

The calibration of an aural spatial mapping tool using an architectural approach to the soundwalk method: A validation study

A series of on-site surveys are conducted as part of the validation process of a research seeking to create a tool that integrates the theoretical spatial and soundscape design concepts, to aid architects when considering sound as a design driver for urban design. The investigation is founded on establishing a relationship between aural architecture theories and the urban spatial experience and design. The surveys are pattern validation experiments that aim to observe possible qualitative aural pattern formations occurring within Covent Garden Market in London by using spatial measurements as fundamental parameters. The method assimilates the Soundwalk technique and the Relative Approach from the fields of soundscape and psychoacoustics, respectively, and are integrated within a customary architectural site-survey proposed to map the sonic morphology of urban spaces. The experiment is designed to compare the tool's preliminary prediction patterns to in situ listening and the spectral patterns recorded. The patterns are assumed to deviate at this point because not all sound factors are considered, and the patterns are assumed qualitative. However, the discussed comparative process aims to establish value in the current state of this aural mapping tool and establishing the limitations provide an opportunity for further development.