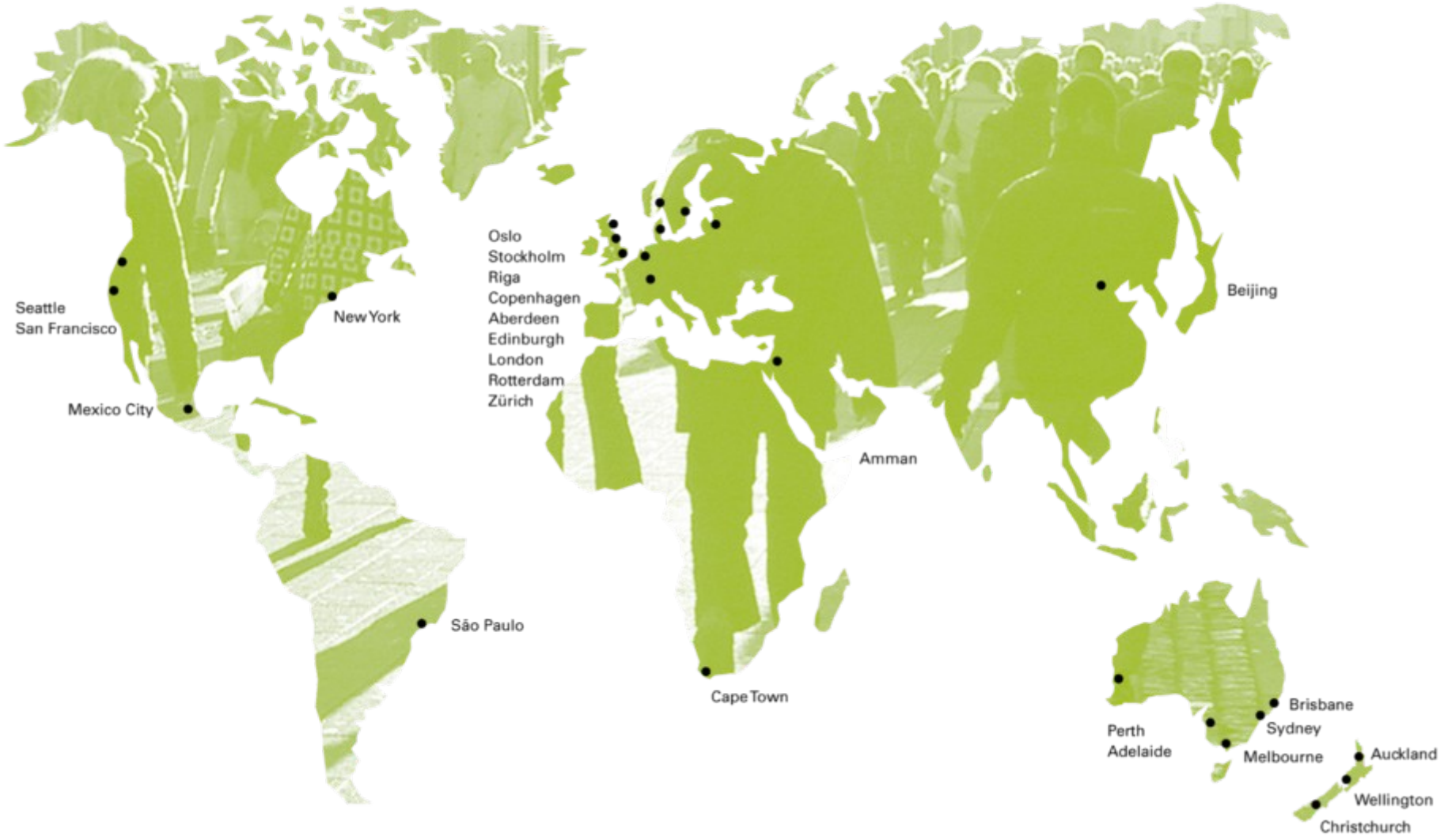
Key Quality Indicators

GEHL ARCHITECTS
URBAN QUALITY CONSULTANTS

Camilla Richter-Friis van Deurs

This is who we are…

This is where we work…



New York 2008

www.nyc.gov/dot search for “world class streets”

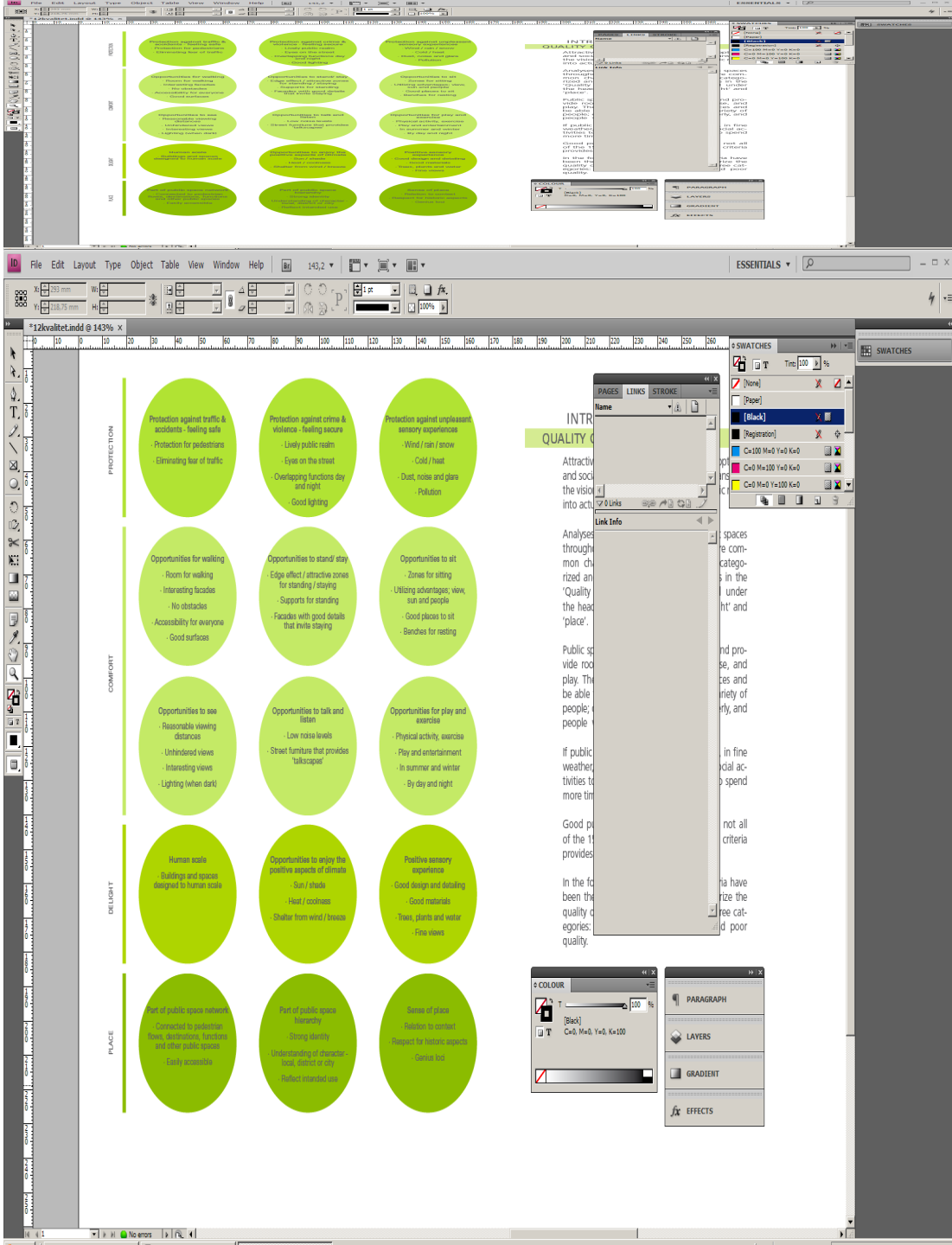
This is what we look at… the inco t!

Place

Protection

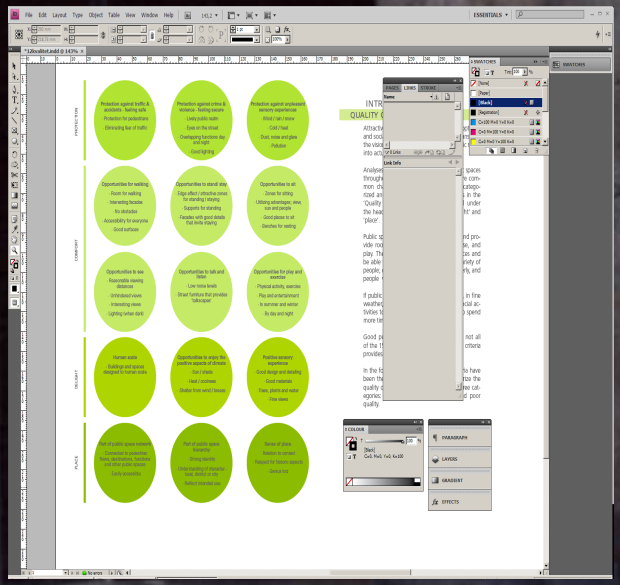
Comfort

Delight



London 2004

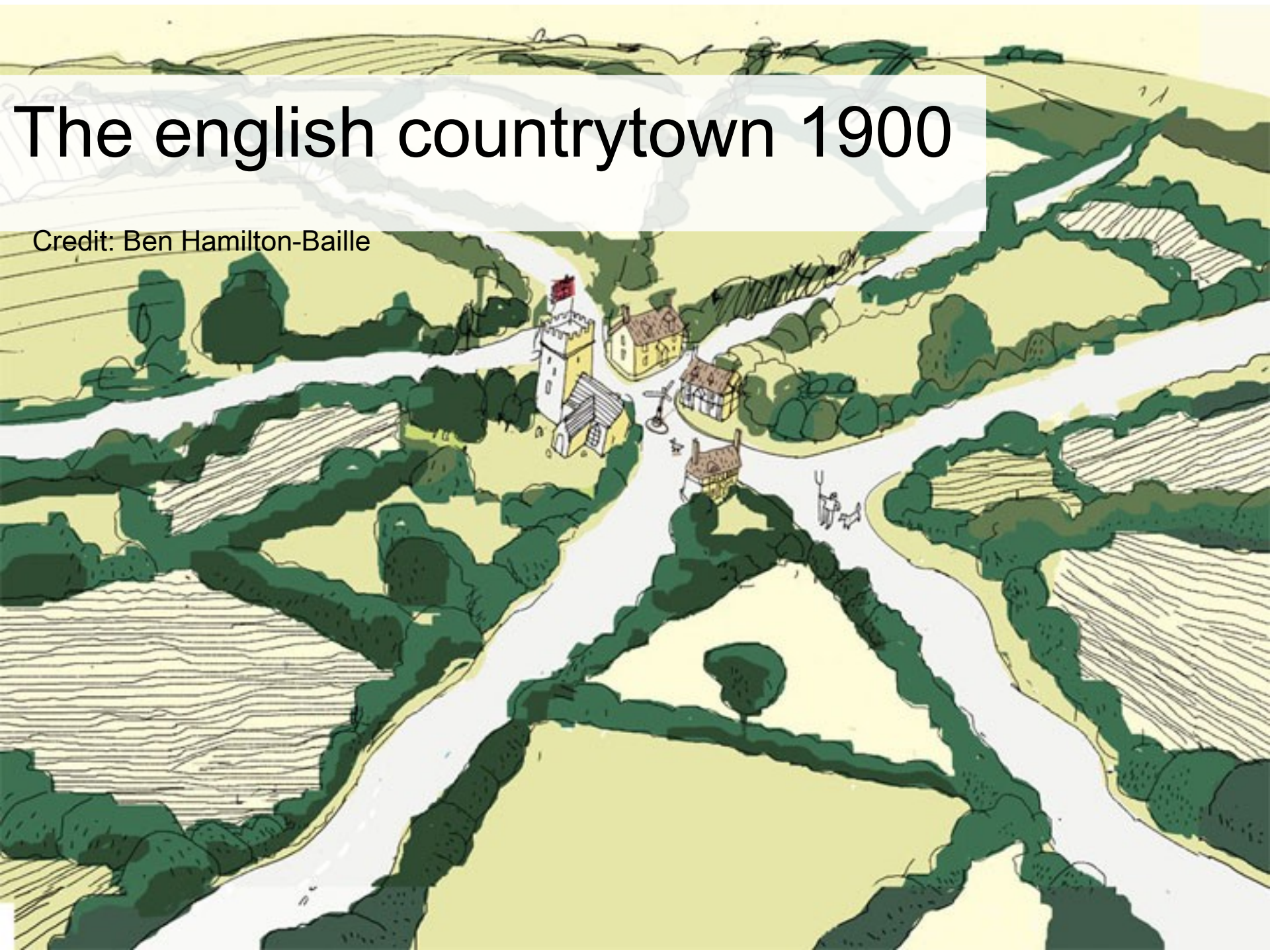

Towards a fine City for People
Public Spaces and Public Life - London 2003
GEHL ARCHITECTS
Urban Quality Consultants



Indicators:

1. Accidents – Data
2. User satisfaction - Questionnaire

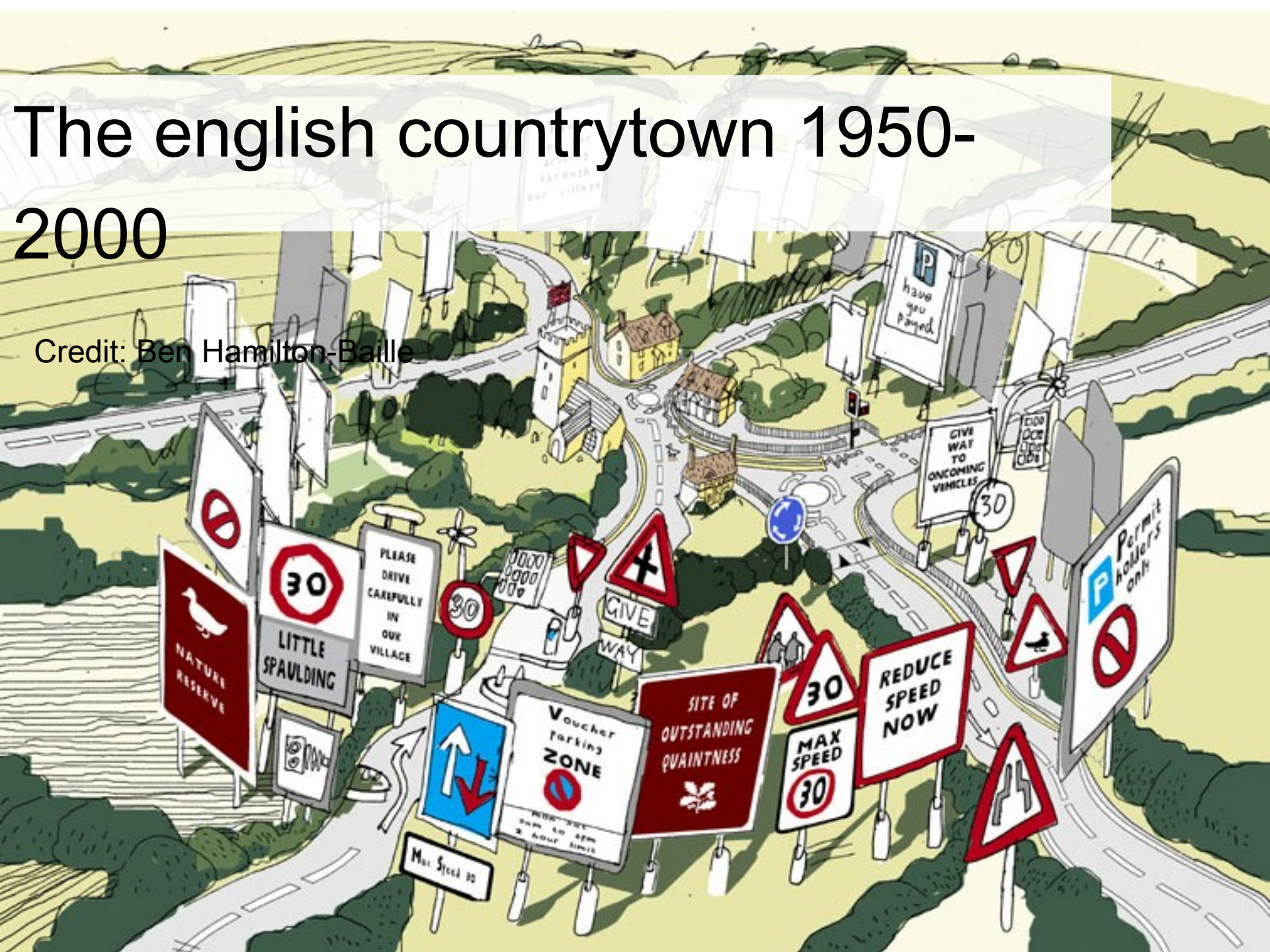
The english countrytown 1900



Credit: Ben Hamilton-Baille

The english countrytown 1950-2000

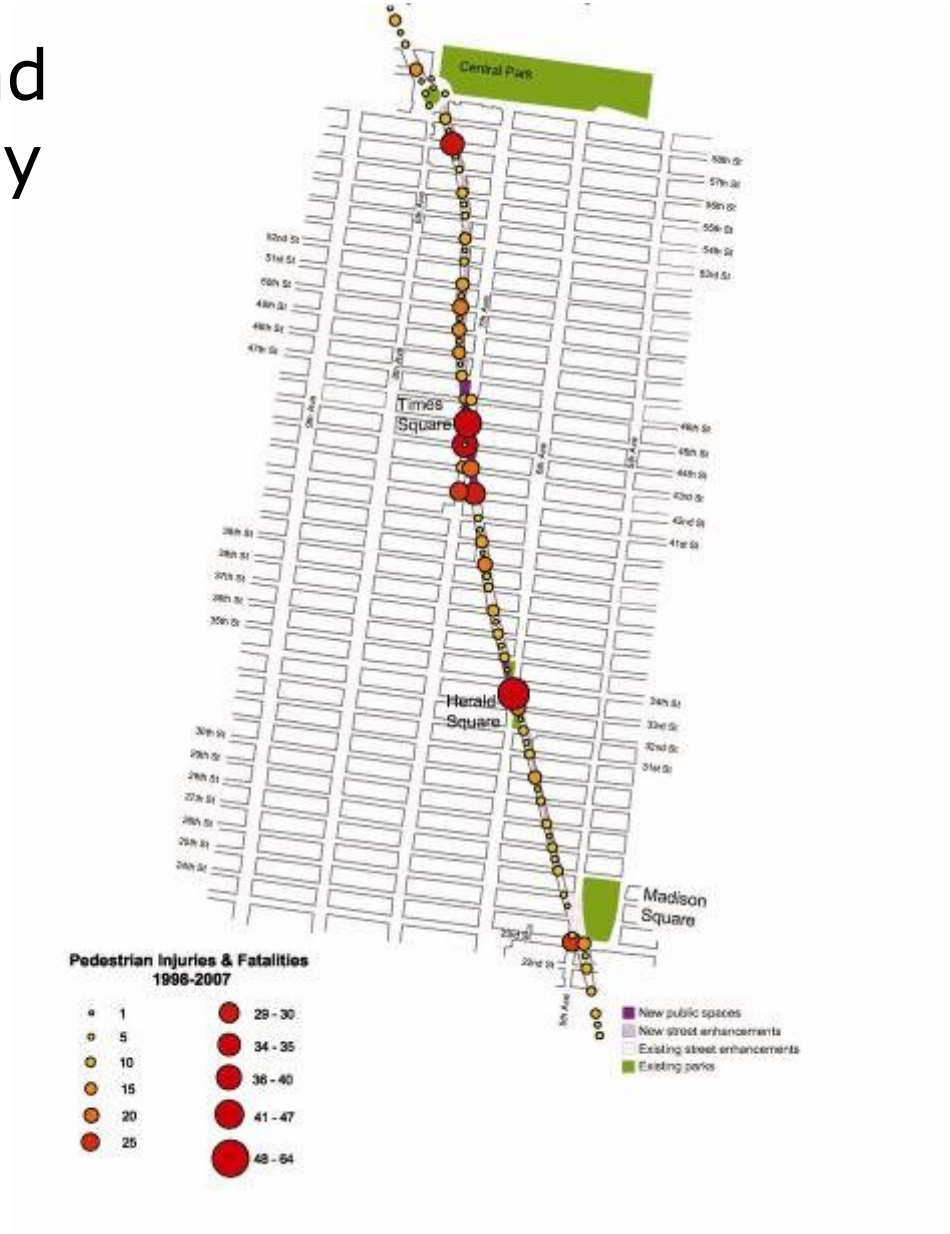
Credit: Ben Hamilton-Baille




PEDESTRIANS
GIVE WAY
TO
TRAFFIC


BES ST
SOUTH SYDNEY COUNCIL
WARNING
PEDESTRIAN
ACCIDENT
AREA
Stop Safety

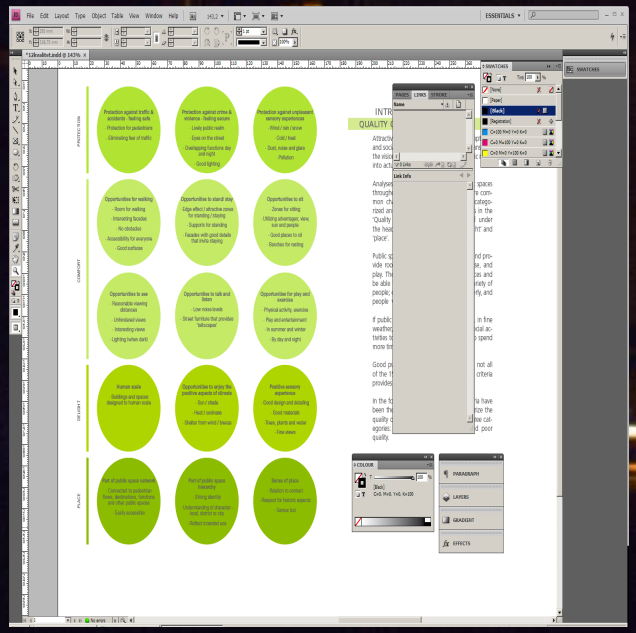
Pedestrian Injuries and accidents on Broadway 1998-2007



Credit: DOT NYC

Indicators:

1. Mix-use: Number of households, places for higher education, shops - Data
2. Activities open at night - Observations
3. Ground floor shop facades with light / closed shutters - Observations
4. User satisfaction - Questionnaire



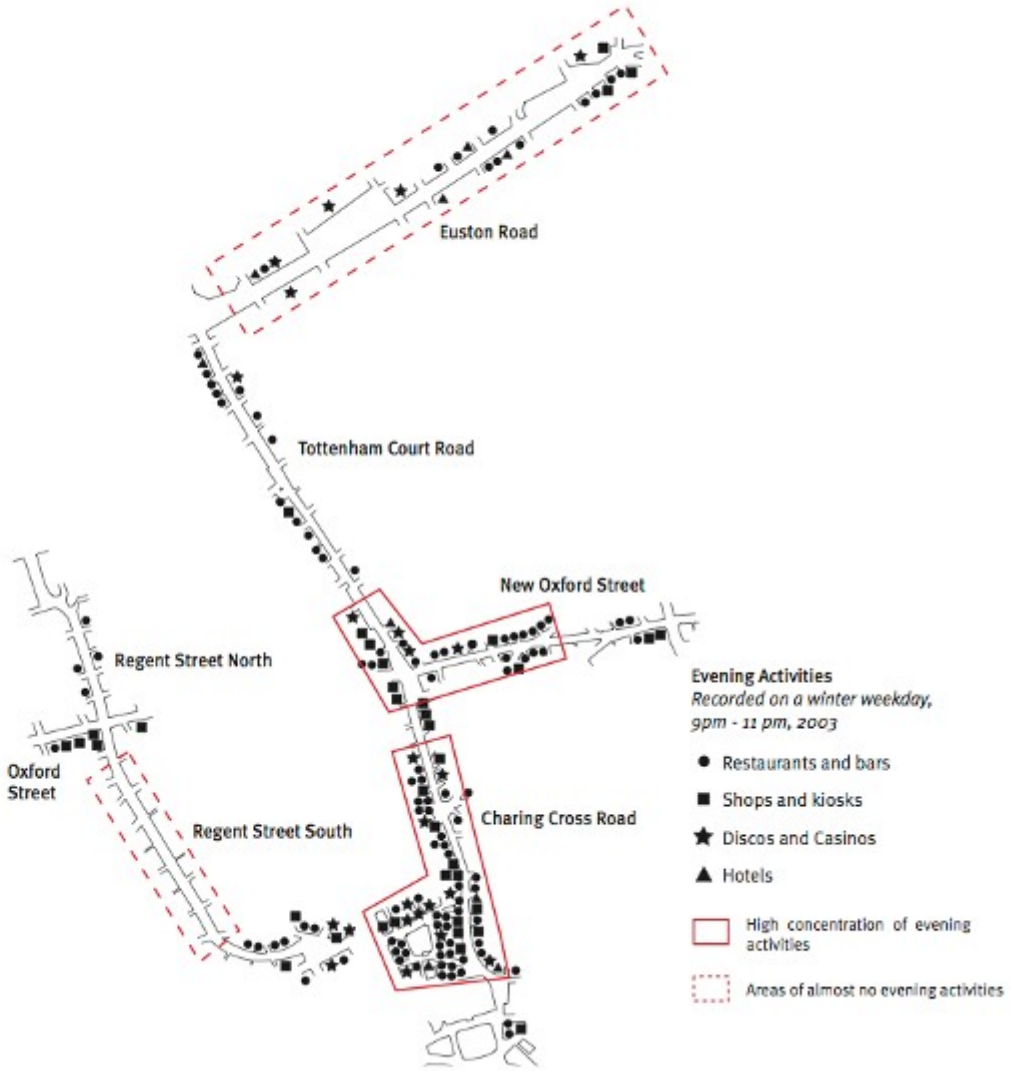
Evening activities

The number of evening activities and their location are important factors for the vitality of the city and the perception of safety. If there are few activities, or if the evening activities are very concentrated in a few areas, the visitor gets the impression of a deserted city and avoids going there in the evening.

To the right is illustrated the number and character of evening activities in the study area. It is quite evident that Regent Street is a deserted area at night, where only few people look at window displays. Only a few cafes or kiosks are open at night, while more activity generally takes place in the side streets.
Charing Cross Road is part of London´s Theatre District and located in an area with many bars, cafes and restaurants. As such, Charing Cross Road is a busy street all day. Generally, the amount of activities is a positive supplement to the street environment. However, an overload of bars does not necessarily add to the general feeling of safety.

To achieve a more citywide location of evening activities and to improve the perception of safety, it is important to spread out night time activities to larger parts of the city centre and incorporate important city streets and squares.

Below: The main evening activity is restaurants and bars



Closed facades at night

Above: Chinatown - Shops are open. People stroll through.

Recent years have seen an unfortunate increase in the closing-down of storefronts outside shopping hours. This turns the streets into dark, unattractive tunnels by night, and ruins any ideas of window-shopping and promenading in the evenings and on weekends. The city becomes dark, deserted and frightening. The shutters, are of course, part of an effort to avoid break-ins. The Danish Criminal Board advises shopowners to avoid metal shutters because of their negative impact on the streets. Metal shutters tell passers-by that after closing time the city closes as well, and becomes an unsafe place to be in. It is important to note that a number of other safety measures are available, such as more open-lattice structures or armed glass, which preserve the transparency between street and shop.

Below: Chinatown - Shops are closed. People rush through.

Metal shutters in Oxford Street and Tottenham Court Road

During the day, Oxford Street is a lively place with lots of shops and pedestrians.
When the stores close, many facades are closed by metal shutters, making the street dull to be in and decreases the feeling of safety.

Above: **Oxford Street: 94 metre metal shutters** at night

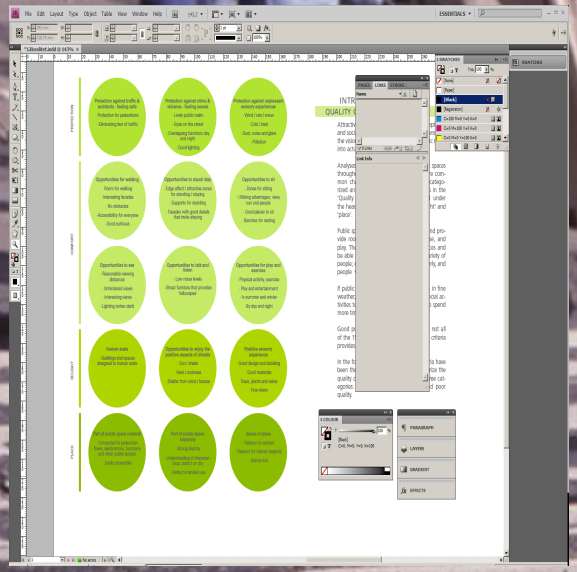
Above: **Tottenham Court Road: 118 metre metal shutters** at night

Kalverstraat Amsterdam: Today, the city has removed most metal shutters from this street resulting in a quite different night scene where people pass by to window shop.

At Strøget, Copenhagen, the majority of shopwindows are lit at night, having a positive effect on the level of pedestrian traffic and the level of crime.

Indicators:

1. Turbulence and unpleasant wind conditions – simple observations
2. Noise levels – dB measurement
3. Other types of unpleasant weather conditions – depending on the situation



Noise

HEARING AND TALKING IN THE CITY

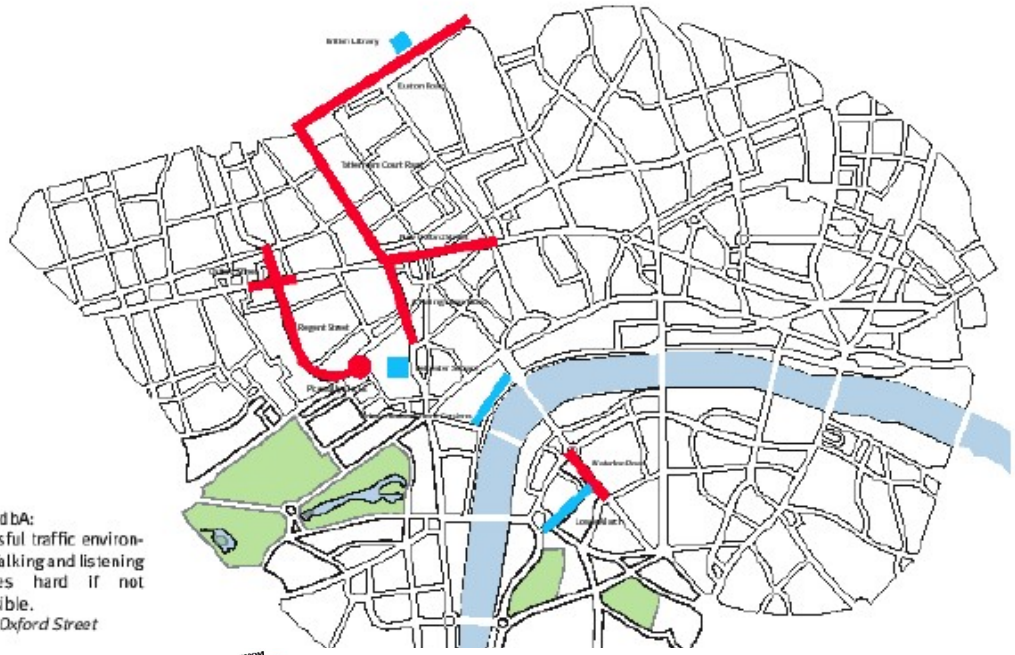
Noise and fumes are annoying factors in the street environment. Too much noise creates an uneasy and stressful environment where talking, listening and social events become hard to perform. Different noise levels give different opportunities for public life to evolve.

London has tremendous noise levels in most streets and squares where the pleasure of promenading, resting and engaging in conversations is deeply affected.

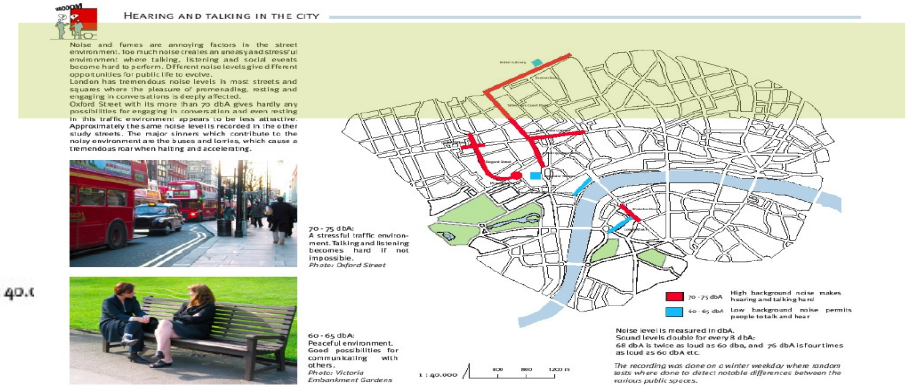
Oxford Street with its more than 70 dbA gives hardly any possibilities for engaging in conversation and even resting in this traffic environment appears to be less attractive. Approximately the same noise level is recorded in the other study streets. The major sinners which contribute to the noisy environment are the buses and lorries, which cause a tremendous roar when halting and accelerating.

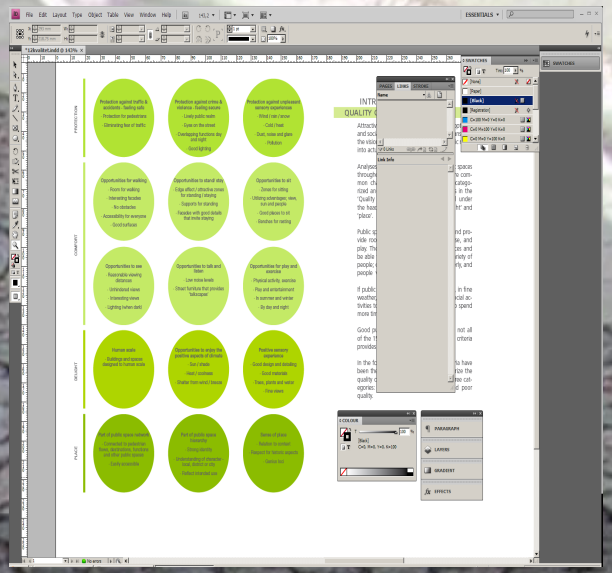
70 - 75 dbA:
A stressful traffic environment. Talking and listening becomes hard if not impossible.
Photo: Oxford Street

60 - 65 dbA:
Peaceful environment. Good possibilities for communicating with others.
Photo: Victoria Embankment Gardens



1 : 40.000





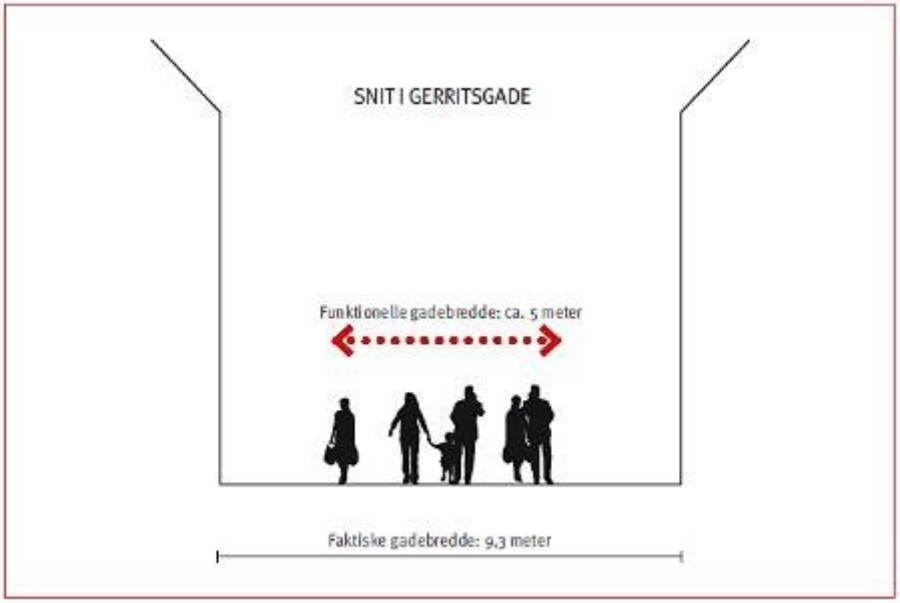
Indicators – Walking along:

1. Room for walking– recordings of sidewalk width and actual walkable space –Observations
2. Obstacles for walking – recording of objects on the sidewalk – Observations
3. Unnecessary interruptions of the sidewalk – recording – (Accessibility/Comfort) Observations
4. Access to places and buildings – (Accessibility) Observations
5. Good quality pavement (Accessibility/Comfort) Observations
6. Façade quality – recording of facades (A-F) Observations
7. Directness of route– Observations

Actual street wi

På den sydlige kant af Torvet går fodgængere slalom mellem skilte og udstillings varer.

På Møllergade er der også mange elementer i gågaden som kæmper om plads og opmærksomhed, og gågadens reelle bredde er også her meget smal.



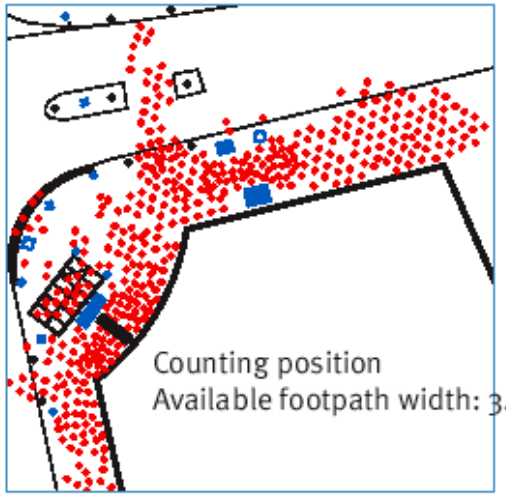
Svendborg
Denmark

Congestion

The **newspaper stands** contribute to crowding by narrowing the walking space.

Pedestrian Pattern - south/ east corner

Crowding points appear where the usable footway is narrowed substantially by commercial activities, stairs to the tube, goods from shops etc.



Recording:

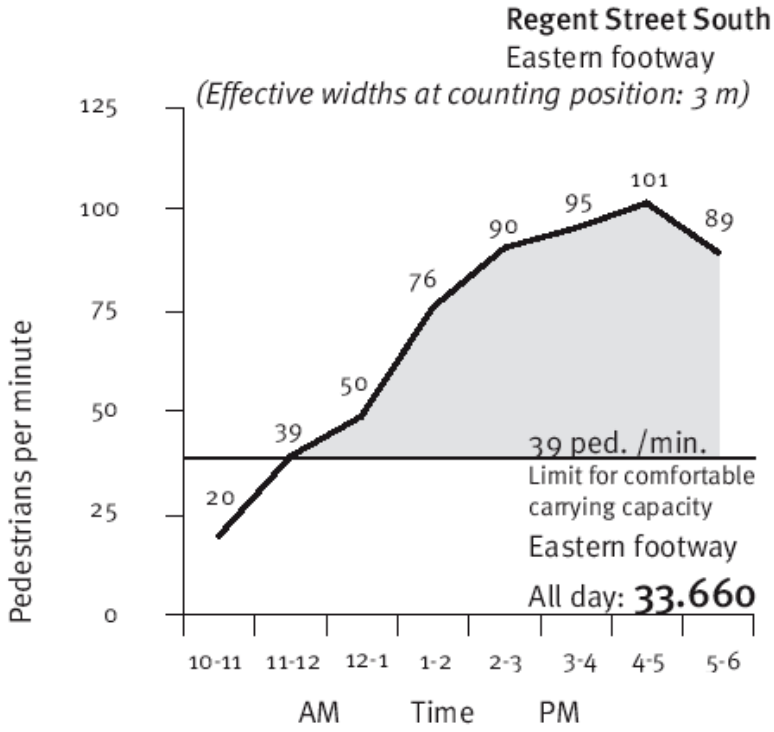
5.30 pm 9372 pedestrians /hour
156 pedestrians /minute

Recommended pedestrian capacity:

13 person/minute/metre footway width
* 3.5 metre available footway width
= 46 pedestrians /minute

Pedestrian traffic beyond comfortable capacity:

110 pedestrians /minute = **239 %**


Regent Street South
Eastern footway
(Effective widths at counting position: 3 m)
Pedestrians per minute
125
100
75
50
25
0
20
39
50
76
90
95
101
89
39 ped. /min.
Limit for comfortable carrying capacity
Eastern footway
All day: 33.660
10-11
11-12
12-1
1-2
2-3
3-4
4-5
5-6
AM
Time
PM

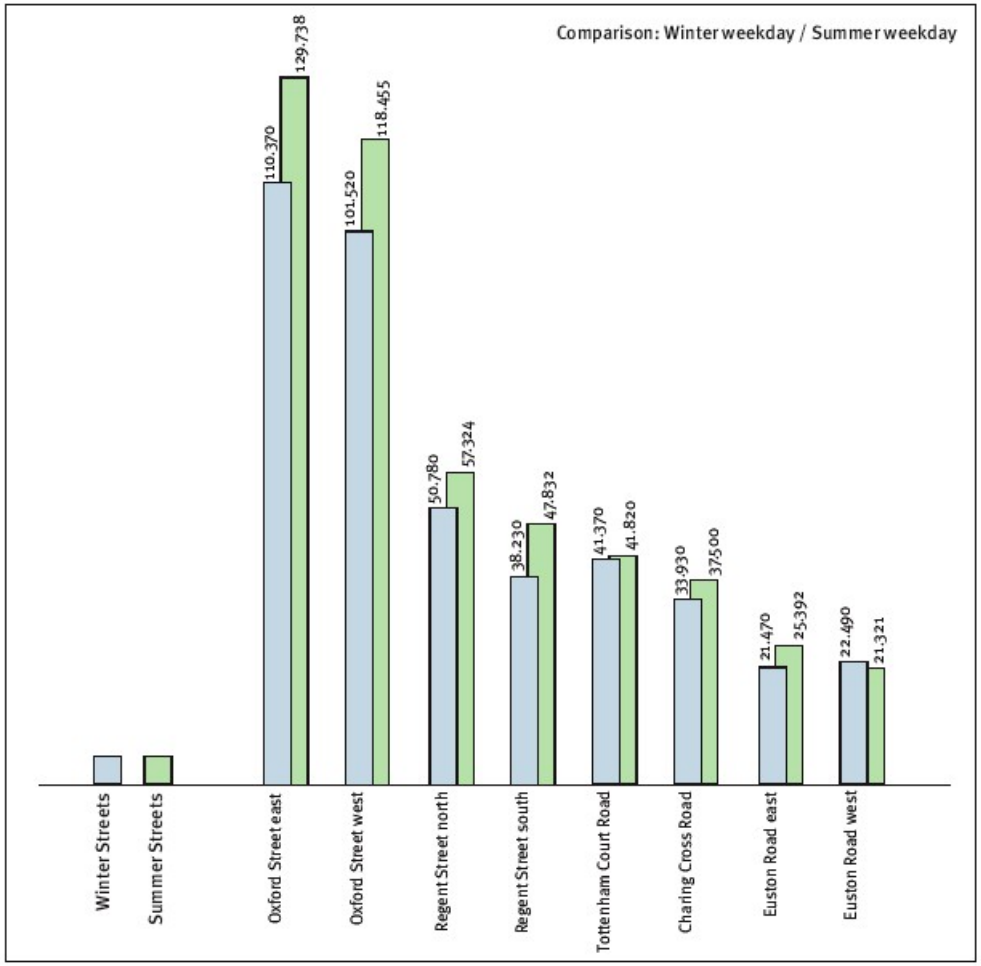
Functional walking - versus recreational walking

Seasons do have an impact on especially pleasure walks.

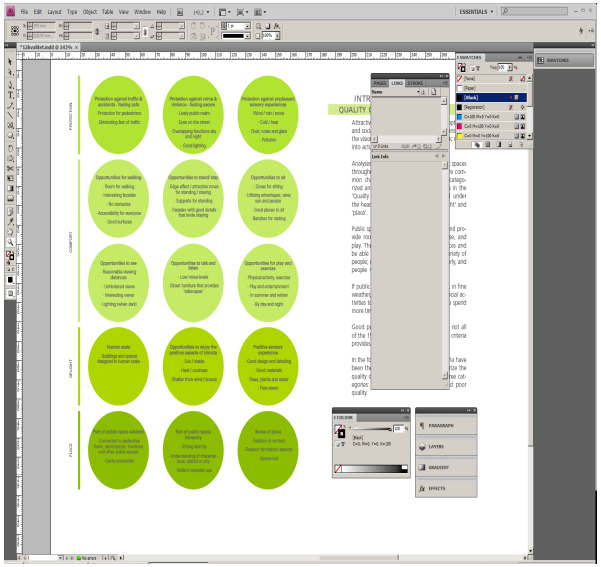
Winter and summer pedestrian traffic

In London the differences between summer and winter pedestrian traffic are very low. Pedestrian traffic increases with a maximum of 15% (Oxford Street). This points to a city yet to be further developed for public life to evolve and include other activities than the most necessary.

In other cities larger differences are to be found. Copenhagen experience a 50% increase in pedestrian summer traffic compared to pedestrian winter traffic. Part of the explanation to the Copenhagen increase is that more tourists come to Copenhagen during summer but a much more important factor is the recreational dimension. Copenhagen has during the last 40 years developed a city with good and many quality spaces (total: 100.000 m2 of pedestrianized areas in the city centre, an area of 1 km2). This has led to an increase in pedestrian traffic during summer because people no more come exclusively to shop or work, but also come to enjoy the city, to meet friends and relatives, to sit at a square and sip a cappucino or to enjoy the city scene from a public bench. As such Copenhagen is a much more lively city during summer today, than it was 40 years ago. Public life has been expanded to include more activities than the most necessary ones (as going to work, going to lunch, shopping etc.) because of improvements of public space.



Walking across



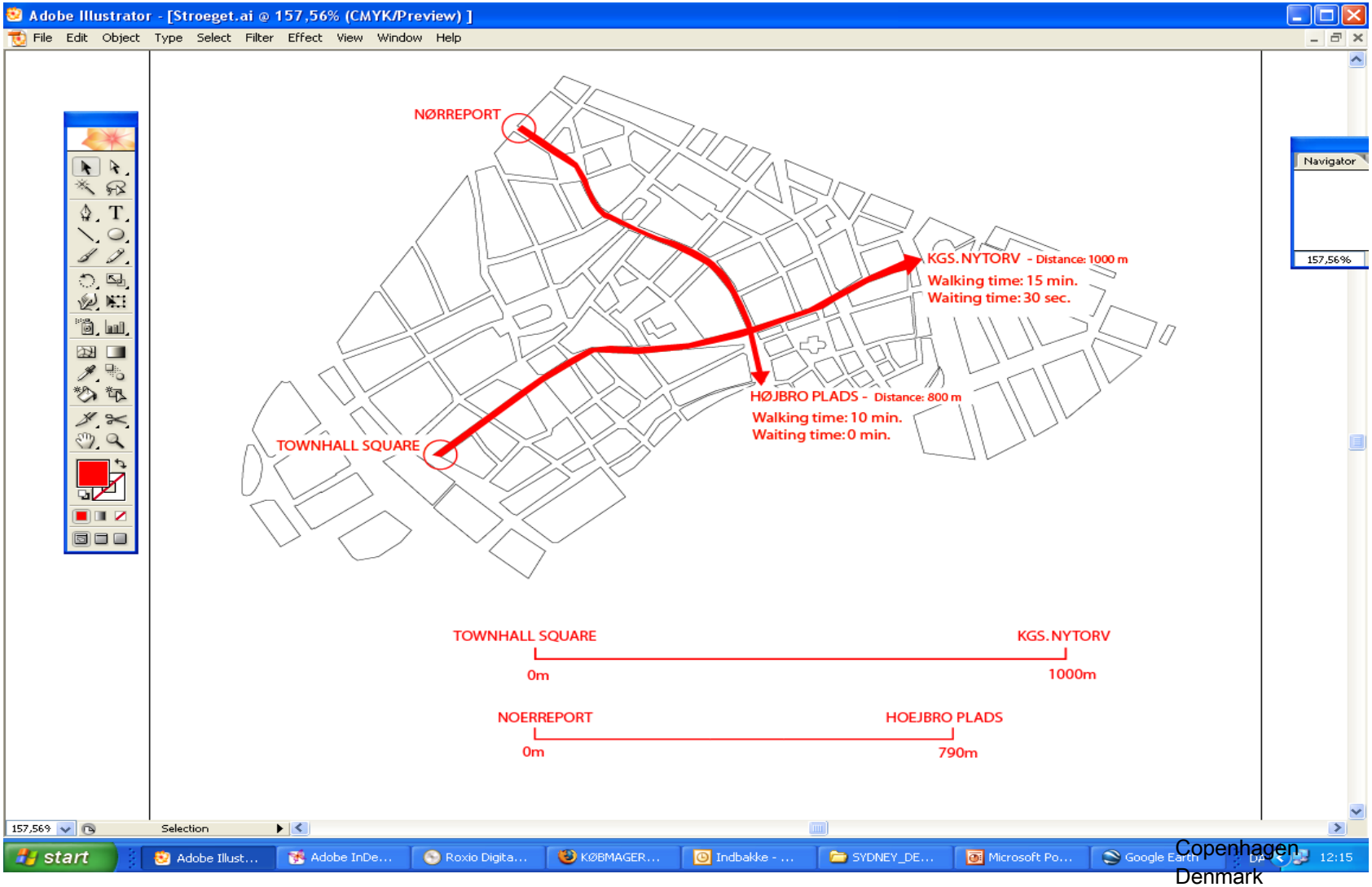
Indicators – walking across:

Short waiting times at traffic lights - (Comfort)

Observations

1. Jaywalking - Observations
2. Directness of routes in crosswalks - Observations
3. Clear and legible street design - Observations

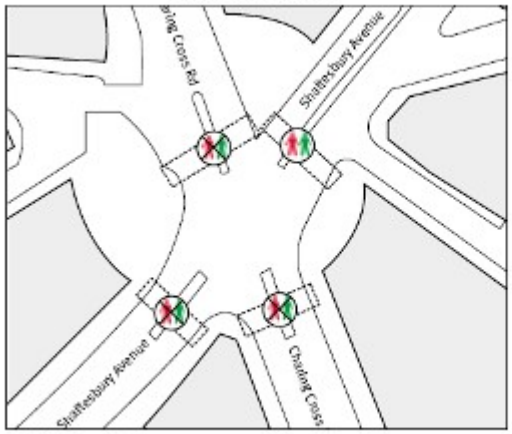
Walking time – waiting time



Copenhagen
Denmark

Lack of pedestrian lights

Cambridge Circus



Cambridge Circus

3 out of 4 crossings are without pedestrian signals.

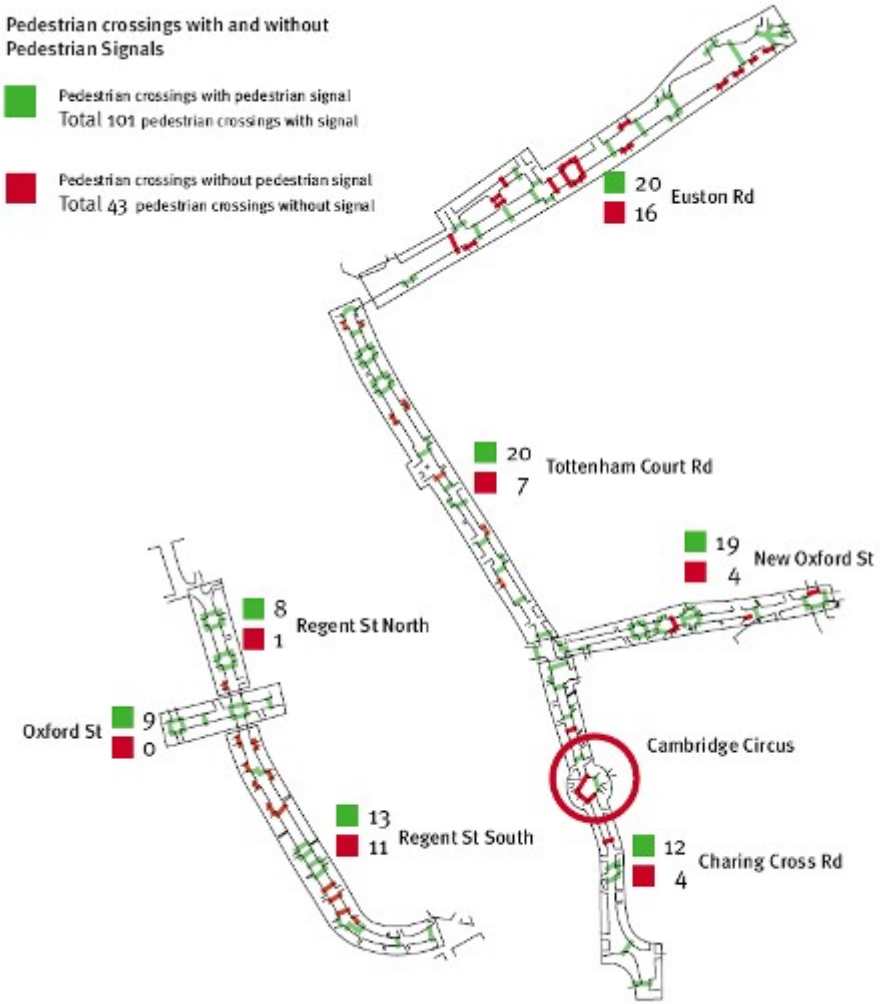
Recording:
An average weekday, 6 pm to 7 pm. Cars and pedestrians were recorded separately at each crossing during a 15 minute period.

2260 vehicles cross between 6 pm and 7 pm

7550 pedestrians cross between 6 pm and 7 pm (3.3 times as many pedestrians as vehicles).

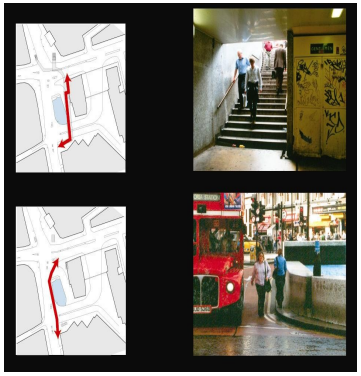
74% of all pedestrians cross without pedestrian signal

Cambridge Circus (CC) is regarded as one of the most dangerous intersections in central London. Each year many pedestrians are injured or killed at CC.
A major problem is the **lack of pedestrian lights** in three of the four crossings. Pedestrians in these crossings are not able to see whether traffic lights for vehicular traffic are red or green, but need to rely on their own feeling of when it is safe to cross. Crossings happen in platoons, which build up on either side until a certain number of people is reached and the platoons start moving.

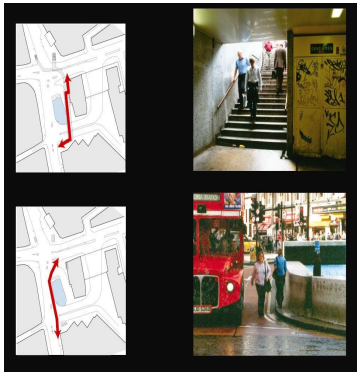


Jay walking and pedestrian tunnels

· 101 pedestrians (23 %)



· 336 pedestrians (77 %)



Guard rails

The spaces in the study area carry the following amounts of linear guard railing:

Piccadilly Circus	425 metres
Oxford Circus	199 metres
St Giles Circus	160 metres
Regent Street	52 metres /per 100 m
Tottenham Court Road	22 metres /per 100 m
Charing Cross Road	17 metres /per 100 m
New Oxford Street	23 metres /per 100 m
Euston Road	106 metres /per 100 m *(both sides)*

The amounts of guard railing on the streets mentioned are averages of the amounts placed throughout the streets.

Below: Guard railing coming round corners forces pedestrians to do detours, creates an abrupt walking rhythm and often cause crowding .

Below:
Pedestrians often get trapped outside guard railings and are forced to climb the railing to reach the footway.

Foot path interruptions

WALKING ALONG — Frequent footway interruptions

A clear sign of low pedestrian priority are the many minor side streets and delivery lanes which are allowed to interrupt footways in all streets included in the survey. Instead of closing some minor streets or taking footways across side streets pedestrians are forced to walk up and down the kerb and look out for traffic while they cross the small lanes. This is the case even on major shopping streets like Regent Street. The car is given first priority and pedestrians need to yield at every minor crossing. All these interuptions of the walking rhythm constitute a constant irritation and an overall feeling that pedestrians are not really welcome and cared for.

An aim must be to give pedestrians high priority in the streets. This can be achieved through a step by step improvement of footpaths and by closing many of the minor side streets for traffic. Taking footways across these minor streets and delivery lanes is an overall goal to improve conditions offered for pedestrians and to enhance the quality of the walking environment.

How it ought to be done
In various locations in London good examples are found on how to continue the footway across side streets.

Lower Marsh

Regent Street

Lower Marsh

Tottenham Court Road

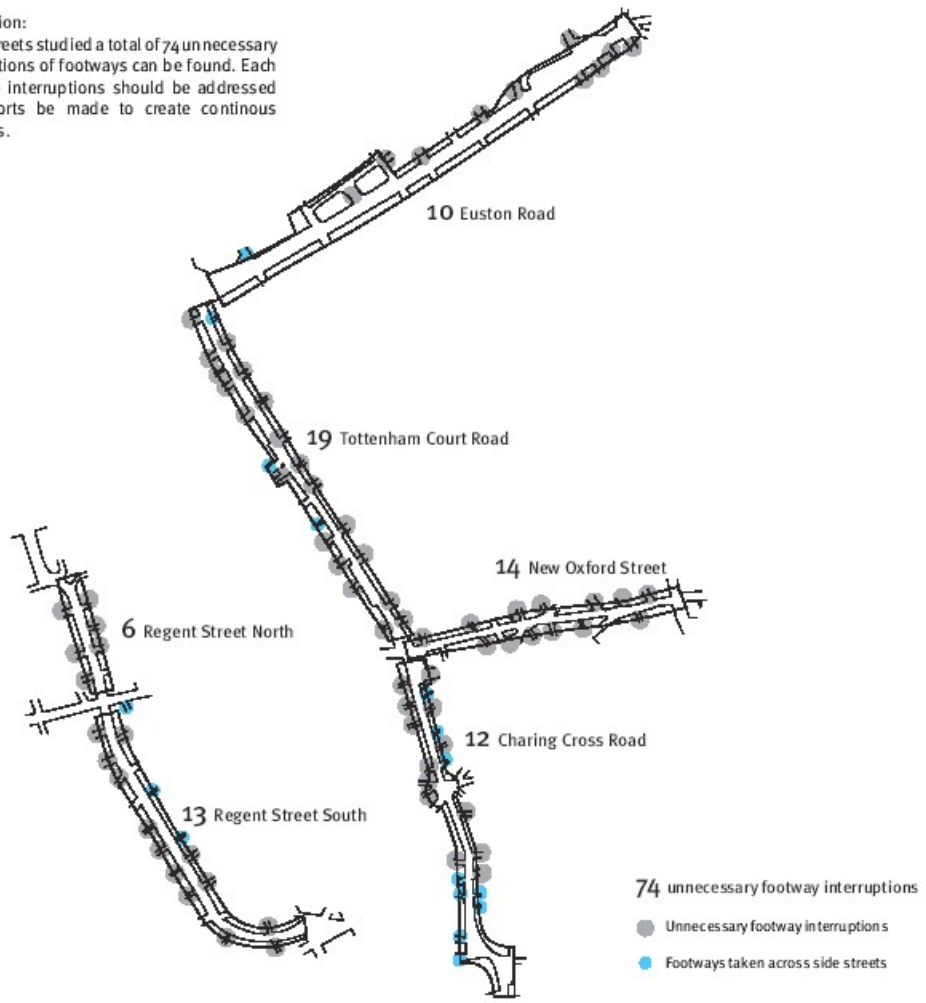
Tottenham Court Road

Holborn

Shaftesbury Avenue

Frequent footway interruptions

Illustration:
In the streets studied a total of 74 unnecessary interruptions of footways can be found. Each of these interruptions should be addressed and efforts be made to create continous footways.



One building - two solutions

Example A
A minor delivery lane cuts up the footway giving clear indication that the few cars using this lane have higher priority than the 30.000 pedestrians walking along the western footway on Regent Street daily.

Example B
Pedestrian accessway to the pedestrianized Heddon Street.

Paving standards

Maintenance issues

Picadilly Circus

Leicester Square

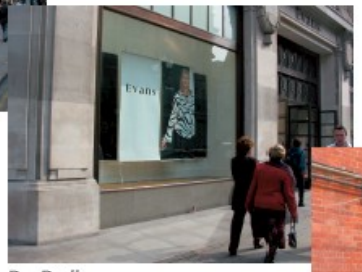
Ground floor facade attractiveness

LOOKING AT THE CITY — Ground floor frontages

A - Attractive
Small units, many doors (15-20 units per 100 m)
Diversity of functions
No closed or passive units
Interesting relief in facades
Quality materials and refined details

B - Pleasant
Relatively small units (10-14 units per 100 m)
Some diversity of functions
Only a few closed or passive units
Some relief in the facades
Relatively good detailing

C - Somewhere-in-between
Mixture of small and larger units (6-10 units per 100 m)
Some diversity of functions
Only a few closed or passive units
Uninteresting facade design
Somewhat poor detailing



D - Dull
Larger units with few doors (2-5 units per 100 m)
Little diversity of functions
Many closed units
Predominantly unattractive facades
Few or no details

E - Unattractive
Large units with few or no doors
No visible variation of function
Closed and passive facades
Monotonous facades
No details, nothing interesting to look at

City Quality at Eye Level - The ground floor facade

The quality of the building frontages facing the footway is an extremely important factor for the quality of an urban area. Good ground floor facades are rich in detail and exciting to walk by, interesting to look at, to touch and to stand beside. Activities inside the buildings and those occurring on the street enrich each other. In the evening friendly light shines out through the windows of shops and other ground floor activities and contributes to both a feeling of security as well as genuine safety. Interesting ground floor facades also provide good reasons for walking around in the city in the evenings and on Sundays, engaging in the age old attractive pastime: window shopping. Blank walls, on the contrary, underline the futility of visiting the city outside working hours.

Typical London side street
- many smaller units, many experiences

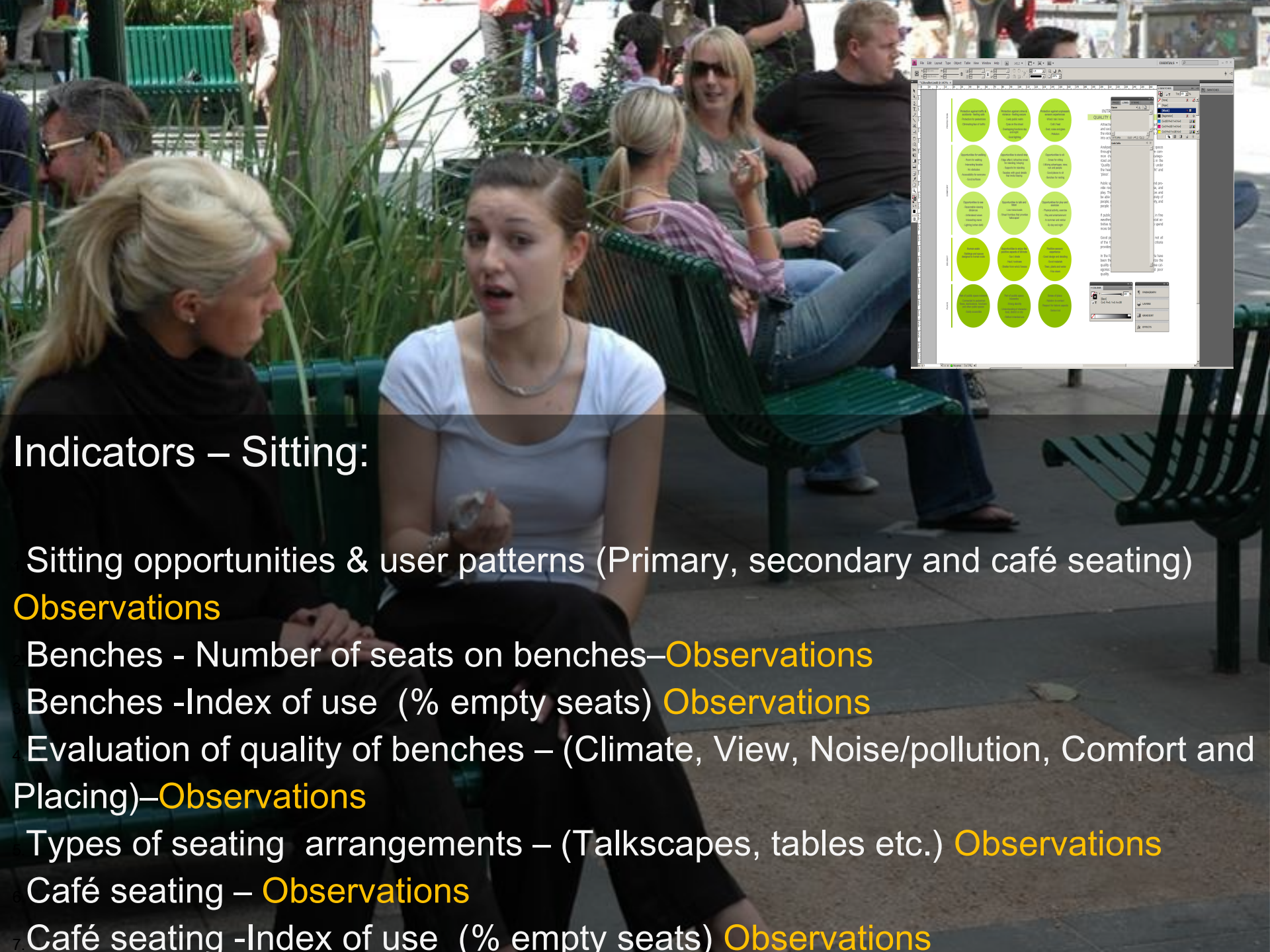
Ground floor frontages in London are generally welcoming, transparent and the units reasonably sized, which contribute to a diverse and lively street environment. Retail streets like Regent Street, Oxford Street, Tottenham Court Road, Charing Cross Road are the most interesting streets where larger retail stores alternate with longer stretches of smaller units. Euston Road is more uninteresting with dull facades, no transparency and larger units. New Oxford Street is also dominated by larger units with few doors and functions not addressing the street.

On street tree planting:
Tottenham Court Rd & Charing Cross Rd

Charing Cross Rd near St. Giles

London is perceived as a green city due primarily to its many large parks. Still the central city streets, where people have their daily walks, are mostly characterized by a lack of green elements. Tottenham Court Rd and Charing Cross Rd are exceptions. Here on street tree planting has been applied in some parts. Could the planting be enhanced and include the entire stretch a valuable character and sense of unity would emerge.

Charing Cross Rd near Cambridge Circus



Indicators – Sitting:

1. Sitting opportunities & user patterns (Primary, secondary and café seating) Observations
2. Benches - Number of seats on benches–Observations
3. Benches -Index of use (% empty seats) Observations
4. Evaluation of quality of benches – (Climate, View, Noise/pollution, Comfort and Placing)–Observations
5. Types of seating arrangements – (Talkscapes, tables etc.) Observations
6. Café seating – Observations
7. Café seating -Index of use (% empty seats) Observations

3 types of seating

SITTING IN THE CITY

Seating is vital for a good city area. Without a sufficient number of seats the city becomes a transit zone where people move from one point to another, but where not much is going on in the public spaces.
Good, comfortable seating placed in the right locations provide visitors with a rest and an opportunity to stay longer in the city. As such the short and longer rests are vital in creating a more lively city. Economic benefits are also related to the development of a good quality city where people enjoy staying and thus spend more.
Below are illustrated three different seating options which the city has to offer.

SECONDARY SEATING

Alternative opportunities for sitting such as stairs, ledges, niches, monuments, fountains or directly on the pavement. These secondary seating opportunities are mainly utilized in good weather and almost exclusively by young people who do not care too much about comfort.

PUBLIC SEATING

The seating that is provided in the city is an important factor for the amount of recreational activities that take place. Older generations only enjoy sitting when comfortable bench seating is available and generally this age group avoid secondary seating.

OUTDOOR CAFE SEATING

Recent years outdoor cafe culture has provided the European cities with a large number of extra seats where a meal or a drink in the outdoors can be combined with an interesting view of the life in the city.

Secondary

London has a serious lack of public seats along all the most frequented routes forcing people who need a rest to either forget it or to seek some kind of second rate support.
This happens all over London where people sit, eat, talk and enjoy the city from various locations on steps, fountains, signs, recesses, guard railing, footways etc.

A high level of secondary seating is a symptom of a benchless city - a city without seats.

Sitting at the edge of traffic can be done, but does certainly not provide a proper rest.
Left: St. Giles Circus
Below: Oxford Circus

With a lack of anything better people sit where they can find an edge, a corner or recess.
Left: Euston Road
Below: Regent Street

Many things can be done to keep people from resting - some more effective than others.
Left: Garden of Tate Modern
Below: Haymarket

Public

Criteria for evaluation of the Bench Quality

C	Climate	1-5
V	View	1-5
N	Noise/pollution	1-5
CO	Comfort	1-5
D	Placement	1-5

Scale: _____ 1 2 3 4 5 _____ Poor Good

▲ People resting at Leicester Square
Rating: C= 5, V= 5, N= 5, CO= 4, D= 4
Score: 23 - (highest quality score)

O Benches at Tottenham Court Road
Rating: C= 3, V=4, N= 3, CO= 4, D= 4
Score: 18

● Long benches frame Trafalgar Square
Rating: C= 4, V= 5, N= 3, CO= 2, D= 4
Score: 18

□ Round stone bench at British Library
Rating: C= 4, V= 3, N= 3, CO= 1, D= 5
Score: 16

✖ Camping equipment at Euston Square
Rating: C= 2, V= 2, N= 5, CO= 2, D= 3
Score: 14

■ New stone benches at St Martins Place
Rating: C= 3, V= 3, N= 2, CO= 1, D= 1
Score: 10

✱ Stone bench along Oxford Street
Rating: C= 2, V= 1, N= 1, CO= 1, D= 2
Score: 7 - (lowest quality score)

The quality of benches is just as important as the number and location of seating. Studies show that the most used benches offer a combination of pleasant views, protected climate and good comfort.

A set of quality criteria has been developed to evaluate individual bench areas.
The benches evaluated here are selected because they represent different issues to be considered when planning public seating in the city.

St. Martins Place, Oxford Street & British Library
A new bench type has been developed to meet requirements to discourage homeless people, skaters and graffiti - all big issues in a large city.
The result has been a new stone bench which offers so little

Criteria for evaluation of the Bench Quality

C	Climate	1-5
V	View	1-5
N	Noise/pollution	1-5
CO	Comfort	1-5
D	Placement	1-5

Scale: _____ 1 2 3 4 5 _____ Poor Good

Commercial

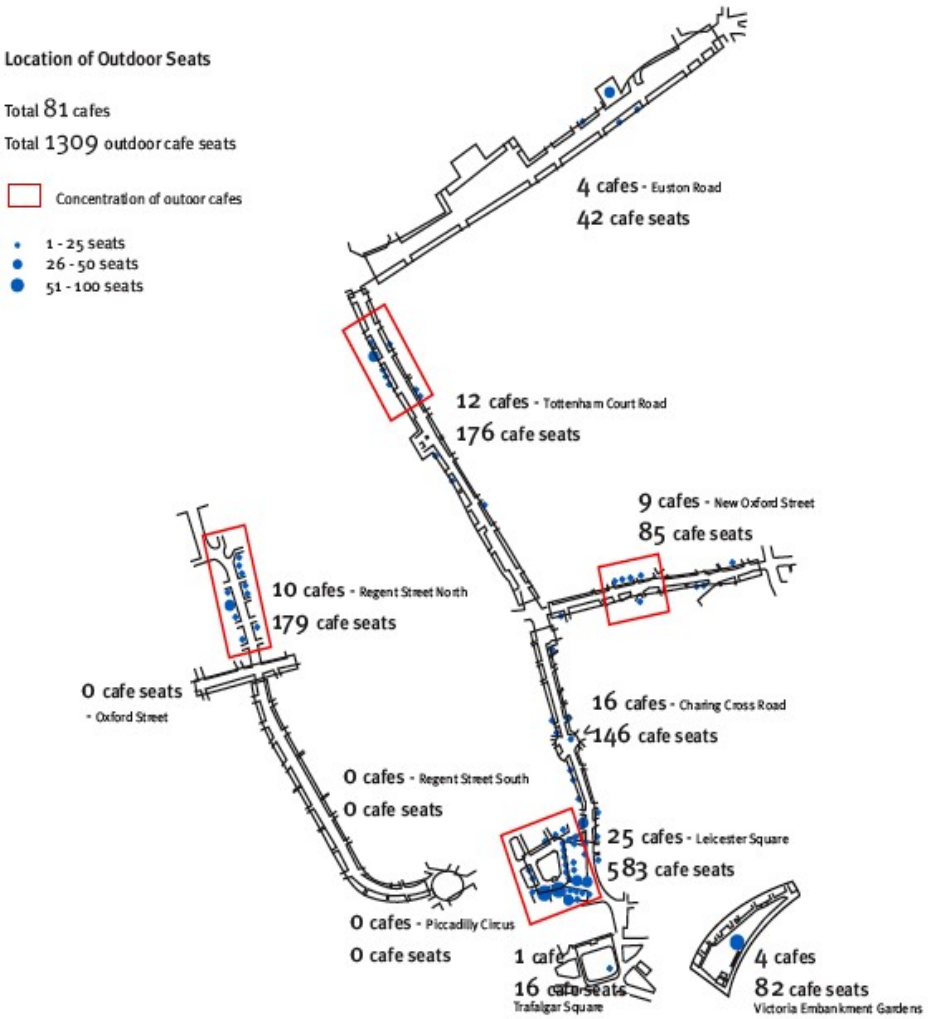
SITTING IN THE CITY

Outdoor serving has become a common part of the European streetscape. Even during colder periods of the year, many people like to use outdoor seating.
Sitting at a cafe provides an opportunity to relax, get refreshments, enjoy the sunshine, while being able to both observe and be a part of the street´s public life.
In spite of the popularity of outdoor cafe seating, it is important to note that cafe seats cannot replace public benches, since one has to pay to be able to enjoy the service.
However, outdoor service areas offer a great quality to the streetscape and have - in the case of London - a great potential to be further developed.

Outdoor cafes in London
In the research area there is a moderate number of outdoor serving areas, supplemented by the many smaller outdoor cafes in side streets.
To the right is illustrated the distribution and number of cafe seats in the study streets and squares. The illustration shows a lack of outdoor cafes in Regent Street (southern part), Euston Road and Tottenham Court Road, while Leicester Square has a high concentration of outdoor serving areas.

A more even distribution ought to be obtained in order to secure more liveliness and diversity in some areas and lower the concentration in other areas. As such, Leicester Square and adjoining streets are dominated by bars and restaurants, deteriorating the general quality of the public realm. If a good thing is multiplied by 100 it is not necessarily many times better.

Outdoor cafe seats



Putting the data to use: Kensington High Street

During the enhancement works 715 metres of guard railing was removed and only 60 metres replaced.

Awards and accolades

Awarded 'UK Lighting Design Award 2002'

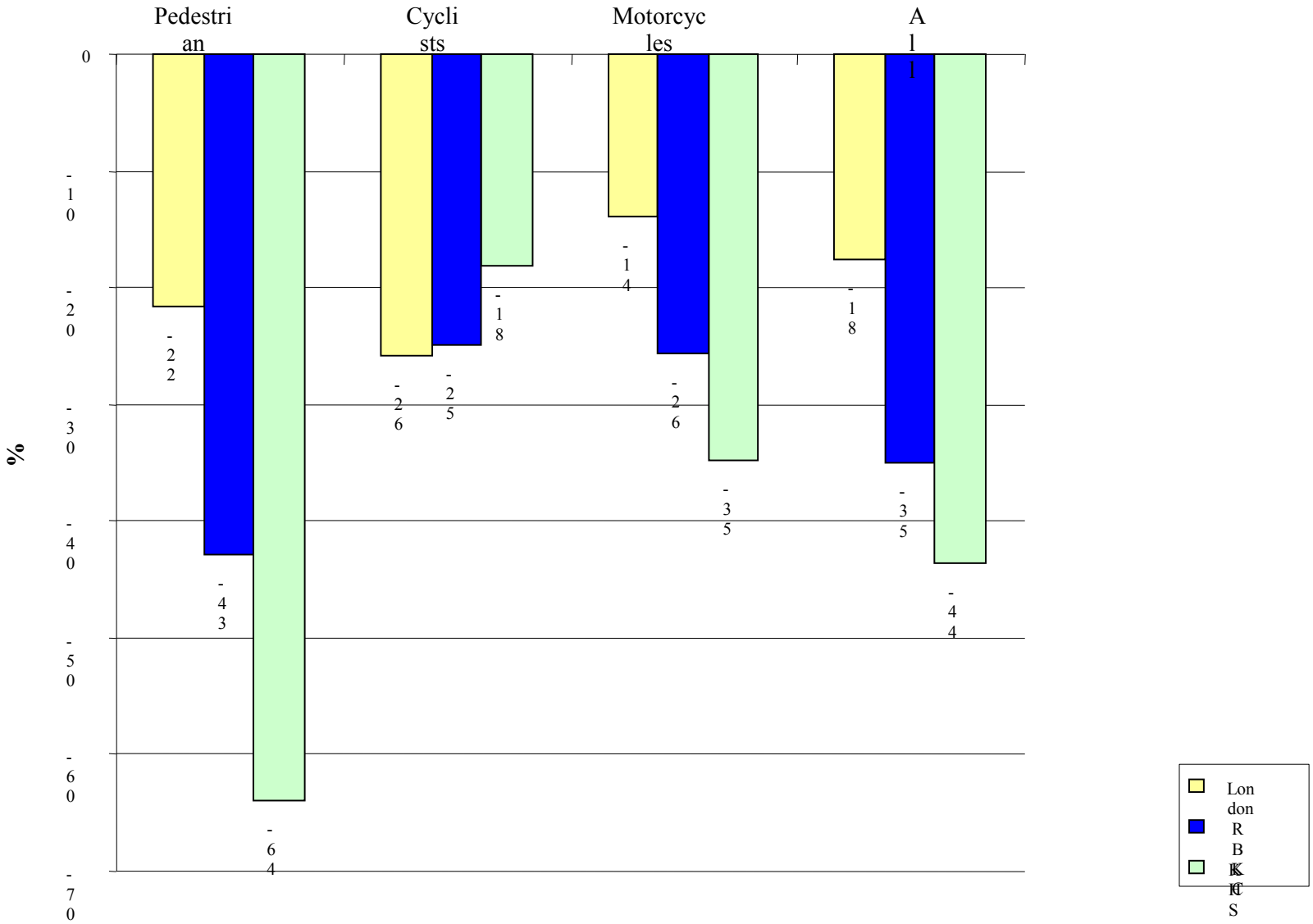
Awarded 'Best cycling facility 2002'

Praise from Lord Rogers, Chairman of the Government's Urban task force

Used as an example of good practice in the English Heritage booklet 'Changing London - an historic city for a modern world'

Short-listed for two awards in the London Transport Awards 2004

Casualty review



Source: Royal Borough of Kensington and Chelsea

Brighton New Road, 2007

Major achievements:

- 62% increase in pedestrian traffic
- 93% reduction in motorised traffic
- 600% more staying activity
- 22% increase in cycling activity

There´s much more to walking then walking!

GEHL ARCHITECTS
URBAN QUALITY CONSULTANTS