Literature Review

Group C

Research Paper Title: Soundscape Evaluation in Urban Open Public Spaces
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This literature review aims to provide a comprehensive examination of methodologies and findings from studies focused on soundscape evaluation in urban open public spaces, with particular emphasis on the semantic differential analysis approach. This review incorporates findings from a comprehensive study conducted in Sheffield, UK, which consisted of two stages. In the first stage, participants embarked on a soundscape walk through four urban open public spaces, evaluating the soundscape using a form comprising 33 semantic differential indices. In the second stage, a more focused survey was conducted in Barkers Pool and Peace Gardens. Additionally, the review explores soundscape evaluation by architectural students, capturing their perspectives on urban soundscape and design preferences.

The findings from the second stage of the study revealed that certain indices from the semantic differential analysis were rarely selected or poorly understood. Consequently, 18 bold-faced indices were chosen for subsequent surveys. Barkers Pool and Peace Gardens were selected as representative spaces for further evaluation due to their typical urban soundscapes. The survey encompassed 491 randomly selected users who assessed various aspects of the soundscape. Demographic factors, such as gender, age, education, and occupation, were also taken into account.

The evaluation results indicated a positive linear correlation between measured sound levels and subjective evaluations of sound levels. However, evaluations of acoustic comfort received lower scores compared to sound-level evaluations, indicating people's tolerance to noisy environments. Preferred sounds in urban open public spaces were predominantly associated with nature and culture, while artificial sounds, construction noise, and traffic were less favored. Age and education level were found to influence sound preferences, with older individuals and those with higher education levels exhibiting a stronger affinity for natural and cultural sounds.

Soundscape evaluation in urban open public spaces provides valuable insights into the influence of auditory environments on users' experiences. This literature review highlights the importance of utilizing semantic differential analysis as a comprehensive approach to comprehending the multidimensional aspects of the soundscape. By incorporating findings from diverse studies, researchers and urban planners can collaborate to create vibrant and harmonious urban open public spaces that enhance the overall well-being of city residents. Further research is warranted to explore the potential of sound design interventions and develop guidelines for optimizing the soundscape in urban environments.

Reference:

Semantic differential analysis of the soundscape in urban open public spaces. (2009, June 23). *Semantic Differential Analysis of the Soundscape in Urban Open Public Spaces* - ScienceDirect. https://doi.org/10.1016/j.buildenv.2009.05.014