

CHAPTER 5: SOUND AND MUSIC

Listening on the Mountain

SOUNDSCAPES TO OPERA

compiled by Carole Gerson

DURING ITS FIRST DECADE, THE SFU CAMPUS RESOUNDED WITH MUSIC. Everyone enjoyed frequent concerts by touring popular and classical musicians, as well as productions featuring students, some of whom performed outdoors. In the SFU Theatre, there were usually two or three musical events each week, ranging from folk soloists to significant classical groups, from expected pieces by artists in residence to utterly unexpected performers such as the Mennonite Bible Choir from Winnipeg (February 4, 1966), Quebec chanteuse Monique Leyrac (September 30, 1967) and the popular local band Mother Tucker's Yellow Duck (February 13, 1968). Many of these events were sponsored by organizations other than the Centre for Communications and the Arts.

On the one hand, the campus's thriving new age electronic composers, such as Phillip Werren, alongside the development of sound studies, pioneered by Murray Schafer, contributed to SFU's avant-garde identity. On the other, abiding interest in early music fostered the Madrigal Singers, workshops with ancient instruments, multidisciplinary events such as Fourteenth Century Week, and a memorable production of Henry Purcell's seventeenth-century opera *Dido and Aeneas*. As well, the SFU Student Society frequently brought mainstream rock, jazz and folk musicians to campus, as detailed by Christine Hearn in chapter two. This rich aural environment contributed significantly to the vitality and social ambiance of campus life. Although Schafer left SFU in 1975, his approach to sound and music established an ongoing climate of innovation that flourished under the leadership of composer Barry Truax, who had joined SFU in 1973 and would become a much-honoured professor in what are now known as the School of Communication and the School for the Contemporary Arts.

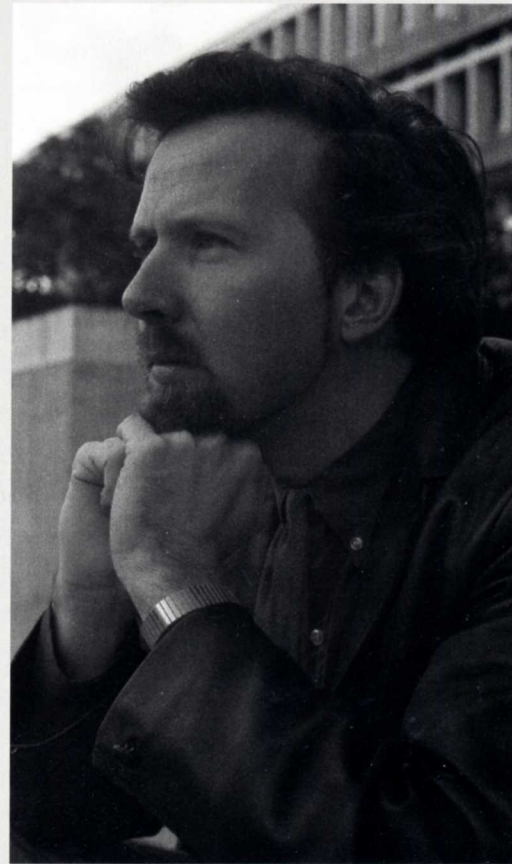
R. Murray Schafer and the World Soundscape Project

by Barry Truax

The Sonic Environment: Archiving Soundscapes

The development of the basic concept of the World Soundscape Project (WSP) and its establishment by R. Murray Schafer occurred at Simon Fraser University during the late 1960s and early 1970s. It grew out of Schafer's initial attempt to draw attention to the sonic environment through a course at SFU in noise pollution, as well as from his personal distaste for the more raucous aspects of Vancouver's rapidly changing soundscape. This work resulted in two small educational booklets, *The New Soundscape* (1969) and *The Book of Noise* (1970), plus a compendium of Canadian noise bylaws (1972). However, the negative approach that noise pollution inevitably fosters—always being against something—pointed to a lack of knowledge about what one might achieve as a positive example. It also proved not to engender enthusiasm in students, but rather cynicism and a fatalistic attitude that nothing much could be done. A more positive approach had to be found, with the first attempt being Schafer's extended 1973 essay "The Music of the Environment," which describes examples of acoustic design, good and bad, drawing largely on examples from literature.

Schafer, the charter faculty member at SFU who established the Electronic Music Studio in the basement of the SFU Theatre, moved the studio to the newly formed Department of Communication Studies in 1971 and renamed it the Sonic Research Studio. His call for the establishment of the WSP was answered by a group of highly motivated young composers and students. Supported by the Donner Canadian Foundation, the group embarked first on a detailed study of the immediate locale, published as *The Vancouver Soundscape* in 1973, followed by a cross-Canada recording tour by Bruce Davis and Peter Huse. In 1975, supported by another research grant, Schafer led a larger group on a European tour that included lectures and workshops in several major cities and a research project that made detailed investigations of the soundscape of five villages (one in each of Sweden,



Murray Schafer.
SFU Archives

Germany, Italy, France and Scotland). The tour completed the WSP's analogue tape library, which included more than 300 tapes recorded in Canada and Europe with a stereo Nagra. All the tapes have been catalogued by Bruce Davis and Hildegard Westerkamp (who went on to her own career as a composer and author), with their subject matter classified and converted into an online digital database, along with numerous additions and more recent material.

The work also produced two publications, a narrative account of the trip called *European Sound Diary* and a detailed soundscape analysis called *Five Village Soundscapes* (1977). Schafer's definitive soundscape text, *The Tuning of the World* (1977), and my reference work for acoustic and soundscape terminology, the *Handbook for Acoustic Ecology* (1978), completed the publication phase of the original project.

Soundscape Composition

Although the principal work of the WSP was to document and archive soundscapes, to describe and analyze them, and to promote increased public awareness of environmental sound through listening and critical thinking, a parallel stream of compositional activity also emerged that created, perhaps less intentionally, what I have called the genre of the "soundscape composition." What also characterizes it most definitively is the presence of recognizable environmental sounds and contexts, the purpose being to invoke the listener's associations, memories and imagination related to the soundscape.

The mandate to involve the listener in an essential part of the composition, namely to complete its network of meanings, grew naturally out of the pedagogical intent of the project to foster soundscape awareness. At first, the simple exercise of "framing" environmental sound by taking it out of context (where often it is ignored) and directing the listener's attention to it in a publication or public presentation, meant that the compositional technique involved was minimal, involving only selection, transparent editing and unobtrusive crossfading. In retrospect this "neutral" use of the material established one end of the continuum occupied by soundscape compositions, namely those that are the closest to the original environment, or what might be called "phonography" or "found compositions." The aesthetic proposed by John Cage of treating any such material as music can be justified in that it emphasizes that the listening process is musical, not necessarily the inherent content. However, the WSP avoided proclaiming any such distinctions by, firstly, not attributing these "compositions" to a single individual (instead, they were collectively authored by the group) and, secondly, by emphasizing the educational rather than the possible aesthetic intent of the exercise.

A subtle but important extension of this practice occurred with the "Entry to the Harbour" sequence from the recordings of *The Vancouver Soundscape*: here, in order to simulate the experience of entering Vancouver Harbour on a boat, past the various foghorns and buoys, it was necessary not only to compress the event in time, but also to mix together all of the separately recorded components, with appropriately engineered illusions of their approaching and receding. A recording of an actual boat trip would have been dominated by motor noise that would mask the desired sound signals and natural sounds. Of course, this abandoning of the ear as a navigational aid in favour of modern electronic instrumentation and visual orientation is indeed symptomatic of the modern experience, which leads away from soundscape awareness, and historical examples drawn from aural history accounts with boat captains were reported in the written document. But the purpose of the composition was to stimulate soundscape awareness by presenting a possible, if simulated, aural experience. By being potentially familiar but strangely imaginary at the same time, the composition invoked various levels of listening activity, ranging from identification to symbolic communication. The piece begins with a resonant, low-pitched diaphone, suggesting solitude, darkness and primal nature, and ends with an unloading sequence and people retrieving baggage in a small, confined room with bright high-frequency scrapes and a squeaky door. This form suggests a larger metaphorical transition for both the city and the individual that is symbolized by the simulated voyage. Every sound can be heard as it was originally recorded, but the discourse of the resulting work is not merely documentary because of its various levels of possible meaning.

Soundscapes of Canada

Between the Canadian and European recording tours in 1974, the WSP members assembled a series of ten one-hour radio programs for the CBC called *Soundscapes of Canada*. These included, and for the first time essentially defined, the entire range of soundscape compositions, from naturalistic documentaries that were collectively authored through to "abstracted" compositions attributed to individual composers. In the former category were documentaries that were narrated in a fairly traditional way, such as "Signals, Keynotes and Soundmarks," as well as a set of listening exercises conducted by Schafer, through to "Six Themes of the Soundscape," which substitutes three independent voices for narration, each presenting either a factual, subjective or literary historical perspective on the theme in question.

From the point of view of soundscape composition, the most remarkable documentary was the collectively authored "Summer Solstice," in which two

minutes representing each hour of a midsummer day and night, as recorded beside a pond near a rural monastery outside Vancouver, were combined into a fifty-minute composition. Although it was introduced with narration and examples in the broadcast version, the piece itself includes only minimal narration in the form of a verbal identification of each hour (done during the original recording). Edits are transparent, with no mixing, so the effect is a compressed span of time that an individual would seldom, if ever, experience directly. An expanded version of the morning section, called "Dawn Chorus," was also made. The choice of time and location was designed to present to the listener what might be called the natural acoustic ecology, disturbed only minimally by the monastery bell on the one hand, and aircraft and distant train horns on the other. The most striking example of the intricacy of that ecology was observed at dawn when the aural "collision" of high-pitched frogs with the dawn chorus of birds in the same frequency range was avoided by the cessation of the former. This is a small example of what Bernard Krause terms the "niche hypothesis" of natural species and their acoustic communication patterns, where each species occupies a specific frequency band or, as in the solstice example, a different time frame. The composition of the "Summer Solstice" documentary, then, was largely realized by natural forces, with the studio manipulation intended to evoke an appreciation of that ecology.

Two interesting, and more humanly composed, documentaries by poet and composer Peter Huse made effective use of field-recorded language material. These are both organized from the east to west, the first being "Soundmarks of Canada," which features the unique sound signals of the country, identified by locals or the recordists themselves, and the second being "Directions," which is entirely composed of fragments of conversation that the recordists had with locals while asking for directions. The close juxtaposition of sound signals and local dialects provides an aural map of the country that is experienced within a short space of time.

Howard Broomfield assembled an even denser collage of found radio material in his "Radio Program About Radio Programs." In this sometimes-bizarre piece, the composer plays on the simultaneity on the airwaves of unrelated material, using both historical and current examples, as well as the habit of radio to jump cut between items in a surreal fashion. The piece treats the disembodied soundscape of the broadcast medium as an environment with its own conventions and syntax, which the composer gently satirizes. Another experiment in sudden juxtapositions is my "Maritime Sound Diary," in which three "stories" taken from three original recordings are interleaved by an automated signal switching process that, instead of crossfading the material, jumps

into the next sequence in a series of short, then increasing, durations. The points of transition throw both soundscapes into high relief, and the narrative line is maintained when the listener picks up each story later, despite the gaps that have intervened.

Several pieces within the set went further than those described already by using transformations of the chosen environmental sounds. Here the full range of analogue studio techniques came into play, with an inevitable increase in the level of abstraction. However, the intent was always to reveal a deeper level of signification inherent within the sound and to invoke the listener's semantic associations without obliterating the sound's recognizability. These pieces include Bruce Davis's poetic documentary "Bells of Percé," where clouds of filtered bells and voice fragments symbolize the memories surrounding the historic bells in the Gaspé region of Quebec as colourfully described by the parish priest. Davis's pair of works, "Play" and "Work," include more elaborate rhythmic and timbral alterations of the material that highlight the character of the sounds accompanying these two classes of human activity. And finally, my "Soundscape Study" takes a set of sounds with archetypal imagery—for instance, footsteps, a clock ticking and chiming, water gurgling, a tree being chopped and church bells ringing the Angelus—and subjects them to a series of transformations in speed, pitch and textural density (usually independently). The piece invites the listener to follow the resulting changes in morphology and imagery that the transformations produce, and hence to become more aware of how these variables condition our habitual responses to environmental sound.

Schafer himself did not produce any soundscape compositions with environmental sound directly, the exception being the collaboratively produced (with Bruce Davis and Brian Fawcett) quadraphonic tape *Okeanos* (1971), which predates the WSP and is based on literary imagery of the sea. However, soundscape concepts influence many of his later instrumental and vocal works. Perhaps most strikingly, he has created site-specific works, such as *Music for Wilderness Lake*, which takes place at dawn and dusk, and several musical theatre works for outdoor or unconventional performance environments.

Schafer left SFU in 1975 to pursue his compositional career independently, but the legacy of the WSP has continued and broadened ever since, first in the teaching program in the School of Communication, now expanded with international webinar courses that I have designed, and secondly with the formation of the World Forum for Acoustic Ecology, an international federation of soundscape practitioners, among many other projects. In fact, in various circles, SFU during this initial 1965–1975 period is recognized for its pioneering role in acoustic ecology and soundscape composition.