

**Session 4pNSr****Noise and EURONOISE: Cultural Variations in Sound/Noise Assessment II**

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*CNRS, LCPE/LAM 11 rue de Lourmel, Paris, 75015, France***Invited Papers****5:20****4pNSr1. Acoustical Variety of Soundscapes - Comparison of Soundscapes.** Klaus Genuit (HEAD acoustics GmbH, Ebertstrasse 30a, 52134 Herzogenrath, Germany, klaus.genuit@head-acoustics.de), André Fiebig (HEAD acoustics GmbH, Ebertstrasse 30a, 52134 Herzogenrath, Germany, andre.fiebig@head-acoustics.de)

Noise of urban places varies not only with regard to its physical parameters, but also it is perceived and assessed differently because of cultural, sociological, historical and economic influences. The physical description of a soundscape does not cover the complexity of human perception in a specific environmental setting. Therefore, the task of soundscape researchers has to consider more aspects than the measurement and interpretation of the acoustical differences caused by location-specific noise sources. Moreover, semantic and cognitive aspects relating to culture, tradition and economy must be extensively analyzed. Cultural and sociological conditions influence the people's evaluations of their surroundings. A deeper understanding is necessary to adequately analyze soundscapes, especially where specific noise phenomena - e.g. temporal and spectral effects - are of more importance to the listeners' well-being than an averaged SPL value. The presented paper compares and analyses environmental sounds of different cities scattered all over the world by means of conventional and advanced acoustical analyses. The results could provide reliable data for further investigations covering sociological and cultural issues.

**5:40****4pNSr2. Naïve and expert listeners use different strategies to categorize everyday sounds.** Guillaume Lemaitre (IRCAM - UMR CNRS 9912, Equipe Perception et Design Sonores, 1, place Igor Stravinsky, 75004 Paris, France, lemaitre@ircam.fr), Olivier Houix (IRCAM - UMR CNRS 9912, Equipe Perception et Design Sonores, 1, place Igor Stravinsky, 75004 Paris, France, olivier.houix@ircam.fr), Nicolas Misdariis (IRCAM - UMR CNRS 9912, Equipe Perception et Design Sonores, 1, place Igor Stravinsky, 75004 Paris, France, misdariis@ircam.fr), Patrick Susini (IRCAM - UMR CNRS 9912, Equipe Perception et Design Sonores, 1, place Igor Stravinsky, 75004 Paris, France, susini@ircam.fr)

We report an experiment investigating the influence of the expertise of listeners on the strategy used to categorize sounds. A set of sixty kitchen sounds was selected, based on their causal uncertainty (ranging from very well identified to ambiguous). Thirty listeners were selected on the basis of their expertise in sound and music: fifteen "experts" and fifteen "naïves". First, they had to group together the sounds. Second, they had to describe the properties shared by the sounds in each category. Finally, they were provided with a description of different strategies of classification previously identified (acoustical, causal or semantic similarity), and required to indicate, for each category, which one they had used. The results show a strong influence of the expertise of the participants: while naïve listeners made categories mainly on the basis of the events that they identified as having caused the sounds, experts made mainly categories of sounds on the basis of the perceived acoustical properties (timbre, time patterns, etc.). This result is coherent with the available literature demonstrating the coexistence of different strategies of listening, and links these strategies to the skills of the listeners. [This work is funded by the FP6 NEST Pathfinder European project CLOSED]

**Contributed Paper****6:00****4pNSr3. Cultural variations and constants in emotional reactions to sounds.** Daniel Vastfjall (Chalmers University of Technology, Division of Applied Acoustics - Chalmers Room Acoustics Group, Sven Hultins gata 8a, 41296 Gothenburg, Sweden, daniel.vastfjall@psy.gu.se)

In this talk I will argue that emotional reactions to sounds can be both constant and vary between different cultures. A model of sound perception that was developed by Chalmers room acoustics group, the Emotional

Reaction Model (ERM) will be reviewed. The ERM predicts that emotional reactions to auditory events can be both elicited by 1) certain form features (eg. a steep rise time, a loud sound, a rough sound) and 2) content features (eg. the qualitative experience of the sound source; the loud, rough sound is a tiger roaring). The influence of form features are expected to be rather constant across people and cultures, while content features are expected to vary more between people. Empirical evidence supporting these predictions will be reviewed and the implications for our understanding sound perception will be discussed.