Evoke, Immerse, Embrace: An Exhibition of Soundscape Works

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Abstract

The Digital Art Weeks of the ETH Zurich[1] in collaboration with the Stereolith Company[2] sent out a call to sound artists for two channel soundscape works with durations of less than 10 minutes in length. The works then chosen for presentation from those submitted were selected on their ability to "evoke" the presence of things or beings in space to the extent in which each work "immerses" the listener into a completely imaginary sonic environment.

Keywords

Soundscape, Music Composition, Stereolith, Music Therapy

1. The Stereolith System

The effect of evocation and immersion found in the works are met and even enhanced by playback through the Stereolith System. Unlike traditional loudspeaker configurations, the Stereolith incorporates both the "left" and the "right" channels into a single construction. In this way, the system can be installed at any point within the listening space, allowing the listener to experience each work from any point within the space as if it was a live event. The listener can thereby enjoy a true concert like rendition of all the subtleties and contrasts inherent in the music.

2. The Audio Exhibition

All of the selected works are to be presented over a period of 3 days from the 13th to the 15th of July 2006 in the VisDome[3] of the ETH Zurich, Switzerland. The contents of the program for 2006 falls into three distinct categories, all of which focus on immersing the listener, regardless of the differences between those categories, into a completely imaginary sonic environment.

The first category "Real Worlds" can be linked back to sounds known to us from the world around us. However, these sounds are extended at times by including sounds created by electronic means. The artificially generated sounds blend into to the natural sounds in a variety of unique ways, thus provided the listener with an enhanced variant of the known sound world. The second category "Virtual Worlds", in contrast to the first one, uses only artificially generated sounds in order to create an immersive environment that evokes a natural one. The works falling under the third category, "Other Worlds" include attributions found in the first two categories, but most often in juxtaposition.

Fig. 1. The Stereolith loudspeaker system[4]

3. The Listening Space

Because the Stereolith loudspeaker allows the listener to walk around the listening space without losing the intensity of the sound at most points in the room, it was easy to imagine using a multi-sensory approach in conjunction with listening. Therefore, it is clear that the loudspeaker system could be used to create sonic environments in which the listener "travels" through the sound by simply walking around in the space. Movement is thus combined with listening into a single activity.

Fig. 2. The four resulting "landscape" style cushions for floor seating

To support this idea and to motivate the listener to freely choose "any" position around the speaker and to obtain a better position to listen from vertically, a seating system was conceived. Here, the metaphor of a landscape was used by adopting a natural concept of asymmetry. The seats were intentionally designed to reflect nature, provide simple seating and to moti-

vated new listening habits. Their construction is simple: Take a foam rubber cylinder (45 cm by 40 cm) and slice it such a manner so that none of the resulting four cushions are the exactly the same.

To complete the listening space and to "center" the speaker with the installation space, a small flat light was placed under the subwoofer of the system. The system's subwoofer, being mounted on wheels, has enough space between its bottom and the floor to let the light flow into the room. This provides for a "fire place" like effect along with its innate tendency to attract people to group around it.
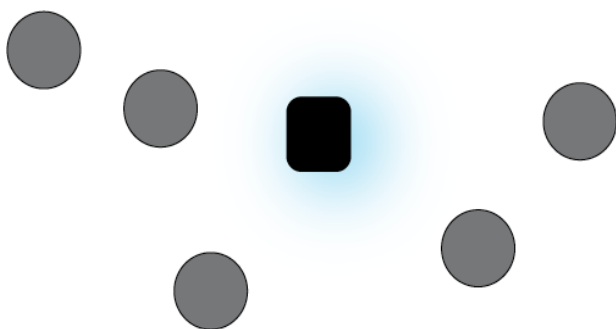

Fig. 3. A possible seating scenario with loudspeaker, cushions and base light

4. Soundscape

4.1 Origins
Soundscape, and all of the different approaches to it, basically stem from an interest in recordings of nature, whose original intent was and is more or less to document it. Later, such recordings became popularized through wide distribution and soundscape has developed since then passionately. In comparison with the new music movement, one might say that it Soundscape is exploring terrain that is more experimental and at the same time more popular than its new music counter part.

4.2 Soundscape vs. Music
The difference between sound art and music lies in the relationship between the elements found in the works themselves and how these elements relate to one another to form a whole. Music focuses completely on the relationship between elements (i.e. the tones) and how they build up to create a dramatic form; Soundscape focuses on the beauty of each element (i.e. tones, sounds etc.) and how they combine naturally with one another with no recognizable formal content being imposed on the listener by the artist. John Cage has referred to Soundscape as works in which the sounds are let be for themselves[5].

4.3 Soundscape Schools
Jim Cummings, the founder of Acoustic Ecology Org.[6], breaks down Soundscape into four basic schools that range from exact representation of nature to artificial construction of fictive environments, including all forms of music concrète[2].

- **Documentaries** consists essentially of "what you hear is what you get," and relies on un-adulterated field recordings, which celebrate the intrinsic sounds of earth as they occur.

- **Reconstructions** are collages of many source recordings combined into single soundscape experience. It is often difficult to here whether the work is "documentary" as the palette if recordings are combined and as they occur in nature.

- **Transformations** are works in which field recordings are used as raw material for electronic transformations and manipulations. These types of works include all of the techniques of splicing from the old school of tape music up to the latest dsp transformation obtained with computers.

- **Compositions** are basically soundscape works in which instruments or voices have been mixed in with recordings of nature. Here one might differ between works which use acoustic and those which use computer generated sounds, the later seeming to be more convincingly related to soundscape.

5. Evaluation
Each of the three categories of the Soundscape Project described here, Real Worlds, Virtual Worlds and Other Worlds, fit categorically between those four given above. In general, the use of combining natural with artificial sounds is one of the most interesting phenomena found in the works, because it demonstrates an interesting incongruous use of audio. At times, the listener is not able to distinguish the natural sounds from the artificial ones, thus smudging the borders between the natural and the artificial world of sound. Also of note, is that the immersive effect of sonic environments has a relaxing effect on the listener due to its nature like quality. The analogy is made possible both due to how the works are constructed – little or no silence, long sections of timbre modulations, layers of sounds not easily discerned by the listener-, and how the works are projected into the space using the Stereolith loudspeaker - no one point of listening, complete sonic embracing, including directional or panoramic room effects.

6. Conclusion
One could argue, as many have, that there are other speaker systems that are more advanced and more capable than the Stereolith system. Here a 5.1 surround-sound setup or a 2+2+2 setup come to mind. However, when the situation and interests of the soundscape artist -who records and plays back in stereo-, are taken into consideration, one concludes that the Stereolith does have something unique to offer such artists and their works and this for a fraction of the power, the cables and cost.

7. REFERENCES
[1] http://www.digitalartweeks.ethz.ch

[2] http://www.stereolith.ch

[3] http://www.icvr.ethz.ch/vrai_german/visdome/frame.htm

[4] Photo Copy right: PFI News & Foto, www.klangpur.info

[5] Cage, John, Silence : lectures and writings, Middletown, Ohio, Wesleyan University Press, 1961

[6] http://acousticecology.org