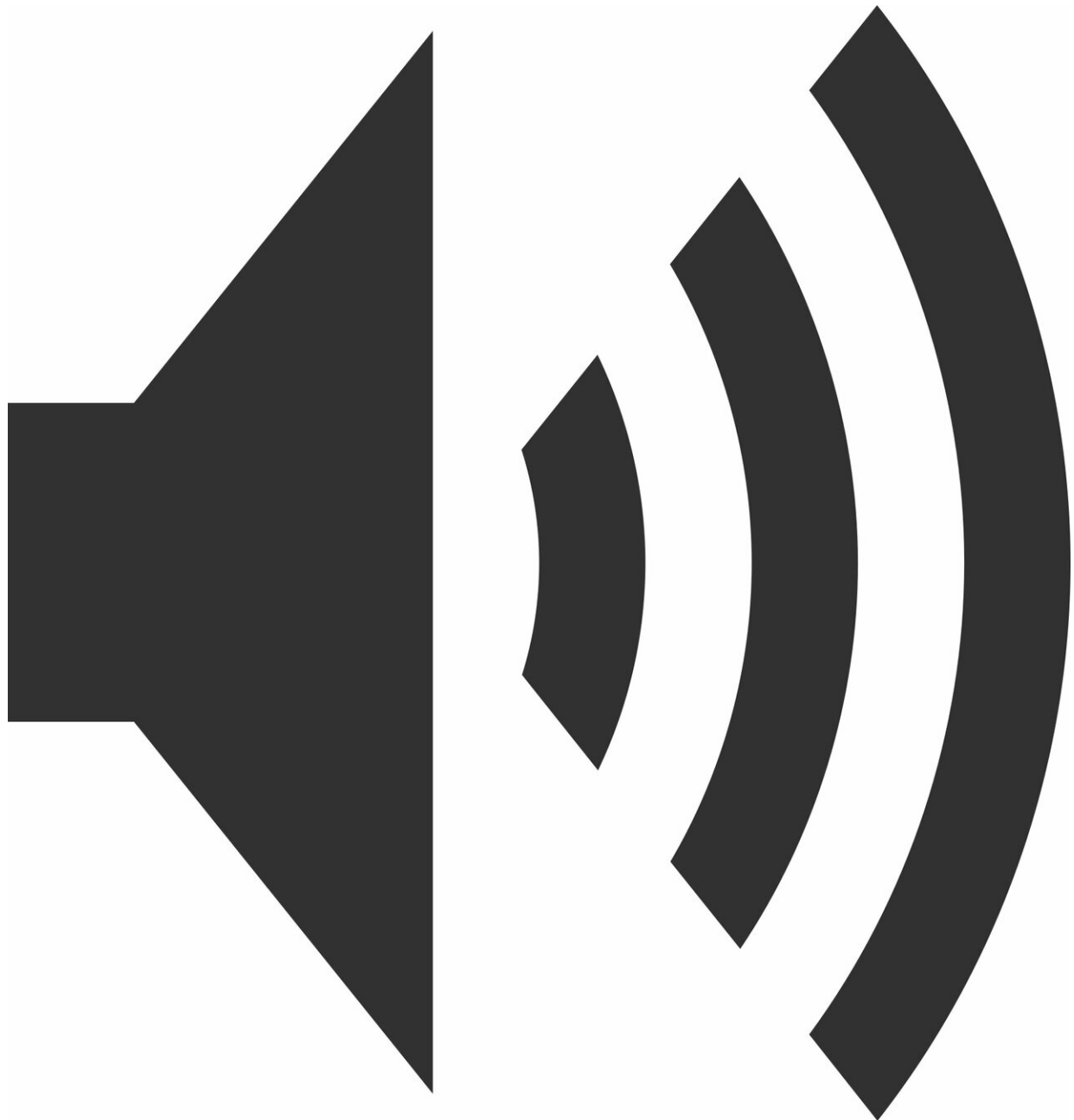


Pandemic quarantine acoustically contributes to mental, physical health degradation

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The prolonged impact of the COVID-19 pandemic and the interaction restrictions created widespread lockdown fatigue and increased social tension in multiunit housing. But small improvements in quality-of-life routines may help people cope with the health restrictions better than they previously could.

During the 180th Meeting of the Acoustical Society of America, which will be held virtually June 8-10, Braxton Boren, from American University, will discuss noise prevention techniques and the use of alternative acoustic stimulation to help those who find themselves in pandemic-related lockdowns.

While there have been studies about the harmful effects of noise in densely populated areas, Boren said a [holistic approach](#) to sound and its effects considers the context of sound to understand the impact on any given person.

"There were certainly anecdotal accounts of extroverted people who took comfort from hearing sounds from neighbors' apartments as a remedy against the extreme social isolation they were suddenly experiencing," Boren said. "Conversely, introverted people are more likely to be highly sensitive to noise stimuli and more likely to want to retreat into their homes as a sort of sanctuary from the external world."

Boren said municipal noise codes should be more sensitive to low-frequency noise, below 100 Hz or so, since this [frequency range](#) tends to travel long distances without being easily absorbed and has the longest

wavelengths, which tend to be transmitted through walls and other structures. These [noise](#) sources, while not a huge annoyance in rural or suburban communities, can be one of the biggest detractors from quality of life in urban settings and should be taken more seriously as a society.

In his talk, Boren will outline how audio simulations, like [virtual reality](#) and spatial audio, can help people improve their quality of life. The [human brain](#) is accustomed to putting sound in spatial context, being enveloped or immersed in the sound, particularly for larger spaces.

"The lack of larger special gatherings during lockdown contributes to our feelings of isolation from each other," he said. "While a VR environment will help us experience this, for those who do not own a VR headset, there are still many ways that virtual communication channels could incorporate some of the acoustic attributes of these sorts of larger environments."

Provided by Acoustical Society of America

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