A quiet revolution: electric mobility and the new city soundscape

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Abstract
When considering cities, their history, their workings and their character, one crucial aspect is invariably ignored: sound. An integral part of the built environment, as decisive as other significant constituents of city landscape — like the dominant colours of buildings, street materials, tree species, etc. — but, unlike those, invisible. Moreover, like that, it remains. Since the beginning of civilisation and during most of Human history from then on, one may imagine that all major Human gatherings have produced the same kind of sounds: those related to essential human activities, the sounds of domestic animals, and that of Nature manifestations (wind, thunderstorms, and rain). After the Industrial Revolution, as it happened with many other things, sounds have changed. During the last two centuries cities got noisier, the world got noisier. Human-made sounds overrode the natural ones, in a crescendo that seemed would never cease growing. Suddenly, though, at the end of the second decade of the 21st century, we may be at the threshold of the first change in the opposite direction, on the verge of a quiet revolution. The seemingly unstoppable move towards a world of almost silent vehicles, powered by electrical engines, will change forever — and once again — the soundscape of big cities.

This paper addresses the transformation of city soundscapes throughout history and questions the foreseeable changes in the very near future when, for the first time since the beginning of history, it seems we may be facing the first inversion in the ever-growing curve of a sound wave.

Keywords: cities, soundscape, noise, electrical vehicles