

# Self propulsion and a healthy city

The importance of going on foot and  
by bicycle

by Ros Weatherall

# Self propulsion

- Both walking and cycling are human powered - or self propulsion
- Energy required is stored in our bodies
- We have an instinctive desire to conserve this energy
- It's easy to jump in the car - but whose energy are you using?

# Walking

- The oldest and most sustainable way to get about
- We all walk (almost all)
- Available to all incomes, ages, cultures
- Enables independence - especially those unable to drive (old, young, banned, no car)

# More on walking

- For pleasure and exercise- rambling, dog walking, jogging...
- To get somewhere, to shops, school, friends ... and to work
- Access to bus travel
- Just being in the street, out of doors

# Sojourning - staying here

- Transport is mainly about getting from here to there
- But you may want to stay in the street, and not going anywhere
- Watching, playing, window shopping, admiring buildings, resting, just being there
- And you'll be on foot

# Eating and texting



# Chatting and watching



# Cycling

- Mainly A to B journeys
- Almost all trips within 5 miles
- Door to door transport
- Can carry children and shopping easily
- Easy to park
- A bike need not be expensive



# More on cycling

- Faster than walking - you can go further in same time or get there quicker
- Restricted - fewer will cycle than will walk
- Widens the catchment area for bus and train
- Needs safe and extensive bike parking

# “Desire lines”

- Without realising it, people using their own power to get about will try to conserve it
- The best route is the most direct - the ‘desire line’.
- This applies to all self propulsion - on foot or bike

# A desire line for walkers



# A desire line for cyclists



# Saving time

- People on foot or bike don't like waiting: they need to conserve momentum and body warmth
- Especially on wet, cold days
- Hence 'impatience' at crossings and traffic lights

# Catching a train



# Health and activity

“For most people, the easiest and most accessible form of physical activity are those that can be incorporated into daily life. Examples include walking or cycling instead of travelling by car, bus or train”.

Source: Start Active, Stay Active, DH 2011





# Start Active, Stay Active

A report on physical activity for health  
from the four home countries'  
Chief Medical Officers



# Health benefits of walking

- Heart rate and circulation
- Mental health
- Less obesity
- Diabetes and cancer risks reduced
- Good for bones, fewer falls
- Better lung function

# Health benefits of cycling

- Fitness
- Cardiovascular - reduced risk of heart attack
- Weight control
- Better mental health, reduced stress

# Healthy city

- Business thrives with increased ‘footfall’
- Employees who commute by bike or foot are more healthy and alert
- Same for school children
- Environmental benefits of fewer vehicles
  - Less pollution, less noise
  - Safer streets

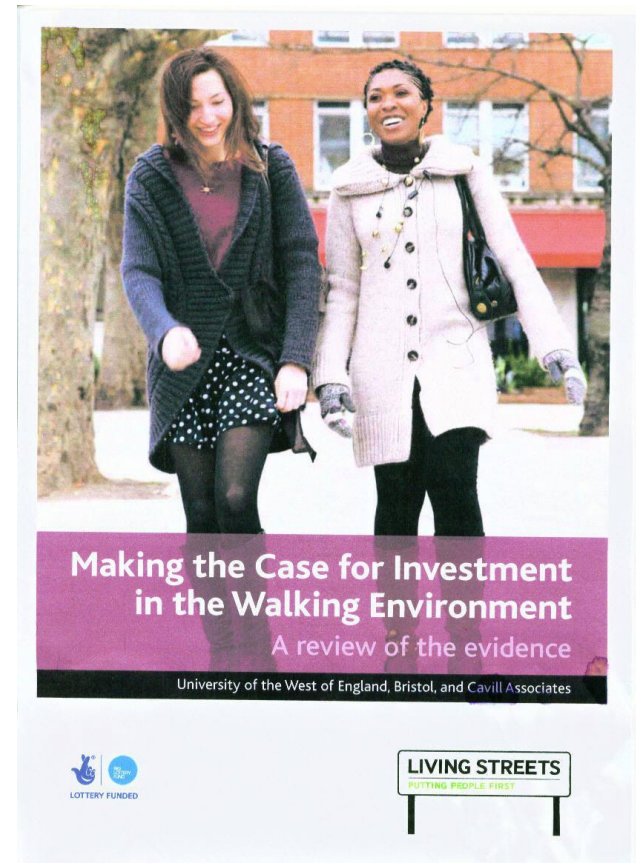
# Misunderstandings

- Numerous studies show that retailers overestimate the use of cars by their clients
  - In Bristol, 22% of shoppers came by car: retailers thought it was 41%
  - Over half came on foot
  - Over 60% lived within a mile
- Similar results were found in London

# Investing in walking

- Health benefits
- Social benefits
- Environmental benefits
- Economic benefits

University of West of England 2011



# What can we do?

- Change attitudes to going on foot or bike
- Challenge perceptions of risk
- Allocate space for people rather than vehicles

# Climate change

- The UK needs to reduce carbon emissions drastically
- Transport accounts for about 29% of emissions
- About 40% of this is from private cars

# Potential for change

- We all need to help reduce carbon emission targets
- Walking and cycling are carbon neutral
- And healthy - good for us all
- Plus less pollution, noise, road danger
- Most journeys are short journeys



# Our travel habits

- Of personal journeys in the UK
  - One fifth (19%) are under 1 mile
  - Two thirds (66%) are under 5 miles
- The average journey distance is
  - 0.7 miles on foot
  - 2.6 miles by bike

Source: 2008 National Travel Survey

# Encourage walking

- Wider pavements
- More maps and signs - eg Wayfinding
- Places to sit and 'sojourn'
- Keep public realm clean and tidy
- Joined up routes, clearly signed
- Toilets

# Wayfinding in Bonn Square

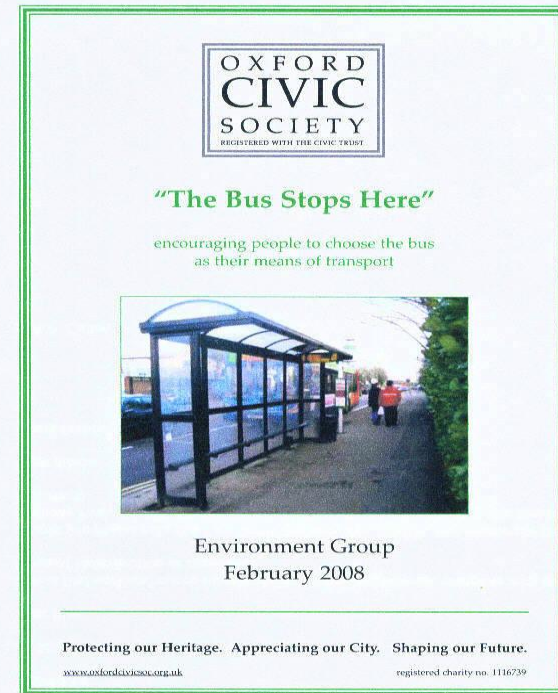


# Walking and buses

- Walking to and between buses is the “glue” of bus travel
- Better bus stops
  - Pleasant places to wait
- Connected bus routes
  - Improve walks between buses

# Waiting for the bus

- A comfortable wait
  - Shelter
  - Seating
  - Lighting after dark
  - Litterbin
- Information
  - Timetables
  - Real time information
  - Map of area around the stop



# Encourage cycling

- Review existing cycle network
- Joined up routes across city, and across rivers and ring road
- Extend 20mph to all roads in city
- Safer and more bike parking
- Better mapping and signing
- Standards for infrastructure

# Challenge perception of risk

- Is cycling so dangerous?
  - Safety in numbers - critical mass
  - Balance increased health with risks
- Do we really need to wear helmets?
- Cycle training - Bikeability - needs to be available to all (including short term residents)

# Leave the car at home

- Congestion is reduced
- Easier movement for more essential movements - buses, deliveries, taxis
- Fewer car parking spaces needed
- No more need for on-pavement cycle lanes - carriageway will be safer for bikes



# Leave the car at home (2)

- Of the fuel that you put in your car, 97% is used to move the car, and only 3% is used to move you
- For short trips it is quicker on foot or bike
- Even using the bus cuts carbon emissions, relative to using the car

# Walkable Oxford

- Need to clarify who does what
- Streets for all to use and enjoy
- Remove barriers to going on foot
- Address the details

**A more walkable Oxford**

**Better for everyone**



**What the City and County Councils can do**

Summer 2008



**Oxford  
Pedestrians  
Association**

Source OxPA 2008

# On Foot in Oxford

- This proposes that Oxford should be a better place to be on foot
- For example, extend the Wayfinding scheme
- Collecting together walks, perhaps web based ?
- Reduce clutter, try street audits ?



17 October 2011

## On Foot in Oxford

**A joint programme of the Oxford Civic Society  
and Oxford Pedestrians Association, in  
partnership with Oxford City Council**

# With thanks to Paul Cullen

