. If we want people to get outdoors, we must design outdoor environments that are comfortable and pleasant to be in and ones that are also well-maintained.

At the very start of the project, it is vital to look at the site as a whole. As you do this, it is helpful to think of the outdoor space as a 'room outside', so that it's given the same importance as the rooms inside the building during early design stages. Leaving the outdoors as a 'left-over' space is often inadequate for people and plants alike.

As you develop designs for your building and its site, there is a range of important issues to consider.

Site context

It is always worth having a pre-application discussion with your local planning authority regarding the proposed building and its outdoor spaces. Make notes of the discussion points and circulate them among the design and management team. The following questions may need to be addressed when designing the outdoor areas:

- Is the site affected by any planning legislation? (In the UK and Australia it could be within a conservation area or next to a building of heritage value.)
- Are there trees within or just outside the site that are protected by the planning authority? Could any of these trees shade your proposed building, or perhaps even create a positive focal point?



Trees can block direct sunlight: a care home in Scotland. Photo: Annie Pollock

- Consider whether the site is part of a 'Greenweb Restoration' (or similar) plan³⁵ which may impact the planting of non-indigenous plants in Australia. In the UK, if BREEAM (Building Research Establishment Environmental Assessment Method) accreditation on sustainability is required, this may also impact on planting design.
- Is there a busy road adjacent to the site that could lead to noise and air pollution?
- Are there sources of noise over which you do not have any control, e.g. aircraft? In this case, you might reconsider if the site is worth developing.
- If privacy or overlooking is not an issue, are there interesting things to look out on from within the building and the garden areas, e.g. a busy street or a school playground, which may help people with dementia retain contact with the outside world?

Consider orientation

Encourage the design team to produce sun access drawings so that you can see how much solar penetration there is to the outdoor areas at different times of the year.

Consider these options:

• Is it possible to create outdoor spaces on the sunny sides of the site? If so, use the sunless areas of the site for servicing and parking.

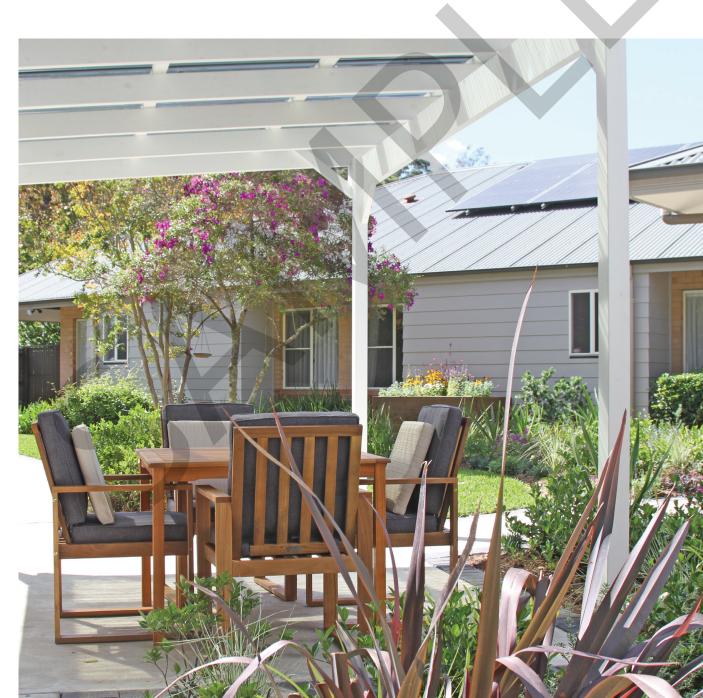
- If a sunny orientation is not possible, can the proposed building be low enough to allow sun penetration to the outdoor areas? Sun angles should be considered carefully along with the planned height of the building to ensure that direct sun can penetrate to ground level.
- Is there a site slope? This will affect sun access, the corresponding building height and width of outdoor spaces.
- Where do the prevailing winds come from? Consider providing outdoor shelters to provide a suitable microclimate for older people and people with dementia. Such outdoor spaces can often be used for outdoor events and an electrical supply can be useful.

Dealing with pollution

Many different types of pollution can affect the use of outdoor spaces. Noise and air pollution are two of the most obvious. Other types of pollution that may affect a site include:

- light, e.g. street lamps or shop windows
- visual, e.g. tall buildings, advertising hoardings, litter, site hoardings
- water, e.g. areas of stagnant water, poor site drainage, farm runoff.

07 FURNITURE AND STRUCTURES



Outdoor areas for older people and people with dementia need more than just gardens and plants to be effective and enjoyable. A range of furniture is vital, so that people can sit outdoors. Items of interest that help initiate conversation, shade and shelter and things to encourage activity and stimulate memory are also important. All of these must be recognisable, safe and easy to use and clearly visible.

Seats and tables

As mentioned earlier, seating areas create a more inviting outdoor space. Having plenty of seating will encourage walking, particularly if between sitting areas there are places to go, destinations with things to do along the way and plants that are pleasant to walk past. If the next seat is clearly visible from the last one, this will encourage people to walk further.

The exact style of seat may vary country to country, but the same design parameters apply—seats must be stable, comfortable and easily seen. Remember that metal furniture can be cold or get too hot; plastic furniture can be too lightweight and easily toppled over; stone furniture can also be cold or hot and retain rainwater. Benches with timber slatted, rattan or woven seats are generally the most comfortable and sustainable.

Tables are vital for people to sit at, chat with a 'cuppa', play games, partake in a hobby, or simply read a book. Tables need to have enough legroom, particularly for people in wheelchairs. Square or round tables are better for people with dementia, as this enables them to see the person they are talking to, which is particularly helpful for people with hearing impairments. Larger tables may mean people sit side by side, which limits easy communication. Square tables should have rounded corners to lessen the risk of injury.

Other features

Choosing planters

Raised planters of different heights enable people who are ambulant, as well as those in wheelchairs, to work at planting small plants and shrubs. Planters can either be built-in or mobile. Built-in planters are most useful as an 'allotment area', whereas mobile planters are useful for planting out seedlings or annuals and can be used on patio areas adjoining communal and activity spaces within the building. For those on a limited budget, planters can be made out of old pallets or woven willow. A planter designed to hold individual planting pods (e.g. Instaplanta in the UK or Vegepod in Australia or the US) makes for an even more flexible solution and can be easily moved if all the pods are taken out first.

Pergolas and trellises

Pergolas and trellises are used for training the growth of plants up and over. They can provide useful dividers between different areas, e.g. a veggie garden and a lawn and planting bed area.

Pergolas can be of any length—and in hotter climates can provide welcome shade once the planting has been established. The structure, however, before it is covered with plants (or roofing as may be the case in Australia), may cause confusing shadow patterns on the ground and so narrower structures may pose less of a problem in this respect.

Trellises are a useful backing to sitting areas, providing shelter and a feeling of security.

Bird tables, baths and feeders

Features that attract birds can provide lots of pleasure and interest to residents, but of course someone must take responsibility for keeping them clean and stocked. Staff may need to keep an eye on these, as some people with dementia may not understand the purpose of the bird food.



Structures that welcome

There are many outdoor structures that can provide a welcome destination point and seating area for people walking round the outdoor area. These include:

- gazebos
- arbours
- summerhouses
- geodesic domes.

There are many different garden buildings to choose from and climate may determine which are feasible. Any garden building should be:

- barrier free (i.e. no step up or down)
- clear for residents to see
- comfortable, with easy seating and room for at least two people
 - in a location which allows for staff supervision.





From top left: Instaplanta wth lift-out pods. Planter made of old timber pallets. Bird table in a retirement housing garden. Photos: Annie Pollock

Case study 6 Clisham Ward, Western Isles Hospital, Scotland⁵¹

A special garden was created at the Clisham Ward of Western Isles Hospital, Stornaway for patients with dementia, to improve health and wellbeing, give a greater degree of independence and provide access to the outdoor world.

The garden enables people to go out at their leisure and enjoy the fresh air. It includes a sensory garden with a circular footpath and various features which help remembrance and reflection on aspects of past life and environment. A central feature is a geodesic dome (a Solardome® Haven, 4.5m diameter) which provides a warm, safe and quiet retreat and allows people to be in the outdoor environment in all types of weather. Being of circular design with curved benches, it affords good views of the wild flower meadow and shoreline dotted with lobster pots, and enables a closer social interaction for people with dementia and their carers.

Robert Stubbington, the Landscape Architect for the Western Isles Council (Comhairle nan Eilean Siar) said the Solardome® glasshouse was chosen because of its ability to be a unique focal point (which can aid wayfinding) and also because of its strength and longevity in the most extreme weather conditions. 'Our vision was to create a peaceful, tranquil environment for patients who are used to a natural way of life and who benefit from having access to natural light.'

The aim of the garden is to encourage patients to enjoy fresh air and exercise in a designed landscape, with increased feelings of wellbeing and reduced reliance on medication. The benefit of a dome such as this is that even in poor weather, patients may benefit from bright outdoor light which helps regulate their circadian rhythm.

'The aim of the garden is to encourage patients to enjoy fresh air and exercise in a designed landscape, with increased feelings of wellbeing and reduced reliance on medication.'