Temporal dimensions of soundscapes

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Abstract

Since the origin of the interdiscipline of Acoustic Ecology, soundscapes have been studied to reveal and understand their auditory contents in relation to their implications in human and non-human lives.

Temporal dimensions of the soundscapes have always been central to these studies as they pertain to the core ecological aspect of the discipline: the study of behaviors, interactions, relationships, and their evolution within a given environment.

The projection and integration of various acoustic dimensions of the auditory components of soundscapes on different time scales have provided insightful information about variations and transformations of soundscapes.

While it is scientifically established and commonly agreed that the global experience generated by a sound environment does not only dependent on its acoustic properties, the integration of this subjective experience in interdisciplinary studies has always presented difficulties in terms of design, representation, communication, and further usability of these studies.

This paper proposes a general framework for the design of interdisciplinary studies of sound-scapes that places the temporal dimension of the multi-modal experience at its very core.

This initial orientation is the reaffirmation of the phenomenological perspective as the origin of acoustic ecology. (Schafer, The New Soundscape 1969)

In particular, the mode of appearance of the soundscape to the listener and its mode of existence throughout the experience of listening will be strictly re-established in accordance to Husserl's principles of phenomenology of temporal objects. (Husserl 1991).

The experience of the soundscape established on the principles of phenomenology, will then be transposed within the conceptual framework of the ecology of perception as defined by James J. Gibson

In particular, the temporal dimension of the soundscape will be described in terms of ecological events and temporal affordances. (Gibson, The ecological Approach to Visual Perception 1979).

The third section of this paper will present applications of this framework..

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