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Application of ISO 12913 standard to assess urban soundscapes: a case study on Poznań

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ISO 12913 standards provide a unified framework for describing and assessing soundscapes, yet the absence of a Polish translation has so far limited their practical use. This paper presents the first application of a validated Polish version of the ISO 12913-2 perceptual attributes, enabling full cross-language comparability of results. Whereas Polish research has traditionally focused on noise annoyance and broad judgements of acoustic comfort or discomfort, we outline the complete ISO-compliant assessment procedure, which combines: a soundwalk, questionnaires and audio-visual recording. The study was conducted at eight diverse urban locations in Poznań. Participants rated the soundscapes using eight attributes: przyjemne, tetniące życiem, bogate w wydarzenia, chaotyczne, dokuczliwe, monotonne, ubogie w wydarzenia, spokojne. Each rating set is mapped to a point in the two-dimensional pleasantness-eventfulness space defined in ISO 12913-3, facilitating visual comparison of locations and the identification of design needs. Results reveal pronounced perceptual differences between spatial typologies and demonstrate that the standardised approach provides richer, multidimensional information about the acoustic environment than conventional noise indicators. The proposed methodology establishes a reference framework for Polish soundscape studies and can support the creation of more people-friendly urban acoustic environments.











