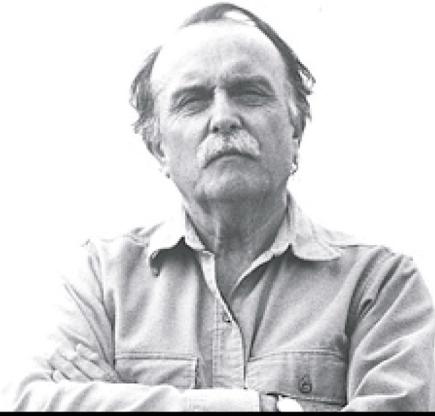


The McIntire Department of Music,
the Virginia Center for Computer Music,
and the New Music Ensemble
present



Alvin Lucier & Friends

Friday, September 15, 2006
8:00 pm
Old Cabell Hall, University of Virginia

The Alvin Lucier & Friends Concert is part of the Alvin Lucier Festival,
an Arts Enhancement Event, supported by the Provost's Office
to increase the awareness of and support for the arts at the University of Virginia

Installation on the UVa Lawn

Music on a Long Thin Wire (1977) Alvin Lucier
sound installation for audio oscillator and electronic monochord

Concert Program, 8 pm, Old Cabell Hall

Wind Shadows (1994) Alvin Lucier
for trombone with closely tuned pure wave oscillators two sine tones
Haim Avitsur, trombone

Lower Music (2006) Ted Coffey
for ceramic tubes, readymade instruments and 4-channel tape
Ted Coffey and Nathan Lynch, performers

Bird and Person Dying (1975) Alvin Lucier
for performer with microphones, amplifiers, loudspeakers, and electronic birdcall
Alvin Lucier, performer

Ascension Study (2006) Troy Rogers
for distance sensors, lights, and digital audio
Troy Rogers, performer

ground loops (2005) Peter Traub
for solo percussion and internet feedback
Michael Schutz, percussion

Intermission

Music for Solo Performer (1965) Alvin Lucier
for enormously amplified brainwaves and percussion
Alvin Lucier, performer

Aes/Aer (2005) Matthew Burtner
for trombone, resonant metals, and computer sound
Haim Avitsur, trombone

Music for Piano with Amplified Sonorous Vessels (1991) Alvin Lucier
for piano and amplified sonorous vessels
Aurie Hsu, piano

Alvin Lucier

Alvin Lucier is a major American composer whose pioneering work in sound art has inspired a generation of younger composers. His work is increasingly recognized as among the most important compositional contributions of the late 20th century. Born in 1931 he has taught since 1970 at Wesleyan University where he is the John Spencer Camp Professor of Music.

Lucier has broken new ground in many areas of music composition and performance, including the notation of performers' physical gestures, the use of brain waves in live performance, the generation of visual imagery by sound in vibrating media, and the articulation of room acoustics for musical purposes. His compositions such as *Music for Solo Performer* (1965), *Music on a Long Thin Wire* (1977), *I am Sitting in a Room* (1970), and many others are classics of experimental music, that synthesize and build on music by composers such as John Cage and LaMonte Young. His recent work includes a series of sound installations and works for solo instruments, chamber ensembles, and orchestra in which, by means of close tunings with pure tones, sound waves are caused to spin through space.

From 1966 to 1976, he performed with Robert Ashley, David Behrman, and Gordon Mumma in the Sonic Arts Union. His work has been performed and his installations shown extensively in the United States, Europe and Asia, including the Abiko Festival (Tokyo), DAAD Kunstler Program (Berlin), at venues in Delhi, Madras, and Bombay. In October 1994, Wesleyan University honored Lucier with a five-day festival, including collaborations with poet John Ashbery and theater designer Robert Wilson. His book, *Chambers*, written in collaboration with Douglas Simon, was published by the Wesleyan University Press.

In 2006 Lucier received the SEAMUS Lifetime Achievement Award for pioneering work in electroacoustic music.

Special Thanks

CCT faculty would like to offer deep thanks to CCT and CCS graduate students for their heroic efforts in helping produce this concert and directing the production of certain especially complex works. In particular, Troy Rogers took a lead in designing tonight's realization of *Music for Solo Performer*, and with Steve Kemper oversaw a group that used individuals' skills and areas of knowledge to great effect. Thanks to all the other CCT and CCS students who offered various and often great help: Joe Adkins, Scott Barton, Lee Bidgood, Aurie Hsu, Wendy Hsu, Liz Lindau, Loren Ludwig, Kevin Parks, Peter Traub and Mike Winter.

Program Notes and Bios (in concert order)

Alvin Lucier, *Wind Shadows*

Two pure wave oscillators are tuned a tenth of a cycle apart. As their tones sound separately from two loudspeakers, a slow beating pattern is heard to spin across the room once every ten seconds. As it does so, the trombonist plays long tones in near unison with the spinning waves, causing secondary beats to sound. The player is asked to sweep slowly within an extremely narrow range, from three cycles per second above the null point between the spinning waves to three cycles below it.

Wind Shadows was written expressly for Roland Dahinden. The work was first performed on October 22, 1994, on the *Alvin Lucier: Collaborations Festival* at Wesleyan University, Middletown, Connecticut.

Ted Coffey, *Lower Music*

In this piece, things remain pretty much as they are or move in one direction: *down*. Pitches and tempos and beat frequencies between tones fall, and sounds move around the hall ever more slowly. There are scores of mappings and representations of energy bleeding out of the system.

There is a ground of low tones played by two performers. Above this two sets of materials oscillate. The first set is rather 'neutral' and simple, organized in simple, repetitive rhythmic patterns. The other is kinetic and full of 'character,' and a willful, nonlinear syntax makes it more so. The juxtaposition of these two sets of materials is somewhat high-contrast, but they are juxtaposed again and again in a steady, measured way. I expect an absence of formal drama may find the listener filing off rough edges all by himself or herself as the piece progresses.

Above all, *Lower Music* means to be a gentle place, dedicated to 'the sounds themselves.' On that item, I would like to thank my friend Nathan Lynch for making these two ceramic tubes. They are 36 and 54 Hz [and that's *low*].

Nathan Lynch is a sculptor, performance artist and founding member of the Saturnalian Croquet League. Recent performances include the Lincoln Center, New York, The International Fringe Festival, Edinburgh and Bumpershoot, Seattle. His mixed media installation, *The Sweetspot*, critiques the practice and traditions of trophy hunting. Lynch is an Associate Professor and Chair of the Ceramics department at California College of the Arts. BFA, University of Southern California, MFA, Mills College.

Ted Coffey makes several different kinds of music, often combining human production of sound with electronics and computer technology. His compositions have been performed in the U.S., Canada, Europe and Asia. He also makes intermedia works--often collaborative, often performed or installed in public spaces. He studied composition at Dartmouth College [AB], Mills College [MFA] and Princeton University [MFA, PhD]. He is currently an assistant professor at the University of Virginia, where he teaches courses in composition and computer technologies.

Alvin Lucier, *Bird and Person Dyning*

One day I received by mail an electronic bird. It consisted of a silver ball with a power cord and made twittering sounds when plugged in. It was a gift from Doug Kahn, a young California composer whom I had never met. He said it was the first piece of “A Dream Aviary” or, in my case, “A Dream Alviary.” I kept it in my kitchen and would plug it in from time to time usually in the morning. It never failed to cheer me up when blue and I began thinking of ways to use it in a musical work.

A few months later I read an article in *Scientific American* about how certain night-flying birds, the indigo bunting in particular, travel long distances partly by monitoring the positions of stars in relation to the rotation of the earth. A near-perfect time sense enables them to comprehend and compensate for continually changing proportions, an ability I find particularly musical; and while this has no direct connection to the structure of this work, it did serve as a first impulse and remains as a ghost.

I had in my possession a Sennheiser binaural microphone system consisting of two miniature microphones which, inserted in the ears of a dummy or human head, realistically reproduce sounds as one hears them, as they deflect around the head and in the folds of the ears. I began experimenting with moving the sounds of the twittering bird between two loudspeakers by listening to it with the miniature microphones in my ears as I walked slowly through the space. As I turned from left to right, for example, the amplified twitters would move accordingly, creating slight time-delays and phase-shifts relative to the stationary bird. Sometimes feedback would occur between the microphones and the loudspeakers, the pitch and intensity of which I could control by small head movements. Under certain circumstances the acoustical mixture of the bird twitters and the feedback produced heterodyning, a phenomenon that created phantom twitters, including mirror images, above and below the originals. Due to the realistic properties of the binaural system, these phantoms would appear at various locations in space, often in and around a listener’s head.

A performance of *Bird and Person Dyning* is a live exploration of these phenomena. The title is meant as an accurate description of the activity.

Troy Rogers, *Ascension Study*

While working with Jeff Stolet at the University of Oregon, I had the opportunity to watch and listen to him rehearse and perform his piece *Tokyo Lick* on a number of occasions. In this engaging work, Jeff transforms a relatively simple interface (two infrared distance sensors and two MIDI pedals) into a virtuosic instrument. Drawing on his performance background, Jeff explores the boundaries of this instrument, in terms of both gestural and mapping possibilities. His intense stage presence combined with the high-density, high-tempo, dramatic musicality of this work is potent and effective, visually and aurally.

Being that I tend to be a speed and density freak in much of my own recent work, it is perhaps surprising that my first study of this interface would be so restrained and occupy such a limited space with regard to data mapping, gesture, pitch, and timbre. I offer the following anecdote as one possible

explanation: while Jeff and I share many aesthetic tastes, we differ in our soundscape preferences. My utopic ideal of a soundscape is being in a canoe on a secluded northwoods wilderness lake very late at night when the pristine silence is only interrupted by the swishing of paddles through the water and the occasional haunting, richly reverberant calls of loons across the lake. In contrast, Jeff seeks sonic solace in the clamor and commotion of cities (*Tokyo Lick* is so named in part because he “love[s] the spectacular density of the Shinjuku District in Tokyo”). I enjoy viewing this piece as an extension and musical manifestation of this discrepancy between our personalities.

Exposure to and deep admiration for Alvin Lucier’s work is another major influence on this piece. Lucier’s tenacious and judicious adherence to the nature of his materials, which allows for the perception of seemingly simple systems for their inner complexities and transformative capacities, has greatly impacted me. Just as Lucier chose to “let the alpha waves be alpha waves” in his Music for Solo Performer (despite the advice of his colleagues to use tape techniques to dissect and transform them), Ascension Study seeks to allow a simple interface be a simple interface, and a simple gesture to be a simple gesture, through the direct mapping of the proximity (of the performers hands to the sensors) to intensity of light and sound. The repetition of a single gesture articulates discreet steps up a quasi-harmonic series.

Troy Rogers is a composer/sound artist/instrument designer whose output includes music for soloists, chamber ensembles, orchestra, dance, theater, digital media, and homemade music robots. While completing his master’s degree in Intermedia Music Technology at the University of Oregon, he spent time as a composer/researcher at Simon Fraser University’s Sonic Research Studio exploring acoustic ecology and soundscape composition, and more recently at the University of Oregon Department of Computer and Information Sciences’ Cognitive Modeling and Eye Tracking Laboratory creating audio/visual art controlled by eye movements. He is currently in the Ph.D. program at the University of Virginia, pursuing a degree in Composition and Computer Technologies.

Peter Traub, *ground loops*

Transmitting audio over the internet is typically about compromise. In exchange for live streaming audio and smaller music files, we give up a little bit of sound quality to save bandwidth and transfer files faster. However, when the same audio is looped repeatedly through this compression process, more and more data is removed until the artifacts of the process are plainly audible. In ground loops, I use this compression to musical effect, by sending percussion sounds out to three different servers located across the country: one in San Diego, CA, one in Hanover, NH, and one in here at UVa. The piece begins with only one loop, and adds a second and a third as it progresses. The percussion sounds circulate through the loops, becoming more and more distorted from each pass through the compression process. As the loops also feedback into each other, particular timbres and frequencies are expressed and reinforced. Meanwhile, the percussionist gradually removes instruments from use, using just one instrument by the end of the piece. This process reflects the filtering and reinforcement of frequencies provided by the feedback, and contributes to the reinforcement of particular timbres within the process. The overall structure of this piece, then, moves toward increasing intensity and focus on a particular timbre.

The score for *ground loops* is a directed improvisation, giving the percussionist five choices for the direction in which the improvisation proceeds. The percussionist always starts by choosing from five different types of percussion timbres: skins, wood, cymbal, struck vibraphone, and bowed vibraphone. Which path through the piece they choose will determine which of the five timbres is the dominant sound at the end of the piece, and consequently, which instruments are removed from use as the piece progresses.

Michael Schutz is currently director of percussion studies at Longwood University and performs frequently with the Charlottesville Symphony. He earned masters' degrees in both percussion performance and music technology from Northwestern University and a bachelor's degree from Penn State University. Major solo performances include recitals at the Virginia Day of Percussion, Pennsylvania Music Teachers Association State Convention, and a guest appearance with the University of Virginia Percussion Ensemble. As a scholar, Schutz has presented at conferences in the United States as well as at the Royal Northern Conservatory in Manchester, England and the University of Bologna in Italy, speaking on topics ranging from the role of visual information in music perception to the computer aided analysis of music. He is a member and subcommittee chair of the PAS Music Technology Committee.

Alvin Lucier, *Music for Solo Performer*

The idea for *Music for Solo Performer* (1965) came out of a series of conversations I had in 1964 with physicist Edmond Dewan of the Air Force Cambridge Research Laboratory in Bedford, Massachusetts. At that time, Dewan was engaged in brain wave research particularly as it pertained to flying: it was believed that certain periodic visual rhythms of slow propeller speeds were locking onto corresponding brain wave frequencies of aircraft pilots, causing dizziness, blackouts, and epileptic fits. Dewan, an accomplished amateur organist, was eager to share his ideas and equipment with any composer interested in exploring this hitherto uncharted region. Inspired by the imagery and technology of electroencephalography, I immediately set to work to discover all I could about alpha.

Working long hours alone in the Brandeis University Electronic Music Studio with Dewan's equipment (two Tektronix Type 122 preamplifiers in series, one Model 330M Kronhite Bandpass Filter, which had been set for a range of from 9 to 15 Hz, one integrating threshold switch, electrodes, appropriate connectors, etc.) plus the studio's conventional equipment, I learned to produce alpha fairly consistently. I found that success could be attained by setting the gain on the audio amplifier to a point just below oscillation so that even a relatively weak alpha signal would come through. Often, I could produce alpha only in short bursts; it took precisely the right physical and psychological conditions to sustain it in longer phrases. I did not attempt any experiments in bio-feedback as such but was aware of the reinforcement of my own alpha-producing ability while monitoring in real-time the sounds that came out of the studio loudspeakers. I observed that over long periods of time, for example while recording alpha for storage material for use in performances, or when tired, relaxed, or slightly bored, the alpha would tend to drift somewhat downward and settle

From the beginning, I was determined to make a live performance work despite the delicate uncertainty of the equipment, difficult to handle even under controlled laboratory conditions. I realized the value of the EEG situation as a theater element and knew from experience that live sounds are more interesting than taped ones. I was also touched by the image of the immobile if not paralyzed human being who, by merely changing states of visual attention, can activate a large configuration of communication equipment with what appears to be power from a spiritual realm. I found the alpha's quiet thunder extremely beautiful and, instead of spoiling in by processing, chose to use it as an active force in the same way one uses the power of a river.

I used the alpha to resonate a large battery of percussion instruments including cymbals, gongs, bass drums, timpani, and other resonant found objects. In most cases, it was necessary physically to couple the loudspeaker to the instrument, although in the case of highly resonant bass drums and timpani, the loudspeaker could be an inch or so away. Placing loudspeakers in trash cans or cardboard boxes worked extremely well as did using cheap small speakers face down on snare drums or taped against windows. I learned that by varying both short bursts and longer sustained phrases of alpha plus making musical decisions as to placement of loudspeakers, choice of resonant instruments or objects, volume control, channeling and mixing, I was able to get a wide variety of sonorities as well as retain the natural physical quality that seemed asked for by the sound source itself.

In conjunction with the threshold switch, I used the alpha as a control signal to operate a stereo tape recorder upon which was stored transposed versions of pre-recorded alpha accelerated up to five times. These higher phantoms relieved the sameness of the low-frequency originals and were used both by themselves and to impart contrasting resonances to whatever instruments they were coupled to. My original intention was to develop the idea of control to include more sophisticated systems of lights, alarms, television sets, radios, whole environments.

Although an assistant is usually needed to operate the preamplifier controls, I did perform *Music for Solo Performer* by myself on the "Visions of the Present" festival in Stockholm in 1966. I succeeded in producing alpha by letting my hands operate the amplifier controls as randomly as possible to avoid visualization caused by decision-making with reference to channeling and placement of loudspeakers. I have always wanted to have a situation in which the alpha could perform all the control functions by means of a code; for example, a certain number of bursts of certain durations could trigger certain mixtures of channels.

I have not pursued further development of brain waves as a musical resource in order to let myself move on to other works involving other ideas including echolocation, underwater sound, resonant characteristics of rooms and the alteration of vocal identities. I am happy to see that many other composers are using alpha in creative and imaginative ways.

Music for Solo Performer is dedicated to John Cage who assisted me in the first performance on May 5, 1965 at the Rose Art Museum, Brandeis University and to whom I am grateful for encouragement greatly appreciated at that time as well as now.

Matthew Burtner, *Aes/Aer*

I composed *Aes/Aer* ("Brass/Atmosphere") for virtuosic performer, Haim Avitsur. The piece explores the material aspects of the trombone through physical preparations of the instrument and virtual augmentation of certain characteristics. The computer expands various glissandi, multiphonic effects and microtonal melodic fragments. Further, the trombone is prepared with sheets of thin metal creating buzzing metallic effects. Sheets of metal suspended on the stage allow the performer to move the projected sound in and out of resonant metallic areas. The metal preparations act as an axis between the virtual and physical spaces, an abstraction of the instrument material.

"*Aes/Aer*" is part of a cycle including the embodiment-related pieces *Somata/Asomata* (2002) for electric string quartet and computer string quartet, and *Animus/Anima* (2001) for voice, extended resonators and computer sound. In its use of resonant metal preparations, the piece also aligns with my works *Polyrhythmicana* for flute, cello, guitar, percussion and 4-channel computer-generated click track, *Signal Ruins* for piano, noise generators, bass drums and computer sound, and *Winter Falls* for prepared bass and electronics.

Trombonist **Haim Avitsur** has premiered almost 60 new pieces encompassing a broad range of styles from solo trombone to chamber music and orchestra. He has worked with composers such as Joan Tower, Matthew Burtner and Leo Kraft, as well as with composer's organizations such as the New York Composers Circle. Mr. Avitsur has worked with composition students in seminars and short-term residencies in schools such as the University of Virginia, and Stanford University. Currently Haim Avitsur is on the faculty of the University of Virginia as well as the Principal Trombonist of the Charlottesville Symphony Orchestra.

He is also faculty at the Aaron Copland School of Music, Queens College, NY. In 2005 he founded Trio Hidas, with Nitzan Haroz, principal trombonist of the Philadelphia Orchestra, and David Taylor, bass trombone soloist. Trio Hidas is the Ensemble in Residence of the Summer Trombone Workshop, of which Mr. Avitsur is the founder and Artistic Director. Haim Avitsur was the only trombonist named a 2005 Emerging Artist by Symphony Magazine. Recent performances include the Ewazen Trombone Concerto with the Charlottesville Symphony, the Albrechtsberger Concerto for Trombone and Strings as part of the University of Virginia Chamber Music Series, and a performance of the Brahms Horn Trio in a recital at Queens College, NY. Haim Avitsur's recent solo CD recording, *Sonatas for Trombone and Piano* by David Loeb, is available on the Vienna Modern Masters Label. Mr. Avitsur will solo with the Western Piedmont Symphony Orchestra in February 2007. For more information and sounds please visit www.HaimAvitsur.com.

Matthew Burtner's music is described by The Wire as "some of the most eerily effective electroacoustic music I've heard," and 21st Century Music writes "There is a horror and beauty in this music that is most impressive." First prize winner of the Musica Nova International Electroacoustic Music Competition he received honors and awards from Bourges, Gaudeamus, Darmstadt, Prix d'Ete, Meet the Composer, ASCAP, Luigi Russolo, AMC, and Hultgren Biennial competitions. He teaches composition and computer music at the University of Virginia where he is Acting Director of the VCCM Computer

Music Center. Originally from Alaska, he studied philosophy, composition, saxophone and computer music at St. Johns College, Tulane University, Iannis Xenakis's UPIC-Studios, the Peabody Institute/Johns Hopkins, and Stanford University/CCRMA. In 2005 and 2006 he was an Invited Researcher at IR-CAM/Centre-George-Pompidou, Paris.

As a composer, Burtner's music explores ecoacoustics, interactive media, and extended rhythmic and noise-based musical systems. His music is recorded for DACO (Germany), The WIRE (U.K.), Centaur Records (USA), Innova (USA), and the Euridice Label (Norway). His two solo CDs, *Metasaxophone Colossus* (2004) and *Portals of Distortion* (1999) received critical acclaim for their combination of Burtner's performance, composition and technological innovation. His writings appear in journals such as Organized Sound, the Journal of New Music Research and the Leonardo Music Journal. He has been composer-in-residence at Musikene in San Sebastian, Spain, Banff Centre for the Arts, Canada, Simon Fraser University in Vancouver, Canada, the IUA/Phonos Institute in Barcelona, and the Cite Internationale des Arts, Paris.

Alvin Lucier, *Music for Piano with Amplified Sonorous Vessels*

Small vessels such as wine glasses, sea shells, clay pots, and bamboo cups are placed inside or near a grand piano, not touching the strings. Microphones are inserted into the vessels, routed through amplifiers to loudspeakers. As single tones, intervals, and chords are played on the piano, resonance tones in the vessels are sounded, picked up and amplified. Differences in the pitch of the fundamental piano tones and those of the harmonically related resonance tones, determined by the physical dimensions of the vessels, create interference patterns which beat at various speeds and in various rhythms.

Sonorous Vessels was written for Margaret Leng Tan and was first performed by her at the Centre Culturel Francais, Berlin, on February 3, 1991, on the opening concert of the INVENTIONEN '91/MUSIK IM FEBRUAR FESTIVAL. Ms. Leng Tan later recorded it for the Hessischer Rundfunk in Frankfurt. It received its American premiere at Merkin Hall, New York, on April 15, 1991.

Aurie Hsu is a second year Ph.D. student in Composition and Computing Technologies at the University of Virginia. She studies composition with Matthew Burtner, Ted Coffey, and Judith Shatin. Aurie received her BM in Piano Performance from the Oberlin Conservatory and MFAs in Piano Performance/Literature and Electronic Music/Recording Media from Mills College. She has had the opportunity to perform in various settings ranging from installations to dance theaters to Lincoln Center. Recent projects include a violin/electro-acoustic piece for dance and pieces for extended piano. Aurie dances with Fire in the Belly, a tribal-fusion belly dance troupe and is acting director of the World and Experimental Arts Group (WeArts), an organization that seeks to promote a community of multi-media and interdisciplinary artists working in the scope of the cultural and experimental arts the McGuffey Art Center in Charlottesville