SSSHHH!: Positive side effects of designing out cars – quiet zones

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Exposure to Traffic Noise

- 87% of dwellings exposed to road traffic noise
- 12% of dwellings exposed to railway noise.

Noise Policy Statement for England

— “Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development”
Its aims are to:

– avoid significant adverse impacts on health and quality of life;
– mitigate and minimise adverse impacts on health and quality of life;
– and where possible, contribute to the improvement of health and quality of life.
“Like a landscape, a soundscape is simultaneously a physical environment and a way of perceiving that environment; it is both a world and a culture constructed to make sense of that world... A soundscape’s cultural aspects incorporate scientific and aesthetic ways of listening, a listener’s relationship to their environment, and the social circumstances that dictate who gets to hear what. A soundscape, like a landscape, ultimately has more to do with civilization than with nature, and as such, it is constantly under construction and always undergoing change.” (Thompson 2004: 1-2)
Context

– Hybrid/electric Traffic
– Civilised Streets – From Car to Pedestrian
– END Quite Areas
Composing Car Noise
Brigade Electronics is phasing out beeping reversing alarms for a better alternative.

White Sound bbs-tek® reversing alarms are the safest in the world due to their instantly locatable and directional sound. The multi-frequency 'ssh'ing alarm can only be heard in the danger zone, thus eliminating noise nuisance. bbs-tek® is the only reversing alarm approved by the Noise Abatement Society and PIEK.

bbs-tek®
White Sound reversing alarms

Ssh!
You only hear them when it matters

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People first – the new hierarchy on street design

<table>
<thead>
<tr>
<th>Consider first</th>
<th>Consider last</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrians</td>
<td>Other motor traffic</td>
</tr>
<tr>
<td>Cyclists</td>
<td></td>
</tr>
<tr>
<td>Public transport users</td>
<td></td>
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<tr>
<td>Specialist service vehicles (e.g. emergency service vehicles, waste)</td>
<td></td>
</tr>
</tbody>
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‘How should we design and manage streets to ensure that they are safe for all?’

*Manual for streets, p28, table 3.2*
Civilised Streets

“The fact remains that most of our streets are not civilised, enjoyable places to be. They are mainly noisy, polluted, hazardous and unpleasant – with serious social and environmental problems the result.”

Dark Arches

'The tunnel looks better, feels safer and sounds incredible' ... The illuminated Neville Street, Leeds. Photograph: Kippa Matthews
Health Benefits

Sleep

Speech Intelligibility

Education
Vulnerable Subgroups

– visual impairment
– hearing aid users
– Alzheimer's disease
– Ménière's disease
– hyperacusis sufferers
– hyperacute hearing in autism and Asperger syndrome

Drever 2013
Bioacoustics

- In his Acoustic Niche Hypothesis, Krause (1987) posited that soundscapes can provide available acoustic niches for vocalizing species and that stable and healthy ecosystems exhibit soundscapes with complex and discriminate use of frequency and temporal acoustic niches. If the sound-scape is composed of anthrophony, such as low frequency motorized sounds, the previously available niches may be filled masking species vocalizations or other sounds important for species survival (Barber et al. 2010).
END Quiet Areas

“The nominated spaces should be quiet or relatively quiet, and generate particular benefits (in terms of health, wellbeing, and quality of life) for local communities because of their quietness. Applicants will need to describe these benefits when completing the application form.”

Draft Noise Action Plan: Agglomerations
Environmental Noise (England) Regulations 2006, as amended July 2013
“It is expected that only a small subset of Local Green Spaces will ultimately be identified as END quiet areas. These spaces will need to be outstanding in the context of other Local Green Spaces, and be particularly valued, by the communities they serve, for their quietness - generating health, wellbeing, or quality of life benefits because of their quietness or relative quietness; with their value extending beyond their immediate locality.”
8 Places to Find Peace and Quiet in Central Park

Central Park can be full of hustle and bustle, but there are times when you just want to slow down and soak in the beauty of the park without all the distractions. Believe it or not, it is possible to find some tranquility in Central Park - you just need to know where to find it.

Quiet Zones within the Park

Central Park has designated eight areas as "quiet zones" in the park, meaning there's no music allowed, and if you have a radio, you need headphones for it. In addition, dogs must always be leashed and on the pathway in quiet zones, you can't run, rollerblade, ride your bike, or participate in any organized sports (think touch football), and you can't feed birds or other wildlife.

What you can do is curl up with a good book, listen to a book on tape (with headphones, of course!) or just sit and contemplate. So what are these quiet zones?

1. **Bethesda Terrace:** This terrace is mid-park at 72nd St. at the end of the Mall, and many consider it the "heart of Central Park." The terrace includes a fountain that overlooks the Lake that is the perfect spot to sit and enjoy the scenery.

2. **Conservatory Garden:** Located off of 5th Ave. at 105th St., this garden is actually three gardens in one. The gardens are each designed in different styles (Italian, English and French), and they provide the perfect place to stop by on your lunch break to read a good book.

3. **Conservatory Water:** This body of water located on the east side of the park from 72nd to 75th St. is also known as Model Boat Pond. In the spring and summer, people flock to this pond to navigate their model boats. The area is serene and peaceful, and visitors can get lost in watching the boats sail around the pond.

4. **East Green:** The East Green provides a tranquil area for visitors to the east side of the park. Once used as a cricket field, it is now a lawn full of beautiful blooming trees. It is located on the east side from 67th to 76th St.
Noise Abatement / Positive Soundscape Design

Acoustic Masking / Cognitive Masking Sound Design
Acoustic Horizon / Acoustic Arena
Placemaking & Local Distinctiveness
Soundwalking

- Soundwalking is a subtle, transformative, personal, sensitive practice, whilst simultaneously being a highly social analytical sound audit and ritualistic auditory experience. It is a process that is best not rushed and participants should be encouraged to have some time-out following the walk. For the non-specialist in sound, soundwalking acts as an ear-opener to the sonic dimension of the city, and helps re-prioritize the auditory within the rich mix of urban design and the evolving paradigm of ecological urbanism. To sum up its virtue in the in the words of Murray Schafer:

- “...these are the root of the acoustic design program. Yet they require no expensive equipment and they do not camouflage simple acoustic facts with pictures or statistical displays which, being silent, are not acoustic information.”