

Annotations for Sound Art

Charles Ives, in his *Postface to 114 Songs* (1922), envisaged an individual of the future sitting at evening in his backyard, receptively gazing towards mountains and hearing “the day’s symphony” resounding in the wind.

In 1988 Japanese sound artist Akio Suzuki sat against a wall of sun-baked clay bricks he had built in a mountainous region near Kyoto and spent the day listening intently to natural sounds as the autumnal equinox occurred. Suzuki faced another wall, seven meters away, which filled his peripheral vision vertically and horizontally and helped concentrate the ear. He called this performance *Space in the Sun*.

Canadian composer R. Murray Schafer in his book *The Tuning Of The World* (1977) identifies “the soundscape of the world” as “a huge musical composition, unfolding around us ceaselessly”. Schafer raises the prospect of acoustic design to enhance our sound environments.

“Sound is the least controllable of all sense modalities...” *Julian Jaynes*

Pauline Oliveros has distinguished between two kinds of listening: one involves focusing and categorizing, and attends to detail; the other involves opening or encompassing, and takes in the full 360 degree environment, the whole cloth.

“We hear from all directions simultaneously; acoustic space has the structure of a sphere in which things create their own space and modify and coerce each other.” *Marshall & Eric McLuhan*

In July 1974 in southern France, English sound artist Hugh Davies, formerly assistant to Karlheinz Stockhausen at his electronic music studio in Cologne, wrote *Sounds Heard at La Sainte-Baume*, a text comprising seven invitations to listen. One advocates standing on the highest mountain peak, listening to the shrill calls of swifts in their rapid convoluted flight. Another commends listening to the loud and varied songs of crickets. The seventh proposes listening to the echoes produced by two stones struck together, in regular rhythms at different speeds, in a small secluded valley high up in the mountains, surrounded by rock on all sides.

Technological developments over the course of the past century in the production, recording, storage and distribution of sound have contributed to “music” bursting its terminological banks. The flourishing of sound art in recent years is evidence of the vast excess that “music” struggled to conceal within its tidy classification of sonic phenomena. Modernist admission of dissonance and elements of noise into the strained contours of classical form paved the way for taxonomic breakdown. John Cage, in particular, extended permission to listen seriously and with pleasure outside of previously authorized forms. Sound art swelled to full audibility following steady and widespread erosion of aesthetic categories throughout the twentieth century.

Walter Marchetti, formerly a member of the ZAJ performance group, suggests that music has become a continuous return of formulas, so “we spend our lives listening – re-listening – to what we have always already listened to, and more than anything else listening to what others tell us to listen to.” His own sound art activities have been devised to rupture that habit: “Le secche del delirio” lards piano music with the grunting of swine; “Per la sete dell’ orecchio” is the sound of stones dropped at intervals down a well; “La Caccia” posits a series of absurd scenarios in which birds are tracked down and greeted with artificial bird-calls.

In 1996, writing in the catalogue for the Kawasaki Sonic Perception exhibition, Japanese sound artist Minoru Sato lamented the fact that most sound works have been “requisitioned by music” and that as a consequence the value of sound as a phenomenon has been diminished or neglected entirely.

Hildegard Westerkamp, who formerly assisted R. Murray Schafer in his Vancouver-based World Soundscape Project, has argued that as well as countering noise pollution “the task of sound ecologists is to build healthy and attractive sonic environments, sonic places”. She envisages an acoustic ecology respected by town planners and acknowledged openly in the creation of acoustic parks and playgrounds. Acoustic ecology is adjacent to sound art in its concern for renovated listening and attentiveness.

Peter Cusack has asked a large number of London residents, “What is your favourite London sound and why?” The chimes of Big Ben, blackbirds at dawn, subway noise, the clatter of a canal towpath, street-market cries, the fountain in Victoria Park, rain on a skylight, the hum of an electricity sub-station, shrieks of swifts and the hubbub of the Great Court of the British Museum are amongst the hundreds of replies received. A selection of cited sounds was recorded by Cusack, as faithfully as possible, and broadcast during summer 1998 on London radio station Resonance FM. In 2001 Cusack made a compilation of forty for

the London Musicians’ Collective CD *Your Favourite London Sounds*. Cusack is a member of the UK & Ireland Soundscape Community, set up in 1998 in affiliation to the World Forum for Acoustic Ecology, which was established in Canada in 1992.

“If this word, music, is sacred and reserved for eighteenth-and nineteenth-century instruments, we can substitute a more meaningful term: organization of sound.” *John Cage, 1937*

Sound artist Ross Bolleter makes music with pianos that have suffered the ravages of weather and infestation by animals, insects or plants. He has formed the World Association for Ruined Piano Studies after spending several years combing the sheds and barns of Western Australia in search of those jettisoned structures of rotten wood, tarnished ivory and rusting wire.

Akio Suzuki occupies a special niche in the broad and multiform field of sound art. Deflected by curiosity from employment in a Tokyo architect’s office he has undertaken two complementary lines of research: since 1963 he has sought out untamed places and trained himself to hear them; since 1970 he has made his own instruments. Performances and installations arise out of these solitary investigations. His home-made instruments include the “Suzuki Type Glass Harmonica”, glass rods of differing diameters arranged horizontally and rubbed with wet hands, and the ANALAPOS, a pair of open-ended cylinders connected by a spring and activated by plucking the spring or making vocal noises into a cylinder. Everyday objects, such as newspapers, dinner plates and wine bottles, can also be his raw materials. He feels particular affinity with the voices of stones, played percussively, blown as flutes, jostled electro-magnetically or simply befriended: “When a slow-moving person like myself meets a stone with a similar character, we both feel a little diffident.”

“A musician playing in a field or on a beach becomes just an element in a landscape. His role is defocused. But in a concert hall he is the centre of attention: all activity is subservient to him and his work.” *Paul Burwell*

In 1983, in East London, percussionist and instrument-maker Paul Burwell, performance artist Ann Bean, and sculptor Richard Wilson formed the Bow Gamelan Ensemble. The trio scavenged boatyards, factories and scrapyards abutting the Thames for cast-off machinery and industrial debris they could appropriate and use to make sounds. A Bow Gamelan Ensemble performance might accommodate sirens and motors, steam whistles and electric bells, arc welding equipment and fireworks, bagpipes, oil drums and shattering glass.

Their sound art was spectacular, literally pyrotechnic and adapted to specific locations. A decade before “Industrial” became a familiar category in record stores this strictly acoustic trio took the noise and flashing light of industrial process into venues ranging from shopping precincts to barges floating on the river.

Hugh Davies, a member of pioneering live electronics ensemble Gentle Fire and the computer group Naked Software, is an acknowledged authority on electronic music and an acclaimed concert-hall performer of avant-garde compositions. He also invents instruments, favouring natural objects and simple everyday materials – larch cones used as clickers, nuts made into tiny whistles, egg-slicers amplified with guitar pickups. Davies combines technical sophistication with acoustic inquisitiveness and an ecological impetus to recycle cast-off materials. He has described his making of new instruments as “a small gesture against consumerism and the tendency to throw everything away”. His Aeolian Harp amplifies fine fretsaw blades that make sounds when gently blown. Best-known is his SHOZYG, amplified springs, ball castors, wires and other salvaged items mounted in the detached cover of an encyclopaedia volume labelled SHO-ZYG. Toothbrushes and screwdrivers are amongst the implements Davies uses to play the SHOZYG.

In 1976 multi-instrumentalist Pierre Bastien created the Mécanium, a kind of home-made miniature orchestra utilising Meccano pulleys and levers and motors from old record players to activate bows and sticks applied to musical instruments. The mechanical repetitions made possible through this contraption become, in effect, potentially endless sound loops. Another Mécanium replaces instruments with objects such as scissors, a teapot and an ashtray. Bastien performs on conventional instruments accompanied by the Mécanium. He also displays his musical automata in art galleries and museums.

“Bless Glenn Gould for throwing the Concert Audience into the junkyard”, wrote Marshall McLuhan in *Counterblast* (1969) responding to the pianist’s high-profile renunciation of the concert hall in favour of the studio. A crucial aspect of much sound art has been its resistance to the dictates and conditions of concert hall performance. Instead, sound artists have shown refined awareness of many kinds of environment, sensitivity to the particular acoustic properties of various places, interest in the sounding of architectural space and in site-specific sonic design. The audience is released from the fixed position of its seat and is invited to engage actively in free-ranging exploration or to train the ear’s receptiveness to unexpected, overlooked or neglected sound events and phenomena.

In 1979 Yoshi Wada built a kind of bagpipe instrument from a large air compressor plus plumbing fittings and pipes. This prototype was improved with more finely crafted components to ensure a stable air source and more accurate tuning. Yoshi Wada created a pair of droning instruments that projected high microtonal partials with unusual clarity; from their appearance he named them the Alligator and the Elephantine Crocodile. He found that the long delay acoustics of an empty swimming pool in a basement in Buffalo enriched the drones of these sounding beasts and in 1981 composed *Lament for the Rise and Fall of the Elephantine Crocodile* for his improvising voice and these adapted bagpipes located in the “Dry Pool”.

In 1994 Christina Kubisch, an artist in sound and visual media, installed six slabs of ancient slate painted with luminescent pigment along the parapet of the organ gallery of a late Baroque church in Saarbrücken, Germany. Each slate glimmered in response to light stimuli and also emitted sounds generated by circular rubbing of drinking glasses. She called the piece *Sechs Spiegel (Six Mirrors)*. In common with other sound artists Kubisch works with the particular structure of the site in which her installations are placed. That structure is at once architectural and imaginative, physically specific and resonant with personal and cultural associations and implications.

In 1997, for The Clocktower Project, Kubisch fitted solar panels around the clocktower of the Massachusetts Museum of Contemporary Art, formerly an industrial site. Changes of the sun’s position and intensity were registered by the panels and passed to software that modified the sequencing of quarter-hourly bell chimes from the tower. Bell tones reflected degrees of brightness or dullness according to changing weather conditions. People in the neighbourhood were in effect enabled to hear modulations of light.

In 1979 minimalist composer LaMonte Young and artist in light Marian Zazeela, sponsored by the Dia Art Foundation, oversaw the transformation of the former New York Mercantile Exchange Building into their first permanent Dream House. Until funding evaporated in 1985 the Dream House with its 30-foot ceilings was the dedicated and meticulously cultivated space of the Theater of Eternal Music, a continuous sound and light environment and the nerve centre for their activity. Young and Zazeela’s Church Street loft then became their creative hub.

“I am sitting in a room different from the one you are in now. I am recording the sound of my speaking voice, and I am going to play it back into the room again

and again, until the resonant frequencies of the room reinforce themselves so that any semblance of my speech, with perhaps the exception of rhythm, is destroyed.”
Alvin Lucier

In 1988 composer and accordionist Pauline Oliveros, electronic sound designer Panaiotis and trombonist Stuart Dempster convened in a cavernous, reverberant underground cistern, north of Seattle to engage in the collective improvisatory practice Oliveros calls Deep Listening. Oliveros had already played and recorded in an echoing cistern in Cologne and had investigated interaction with a real-time electronic delay system. Dempster had played solo, in 1976, in the resonant space of the Pope’s Palace, Avignon. He had also worked with digital reverberation techniques and had used a plastic sewer pipe to make an instrument that approximates the sound of an Australian didjeridu. Later venues for the Deep Listening trio and their guests included the Tarpaper Cave, a disused cement quarry in the Catskill Mountains.

In 1989 Italian sound artist Davide Mosconi composed music to be installed in the Hiroshima Tower in Japan, a tall steel structure like a vast upturned megaphone topped with a faceted crystal ball. Mosconi’s sounds are broadcast through 24 loud speakers, 16 positioned near the base, 8 (including 4 subsonic, ultra-low frequency speakers) around 50 metres high, near the top. Lobes within the building’s cone help shape the paths and patterning of the sonic vibrations. The music is elemental, deriving from earth, air, fire and water, from animals, fish and insects. No permutation of the constituent sounds will coincide within a hundred years.

In 1967 Maryanne Amacher commenced her *City Links* series, real-time telelink transference into an exhibition space of sounds of airports, steel mills, harbours and other urban environments. She subsequently extended this synchronicity of distant spaces to a liaison between New York, Boston and Paris, in effect anticipating internet options. In *Music for Sound-Joined Rooms* (1980) and *Mini Sound Series* (1985) Amacher employed multiple-speaker systems and used “the architectural features of a building to customize sound, visual, and spatial elements, creating multi-dimensional environment-oriented experiences, anticipating virtual immersion environments”.

In 1996 Michael Schumacher and Swiss visual artist Ursula Scherrer founded Studio Five Beekman, a soundproof enclosure in a Lower Manhattan office building, dedicated to presentation of acoustic art works and intermedia installations. When the space had to close in 2000 Schumacher moved to Diapason gallery on Sixth Avenue, where dedicated rooms offered visitors the

experience of immersion in sound works, including Schumacher’s own “Room Piece” series, computer-generated sound environments employing multiple loudspeakers.

Between 1980 and 1997 Paul Panhuysen ran Het Apollohuis in Eindhoven, one of Europe’s leading venues for sound art installations and performances. In his own sound work has collaborated with canaries, overseen an ensemble of matrix computer printers and recorded sounds made by Mexican jumping beans. Starting in 1982 in Mainz, Germany Panhuysen and Johan Goedhart collaborated on an extensive series of “Long String Installations” in Europe and North America. Conceived initially as three-dimensional drawings the series has explored interplay between the visual and acoustic properties of various kinds of strings, ranging from steel wire to dental floss, stretched horizontally and/or vertically in architectural spaces. Buildings they have used include a derelict factory, an old circus, a chapel, a gymnasium, and a former hospital. “Every string installation in a different space is another instrument”, says Panhuysen. “A string installation can give an individual voice to a building.”

“...all sorts of substances are perpetually subject to very minute vibrating motions, and all our senses and faculties seem chiefly to depend upon such motions excited in the proper organs, either by outward objects or the power of the will, there is reason to expect, that the theory of vibrations here given will not prove useless in promoting the philosophy of other things besides musical sounds.” *Robert Smith, Harmonics (1748)*

For Alvin Lucier’s *Music on a Long Thin Wire* (1977), a long metal wire is passed through the poles of a large magnet, extended through a performance space and driven by a sine wave oscillator. Interaction between the current in the wire and the magnetic field across it causes it to vibrate. Changes in environmental conditions, such as temperature, can alter the behaviour of the string. “The wire then takes a life on. It has its own particular life. It’s not a laboratory experiment. It’s like clouds or it’s like tides. You don’t adjust the tides. If you go to the ocean, it’s just the most interesting thing to sit and watch the tide come in.”

Allan Lamb, from Perth, Australia has made multi-channelled compositions from sounds of abandoned telegraph wires in the outback activated by wind, birds, insects, quirks of the atmosphere or of their own structure. Ellen Fullman developed an interest in long-string instruments through her work as a sculptor. Sound sculptures have taken widely differing forms. Brothers Bernard and Francois Baschet specialized in sleek metal constructions that have been allocated space in city parks as well as art galleries, made available

to be sounded by members of the public. The Baschets' declared preference was decidedly for acoustic sounds: "All natural sounds are connected to some unconscious memory such as bells, bird whistles or echoes among the mountains. Electronic music is to acoustical music what chemistry is to cooking."

During the 1970s Harry Bertoia purchased Navy surplus beryllium-copper wires for sculptural purposes. He noticed their resonance and began to work with sound as an articulation of space. The objects he made were stored in a converted barn in Pennsylvania, but vinyl recordings of their sound appeared in a series Bertoia called *Sonambient*. As writer and musician David Toop has noted, the sound of Bertoia's objects is at once architectural and oceanic.

English sound sculptor Max Eastley drew inspiration from wind- and water-powered instruments designed by Renaissance visionaries Athanasius Kircher and Robert Fludd when designing his own instruments to be sounded by wind and water. His Hydrophone stretches strings between a river's bed and its banks. He has used steel strings fixed in trees, model airplane elastic attached to poles and various kinds of flute in his wind-powered creations. He plays a large bowed monochord in improvising contexts with musicians such as Hugh Davies, Terry Day, and Peter Cusack. He has also organized "whirled music" projects with David Toop, finding, making and playing bullroarers and other instruments that sound when whirled around on strings.

Exploding the myth of a "pure" music, sound art engages explicitly with the lived world, with nature and culture and the terms of human perception. In the process it frequently reroutes information streams commonly confined to disciplines such as physics, psychology, architecture, zoology, and geography as well as from philosophy, literature and the visual arts. Sound art can be overtly political. It can also display a sense of humour, growing especially playful when self-reflexively addressing the media of sound generation, conservation and transmission.

On December 12th 2001 Canadian sound artist Matt Rogalsky used "silence sampling" software to harvest all the silences broadcast that day on the BBC's Radio Four station. This "dead air" was bundled onto 24 CDs and boxed as a limited edition release. Rogalsky saw this reversal of the figure and ground relationship as a way to wrest some control back from the media, plundering elements that the broadcasters simultaneously own and disown. Needless to say, none of these silences are truly silent; all contain small sounds.

During her musical studies at Sussex University, Evelyn Ficarra, born in California, resident in England, witnessed composer Jonathan Harvey

brandishing a short length of electromagnetic tape and saying, "this is the sound". Her work has subsequently gravitated towards acknowledgement of the physicality of sound objects, establishing continuities between the physical world and music, recognizing music as an extension of lived, and heard, experience. Her composition *Frantic Mid-Atlantic* assembles snippets of radio broadcasts – news, weather and traffic reports, phone-ins, together with static and mechanical noises.

In 1981 in Gothenberg, Swedish conceptual sound artist Leif Elggren made a drypoint engraving onto a copper sheet connected to contact microphones. The resultant sounds were captured on a vinyl single, the other side of which had the sound of Elggren using steel wool to erase the engraving. For a later work he attached a long copper rod to a sensitive microphone, creating a feedback loop that swelled into massive sound. Elggren regards such investigations as an important aspect of sound art, disclosing molecular reality through a form of acoustic microscopy. Carl Michael Von Hausswolff, Elggren's close associate in sound art sculpture, performance and installations for 20 years, views his own often unsettling activity as a meditation upon the physicality of sounds, which might be as banal as the hum of a refrigerator, the flow of electricity through our daily lives.

Christian Marclay has made sculpture from the stuff of musical commodity culture. *Endless Column* piles LPs high; *The Beatles* parcels that group's entire recorded output within a pillow woven from audiotape; *Moebius Loops* is constructed from found cassettes. Marclay has also performed using turntable decks, his compositions foregrounding surface noise, accentuating the attrition of vinyl through time and use.

British sound artist Philip Jeck works with lo-fi Dansette record players and old vinyl, which he doctors using glue and a scalpel to trap sounds in loops as the stylus locks in the groove. In 1993 in London Jeck staged *Vinyl Requiem* using 9 slide projectors, 2 16mm movie projectors and 180 Dansette turntables simultaneously playing prepared discs.

Fluxus artist Milan Knizak started mutilating and ruining records in 1965. Playing them he discovered "an entirely new music ... unexpected, nerve-racking and aggressive"; he called it "Broken Music" and refined the preliminaries: applying tape to the vinyl, painting on it, burning it, cutting up records and gluing the fragments together in new combinations.

Former Fluxus artist Yasunao Tone was offered the opportunity to make a CD for *Lovely Music* in New York. He took an ancient Chinese poetic text, converted

it into a series of photographic images, loaded the images onto a computer and translated them into the digital language of zeroes and ones. The computer then made a further translation of the code into noise, which was transferred direct to CD, bypassing the usual recording process, and *Musica Iconologos* came into being. This CD was then reconfigured by application of Scotch tape and he created *Solo for Wounded CD*.

“... we are, in fact, technically equipped to transform our contemporary awareness of nature’s manner of operation into art”. *John Cage*

Hugh Davies has written a piece that involves tuning a small waterfall by placing stones and rocks along its lip, or by using simple wooden gates lowered into position.

Douglas Quin has made recordings of birds and threatened species of monkey in the forests of Brazil and of penguins and seals in Antarctica. His focus as sound artist falls upon cultural perceptions of natural phenomena and he has used the synthesis and digital signal processing of animal and human vocalisation as a source for music. He recognizes that digital manipulation can broaden the range of our aural experience. “I am more interested in learning about the function of sounds and their acoustic properties in nature than I am in music theory”, says Quin. “The planet’s diverse and fragile habitats are quickly vanishing; places I have known and recorded no longer exist”.

“How far is anyone justified, be he an authority or a layman, in expressing or trying to express in terms of music (in sounds, if you like) the value of anything, material, moral, intellectual, or spiritual, which is usually expressed in terms other than music?” *Charles Ives*

David Dunn, based in New Mexico and formerly assistant to composer Harry Partch, has documented the sounds made by insects underwater in freshwater ponds. His *Chaos and the Emergent Mind of the Pond*, released in 1992 on the CD *Angels & Insects* (What Next/OO Discs), is revelatory, an auditory lens held over animated taps and clicks of subaquatic creatures as they coalesce into a tightly orchestrated mesh of communicative and interactive rhythms. Dunn’s concern is with the place of human beings within the biosphere, long ago thrown into disequilibrium by industrialization. “My intuition is that music does offer clues to our survival”, he says, “and I’m much more interested in that than in being a composer”.

The inclusiveness of sound art is remarkable: it encompasses stones and microchips, brainwaves and the weather, cellars and mountaintops, expert technicians and the wholly untutored, sound poetry and radio art, natural objects and the detritus of consumerism, sculpture and the immaterial, arcane circuitry and damaged LPs, cacophony and silence, birdsong and traffic noise and music.

Julian Cowley, 2003