

Getting Design Right in Dementia Care

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Chief Architect

“Supporting people who are living with dementia is one of the biggest challenges that our health and social care system will face in the 21st-century. There is rightly much emphasis placed upon how we deliver care, but the environment within which we deliver care, can also make an enormous difference to the quality of people's lives.” [Prof. Martin Green, Chief Executive, Care England]

People with dementia in Ireland

(Pierce, Cahill and O'Shea)

Age Range	Number
30 – 59 years	2,866
60 – 64 years	1,200
65 – 69 years	2,776
70 – 74 years	4,604
75 – 79 years	7,475
80 – 84 years	10,958
85 – 89 years	10,335
90 – 94 years	5,974
95+	1,661

Designing for Dementia

Our senses are our only means of connecting and interacting with the environment:

- Hearing
- Sight / vision
- Touch
- Smell
- Taste
- Proprioception (bodies ability to adjust to environmental conditions).



Designing for Dementia

Only 3 types of incoming sensory data for design to focus on:

- Chemical:
 - smell and taste
- Electromagnetic:
 - light and electromagnetic fields
- Movement:
 - touch and sound.



‘Hippocampus’

Designing for Dementia

Senses

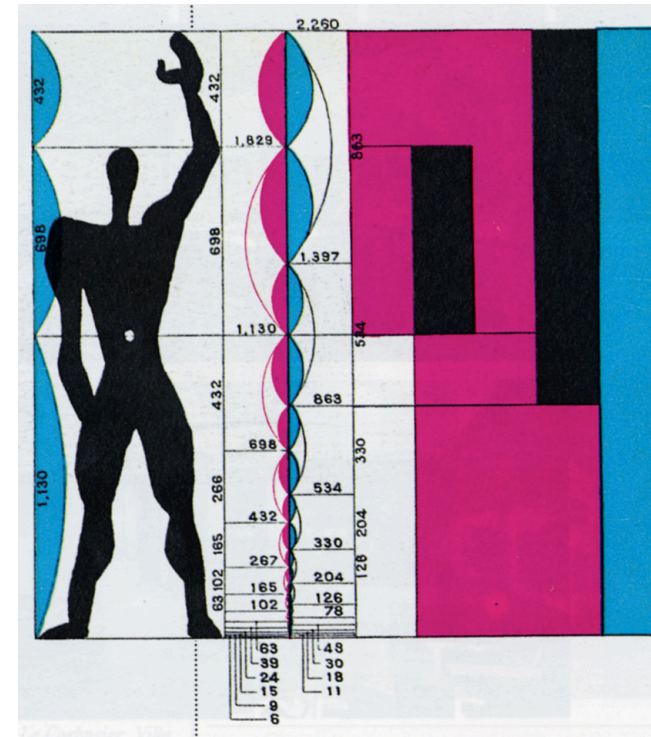
- Designing the environment for people with dementia should enable people to make the best use of any and all of their senses that they are still able to use.



Designing for Dementia

Design aims – the recent past, within our lifetimes:

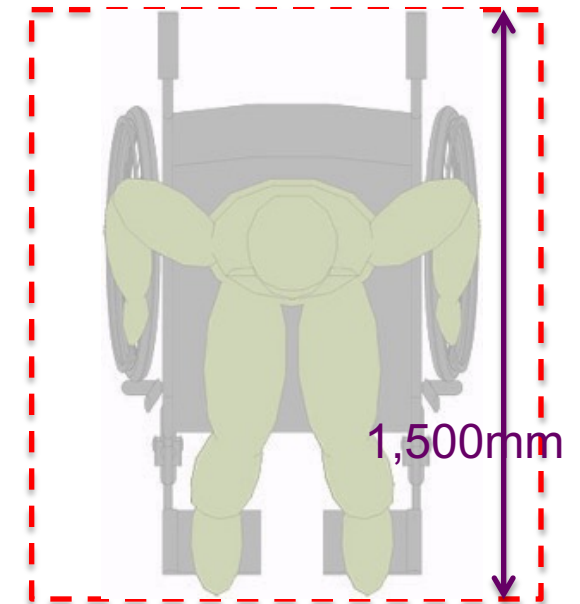
- Le Corbusier
 - Modular man
 - “A range of harmonious measurements to suit the human scale universally applicable to architecture and mechanical things.”



Designing for Dementia

Design aims today – varying needs:

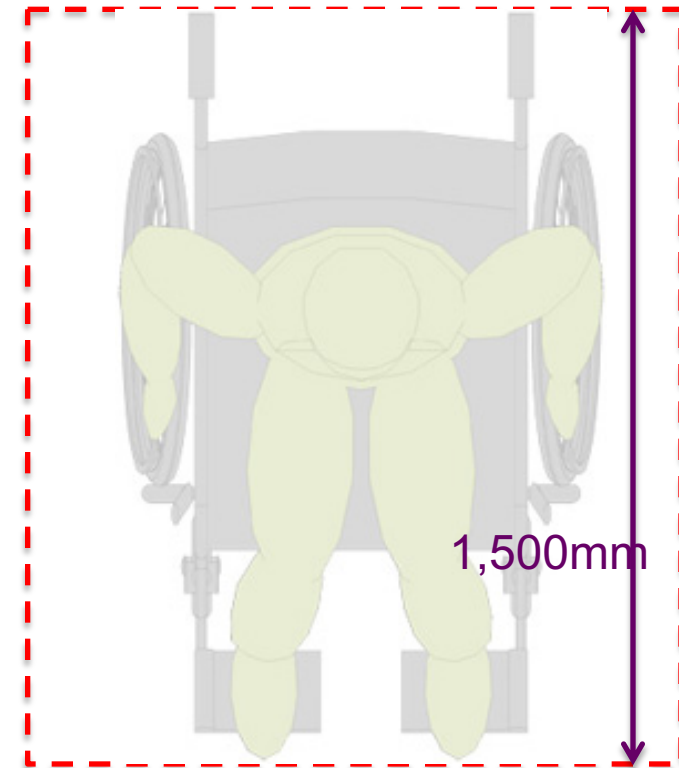
- Accessibility issues
- Lifetime homes
- BS 8300:2009
- Emphasis on physical disabilities
- Equality Act 2010
- HBN 0802 Dementia Friendly Health & social care Environments



Designing for Dementia

Design aims today – varying needs:

- Accessibility issues
- Lifetime homes
- BS 8300:2009 (AS 1428)
- Emphasis on physical disabilities
- Equality Act 2010
- Barrier free design.



Designing for Dementia

Design aims – cognitive impairments:

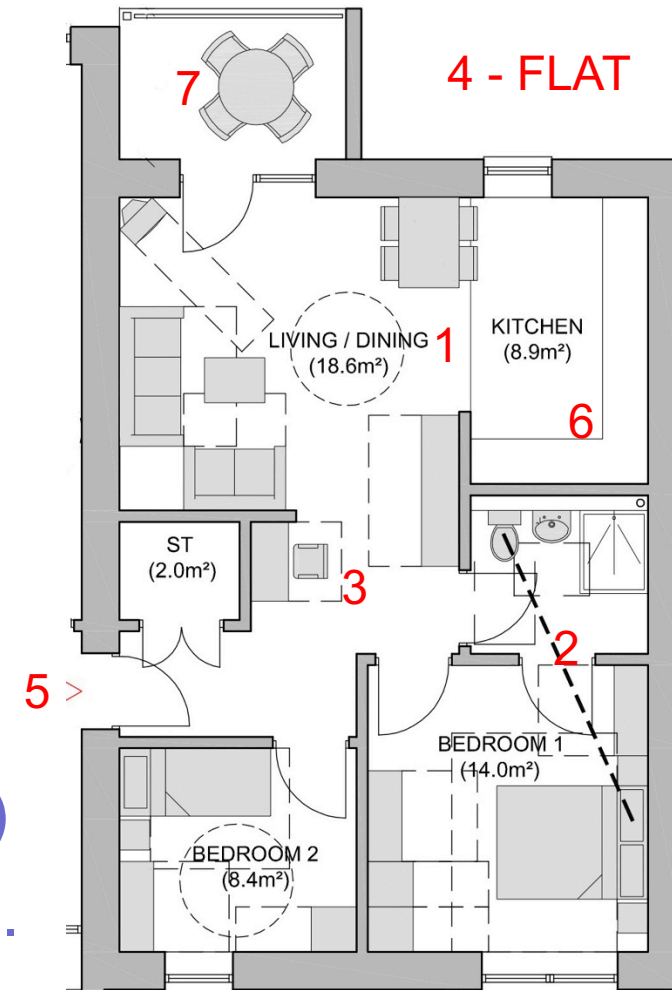
- **Familiarity!**
- Relief of stress
- Domestic scale
- Clear visibility and multiple clues
- Avoid confusion, minimise distractions
- Easy to use and understand
- Encourage activity and exercise



Designing for Dementia

Seven basic categories of design principles:

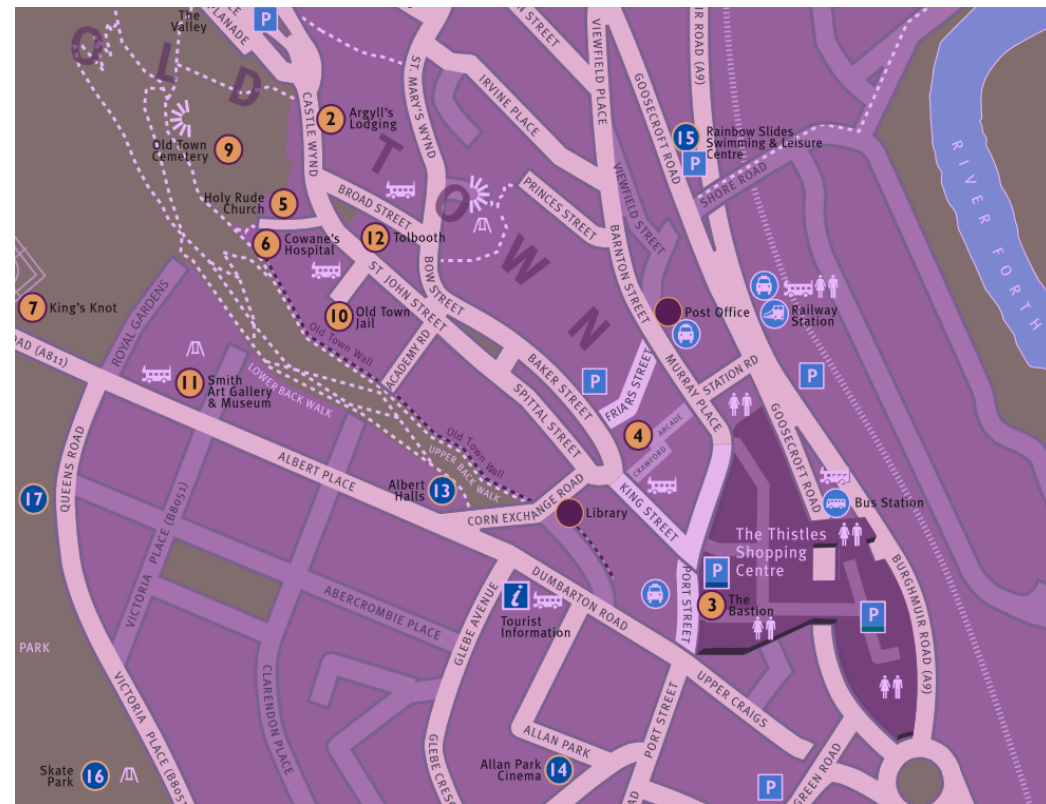
1. Room/space adjacencies
2. Visibility/permeability
3. Waymarking/navigation
4. Scale
5. Privacy/sociability
6. Sensory enhancement (comfort)
7. Easily accessible outdoor space.



Designing for Dementia

These design principles apply to:

- Healthcare facilities
- Social care facilities
- Dwelling houses
- Public buildings
- Commercial buildings
- Transportation
- Communities



Designing for Dementia

1. Room/space adjacencies:

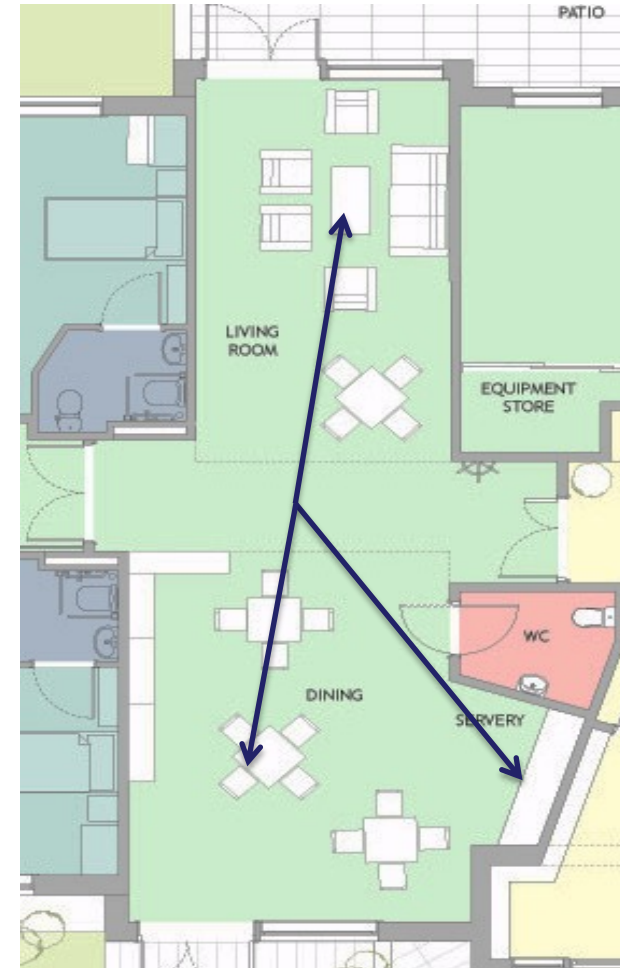
- Toilet accessibility



Designing for Dementia

1. Room/space adjacencies:

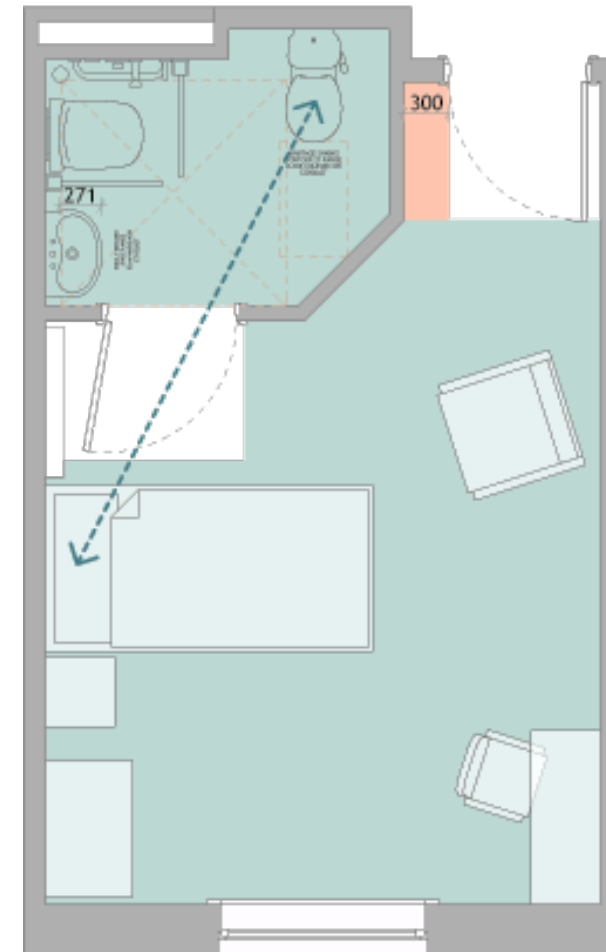
- Toilet accessibility
- Linkages e.g. lounge / dining / kitchen



Designing for Dementia

1. Room/space adjacencies:

- Toilet accessibility
- Linkages e.g. lounge / dining / kitchen
- Bedroom en-suite shower / WC



Designing for Dementia

1. Room/space adjacencies:

- Toilet accessibility
- Linkages e.g. lounge/
dining/kitchen
- Bedroom en-suite
shower / WC
- Separate services
zone



Plant and services

Designing for Dementia

1. Room/space adjacencies:

- Toilet accessibility
- Linkages e.g. lounge / dining / kitchen
- Bedroom en-suite shower / WC
- Separate services zone
- Indoor / outdoor links.



Designing for Dementia

2. Visibility/permeability:

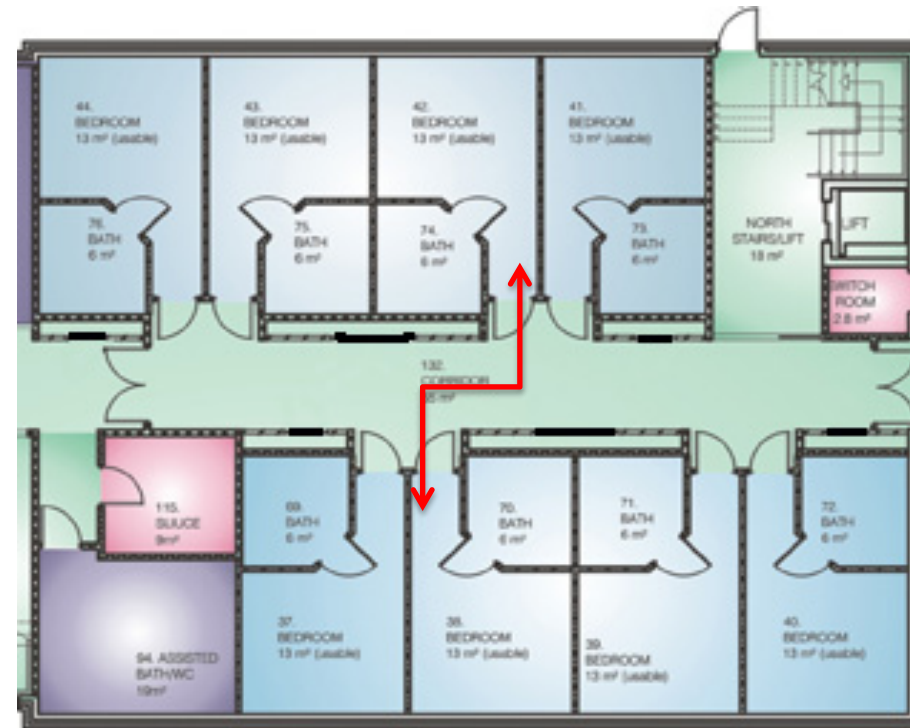
- Open planning



Designing for Dementia

2. Visibility/permeability:

- Open planning
- Avoid directly facing bedroom doors



Designing for Dementia

2. Visibility/permeability:

- Open planning
- Avoid directly facing bedroom doors
- Use of glazed screens



Designing for Dementia

2. Visibility/permeability:

- Open planning
- Avoid directly facing bedroom doors
- Use of glazed screens
- Better lighting



Designing for Dementia

2. Visibility/permeability:

- Open planning
- Avoid directly facing bedroom doors
- Use of glazed screens
- Better lighting
- Signs at an appropriate level.



Designing for Dementia

3. Waymarking/navigation:

- Landmark objects



Designing for Dementia

3. Waymarking/navigation:

- Landmark objects
- Building features (eg hairdressers)



Designing for Dementia

3. Waymarking/navigation:

- Landmark objects
- Building features
- Signage



Designing for Dementia

3. Waymarking/navigation:

- Landmark objects
- Building features
- Signage
- Personalisation



Designing for Dementia

3. Waymarking/navigation:

- Landmark objects
- Building features
- Signage
- Personalisation
- Localisation



Hartlepool

Designing for Dementia

3. Waymarking/navigation:

- Landmark objects
- Building features
- Signage
- Personalisation
- Localisation
- Light orientation.



Designing for Dementia

4. Scale:

- Domestic/non-institutional



Designing for Dementia

4. Scale:

- Domestic/non-institutional
- Single storey preferential
- If multi-storey, provide access to upper level outdoor space



Designing for Dementia

4. Scale:

- Domestic/non-institutional
- Single storey preferential
- If multi-storey, provide access to upper level outdoor space
- More spaces rather than larger



Designing for Dementia

4. Scale:

- Domestic/non-institutional
- Single storey preferential
- If multi-storey, provide access to upper level outdoor space
- More spaces rather than larger
- Short or no corridor.



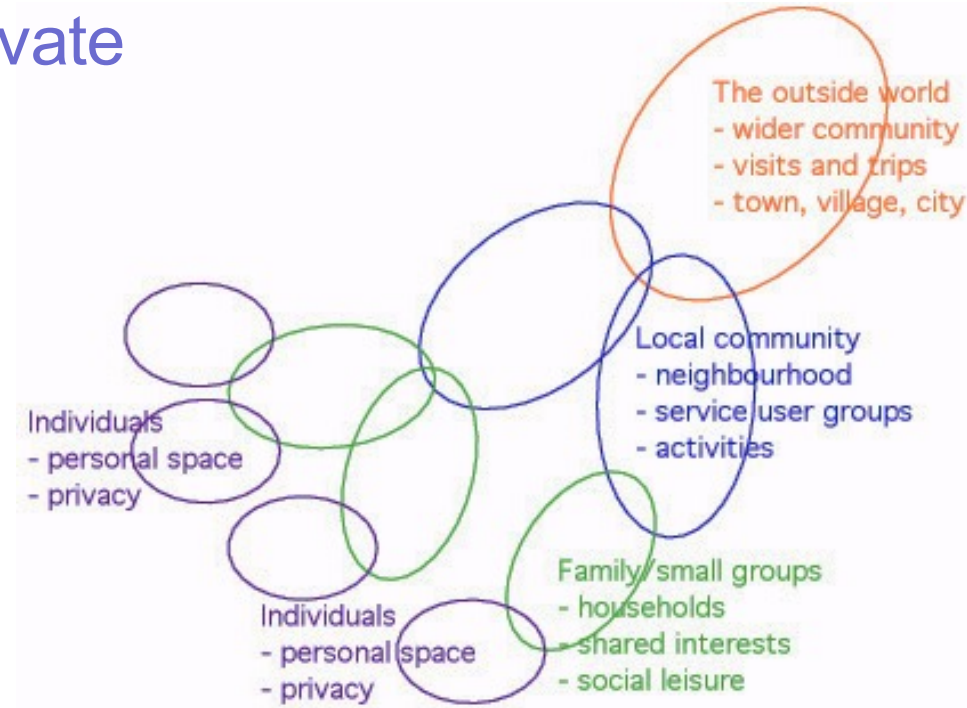
Designing for Dementia

5. Privacy/sociability:

- Sequence public/private



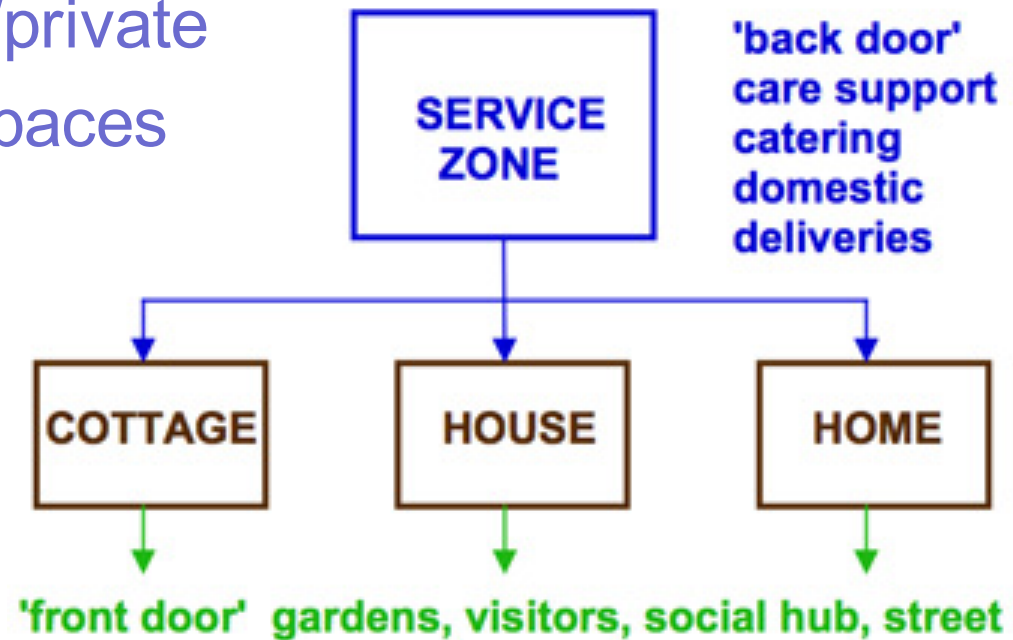
Hammondcare, Horsley



Designing for Dementia

5. Privacy/sociability:

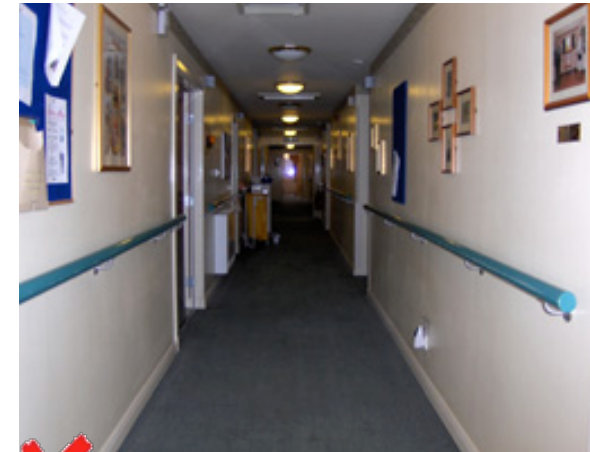
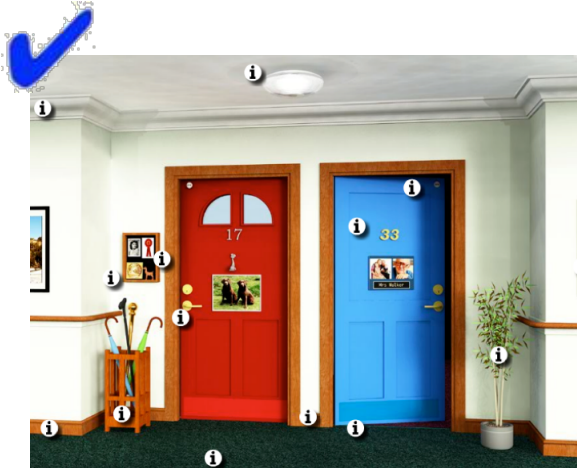
- Sequence public/private
- Separate living spaces from services



Designing for Dementia

5. Privacy/sociability:

- Sequence public/private
- Separate living spaces from services
- Define the 'front' door



Designing for Dementia

5. Privacy/sociability:

- Sequence public/private
- Separate living spaces from services
- Define the 'front' door
- Personal possessions



Designing for Dementia

5. Privacy/sociability:

- Sequence public/private
- Separate living spaces from services
- Define the front door
- Personal possessions
- Age or cultural appropriateness



Designing for Dementia

5. Privacy/sociability:

- Sequence public/private
- Separate living spaces from services
- Define the front door
- Personal possessions
- Age or cultural appropriateness
- End of life and extreme frailty.



Designing for Dementia

6. Sensory enhancement:

- Vision: the ageing eye
 - Loss of visual acuity

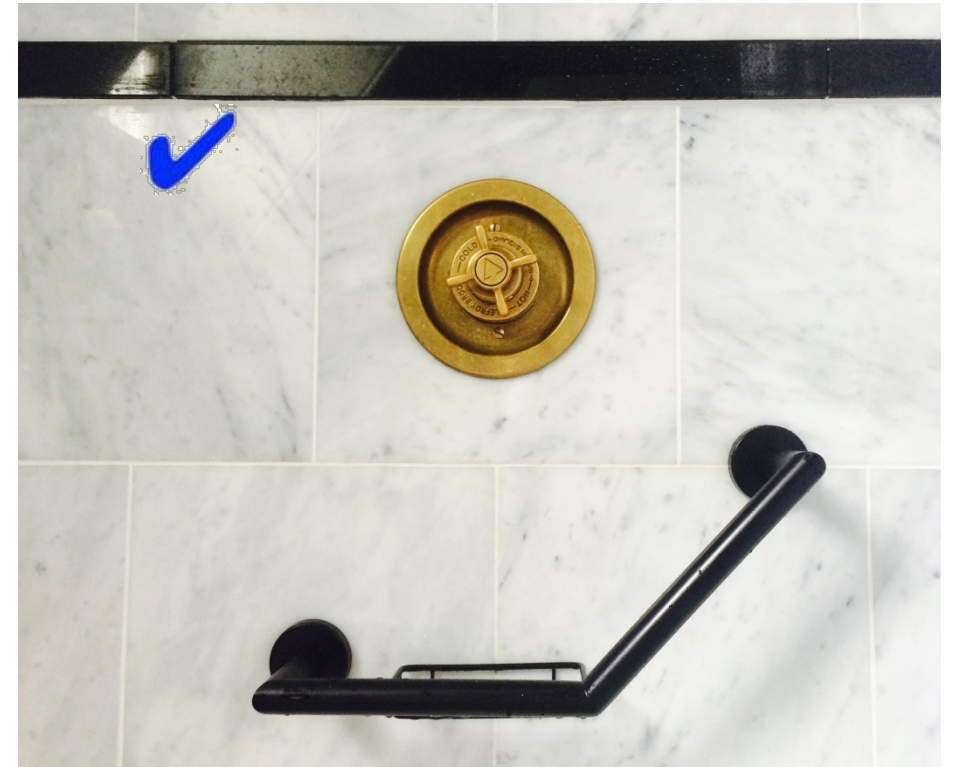


Unreadable signs

Designing for Dementia

6. Sensory enhancement:

- Vision: the ageing eye
 - Loss of visual acuity
 - Lower contrast sensitivity



Designing for Dementia

6. Sensory enhancement:

- Vision: the ageing eye
 - Loss of visual acuity
 - Lower contrast sensitivity
 - Poorer colour vision; white door is not easily seen, but is good for disguising 'Staff only' doors



Designing for Dementia

6. Sensory enhancement:

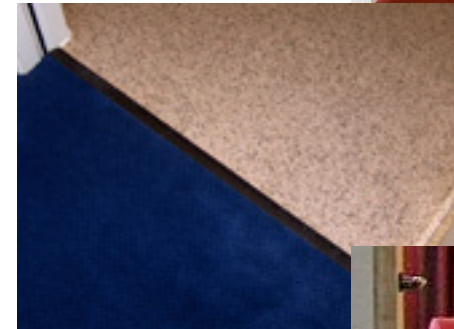
- Vision: the ageing eye
 - Loss of visual acuity
 - Lower contrast sensitivity
 - Poorer colour vision
 - Less spatial awareness; clutter can be hazardous



Designing for Dementia

6. Sensory enhancement:

- Vision: the ageing eye
 - Loss of visual acuity
 - Lower contrast sensitivity
 - Poorer colour vision
 - Less spatial awareness
clutter can be hazardous
 - Poorer perception of depth



Designing for Dementia

6. Sensory enhancement:

- Hearing: the ageing ear
 - Loss of higher pitch range



Soothing trickling water

Hard surfaces, ventilation and traffic noise

Designing for Dementia

6. Sensory enhancement:

- Hearing: the ageing ear
 - Loss of higher pitch range
 - Less able to differentiate sounds



Acoustic decorative panels can be helpful



Hard surfaces = high
reverberation

Designing for Dementia

6. Sensory enhancement:

- Hearing: the ageing ear
 - Loss of higher pitch range
 - Less able to differentiate sounds
 - Less sensitivity at low volumes



Peace and quiet



Unwanted background noise

Designing for Dementia

6. Sensory enhancement:

- Hearing: the ageing ear
 - Loss of higher pitch range
 - Less able to differentiate sounds
 - Less sensitivity at low volumes
 - Presbycusis, noise intolerance



Designing for Dementia

6. Sensory enhancement:

- Hearing: the ageing ear
 - Loss of higher pitch range
 - Less able to differentiate sounds
 - Less sensitivity at low volumes
 - Noise intolerance / difficulty filtering
 - Less sensitive balance.



'wet' floors with 'steps'

Designing for Dementia

6. Sensory enhancement:

- Touch
- Smell
- Taste.



Designing for Dementia

7. Easily accessible outdoor space:

- Visible and easy to access



Designing for Dementia

7. Easily accessible outdoor space:

- Visible and easy to access
- Safe and secure



Designing for Dementia

7. Easily accessible outdoor space:

- Visible and easy to access
- Safe and secure
- Attractive and meaningful



Designing for Dementia

7. Easily accessible outdoor space:

- Visible and easy to access
- Safe and secure
- Attractive and meaningful
- With a choice of activities



Designing for Dementia

What does it all mean?

- Improvements recently undertaken showed:
 - 71% fewer falls in corridors
 - Only 3% of residents with recorded weight loss compared to 13% before
 - 2 residents need help at mealtimes compared to 7 before
 - 60% reduction in reported physical aggression
 - Medication for aggression and agitation reduced from 20 times to once a week
 - More quality time with residents



Designing for Dementia

What does it all mean?

- After simple change of signage in a care home:
 - Before the change, 2 older ladies always needed help to find the toilets
 - After the new graphic signs had been fitted, they could find the toilets without any assistance.



Designing for Dementia

What does it all mean?

- Improvements recently undertaken showed:
 - Three quarters of people appear to have benefitted positively, are doing more and looking for things to do indoors and out e.g. watering plants, helping to fold washing, setting tables
 - “Service users are ‘coming alive’ again and doing the sort of tasks that they’d do in their own home”.



Thank you

Getting Design Right for Dementia Care

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