

Exploring acoustic design for better, quieter prisons

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Sound and noise inside prisons can affect both staff and inmates, so a thorough understanding of that noise is crucial when designing prison spaces. Credit: Helen Farley

Prisons are typically noisy environments, filled with clanking metal bars and echoing concrete surfaces. This level of constant noise is harmful to both prisoners and staff, but there are few guidelines for designing better, quieter facilities.

James Boland, an acoustician for SLR Consulting, employed insights from the field of sensory criminology to better understand the unique acoustic needs inside prison environments. His presentation will take place Dec. 6, as part of [Acoustics 2023 Sydney](#), running Dec. 4–8 at the International Convention Center Sydney.

"Sensory criminology examines how sensory experiences, such as sight, sound, and touch, influence and shape perceptions of crime and justice," said Boland. "It emphasizes the impact of auditory elements on the experiences of both prisoners and staff and considers how the constant [noise](#) contributes to the overall atmosphere, perceptions, and communication within the prison environment."

Auditory guidelines for prisons are often adapted from existing protocols for schools and hospitals. However, prisons are unique environments with different relationships to sound and noise. For instance, both prisoners and staff rely on noise to gauge the level of social tension. A prison that is "too quiet" can sometimes be worse than one that is too loud.

In the context of prisons, acoustic design can contribute to transforming communication dynamics and alleviating negative social interactions. By focusing on speech intelligibility, strategic reduction of noise levels, and the incorporation of privacy considerations, acoustic design can significantly improve the overall prison [environment](#). Creating distinct zones within the prison and balancing moments of quiet with activity are essential to fostering a more comfortable and secure space.

"The crux lies in recognizing the significance of 'noise' from the perspective of those inhabiting these spaces," said Boland. "For [prisoners](#), it's about how sound influences their outlook in terms of power or dynamic safety in their daily lives, while for staff, it becomes a tool for decision-making and maintaining safety for themselves and those under their care."

By seeking input from the people who occupy and live in these spaces, Boland hopes to gain an understanding of the complex role of sound inside prisons. Such an understanding could lead to better guidelines for current and future [prison](#) facilities, benefiting everyone inside.

"Ultimately, thoughtful acoustic design in prisons can directly influence the lived experiences of individuals, promoting positive social interactions and supporting rehabilitation efforts," said Boland.

Provided by Acoustical Society of America

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