

THE BOTTOM RUNG

Noise: the challenges, trends, technologies, politics and opportunities

Looking forward; seeking solutions

Spring 2023

Entrepreneurs Join Forces to Tackle Noise in Hospitality

Hearing wellness brand [Mumbli](#) has joined forces with sound level crowdsourcing app [SoundPrint](#) on a mission to provide the hospitality industry with a way to improve venue acoustics for a better customer experience. Data crowdsourced from 1,350 venues by SoundPrint has shown that 50% of London restaurants have noise exceeding 80 decibels (dBA) during peak times - comparable to welding noise. And 80% of the venues have been found to be too loud for conversation. Additionally, research from Mumbli found some venues are losing £20,000 in revenue every month due to excess noise, leaving potential customers no choice but to take their business to a quieter venue more



Mumbli research found some venues are losing £20,000 in revenue every month due to excess noise

appropriate for socialising. Using noise levels measured by SoundPrint's user base, Mumbli will provide venues showing excessive noise with a bespoke solution leading to improved user accessibility as well as potentially significant revenue gains. Marion Marincat, Founder of Mumbli, said, "This collaboration is a completely new and innovative approach to tackling noise in hospitality". Mumbli's audio accessibility

rating and method is recognised and supported by the UK Noise Association, European Federation of Hard of Hearing and the World Health Organisation.

- **Mumbli, currently crowdfunding on [Seedrs](#)**, brings together audio experts, data analysts and hospitality specialists to translate complex acoustic data into user-friendly insights and recommendations for businesses to implement.

Crowdfunding details: <https://www.seedrs.com/mumbli>

- **SoundPrint allows you to discover the quieter venues in your city.** Using the app's internal decibel meter, you can measure the noise level of any venue, which is then submitted to a SoundPrint database that anyone can access to find out if a certain venue is quiet or loud: <https://www.soundprint.co/> **SoundPrint's latest results on pages 6 and 7.**

New Organisation to Challenge Low Traffic Neighbourhoods



SEJ (Social and Environmental Justice) was launched earlier this year to oppose the controversial low traffic neighbourhoods (LTNs). Over recent years there has been a growth of LTNs. Traffic restrictions are put in over a wide area. The result is less traffic, noise, pollution and road danger within the LTNs but often the surrounding roads get more traffic as a result. Often these are already heavily-trafficked 'main' roads which are residential roads to many people, including many poorer households and people from the BAME communities. SEJ argues that LTNs are socially and environmentally unjust. SEJ recognises the need for traffic reduction but is concerned that the piecemeal approach taken by councils since 2020 is not only inequitable but also ineffective in reducing vehicle use across towns and cities. It argues for a well-planned, carefully implemented, city-wide solution that reduces traffic, pollution, noise and road danger on *all* roads but also takes into account the needs of small businesses, tradespeople, taxi drivers, people with mobility impairments and carers, many of whom depend on vehicles for their livelihood or to get about. Over the coming months SEJ plans to host events, commission research, and publish reports highlighting the problems with LTNs and putting forward solutions to traffic problems. Initially, its main focus will be London but it is already branching out to other areas of the UK. The UK Noise Association is supportive of SEJ since for many years we have been arguing that the priority is to reduce noise on the busy main roads.

Website: <https://www.socialenvironmentaljustice.co.uk>

Above: Air Pollution expert David Smith (Twitter @Little Ninja) who gave the keynote talk.

Right: a section of the launch audience.



A Role for Road User Charging?

Road User Charging is in the news. It is being seen as a tool to tackle traffic congestion. And it may even be inevitable. As electric vehicles become commonplace, fuel duty will begin to dry up and the Treasury will need an alternative source of revenue.

Will it cut noise noise?

And can it be fair?



If the number of cars and lorries on the roads fell, there would be a reduction in noise, though the fall in traffic levels needs to be significant for the noise reduction to be really noticeable: 200 vehicles passing in one hour sound half as loud as 2000. But in much of the UK traffic levels have been rising. Between 1994 and 2019 all motor traffic increased by 36% (lorries up by 12%; cars and taxis up by 29%; and vans by 106%).

Road user charging will cut traffic levels (1) but can it be fair?

The award-winning journalist Janice Turner wrote in her Times column (22/10/20):

“Drivers will refuse to pay to collect tiles from B & Q or take their old mum to Tesco...businesses will revolt.”

Introduced tomorrow, it would hit a lot of people very hard: low-income and disabled drivers; carers; owners of delivery vans and many small businesses; even a lot of families on average incomes, given the high cost of public transport.

Road user charging must not destroy livelihoods

It is easy for those of us who care about noise to dream of the role road user charging could have in creating quieter streets and more liveable neighbourhoods. But if it targets the less well-off and destroys livelihoods, it becomes yet another idea promoted by the better-off – which includes most NGOs and many pressure groups – at the expense of those struggling to make ends meet. It is critical that those who might potentially lose out are involved in framing any plans: carers who need their cars; small business people who need their vans; mums on outlying estates who rely on shared taxis; shift workers; disabled people. Interestingly, though, research from Campaign for Better Transport suggests distance-based road user charging may be no more unfair than fuel duty as drivers clearly need to buy more petrol, the further they drive (2).

What other measures are needed to make road user charging effective and fair?

1. Replace low traffic neighbourhoods

Low traffic neighbourhoods are a deeply inequitable attempt to reduce traffic. They relocate traffic from some roads to others. They also discriminate against essential car users by requiring them to driver longer distances. A road user charge should replace low traffic neighbourhoods as well as any other current charges such as tolls or air pollution charges.

2. Re-allocation of road space

A sensible reallocation of road space from private cars and lorries to more sustainable modes of transport would assist pedestrians, cyclists, buses, taxis and trams and would encourage more use of these modes. But banning cars on streets should be the exception; not the norm. A city without cars will not function; in the same way that a city with too many cars does not function.

3. Quality conditions for walking and cycling

There is scope for modal switch. About half the journeys we make are under two miles and 75% less than five miles. But let's be realistic. Many of these short journeys can be complex and not everybody will choose to make them on foot or by bicycle.

Recent research suggests distance-based road user charging may be no more unfair than fuel duty as drivers clearly need to buy more petrol, the further they drive

4. The embrace of new technology

The UK is beginning to buzz with exciting new vehicles: cargo bikes, e-scooters, e-bikes and pedicabs. Cargo bikes have the potential to cut van traffic. Research by the consultancy WSP has found that up to 14% of vans could be replaced by cycle freight in London by 2025. Electric bikes, too, have a lot of potential. A recent report from the Urban Transport Group found 100 million car and taxi trips in the city regions could be replaced by e-bikes each year (3). There are also increasing opportunities to make use of shared transport.

5. Convenient, accessible and affordable public transport

Cheaper fares are essential for road user charging to work fairly. But they don't require massive public subsidy.

Cheap fares can be financed in a number of ways:

- By using some of the money raised from road user charging;
- By imposing a transport tax on big employers (as places like Paris already do), on the basis that their employees benefit from cheap fares;
- By introducing a small annual transport levy on our rates.

6. A comprehensive transport and planning network in place

London has such a network. A lot of UK cities don't, although a number are developing one. The network would need to include planning and housing policies that were not based around the car and, if necessary, work-place parking charges. The tricky issue of residents' parking would also need to be dealt with.

What about car-ownership? Once people own a car, they tend to want to use it. Not just because of its perceived convenience but also to get a return on their investment. Good alternatives in themselves do not seem to be enough to persuade many out of their cars. Road user charging may tip that balance.

References:

- (1). <https://www.transportforqualityoflife.com/u/files/6%20An%20Eco%20Levy%20for%20driving%20-%20cut%20carbon,%20clean%20up%20toxic%20air,%20and%20make%20our%20towns%20and%20cities%20liveable.pdf>
- (2). <https://bettertransport.org.uk/research/5110/>
- (3). <https://www.urbantransportgroup.org/resources/types/reports/fully-charged-powering-potential-e-bikes-city-regions>

TAKE THE TRAIN...AT A COST

Trains can cause noise problems. But there is a lot which can be done to reduce rail noise, although some the problems associated with freight and high-speed trains will prove more difficult (1).

Aircraft noise, in contrast, is a lot more intractable. Individual planes have become much less noisy over the last fifty years but industry experts predict only marginal improvements going forward.

Aircraft noise can be mitigated in a number of ways: through sound operational practices; alternating flight paths where possible; tough restrictions on night flights; generous compensation and mitigation packages; and the building of new airports away from built-up areas.

But flight numbers remain the problem. There is little doubt worldwide flights will increase over the coming decades as emerging economies become wealthier. In the already-wealthy countries numbers have shot up over the last few decades with the advent of short-haul budget flights. These numbers could be stabilized or even reduced if people switched to rail for at least some of these journeys.

Times can be comparable for many rail and air trips if the waiting times at airports and the journey times to and from city centres are taken into account. But the current costs can make rail travel unrealistic, as we found out....

Our cost experiment....

It started with a trip we needed to make by rail. It was to Frankfurt to speak at a rally to mark the 25th anniversary of BBI, the German Alliance of Citizens' Initiatives (communities impacted by airports). To fly to such an event would not have been appropriate, particularly since one of BBI's current campaigns is to end short-haul flights. So, it was only after we booked a train (for one of us) that we thought to look how much it would have cost to have flown.

London – Frankfurt: Saturday 4th March

Booked 4th February

Event: Rally, 2pm until late afternoon at Frankfurt Airport



| RAIL: | AIR: |
|---|--|
| Out: Friday 3 rd : London-Brussels-Frankfurt Return: Sunday 5 th : Frankfurt-Brussels-London | Out: 9.30am (Heathrow) – 12.05 (Frankfurt) Return: 20.00 (Frankfurt) – 20.45 (Heathrow) |
| Eurostar: £218.00; Brussels-Frankfurt return: £177.00 | Total: £164 (There would be some extra cost for booking seats etc). |
| Hotel for 2 nights: £90 | |
| Total: £485 | |

London – Edinburgh: Tuesday 7th March

Booked 4th February

Event: Meeting, 2 - 4.30pm, Central Edinburgh

| RAIL | AIR: |
|---|--|
| Out: 8.27 – 13.00: £59.20 Return: 17.30 – 22.00: £42.00 | Out: 08.35 (Stansted) – 09.55 Return: 18.15 – 19.30 (Luton) £43 |
| Total £128.00 | South London – Stansted (Tube & train): £28.20 Luton – South London: £17.80 |
| The LUMO service was available at £99.40 ((return) but left London at 05.45. | Overall Total: £89.00 |

London – Barcelona: Thursday 13th April

Booked 4th February

Event: Meeting, 2-5pm

| RAIL | AIR |
|---|---|
| Out: Wednesday 12 th April: 09.24 – 21.00: £240.26 Return: Friday 14 th April: £287.06 | Out: Thursday 13 th : 09.10 (Gatwick) – 12.35 Return: Thurs 13 th 8.55 – 20.20 (Gatwick) £98 |
| Hotel for 2 nights: £88.00 | South London - Gatwick: £21.50 Gatwick – South London: £21.40 |
| Total: £605.32 | Barcelona Airport – Barcelona (return): £30.68 |
| | Overall Total: £171:00 |

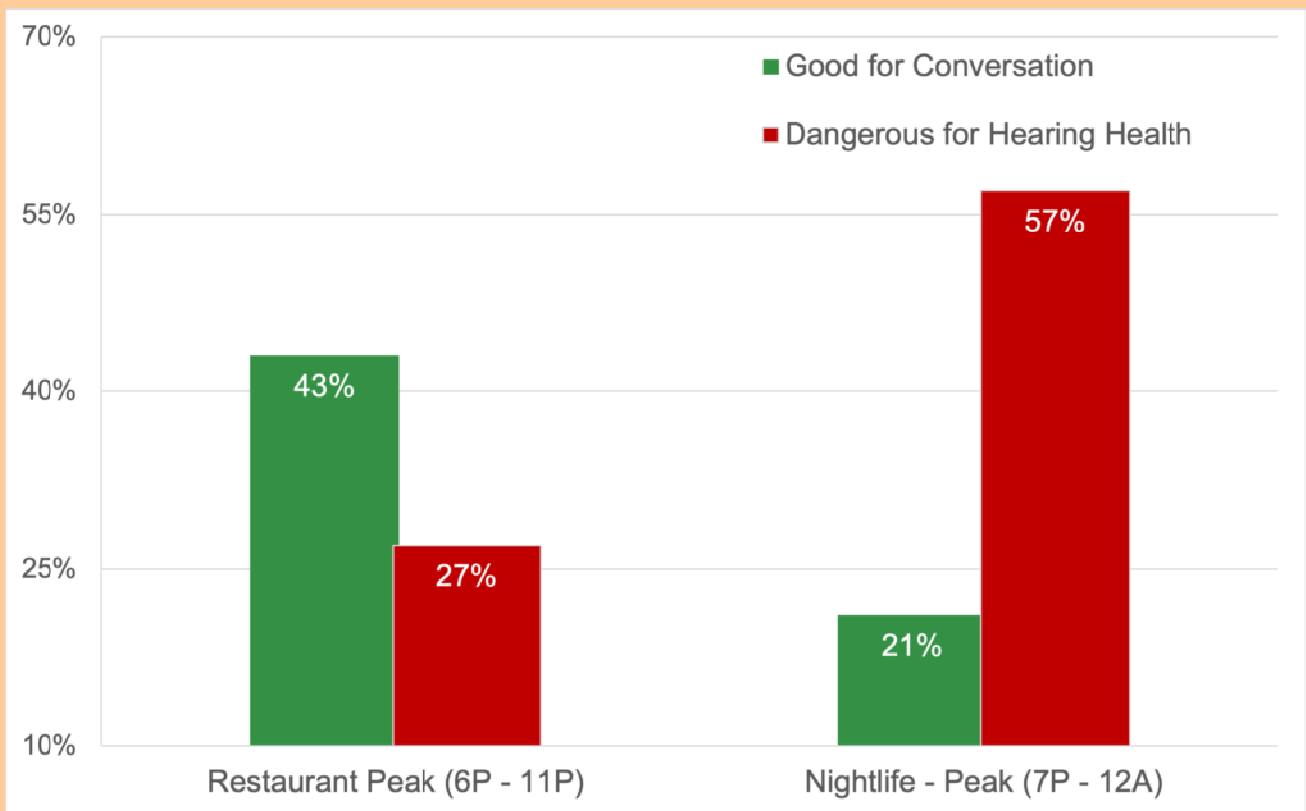
Our Conclusions:

- For an afternoon meeting air has the advantage of being able to get from London and back on the same day, saving on the need to book hotels.
- It is a lot cheaper to travel by air even when the cost of journeys to and from the airport, and extra cost of reserving seats on the plane, are added in.
- Rail fares to European destinations are high. This is partly accounted for by the very high fares currently charged by Eurostar. It will mean that for many people rail is not an option.
- The difference in cost for domestic destinations is less.

(1). http://www.uknoiseassociation.com/uploads/4/1/4/5/41458009/ukna_rail_noise_briefing.pdf

Noise levels: venues worldwide

SoundPrint's results from 2,000 venues



October 2022 marked SoundPrint's second annual Find Your Quiet Place Challenge. The campaign inspired hundreds of participants and over 30 organizational partners, including the UK Noise Association, to measure sound levels in their local communities to raise awareness for hearing health and make the world a quieter place. During the month-long event, participants made SoundChecks at over 2,000 unique venues worldwide.

Sound levels in restaurants averaged out at 76.5 decibel. 43% were rated as good for conversation, 57% difficult for conversation and 27% dangerous for hearing health. For nightlife, the average sound level was 77.8 decibels, with 21% rated as good for conversation, 79% difficult for conversation and 57% dangerous for hearing health. Overall, across all venue categories worldwide, 2022 (73.4 dBA) registered a much higher sound level than 2021 (70.0), an increase of 3.4 decibels (dBA). While such an increase may not be ideal, it still remains below pre-pandemic levels (76.4).

The 2021 sound levels for restaurants remained roughly the same. SoundPrint commented:

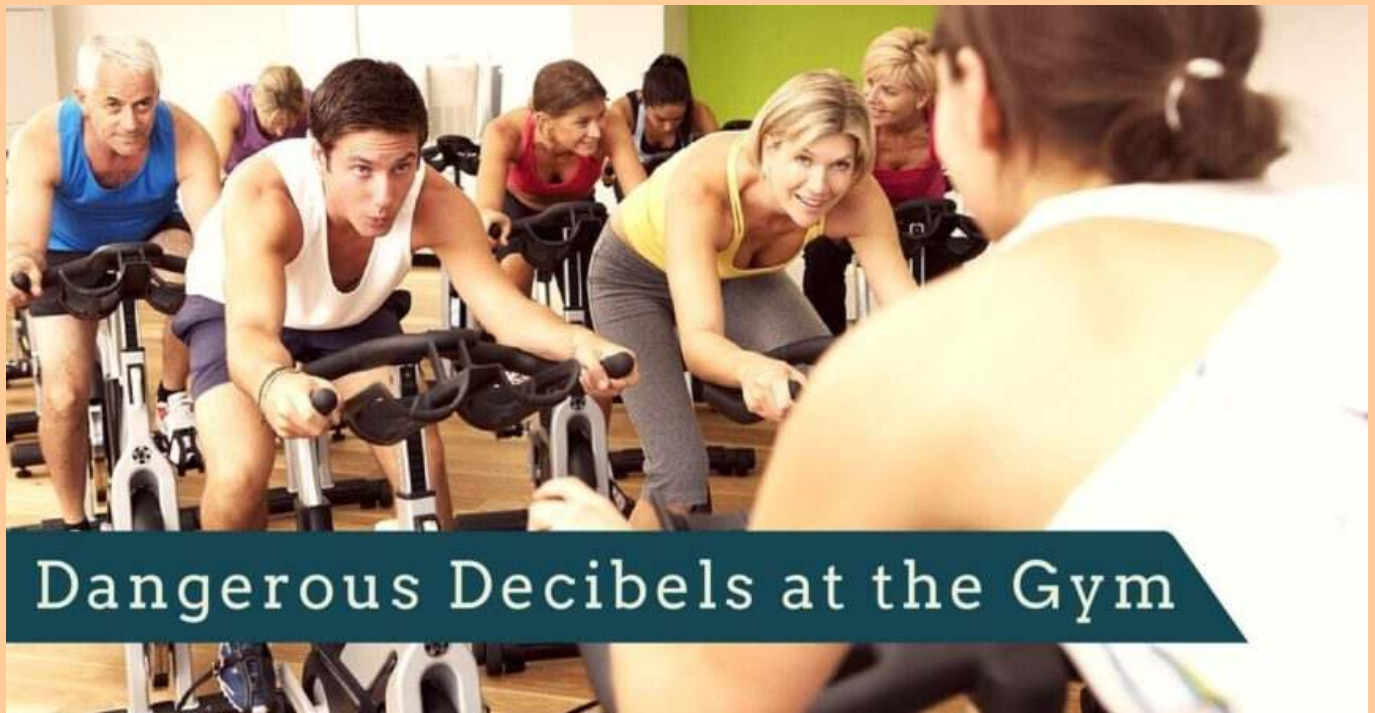
This is the most significant and potentially positive trend where restaurants may be adapting to a quieter world. This could take many forms ranging from lower background music, better table spacing, improved acoustic design, or venue managers simply being more sensitive to acoustics following the quiet of the pandemic

Additionally, the percentage of restaurants conducive to conversation, defined as either quiet or moderate reached its highest level over the past five years at 43%. Similarly, the percentage of restaurants that endanger the hearing health of patrons and employees barely budged upwards, at 27%.

Nightlife levels are still at elevated levels (81.5 dBA) and had a small increase over 2021 (80.9 dBA), but remain below pandemic levels (~83 dBA). The threshold by which sound levels endanger hearing health is 80 dBA. These elevated sound levels are not surprising as patrons expect such venues to be very loud and hence engender less noise complaints than restaurants and coffee shops and other venues.

Nominations to SoundPrint's list of Quiet Places have been growing steadily at a 26% increase for 2022. The Quiet Place list, currently more than 3,000, rewards venues with quieter environments that are safe for hearing and conducive to conversation. FYQP 2022 yielded significantly higher SoundCheck submissions across the coffee/tea, retail, and gym categories. Findings showed that 20% of Gyms are dangerous to hearing health. The coffee/tea and retail categories are within safe levels at 86% and 89% respectively.

Findings showed that 20% of Gyms are dangerous to hearing health.



SoundPrint expects the 2023 FYQP Challenge to show continued participation increase as the pandemic's impact gradually subsides while further enriching Soundprint's database and raising hearing health awareness.

SoundPrint thanked its organizational partners:

[ACS](#) | [AG Bell](#) | [American Tinnitus Association](#) | [AudioTelligence](#) | [Better Hearing Australia \(Brisbane\)](#) | [Dallas Hearing Foundation](#) | [Deafness Forum of Australia](#) | [Diversability](#) | [Ear Peace Foundation](#) | [Ear Research Foundation](#) | [Eargasm](#) | [ENT & Audiology News](#) | [European Federation of Hard of Hearing People](#) | [Heard That](#) | [Hearing Health Foundation](#) | [Hearing Tracker](#) | [HLAA](#) | [Hyperacusis Research](#) | [International Federation of Hard of Hearing People](#) | [Jan L. Mayes](#) | [Living with Hearing Loss](#) | [Mimi Health](#) | [National Foundation for the Deaf and Hard of Hearing](#) | [NHCA](#) | [Nolu](#) | [Puro Sound Labs](#) | [Quiet Mark](#) | [Soundfair](#) | [T-Minus](#) | [The Children's Hearing Institute](#) | [The Hearing & Speech Center](#) | [U. of Nebraska College of Engineering](#) | [UK Hearing Conservation Association](#) | [UK Noise Association / The Bottom Rung](#)

Human-made noise harms dolphin communication



Photo credit: [Jeremy Bishop](#)

by **Arline L. Bronzaft, Ph.D., Board of Directors, GrowNYC, Co-founder, The Quiet Coalition, and Honorary Chair, Quiet American Skies**

In earlier posts I have written about human-made noises not only adversely impacting the well-being of humans but also the well-being of other species with whom we share this earth, e. g. birds, whales, dolphins. Unsurprisingly, here is another study confirming how [harmful human-made noises are](#) to the interaction of dolphins.

Working with a pair of dolphins, a group of researchers at the University of Bristol found that the dolphins had a difficult time interacting and communicating with each other when “increasing levels of noise were played from an underwater speaker.” This despite the fact that the dolphins attempted to change their behavior, e. g. amplifying their whistles and changing their body positions. The percentage of tasks that the dolphins were supposed to complete in the study dropped because of the difficulty they had in working cooperatively.

Moving to the real underwater soundscape, we know that human noise pollution from shipping traffic, drilling, offshore windfarms and the like has been intruding on the ability of sea mammals to interact with each other. Making it more difficult for sea mammals to communicate and interact with each other can eventually “impact on the health of marine populations.”

Pernille Sorensen, the first author of the research cited, rightfully stresses that ways to reduce ocean noise must be explored—sea mammal survival depends on this.

This article first appeared in Quiet Communities

China announces action plan to curb night noise by 2025

Officials pledged that 85% of the country would be compliant with nighttime noise standards in the next three years

This article by Ye Zhanhung first appeared in Sixth Tone (11/1/23)

China has set up a road map for combating noise pollution in the next three years, as the country accelerates efforts to improve the health and wellbeing of people following mounting public complaints. The first-of-its-kind [action plan](#) said that 85% of the country will meet the government's nighttime noise standards by 2025, as it seeks to regulate the level of noise emitted by industries, construction, and transportation, among others. The plan, published by the Ministry of Ecology and Environment on Tuesday, is an extension of the revised national law on noise pollution, which aims to tackle the pressing issue.

While air and water pollution have attracted greater public attention and policy focus, noise pollution remains relatively unaddressed. In 2021, China's different government departments [received](#) more than 4 million noise pollution-related complaints from urban areas, with nearly 60% of the cases involving residential compounds and public venues.

In 2021, China's different government departments received more than 4 million noise related complaints from urban areas

A Shanghai resident surnamed Cao told Sixth Tone he was constantly upset by the rumbling sound of air conditioners or barking dogs in his residential compound at night. He said it affected his quality of sleep and productivity in the morning. "It's too tricky to tackle this annoyance since the noise comes from different sources at different times," Cao said, adding that the residential staff dismissed it as a trivial issue.

Tuesday's action plan ordered all municipalities to revise the noise levels by the end of this year, emphasizing on managing the issue in noise-sensitive places like residential buildings, parks, hospitals, and office buildings. The revisions will be based on the country's existing five-tier classification system to manage noise for different places, which has different standards for daytime and nighttime.

China first launched its [noise pollution law](#) in 1997. It was last revised last year and will go into effect this June. The updated law added more accountability and punishments for violators and improved the regulations for offenses in rural areas.

China Daily (14/1/23) added: According to a study by the China Environmental Science Research Institute, noise pollution affects over 200 million people in China, with levels of noise in some urban areas exceeding national standards. The Chinese government has taken steps to address noise pollution, including the introduction of regulations and standards for noise levels as well as campaigns to raise awareness about the issue. There are also many organizations, NGOs, and researchers that are working to address the problem in China through research, advocacy, and community engagement.

URBAN HELL

Air conditioning units:

the SMDC Shore Residences,
Manila, Philippines.

No words needed.....



Henry Thoresby

An appreciation

Henry Thoresby, a founder member of the UK Noise Association and chair of our charitable arm, the Noise Association, died in December last year, aged 86.

Henry was both a long-time environmentalist and a pioneer in calling for noise reduction. He was a lawyer who chaired the London School of Economics Environmental Initiatives Network and editor of its journal, Environment Initiatives.

Henry was passionate about noise reduction and was particularly concerned about the impact of wind turbines. He played a leading role in our campaigning around wind farms.

Born in 1936, Henry graduated from London School of Economics, with a Bachelor of Science (B.Sc.) During the second world war, he served in the army, gaining the rank of officer in the Royal Tank Regiment.

For those of us who were fortunate to know him, we'll remember a humble, courteous man, full of wisdom but with an impish sense of humour. And as somebody who was a welcome and constant presence in our organisation almost up until his death.

New Website Address

We have got a new website address:

<http://www.uknoiseassociation.com/>

With new features

Check it out!

Help! I've got a noise problem!

You can contact:

The Noise Abatement Society

<https://noiseabatementociety.org/>

Helpline on 01273 823 850;

email info@noise-abatement.org

The Noise Abatement Society also carries out a range of activities including research and lobbying

Or contact **ASB Help**, a charity which aims to provide information and advice to victims of anti-social behaviour

<https://asbhelp.co.uk/noisy-neighbours-noise/>

Noisedirect
08453 31 32 30

Independent advice line from noise professionals

The Bottom Rung is a quarterly journal, edited by John Stewart, published online by Cut Noise: <http://www.uknoiseassociation.com/>

We are always looking for contributions, be it articles or opinion pieces.

Email johnstewart2@btconnect.com

Our blog site is at:

<https://www.cutnoise2day.co.uk/>

Twitter: @cutnoise