What makes your neighbourhood or street age-friendly (and is it sustainable)?

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I’DGO Research Consortium
www.idgo.ac.uk
I’DGO: older people getting outdoors

Consortium established 2003

• The aim is to identify the most effective ways to ensure that the outdoor environment is designed inclusively, to improve the quality of life for older and disabled people

• What features facilitate or hinder physical activity in outdoor spaces?

EPSRC EQUAL: Extending Quality Life for older and disabled people
Inclusive Design for Getting Outdoors
I’DGO Consortium

OPENspace, Edinburgh College of Art with Heriot-Watt and Edinburgh Universities

Oxford Institute for Sustainable Development
Oxford Brookes University

SURFACE Inclusive Design Research Centre + Centre for Rehabilitation and Human Performance Research, University of Salford

Engineering and Physical Science Research Council

EQUAL Programme: Extending Quality Life for older and disabled people

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I’DGO TOO Partners

Age Concern England  
CABE Space  
Central Council for Physical Recreation (CCPR)  
Department for Communities & Local Government (CLG)  
Dept for Transport  
EDAW  
EDI Group  
Elwood Landscape Design  
English Courtyard Developments  
English Heritage  
Greenspace Scotland  
Guide Dogs for the Blind  
Health and Safety Executive/Lab  
Help the Aged  
Homes and Communities Agency  
Ian Wall  
Institute of Highway Incorporated Engineers  
Jacobs Babtie  
JMU Access Partnership Living Streets  
John Gregory  
Living Streets  
Marshalls  
Mayer Brown  
NHS Health Scotland  
Places for People  
Peabody Trust  
Peter Brett Associates  
Phil Jones Associates  
PRP Architects  
Royal Institute of British Architects  
Scottish Government  
Steve Ongeri  
Sustrans  
Swindon Borough Council  
The Orders of St John Care Trust  
TRANSform Scotland

INCLUSIVE DESIGN FOR GETTING OUTDOORS
Triangulation of methods

• Focus groups, semi-structured interviews and workshops with older people
• Workshops and questionnaire surveys of designers, planners and managers
• Questionnaire surveys with older people as participants
• On-site analysis of urban form and detailed design
• behaviour-setting observations and accompanied visits with older site users
Why does the outdoor environment matter?

Healthy activity, wellbeing and quality of life

In our study, older people living in an environment that makes it easy and enjoyable to go outdoors were more likely to be physically active, healthier and more satisfied with life.
People living in a supportive environment tend to spend a longer time outdoors. Those who perceive their neighbourhood environments as fairly or very supportive are more likely to be a high-level walker ($\geq 2.5$ hours/wk).
People who perceive their neighbourhood as supportive report fewer unhealthy days.
Urban form and quality of life

Older people living in low density areas were more positive about their quality of life than those in higher density areas.

Participants in villages and small towns rated their QoL highest and those in major city/town centres lowest.

Most participants would like their local streets to be tree-lined and with plenty of greenery.
Benefits and Barriers

Outdoor environments provide opportunities for physical activity, contact with nature and social interaction.

But in-depth interviews of 200 older people showed that at least half faced problems in getting outdoors due to barriers in the environment and lack of supportive facilities.
How do perceived quality and accessibility of neighbourhood open spaces affect patterns of activity?

- Pleasantness
- Lack of nuisance
  ➡️
  Recreational walking

- Good paths to open space
- Good facilities
  ➡️
  Walking for transport

A more pleasant neighbourhood open space is associated with a 40% increase in the likelihood of achieving more than 1 hour of recreational walking per week.
What features facilitate recreational activity in outdoor spaces?

**Pleasantness of open space**
- clean and well-maintained
- attractive trees and plants
- good for children’s play
- good for chatting with people
What facilitates recreational activity?

Lack of nuisance

Young people: “They probably won’t harm you, but they look so threatening. They march up the road and ride the bicycles up and down the pavement.”
What features facilitate walking outdoors?

Perceived quality of paths
- paths easy to walk on
- enjoyable to walk on
- no obstacles to getting to open spaces
Light traffic on walking routes
Preferred environmental features for local open space

<table>
<thead>
<tr>
<th>Feature</th>
<th>Relative Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuisance</td>
<td>10.7%</td>
</tr>
<tr>
<td>Facilities</td>
<td>10.3%</td>
</tr>
<tr>
<td>Trees/Plants</td>
<td>10.0%</td>
</tr>
<tr>
<td>Traffic</td>
<td>9.6%</td>
</tr>
<tr>
<td>Things to watch</td>
<td>9.3%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>8.8%</td>
</tr>
<tr>
<td>Pavement Existence</td>
<td>6.7%</td>
</tr>
<tr>
<td>Car park</td>
<td>5.5%</td>
</tr>
<tr>
<td>Seats</td>
<td>4.7%</td>
</tr>
<tr>
<td>Trees along footpath</td>
<td>4.7%</td>
</tr>
<tr>
<td>Pavement Quality</td>
<td>4.5%</td>
</tr>
<tr>
<td>Water feature</td>
<td>4.4%</td>
</tr>
<tr>
<td>Public transport</td>
<td>4.0%</td>
</tr>
<tr>
<td>Seats en route</td>
<td>3.7%</td>
</tr>
<tr>
<td>Distance</td>
<td>3.2%</td>
</tr>
</tbody>
</table>
Potential trade-off scenarios among diverse open space features

1. Nuisance versus facilities

Participants would accept having some level of nuisance (such as undesirable youngsters hanging around) if they could also have facilities such as cafe and toilets in their local open space.

2. Trees versus traffic

Participants would rather have an open space with few trees (both along paths and in the park) but light traffic than one with heavy traffic and lots of trees.

3. Trees versus facilities

Participants were willing to trade lack of facilities (such as cafe and/or toilets) in order to have tree-lined paths and dense trees and plants in their local open space.
Does where you live make a difference?

Do you live within 10 minutes’ walk of your local open space?

Such participants were more than twice as likely to be satisfied with life compared with those whose local park is further away.

Do you have good paths on the way to your local open space?

Such participants were twice as likely to achieve the recommended levels of healthy walking activity (2.5 hours/week) as those with poor quality paths.

Do you live in sheltered accommodation or a care home?

Participants living in their own homes were c. 2.8 times more likely than people living in sheltered accommodation or a care home to get outdoors for more than 5 hours per week.
OPENspace: behaviour setting
observations: path as sitting place
Design guidance is on our website
www.idgo.ac.uk
(referenced in WHO Age Friendly Cities Guide 2007)

a crescent of seats, toilets nearby, good views and wildlife
Older people’s preferences for detailed aspects of design
Detailed Design

What are the key attributes of detailed design (at both street and neighbourhood scale) likely to influence aspects of older people's quality of life?

Method

• in-depth interviews with 200 older people;
• physical audit survey of the street, and neighbourhood, in which these older people live
Wide and flat tarmac footways

- can avoid street furniture and pedestrians
- feel safe from traffic
- tarmac seen as smooth, even, non slippery, safer from tripping, comfortable to walk on
- should be well maintained
- need distinguished path for cyclists
Easy transition at level changes (1)

- ramps with handrails to be used for level changes (issues of ease and safety)
- steps and handrails as an alternative for some who prefer and for those who are more fit and want the exercise
Easy transition at level changes (2)

- provision of dropped kerb important
- tactile dropped kerb needs further investigation

“really uncomfortable”
“I prefer to walk around them”
“I don’t feel safe, I feel I may trip”
Unobstructed walkways (1)

- permanent obstructions inconvenient but necessary
- temporary obstructions are tolerated
Unobstructed walkways (2)

- obstructions from poorly maintained paving seen as hazardous
- cars parked on pavement are major problem
Controlled crossing points

- pelican crossings preferred (ease of use and safety)
- audible signal to be provided
- short crossing distance important
Clear, simple, easily visible and understandable signage
Frequent, warm, supportive seating, well maintained and safe

“Arm rests are good for getting up and down”
Bus stops and shelters

- provision
- weather protection
- seating
- personal safety
- seeing the bus
Easily maintained street greenery
Easily maintained public art

- classical public art is preferable to modern
- water features are seen as very enjoyable
- graffiti is not seen as art but as nuisance
Sufficient, well maintained, safe and open toilets – not this!
Sufficient, well maintained, safe and open toilets
Street Walkability Audit Tool
Developed with older people in mind using the principles and practices of inclusive design

17 Street attributes, examples:
• street type (10 sub attributes),
• bus stops / shelter (8 sub attributes)

9 Neighbourhood attributes, examples:
• safety and perceived safety of sidewalks (9 sub attributes)
• general level of accessibility (11 sub attributes)
Why be concerned? The results of a physical audit of participants’ streets

- Narrow footways (either through design or obstacles)
- Generally smooth paving (+ve navigation) but 28% paving was poor / dangerous due to lack of maintenance
- Poor ease of movement because of siting of obstacles
- Lack of dropped kerbs at road crossing points
- Incorrectly laid / poorly laid tactile paving
- Uncontrolled road crossing points
- Limited bus stop / shelter / seat provision
- Very limited seating along routes (rather than destination)
- Easy to read and understand signage (+ve wayfinding)
Physical audit of wider neighbourhood

Wider neighbourhood is more supportive because

- Increased provision of controlled crossing points
- Footways are wider and more level, so ease of navigation is improved
- Tactile paving more likely to be correctly laid

Barriers at both the street and neighbourhood scale

- Lack of seating
- Poor maintenance of paving
- Lack of controlled crossing points
What should I’DGO study next?

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I’DGO TOO

Work at three different levels of detail, to research:

• the implications of high-density urban housing on residential outdoor space, such as gardens and balconies,

• pedestrian-friendly approaches (such as Home Zones) in street environments and

• the practical consequences of using tactile paving (designed to assist people with visual impairment) for older people in the urban environment
Home Zones and shared spaces

Photos courtesy of Phil Jones

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Are Home Zones a good solution for an ageing population?

How does implementation of shared space projects such as Home Zones affect older people’s access outdoors and quality of life?

Does implementation of such schemes result in environments where older people

• Go outside more often?
• Spend more time outside in the local environment?
• Have better social networks?
• Have a better quality of life?
Home Zones and shared spaces

Photo courtesy of Phil Jones
Residential Outdoor Space Research Questions

- What is lost and gained in urban renaissance developments in terms of ROS?
- How do different types of ROS contribute to older people’s wellbeing?
- How best to design different types of ROS in urban renaissance housing to deliver maximum benefits to older people?
Wellbeing and Residential Outdoor Space

- How and how often is ROS used?
- Does ROS have potential for different uses (hanging washing, entertaining, feeding wildlife…)?
- How does spending time in ROS make residents feel?
- How important is the view – more important than using the ROS?
- Do residents chat to neighbours in ROS?
- Is maintaining the ROS a concern?
Types of housing being researched:

Age-specific ‘social’ housing
Urban Renaissance ‘social’ housing
Urban Renaissance ‘private’ housing
Tactile paving research

Aim:
To assess the implications of the design, siting, laying and use of tactile paving for older people.

Objectives:
 Examine how blister and corduroy tactile paving is designed, sited and laid;
 Identify older people’s perceptions and approach to using tactile paving;
 Quantify the relationship between tactile paving design parameters and the biomechanics of ambulation and risk of falling.
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Real world methodology
72 sites – 18 steps, 49 crossings, 5 Aus/NZ

• Assessed the tactile paving – design, siting and laying
• Measured environmental factors that may influence a person’s safety
• Undertaken on-site observations and interviews
• Distributed a user questionnaire
• Interviewed local authority highway depts
• Convened focus groups
INCLUSIVE DESIGN FOR GETTING OUTDOORS
What have we achieved in 10 years of research?
– the researchers’ perspective
In 1999 ....Understanding of built environment design and where designers are coming from -

Questionnaire survey of 2017 architectural practices in the UK (23% of practices)
- over emphasis on wheelchair users
- lack of understanding of disability and how a person with a disability interacts with a building
- legislation and regulations (minimum standard) seen as the solution to the lack of understanding
+ designers keen to ensure buildings and their environment facilitate social inclusion
In 2001 ...... Design of the Sale Bridge, Swansea
The Sale Bridge, Swansea
In 2004 ....Understanding of older people and how they interact with the built environment -

- “the buses whizz by and make me feel unsteady”
- “cyclists always ride on pavements, and don’t have bells”
- “mobility scooters on the footway are positively dangerous, they go so fast”

+ developed design guidance that takes account of user requirements www.idgo.ac.uk

(Referenced in WHO Global Age Friendly Cities Guide 2007)
I’DGO TOO: places for people

Inclusive design for getting outdoors
I’DGO TOO: places for people

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I’DGO website  www.idgo.ac.uk