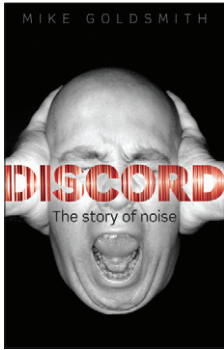


Book Sound and fury



Discord: The Story of Noise
Mike Goldsmith. Oxford University Press, 2012. Pp 317. £16.99. ISBN 9780199600687

Unlike our eyes, our ears have no lids. Even when asleep, we remain alert to noises—the sounds of things that go bump in the night. Indeed, our brains' electrical responses to sounds are used by surgeons to indicate the degree of our unconsciousness during surgery. Our cave-dwelling ancestors must have depended for their survival on the sensitivity of their hearing as much as, if not more than, the clarity (or otherwise) of their vision.

Perhaps this helps to account for our ambivalence to noise—the theme that unites the exceptionally disparate material in *Discord: The Story of Noise*, Mike Goldsmith's engaging, often entertaining, history of noise from prehistoric times to the present day, focusing on American and European cities. Since the industrial revolution, governments have legislated successfully against pollution of many kinds, yet still they struggle to control noise, whether it comes from overhead aircraft or next-door neighbours.

Goldsmith—who previously worked for two decades in the acoustics group of the UK's National Physical Laboratory—suggests three main reasons for this relative failure. The first is the difficulty of noise measurement, which depended largely on subjective reports until the invention of portable microphones with electronic amplification in the mid-20th century. Second is the widespread acceptance that people have “both some kind of a right to express themselves and at the same time some kind of a right to peace”. Third is the familiar fact that we can never agree on what noise is: a revving motorbike engine or a rock concert can be music to some ears, an unbearable cacophony to others. As James Watt discovered to his surprise, 18th-century miners wanted his new-fangled steam engines to sound as noisy as possible.

To provide even a loose definition of noise is a tricky matter. “Unwanted sound”—a common definition since the Middle Ages—strikes Goldsmith as too broad to be useful. He prefers “sound out of place”, which was suggested by a British physicist in 1931. This allows the book to include, for example, Pythagoras' idea of the heavenly bodies obeying a music of the spheres, Mozart's “Dissonance” quartet that jarred ears in the 1780s, the harmful effects of naval sonar systems on whales and dolphins, and, with a stretch, the use of ultrasound to shatter kidney stones and to treat otherwise inoperable brain cancers.

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The first medical references to noise belong to ancient Egypt, and date from the 17th century BC. They describe auscultation and tinnitus, although not clearly. Hippocrates, in the 5th century BC, was the first physician to describe tinnitus clearly, as a slight buzzing sound in the ear, and also the first to recommend that the sick should be kept away from sources of noise.

But not until the industrial revolution did the British medical community begin to recognise that noise might be a threat to health. The first authoritative reference, says Goldsmith, appeared in *The Lancet* in 1830–31, in which John Fosbroke maintained that deafness in blacksmiths was a consequence of their work, and that it “creeps upon them gradually”. Nevertheless, there

was no medical signatory among a list of eminent names—including Charles Dickens—petitioning for legislation against the uproar of Victorian London, notably that of street musicians; their petition passed into law in 1863. And not until 1886 did a medical man attempt a quantitative investigation of the deafness produced by industrial activity. Thomas Barr, a surgeon working for the Glasgow Ear Hospital, heard for himself the terrible din of boiler-making and noted: “After such an experience one is surprised that the delicate mechanism in the interior of the ears can retain its integrity for a single day under the action of these blows.” By transporting a recently invented phonograph into the noisiest part of the boiler, Barr made some primitive recordings on a wax cylinder that showed the contrast in pitch between the hammering and the human voice. He also examined the hearing of 100 full-time boiler-makers by measuring the distance from their ears at which they were just able to hear a ticking watch.

Discord's evocation of noise in history is detailed and vivid, notwithstanding the occasional error, such as the inclusion of E M Forster (born 1879) as a signatory of the 1863 petition. But it is not the widely accepted urban racket of the past that surprises the reader so much as our present-day indifference about measuring noise levels—despite convenient and affordable technology. As a puzzled Goldsmith notes, in the UK both the 2007 Royal Commission on Environmental Pollution and the 2008 Mayor of London's consultation on best practice for the development of strategies for open spaces, chose to exclude noise from consideration.

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