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Acoustics — Soundscape —

Part 1: Definition and conceptual framework

Acoustique — Paysage sonore —

Partie 1: Définition et cadre conceptuel

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Foreword

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The committee responsible for this document is ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise*.

ISO 12913 consists of the following parts, under the general title *Acoustics — Soundscape*:

— *Part 1: Definition and conceptual framework*

The following part is under preparation:

— *Part 2: Methods and measurements*

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Introduction

Soundscape studies have a rich tradition[1],[2],[3],[4],[5]. Because the field has evolved differently around the world, as well as across disciplines, there is a diversity of opinions about its definition and aims. Consequently, the use of the term 'soundscape' has become idiosyncratic and ambiguous[6].

This International Standard aims to enable a broad international consensus on the definition of 'soundscape', to provide a foundation for communication across disciplines and professions with an interest in soundscape.

There are similarities between the concepts of 'landscape'[7] and 'soundscape'; both are based on perception by people. For the purpose of this International Standard, soundscape will be understood as a perceptual construct, related to a physical phenomenon. The standard distinguishes the perceptual construct (soundscape) from the physical phenomenon (acoustic environment), and clarifies that soundscape exists through human perception of the acoustic environment.

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Acoustics — Soundscape —

Part 1: Definition and conceptual framework

1 Scope

This International Standard provides a definition and a conceptual framework of soundscape. It explains factors relevant for measurement and reporting in soundscape studies, as well as for planning, design and management of soundscape.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply

2.1
sound sources
sounds generated by nature or human activity

Note 1 to entry: See Reference [6].

2.2
acoustic environment
sound at the receiver from all sound sources as modified by the environment

Note 1 to entry: Acoustic environment can be actual or simulated, outdoor or indoor, as experienced or in memory.

2.3
soundscape
acoustic environment as perceived or experienced and/or understood by a person or people, in context

3 Conceptual framework of soundscape

3.1 General

Figure 1 describes the process of perceiving or experiencing and/or understanding an acoustic environment, highlighting seven general concepts and their relationships: (1) context, (2) sound sources, (3) acoustic environment, (4) auditory sensation, (5) interpretation of auditory sensation, (6) responses, and (7) outcomes[6],[8],[9],[10].

NOTE Figure 1 illustrates that soundscape is people's perceptions or experiences and/or understanding of an acoustic environment. However, practical applications will tend to emphasize management or change in sound sources and the acoustic environment. The principle is that measurement, assessment or evaluation of soundscape, in accordance with this International Standard, is through human perception of the acoustic environment.

3.2 Context

The context includes the interrelationships between person and activity and place, in space and time[6],[10],[11]. The context may influence soundscape through (1) the auditory sensation, (2) the interpretation of auditory sensation, and (3) the responses to the acoustic environment:

a) Examples of factors that may influence auditory sensation, besides the acoustic environment, include meteorological conditions (which vary by the season), hearing impairments and hearing aids;

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