Alvin Lucier, photo courtesy of Wesleyan University

MATRIX is supported in part by a grant from the National Endowment for the Arts, a Federal agency.
Seesaw (1983) is a sound installation by Alvin Lucier, one of this country's most distinguished composers. It was intentionally scheduled to coincide with New Music America '84, a week-long national festival taking place this year in Hartford from July 1-7, organized by Real Art Ways.

Though MATRIX usually presents works by visual artists, it has occasionally sponsored sound installations, performance art and concerts (e.g., Jim Pomeroy, Laurie Anderson, Guy de Cointet, Robert Ashley, Philip Glass). The last two decades have been a particularly rich period of cross-fertilization in which certain aspects of the visual arts have shared attitudes and vocabulary with experimental music, theatre and dance. Lucier's Seesaw is, quite obviously, hardly a conventional musical composition. The very fact that it is conceived in terms of a quiet, intimate room in a museum, rather than for the large, open stage of a concert hall, in itself represents a radical break with predominant musical traditions of the nineteenth and twentieth centuries.

Lucier's goal is to use the gallery space to investigate the properties of sound. Museum visitors to Seesaw will experience sound waves as actual physical presences. Lucier's work narrows the gap between art and science. He celebrates both as intertwined modes of experimentation and inquiry.

Lucier frequently uses electronic technology to translate normally inaudible sounds (e.g., echoes, brain waves, room resonances) into more accessible forms. Thus he does not employ musical notation or even formal structures based on scales, intervals, tonality or serialism. Says Lucier: "My method of composition consists in studying a particular phenomenon until I understand it; experimenting with it empirically, in real situations; then, in trying to think of beautiful ways of using it in musical performance. I regard music as a means of putting people into harmony with nature."

Alvin Lucier was born in Nashua, New Hampshire in 1931. He received a B.A. in music from Yale University in 1954 and an M.F.A. from Brandeis University in 1960. Lucier was a co-founder of the Sonic Arts Union with Robert Ashley, David Behrman and Gordon Mumma in 1966 and was Music Director of the Viola Farber Dance Company from 1972 to 1977. He has been the recipient of numerous fellowships and awards, including Composers' Fellowships from the National Endowment for the Arts in 1977 and 1981. His orchestral piece, Crossings, was premiered in Chicago at the New Music America Festival in 1982, performed by the Chicago Symphony Orchestra. Lucier has been Chairman of the Music Department at Wesleyan University, Middletown, Connecticut since 1979. He is represented by Performing Artservices, New York City.

Andrea Miller-Keller
Curator of MATRIX
Work in MATRIX:

Seesaw, 1983. Sound installation with pure-wave oscillators, amplifiers and loudspeakers. (First installed at the Whitney Museum of American Art, December, 1983.)

Statement by the artist:

For several years I have been exploring ways of moving sounds in space. In performance works such as Vespers (1968) and Reflections of Sounds from the Wall (1982), sound waves bounce off reflective surfaces to various points in a room. In Directions of Sounds from the Bridge (1979) and The Shapes of the Sounds from the Board (1980), they flow out of musical instruments in different directions for different pitches. More recently, in Crossings (1982), orchestral players cause ripples of sound to whirl around the concert hall. In none of these works is the movement produced by electronic switching or panning; instead, the natural characteristics of sound waves are allowed to reveal themselves.

Still and Moving Lines of Silence in Families of Hyperbolas (1974-83), a large-scale work for singers, players, dancers, and audio oscillators, explores interference phenomena between two or more sound waves. When closely tuned musical tones are sounded, audible beats—bumps of loud sound produced as the sound waves coincide—occur at speeds determined by the difference between the pitches of the tones. The larger the difference, the faster the beating. At unison, no beating occurs. Furthermore, if each tone originates from a separate source, the beats spin in elliptical patterns through space, from the higher source to the lower one.

The nature of pure sound waves is such that their physical presence is perceptible. In the same way that nodes and antinodes occur along a vibrating string, crests and troughs of loud and soft sound position themselves at regular intervals in any relatively echo-free room through which pure waves flow. The distance between troughs is determined by the size of the wavelength of the sound. Low sounds have long wavelengths, up to several feet; high sounds, as small as a few inches. When two closely positioned waves occupy the same space, their crests and troughs are in constant movement, in an attempt to stabilize themselves.

In Seesaw, two pure-wave oscillators are routed through amplifiers to loudspeakers positioned far apart in the room. One is precisely tuned; the other is programmed to sweep slowly and continuously to equidistant points slightly above and below that fixed pitch. As it dips below, walls of sound travel across the room toward the lower-sounding loudspeaker. As it approaches the fixed pitch from either side, the speed of the movement gradually slows down until, at unison, it stops.

Seesaw is the first in a projected series of installed works, tentatively entitled The Motions of Certain Closely Tuned Waves, in which various patterns of movement of sounds in space will be created.

Alvin Lucier
Selected premieres:
Galleria La Salita, Rome, Action Music for Piano, Frederic Rzewski, piano, '62; Rose Art Museum, Brandeis University, Waltham, Massachusetts, Music for Solo Performer, John Cage, electronic controls, '65; ONCE Festival, Ann Arbor, Michigan, Vespers, members of the ONCE Group, '68; The Solomon R. Guggenheim Museum, NYC, I am Sitting in a Room, image by Mary Lucier, '70; Spencer Memorial Church, Brooklyn, The Queen of the South, '72; Festival d'Automne à Paris, Musée Galleria, Paris, Still and Moving Lines of Silence in Families of Hyperbolas, '73-'74; Experimental Intermedia Foundation, NYC, Directions of Sounds from the Bridge, '79; New Music America, Chicago, Crossings, members of the Chicago Symphony Orchestra, '82; Whitney Museum of American Art, NYC, Seesaw, '83.

Recordings by Lucier:
North American Time Capsule, '67 (CBS Odyssey Records); Vespers, '68 (Mainstream); I Am Sitting in a Room, '70 (SOURCE Record #3); The Duke of Yourk, '71, '76 (Cramps Records, Italy); Bird and Person Dyning, '75, '76 (Cramps Records, Italy); Music on a Long Thin Wire, '80 (Lovely Music); I Am Sitting in a Room, '81 (Lovely Music); Music for Solo Performer, '83 (Lovely Music); Still and Moving Lines of Silence in Families of Hyperbolas, to be released in '84 (Lovely Music).

Selected bibliography by Lucier:

Selected bibliography about Lucier:

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