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Classification of Traffic Complex Acoustic Space

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Abstract : After years of development, the study of soundscape has been refined to the types of urban space and building. Traffic complex takes traffic function as the core, with obvious design features of architectural space combination and traffic streamline. The acoustic environment is strongly characterized by function, space, material, user and other factors. Traffic complex integrates various functions of business, accommodation, entertainment and so on. It has various forms, complex and varied experiences, and its acoustic environment is turned rich and interesting with distribution and coordination of various functions, division and unification of the mass, separation and organization of different space and the cross and the integration of multiple traffic flow. In this study, it made field recordings of each space of various traffic complex, and extracted and analyzed different acoustic elements, including changes in sound pressure, frequency distribution, steady sound source, sound source information and other aspects, to make cluster analysis of each independent traffic complex buildings. It divided complicated traffic complex building space into several typical sound space from acoustic environment perspective, mainly including stable sound space, high-pressure sound space, rhythm sound space and upheaval sound space. This classification can further deepen the study of subjective evaluation and control of the acoustic environment of traffic complex.

Keywords : soundscape, traffic complex, cluster analysis, classification
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