### **The Poetry of Acoustic Spaces**

Ripples in a stream, wind through grass, sunlight reflecting off water tell us something about themselves without intending to do so. All natural sounds are unintentional, but nevertheless press out (express) from themselves messages with no meaning other than what they are or how they are produced.

—Alvin Lucier<sup>1</sup>

The music on these CDs takes us into a new realm of music making, one that Alvin Lucier has defined for us and one that demands that we start to listen anew. His work has been more often described in terms of science than of art as if it were a series of quasi-scientific experiments, but to put the emphasis here is to miss the point, for its purpose is never "explanatory" (the goal of science) but, like all art, "revelatory." This is not to suggest that the composer has some spiritual agenda in the usual sense of this term. On the contrary, it is the physical behavior of sound itself that he so elegantly reveals, each work unveiling an otherwise hidden or ephemeral aspect of aural phenomena and allowing us time to witness its beauty. He achieves this by ruthlessly excluding any trace of self-expression, or indeed anything extraneous to the phenomenon itself. The latter thereby not only comes into sharp focus but is seen to inhabit a much larger potential arena of experience than could have been previously imagined.

His extensive body of work, spanning a half-century or so, is imbued with an undiminished wonder at the nature of sound, but this is not the wonder of the particle physicist dealing with aspects of the universe that are imperceptible to our natural senses. Lucier's world is profoundly experiential, albeit very subtly so at times. Neither are his enquiries always contained by the boundaries of the aural, for some of his work is placed at the interface between sound and other facets of the physical world. A good example might be *Tyndall Orchestrations*, in which the sound of a violin interacts with the flame of a Bunsen burner on the other side of the hall. The violin, when limited to micro-variants of the same wavelength as the gas jet, can make the flame dance, make it flare or diminish, and may even extinguish it altogether. It is astonishing, and one marvels.

Sound is inherently elusive and ephemeral, the relationships between different sounds even more so. In Lucier's music, in a literal sense, nothing is or can be repeated exactly. What we witness is usually not static but some sort of evolving process that can exist only within a discrete and specific amount of time. The material itself usually defines the length of time required. In his famous composition, *I Am Sitting in a Room*, the repeated text undergoes a process of re-cycling within the acoustic space of a particular room. This involves a slow transformation in which the natural resonances of the room become increasingly reinforced to the detriment of the text's original intelligibility. Like much great art this process seems to resonate with wider experiences, becoming a metaphor for the continual transformation through decay and regeneration of the physical world as a whole. In fact, most of the pieces on these two CDs are defined not only by process but by the unique particularity of a singular event. Therefore we must look at the compositions individually to see exactly what is in play.

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**In Memoriam Stuart Marshall** is one of two memorial pieces by Alvin Lucier. (Stuart Marshall was a talented British video artist, composer, writer, and educator who had been a student of Lucier's, but who tragically died of AIDS in the summer of 1993 at the age of 43. His brilliant and insightful documentary *Bright Eyes*, made for Channel Four, bears eloquent testimony to this lost talent.)

At first glance the work contains just two elements: one unvarying colorless pitch from a pure wave oscillator which sounds throughout, and one bass-clarinet. Just a single machine and a single human performer.

The instrumentalist has a specific sequence of 43 different frequencies to perform as long sustained tones (one for each year of Stuart Marshall's life, it is tempting to presume) but they all lie in very close proximity to the oscillator's sound. These tones nonetheless differ fundamentally from that electronically generated frequency. Firstly, they are intermittent because they are dependent on the player's breath, which sometimes audibly colors them as well. Each instrumental tone lives out a brief life of continual variation. Instrumental sound is by nature endlessly variable, constantly changing, and

because each of these particular tones is close in pitch to the pure wave pitch from the oscillator, the two together produce beating. Those bass-clarinet notes that are closest to being in unison produce slower beats than those that are more divergent. The perfect unison alone is free of beats. Furthermore, the bass-clarinet notes that are slightly sharper than the oscillator pitch produce beats that move spatially toward the speaker, while those that are flatter produce beats that move away. It is the player alone who can alter the character of this beating.

This relationship between the sounds of musician and oscillator is in so many ways suggestive, but exactly of what? What might this impersonal unvarying sound, seemingly without beginning or end, signify? It appears that the musician's sonic proximity to it may uniquely vitalize and validate the essential creative enterprise, and this too is provokingly allusive. There are many obvious interpretations, artistic, social, and religious, but are these considerations at all pertinent to the experience? These and similar questions are impossible to answer. Lucier offers no clues and leaves us as private individuals to sort them out as we think fit.

What we can say is that confronting these low sounds without interruption for the duration of this piece is a particularly dark, somber, and cumulative experience, which becomes apparent in the few seconds after the end when the sound has finally ceased. Considering this, it is difficult to overlook completely that this is an *In Memoriam*.

**40 Rooms** was written in 1996 for the Barton Workshop and was made possible by a grant from the Marcia and Christopher Jaffe Program in Art, Music and Architecture at Rensselaer Polytechnic Institute in Troy, New York.

A pair of stereo microphones pick up the players' sounds and feed them into a digital delay system designed to simulate the acoustic properties of 40 different-sized rooms. During the performance, the operator of the system simply sends the performers' sounds from room to room in a predetermined order. The five musicians test the delay time of each by playing tones of various lengths and dynamic levels, suggesting the architecture to our imagination. Quite contrary to most other music, the pitch relationships between the notes are unimportant. Pitches exist only for what they divulge through the quality of their decay. In listening to these decaying sounds, it is not the comparative duration alone that should concern us but also the complex colorings and overtone amplifications that each room contributes. At first, single notes are sounded, but later simultaneities and overlaps resound in these conceptual spaces.

Jon Higgins was a remarkable musician and scholar, a celebrated singer of South Indian classical music, and an influential academic who died tragically in a car accident in December 1984. He was a friend of the composer and a colleague at Wesleyan University. Superficially, *In Memoriam Jon Higgins* may appear to be similar to *In Memoriam Stuart Marshall*, but the differences are perhaps even more significant, as they make for a quite different musical experience.

Again the basic elements are one musician and one pure wave oscillator, but in this piece the electronic sound is not static; quite the opposite, it is in constant movement. Nonetheless, this movement is so gradual that at first it appears to be almost imperceptible, but slowly we begin to perceive its trajectory. During the course of the work it makes one long slow sweep across the whole range of the clarinet from the lowest note to the highest, and this movement defines the overall duration of the piece. Its speed is totally invariable and inexorable, like the course of a planet or star. As in the previous *In Memoriam*, the clarinetist performs a discontinuous sequence of sustained tones. Often the clarinet enters just slightly above the oscillator's pitch, allowing the latter's aural trajectory to then slowly cross that frequency. The beating gradually slows down as they converge and ceases altogether when a perfect unison is achieved, only to recommence as they begin once again to diverge. The effect is something like watching a solar eclipse. When the beating is very slow the patterns may sometimes be heard to spin through space. The instrumentalist finds that by the most exquisite control of pitch he can influence both time (the speed of the beating) and space (its movement). These beats become the music's main material, but they can never be fully predicted as certain frequencies are also affected by the unique acoustic properties of the room in which the performance takes place. There are few performers who can achieve this level of control as well as John Anderson, who has a unique ability to center his sound on particular frequencies and fix them unwaveringly.

In these rarefied conditions each specific particularity takes on its own significance. For example, the oscillator sweeps upward and in one direction only. One can hardly envisage how different the total experience would be if this movement were reversed. As with most of Lucier's work, we are made peculiarly aware of our role as witnesses to these processes.

The idea of my work is that the experience of perceiving the piece is the experience of being aware of yourself perceiving it.<sup>2</sup>

*Letters,* for violin, clarinet, cello, and piano, was written in 1991 for the one hundredth concert of Ny Musik Boras in Sweden. The conventional staff notation of the score belies the unusual conception of this delightful and intimate work.

The notation is a graphic representation of a congratulatory message to the composer Björn Nilsson, the organization's founder. The players "draw" the visual aspect of the letters with sounds. Piano clusters of short duration form the vertical columns of letters such as "T" and "B"; sustained notes provide the horizontal lines for letters such as "E" and "F"; glissandi form the curves for letters such as "O" and "S", as well as the diagonals for "N" and "V". For example, the opening "H" in the word "HELLO" is formed by two short piano clusters separated by a sustained clarinet tone. The "O" in "HELLO" is formed by violin and cello starting from a central tone, making contrary motion glissandi to the octave above and below and then returning. The composer says that discriminating listeners should be able to decipher the text in this way. The letters are all in upper-case form.

To start you off, the message begins: HELLO BJORN ... \*

This encoding should not divert us from hearing the music itself, which is highly focused, and restrained, and somewhat more personal than we are accustomed to in Lucier's work. It's as if we caught him in a private moment away from his work. The music's humane elegance is something one can savor without worrying at all about hidden messages.

Turning to the second CD in this set, we find a number of pieces requiring two pure wave oscillators in place of the single one in the works discussed so far. This creates more complex aural phenomena, which is sometimes taken further still by the use of multiple instrumentalists.

Q was composed in 1996 for the Barton Workshop. Two pure tone oscillators are tuned a major 2nd apart (A-flat and B-flat) and each is routed to one of the two loudspeakers positioned on either side of the five instrumentalists. Their musical material all lies within the compass of the major third (G to B) that surrounds the electronic tones. In other words, the oscillators *spatially* contain the instrumentalists while at the same time the instrumentalists *tonally* contain the oscillators. In this way their relationship is essentially symbiotic. The oscillators operate as fixed gravitational centers around which the instrumental sounds constantly orbit. The musicians play long tones in specific but tiny microtonal steps (each just 6/7 cents or 1/30th of a tone apart). Each of these steps creates its own character and speed of beating through its specific proximity to one or both of the oscillator tones. This means that theoretically, up to ten individual beating patterns can sound together. More subsidiary beating occurs between the various strands of instrumental sounds. Altogether it makes an incredibly rich dish. The "Q" of the title stands for "Quintet," but could also refer to the narrow bandwidth the piece encompasses.

A Tribute to James Tenney appeared in a collection of essays and music to honor the composer James Tenney (Perspectives of New Music vol. 25, numbers 1 & 2, 1987).

This work again requires two oscillators, but only a single instrumentalist, in this case a double-bassist. There are five discrete sections, each successive section being pitched an octave lower than the one before, creating a series of four precipitously large downward steps. Each of these is defined by the tuning of the oscillators and by its pitch range. The solo double-bassist, in this case Jos Tieman, stands equidistant between the two speakers that are on either side of the performance area.

In each section the beating patterns occur at one half the speed of those in the previous section. There are also timbral transformations that the electronic sounds induce in the instrumental color. In the opening section, for example, the double-bass appears very reedy, almost like an oboe. Each successive stage in the downward journey affects the instrumental color distinctively and incrementally. It is a fascinating process to witness.

The composition was originally written for bass player Roy Wiseman.

**Bar Lazy J,** for clarinet and trombone, was written for the performers on this recording, John Anderson and James Fulkerson. Together they play a series of 72 long tones. The clarinet merely alternates between two tones a semitone apart, while the trombonist minutely scans the territory in between these two markers by means of an ascending series of micro-steps. From time to time he steps back a few degrees only to then recommence his exploratory ascent.

**Fideliotrio** is a composition for piano, viola, and cello without electronics, commissioned by the Connecticut-based Fidelio Trio. The composer has written, "I have relied solely on acoustic instruments, asking of the string players an extraordinarily high degree of bow and pitch control and of the pianist, very subtle variations of timing and attack."<sup>3</sup> The two string players make carefully defined parabolas, sweeping across the area between a semitone above and a semitone below the central piano tone. The pianist repeats this single tone at precise but irregular intervals, varying only the loudness of attack. "The piano tones track in inverse proportion the number of audible beats being produced between the viola and cello at any given moment . . . As the sound of the two bowed strings interfere with the three hammered strings of the single piano tone, slight variations in timbre and spatial location occur."<sup>4</sup>

In *Wind Shadows* from 1994 we again have two pure tone oscillators, but tuned so closely together that they appear to be in unison. In fact, the frequencies are five cycles apart, and this creates a slow beating pattern that spins across the room about once every five seconds. The effect is quite unsettling. Some people find it can give them a slight feeling of seasickness—but relief is at hand! The trombonist plays long tones in near-unison with the spinning waves which causes other, secondary beats to appear; but when the instrument comes into a unison, the original five-second beating pattern abruptly ceases and calm is established. However, this is short lived, ending just as abruptly as it started with the cessation of that particular instrumental note.

It was written for Roland Dahinden, who also premiered the work at Wesleyan University in October 1994.

—Frank Denyer

*Frank Denyer is a composer and pianist whose music can be heard on* Finding Refuge in the Remains (Etcetera KTC 1221), Fired City (Tzadik 7082), *and* Faint Traces (Mode 151).

\* The encoded text of *Letters* reads: "HELLO BJORN CONGRATULATIONS ON YOUR 100<sup>TH</sup> CONCERT NY MUSIK BORAS DON'T STOP NOW ALL MY LOVE ALVIN LUCIER"

<sup>1</sup> Interview between Alvin Lucier and cellist Arne Deforce in Gent, Belgium, on the occasion of the performance of *Music* for Cello with One or More Amplified Vases, at Handelsbeurs Festival, Acta Religiosa, Gent, May 13, 2003. http://www.arnedeforce.be/LucierInterv.html

<sup>2</sup> "Beats that can push sugar." Alvin Lucier interviewed by Michael Parsons, May 27, 1995, *Resonance* magazine, vol. 4, number 1, London.

<sup>3</sup> Composer's program note.

<sup>4</sup> Score of the music.

**Alvin Lucier** was born in 1931 in Nashua, New Hampshire. He was educated in Nashua public and parochial schools, the Portsmouth Abbey School, Yale, and Brandeis, and spent two years in Rome on a Fulbright Scholarship. From 1962 to 1970 he taught at Brandeis, where he conducted the Brandeis University Chamber Chorus, which devoted much of its time to the performance of new music. Since 1970 he has taught at Wesleyan University, where he is John Spencer Camp Professor of Music.

Lucier has been a pioneer in several 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 evocation of room acoustics for musical purposes. His recent works include a series of sound installations and works for solo instruments, chamber ensembles, and orchestra in which rhythmic and spatial phenomena are created by means of close tuning.

Mr. Lucier performs, lectures, and exhibits his sound installations extensively in the United States, Europe, and Asia. He regularly contributes articles to books and periodicals. In 1995, *Reflections/Reflexionen*, a bilingual edition of his scores, interviews, and writings, was published by MusikTexte, Köln. In addition, several of his works are available on Cramps (Italy), Disques Montaigne, Source, Mainstream, Mode, New World, CBS Odyssey, Lovely Music, Nonesuch, and Wergo records.

Alvin Lucier has collaborated with John Ashbery, Sol LeWitt, and Robert Wilson. In 1997 he presented a concert of his works on the Making Music Series at Carnegie Hall. In May 1999, his *Diamonds* for three orchestras was premiered at Prague Spring and in 2001 *Ovals* for small orchestra was premiered at Donaueschingen. In the spring of 2005, his most recent orchestral work, *The Exploration of the House*, was performed in Zankel Hall, New York, by the Orchestra of the S. E. M. Ensemble, Petr Kotik conducting.

Lucier's recent instrumental works include *Ever Present* for flute, saxophone, and piano; *Almost New York* for one flutist with 5 flutes; *Tapper* for solo violin; *Fan* for 4 kotos; and *Kirilics*, for baritone, French horn, and audio oscillators, commissioned by Thomas Buckner. Recent sound installations include *Places*, commissioned by Meet the Composer; *6 Resonant Points Along a Curved Wall*, and *Two Glasses of Water*, currently being shown in a cargo container at the Kunsthaus in Zug, Switzerland. In 2005 Mr. Lucier was Guest Composer at *June in Buffalo*.

**The Barton Workshop** is an Amsterdam-based ensemble founded in 1989 by the American composer-trombonist James Fulkerson. The goal of the ensemble is to perform the leading edge of contemporary music, whether notated or not. The workshop primarily creates "composer portrait" concerts, usually in collaboration with the composers, which provide either an overview or an in-depth representation of a chosen composer's work. The Barton Workshop has collaborated with such composers as Alvin Lucier, Christian Wolff, Nicolas Collins, and Frank Denyer, and has given world and European premieres of works by Galina Ustvolskaya, Henryk Gorecki, Alvin Lucier, James Fulkerson, Jerry Hunt, Frank Denyer, Nicolas Collins, and others.

On the second and fourth Monday of each month during the concert season, The Barton Workshop presents a two-hour concert/Webcast featuring experimental music and solo improvisation. The "workshop/research" aspect of the ensemble, alluded to in our name, is an important feature of the ensemble and is a distinguishing feature in our performances and recordings.

Composer-trombonist **James Fulkerson** has always been associated with performing and championing experimental music and experimental composers. More than one hundred fifty solo works have been composed for him, including two works by the American composer John Cage. He has recorded for Deutsche Grammophon, Nonesuch, Lovely Music, Attacca Babel, Mode Records, New World Records, Tzadik, and Etcetera Records. He has made complete solo CDs of music by John Cage (Etcetera Records KTC 1137) and Christian Wolff (Etcetera KTC 1227), as well as his own *Force Fields and Spaces* (Etcetera KTC 1175).

**John Anderson** studied at the New South Wales Conservatorium (Sydney) and the Sweelinck Conservatorium (Amsterdam). He has played extensively in orchestras and musicals. As a specialist on the bass clarinet, Anderson was a prizewinner in the Gaudeanus Interpreter's Competition. He has performed with ASKO, the Xenakis Ensemble, The Bass Clarinet Collective and Ensemble Modern. He was a founding member of The Barton Workshop, with whom he has recorded extensively, including solo works by John Cage, Jos Kunst, Christian Wolff, and Morton Feldman. He collaborated with Alvin Lucier to develop *In Memoriam Stuart Marshall.* 

**Frank Denyer** was born in London in 1943. His early musical training was as a chorister at Canterbury Cathedral and later as a pianist at the Guildhall School of Music in London. In the late sixties he founded and directed the experimental ensemble Mouth of Hermes; through this group his own compositions started to be heard in public in Britain and Europe. In the mid-70s he gave up performing for a time to study ethnomusicology at Wesleyan University in Connecticut, with a special interest in Japanese music. Later he became a Research Fellow in African Music at the University of Nairobi from 1978–81, working intensively with the music of the Pokot. Today he is a Professor of Composition at Dartington College of Arts in the United Kingdom. Since 1990 Denyer has performed with The Barton Workshop: His recordings of the solo piano music and ensemble works of Morton Feldman, Galina Ustvolskaya, Christian Wolff, and John Cage have met with wide acclaim.

**Marieke Keser** graduated in 1994 from the Maastricht Conservatorium, obtaining a degree of Performing Artist in the class of Professor Robert Szreder. In 1989 she took part in the Oscar Back Competition and in 1991 in the International Orpheus Prize for the Interpretation of New Chamber Music in Antwerp. She has taken master classes with Zenon Brzewski, Marina Jaswili, Miroslaw Rusin, Wolfgang Marschner, Theo Olof, and Herman Krebbers. She gives master classes at Goch (Germany). She has appeared many times as a soloist with piano and/or orchestra in the Netherlands, Belgium, Germany, and Poland. Marieke Keser and Frank Denyer have recorded several works for violin and piano by John Cage, Morton Feldman, and Christian Wolff with The Barton Workshop on Etcetera Records.

**Jos Tieman** studied double bass at the Arnhem Conservatory with Henk Guldemond and carried out further studies with Peter Luit. Since 1984 he has been a member of the Residentie Orchestra in Den Haag. He has performed with various ensembles and was a founding member of The Barton Workshop. He has been featured prominently in recordings of John Cage and Christian Wolff by The Barton Workshop, and recently made the highly acclaimed recording of James Tenney's *Beast* for solo double bass for New World Records.

**Judith van Swaay** studied cello with Elias Arizcuren and Dimitri Ferschtmann. She is a member of the Netherlands Ballet Orkest and The Barton Workshop. She played a major role in the first Barton Workshop CD of music by Christian Wolff (Mode Records 69), performing not only the extremely difficult *Stardust Pieces* for cello and piano but also the central female voice role in his *I Like to Think of Harriet Tubman*.

SELECTED DISCOGRAPHY Bird and Person Dyning. Cramps CRSCD 111. Clocker. Lovely Music LCD 1019. Crossings. Lovely Music LCD 1018. I Am Sitting in a Room. Lovely Music LCD 1013. Music for Solo Performer. Lovely Music VR 1014 (LP). Music on a Long Thin Wire. Lovely Music LCD 1011. Navigations, Small Waves. Mode Records 124. Nothing Is Real . . . Wergo 6660. Panorama. Lovely Music LCD 1012. Sferics. Lovely Music VR 1017 (LP). Still and Moving Lines of Silence in Families of Hyperbolas. Lovely Music LCD 1015. Still Lives. Lovely Music LCD 5012. Theme. Lovely Music LCD 5011. Vespers and Other Early Works. New World Records 80604-2.

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Producer: James Fulkerson Engineer: Robert Bosch Digital mastering: Paul Zinman, SoundByte Productions, NYC All compositions were recorded May 12, 2003, in the Maria Minor Kerk in Utrecht, except *Letters* and *Fideliotrio*, which were recorded June 12, 2003, in the Bethanienklooster in Amsterdam. Cover photo: Sarah Simons Cover design: Jim Fox

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# ALVIN LUCIER (b. 1931)

WIND SHADOWS The Barton Workshop James Fulkerson, Frank Denyer, co-directors 80628-2 (2 CDs)

DISC 1 (TT 59:29) 1. In Memoriam Stuart Marshall (1993/rev. 2003)\* 17:52 for bass clarinet and pure wave oscillator John Anderson, bass clarinet

2. 40 Rooms (1996)\* 15:12 for quintet and digital reverberation system John Anderson, clarinet; Marieke Keser, violin; Judith van Swaay, cello; Jos Tieman, double bass; James Fulkerson, trombone

3. *In Memoriam Jon Higgins* (1984) 19:59 for clarinet and slow sweep pure wave oscillator John Anderson, clarinet

4. *Letters* (1992) 6:00 John Anderson, clarinet; Marieke Keser, violin; Judith van Swaay, cello; Frank Denyer, piano

DISC 2 (TT: 78:12) 1. Q(1996)\* 15:20 for quintet and pure wave oscillators John Anderson, clarinet; Marieke Keser, violin; Judith van Swaay, cello; Jos Tieman, double bass; James Fulkerson, trombone

A Tribute to James Tenney (1986) 15:33 for solo double bass and pure wave oscillators

- 2. Part 1 3:08
- 3. Part 2 3:06
- 4. Part 3 3:05
- 5. Part 4 3:03
- 6. Part 5 3:11

Jos Tieman, double bass

7. *Bar Lazy J* (2003)\* 15:15 John Anderson, clarinet; James Fulkerson, trombone

8. *Fideliotrio* (1987) 12:03 Marieke Keser, viola; Judith van Swaay, cello; Frank Denyer, piano

9. *Wind Shadows* (1994) 19:07 for trombone and closely tuned oscillators James Fulkerson, trombone

\* composed for The Barton Workshop

The Barton Workshop: John Anderson, clarinet; Frank Denyer, piano; James Fulkerson, trombone; Marieke Keser, violin; Judith van Swaay, cello; Jos Tieman, double bass

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