

SOUND OF SILENCE: RISE OF WHITE NOISE

Acoustics Light sleepers and spies can tap a growing library of soothing sounds, writes Penelope Green.

On winter nights, the white-noise app on my phone is tuned to Air Conditioner: a raspy, metallic whir that sounds like the mechanical noise that might echo deep inside the duct work of a huge commercial building. (Among the app's other offerings are Dishwasher Rinsing, Crowded Room and Vacuum Cleaner.)

It lulls me to sleep nonetheless, because it blankets the din in my apartment (the ragged snore of a roommate; the clanking of the steam radiator; the cat's skidding pursuit of something only he can see).

It may also soothe because it replicates an early sound environment, probably that of a Manhattan childhood, though perhaps it suggests something much, much older. Some sleep experts note that babies, accustomed to the whisper of the maternal circulatory system and the slosh of the womb, sleep better accompanied by a device that mimics those familiar whooshings.

My app is but one note in the mighty chorus of white-noise generators, an exploding industry of mechanical and digital apps and websites, and Sonos and

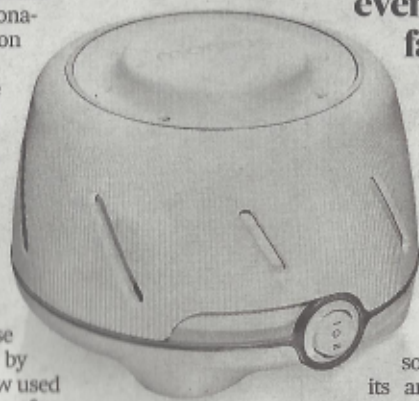
Spotify playlists that grows ever more refined, as if to block out the increased rate of speeding, the wrecks, on the information superhighway.

Car Interior? Oil Tanker? Laundromat? These ballads are in the vast soundscape library created by Stephane Pigeon, a Belgian electrical engineer, and ready to play on Mynoise.net, a sound generator he put online in 2013 that now has 1 million page views each month. It's a nearly philanthropic enterprise, as it runs on donations. "I have enough stress," Pigeon says.

Reddit, among other message boards, offers DIY white-noise hacks for light sleepers, shift workers and tinnitus sufferers. Rough up the blades of a box fan with a box cutter, suggests Christopher Suarez, a field service technician from Riverside, California, whose wife is an insomniac, on one captivating thread there.

The first domestic white-noise machine may have been built in 1962, by a travelling salesman whose wife grew used to the airconditioners in the motels they fre-

Marpac Dohm, a favourite not just of light sleepers.



One of the things that makes noise so unreasonable is the lack of control. You can't stand your neighbour's loud music even if it's your favourite artist.

quented and was unable to sleep at home.

But white noise was identified by engineers as early as the 1920s, Pigeon says, and used as a test signal because, as he puts it, "it's the sum of all the audible frequencies in equal proportion in a single sound. It's so named because of its analogy to light, which turns white when all visible frequencies are

summed up into a single beam." Back home in his garage, Jim Buckwalter, the salesman, set a turntable and a fan blade into a dog bowl insulated by some foam, and invented the Marpac Sleep-Mate, now called the Dohm (\$US40 on Amazon), a gizmo whose popularity grew by word of mouth and became a favourite not just of light sleepers but also of psychotherapists, the legal and medical community, and others seeking to mask confidential conversations. (Nothing says 1980s-era Upper West Side analysis like the whispery hiss of a mushroom-shaped Dohm.)

Sound purists adore it because its mechanical whirring is closer to truly random and contains no loop, as many digital versions do.

Fred Maher is a veteran music producer and drummer who works as an audio engineer and audio-quality tester. He has what are considered golden ears, meaning he is an expert listener who can spot audio errors in music, film and television content. He also suffers from tinnitus, a condition he soothed for years with machines like the Dohm. (That device is now in the bedroom of his

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