

Cost TD0804: Soundscape of European Cities and Landscapes, WG1

presents

Workshop on understanding, modelling and measuring soundscapes

Date and time: Tuesday April 27th 2010, 14:00 till 18:00
and Wednesday April 28th, 9:00 till 17:00

Venue: Ghent University, “Het Pand” Onderbergen 1, 9000 Gent, Belgium

Registration: The workshop is open to all interested parties and participation in the workshop is free. However, please register at <http://soundscape-cost.org/>

Goal:

The goal of this workshop is to bring experts from different areas related to human – environment interaction together in order for the soundscape community to learn how to better understand, model and measure how soundscape works. The workshop will approach methodologies in assessing soundscapes of European Cities and Landscapes in a more theoretical way. It will lead to the definition of new fundamental areas of research that should be explored in future for giving more weight to the soundscape scene.

This workshop is not about applications, case studies, guidelines, nor definitions. These topics will be addressed at other occasions.

Target audience

The main target audience is the scientific community involved in soundscape research or more general the research into assessment of the living environment. However, also a wider audience interested in soundscapes of cities and landscapes may find food for thought in this meeting.

Agenda

Tuesday April 27th: 14:00 – 18:00 (joint with ENNAH) *Understanding*

Opening of the workshop

Prof. Dr. Jian Kang, chairman of the COST TD0804 action, Sheffield University

Introduction to the COST initiative, the working group and the workshop,

Prof. Dr. Dick Botteldooren, WG1 leader, Ghent University

COST Soundscape of European Cities and Landscapes meets other disciplines.

Prof. Dr. Boris Velichkovsky, *TU Dresden*

Prof. Velichkovsky is an authority in combining psychology and technology. His recent interest in the visual system and in particular the role of attention could be a great source of inspiration for understanding the perception of our sonic environment. Moreover, our senses

are strongly coupled and therefore we cannot ignore the visual system while studying soundscapes. This talk will introduce soundscape researchers to the knowledge available in other fields and will give some food for thought in trying to understand soundscapes.

Prof. Dr. Beatrice De Gelder (<http://www.beatricedegelder.com/>), *University of Tilburg*
Prof. De Gelder has a main interest in multisensory (audiovisual) perception and is well known for her work on emotion. Her talk will introduce the newest findings in these areas and allow soundscape researchers to contemplate bringing more “emotion” into their work.

Prof. Dr. Marc Leman, *Ghent University*
Prof. Leman is a specialist in music perception, soundscapes could be regarded as the music of the city and as such it is quite fascinating to explore how soundscape research could learn from music. His talk will focus on an embodied approach to sound and music perception.

The afternoon is closed by a plenary discussion on what we can learn from these disciplines for future soundscape research.

Wednesday 28th: 9:00 – 13:00 (joint with ENNAH) *Measuring*

Different aspects of measuring soundscapes will be introduced by members of the COST WG1 giving plenty of opportunity for the participants to express their views.

Measuring how the soundscape affects persons

The person enjoying the urban environment, living in it, or just visiting will be influenced by the soundscape. Aesthetic emotions may arise, stress levels may change, etc. How can we measure the effect the sonic environment has on this person while experiencing or on the long run?

Topic introduced by
Prof. Dr. Catherine Lavandier, Université de Cergy-Pontoise
Dr. Sarah Payne, Mac Gill University
Prof. Dr. Danièle Dubois, Institut Jean le Rond d'Alembert

Measuring soundscapes with persons

The person can also be used as a measurement instrument. Bringing persons into a sonic environment with the purpose of assessing its quality has been suggested in the way of “sound walks”, but one can also bring the sonic environment to the lab in order to assess it provided this can be done in an ecologically valid way. But how can one be sure that the narrative the person uses to describe the soundscape fulfills the requirements of a good measurement? How can personal factors and other context be eliminated?

Topic introduced by
Dr. Mats Nilsson, Stockholm University
Prof. Dr. Anna Preis, Adam Mickiewicz University

Measuring the sonic environment in a human mimicking way

From the very start of physical noise measurement, attempts were made to include knowledge on the human auditory system. A-weighting can be seen as the early 20th century approach.

The availability of computational power today allows going far beyond. Both a more holistic approach and an analytic approach are possible. The holistic approach tries to model the human as a system reacting to the sonic environment as a whole and come up with measures like pleasantness and other more abstract concepts. The analytic approach attempts to approximate all steps in the human perception process like spatial unmasking, stream segregation, sound recognition in computational methods. An important question is of course what is feasible.

Topic introduced by
Dr. André Fiebig, Head Acoustics
Prof. Dr. Tjeerd Adringa, Groningen University
Prof. Dr. Dick Botteldooren, Ghent University

13:00- 14:00 Sandwich lunch on site

Wednesday 28th: 14:00 – 17:00 *Bringing our knowledge into practice*

Practical experience with soundscape presented by any of the participants (please contact the D. Botteldooren if you want to take five minutes to present your project).

Future applications in measurement equipment, modeling, etc. are also of interest for this discussion.

Joint events

On Tuesday afternoon and Wednesday morning the workshop will be joined with the ENNAH project workshop on indicators.

This workshop is co-sponsored by the IDEA-project (Intelligent Distributed Environmental Assessment) www.idea-project.be

The workshop precedes the joint IoA – ABAV spring meeting, an EAA symposium on noise in the built environment which will be held at the same venue on Thursday 29th and Friday 30th of April 2010. Sessions on soundscapes will be organised on the first day of this meeting.