

**FRED LERDAHL**

(b. 1943)

**Spirals (2006)** (18:59)

- 1) I. ♩ = ca. 69 (9:09)  
2) II. ♪ = ca. 46 (9:43)

*Odense Symphony Orchestra*  
*Scott Yoo, conductor*

**Three Diatonic Studies (2004-2009)** (8:19)

- 3) I. Chasing Goldberg (2004) (2:02)  
4) II. Cyclic Descent (2009) (3:41)  
5) III. Scalar Rhythms (2009) (2:31)

*Mirka Viitala, piano*

**6) Imbrications (2001)** (2:31)

*Argento Chamber Ensemble*

*Erin Lesser, flute*

*Carol McGonnell, clarinet*

*Miranda Cuckson, violin*

*Greg Hesselink, cello*

*Matt Ward, percussion*

*Joanna Chao, piano*

*Michel Galante, conductor*

**7) Wake (1968)** (15:47)

*Bethany Beardslee, soprano*

*Boston Symphony Chamber Players*

*Joseph Silverstein, violin; Burton Fine, viola*

*Jules Eskin, cello; Ann Hobson, harp; Everett Firth,*

*Arthur Press, Charles Smith, percussion.*

*David Epstein, conductor*

**8) Fantasy Etudes (1985)** (13:15)

*eighth blackbird*

*Molly Alicia Barth, flute*

*Michael J. Maccaferri, clarinet*

*Matt Albert, violin*

*Nicholas Photinos, cello*

*Matthew L. Duvall, percussion*

*Lisa Kaplan, piano*

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*Wake* used by permission of New World Records, © 2007, Anthology of Recorded Music, Inc.

This recording offers music composed over a span of four decades. Three recent pieces, *Spirals*, *Three Diatonic Studies*, and *Imbrications*, are recorded here for the first time. Two earlier ones, *Wake* and *Fantasy Etudes*, are re-issues of earlier recordings.

*Notes by the composer*

## *Spirals*

I composed *Spirals* in 2006 for the Saint Paul Chamber Orchestra, with funding from *Music Alive*. The SPCO gave its premiere in March 2007, with Cliff Colnot conducting. The work is scored for double woodwinds, two horns, two trumpets, percussion (two players), piano, and strings (6 6 4 4 2). My first aural image of the piece, manifested in different ways in its two movements, was of sustained low brass with scurrying woodwinds and strings, punctuated with bell-like sounds in the piano and mallet percussion.

The two movements are of equal length, the first fast and brilliant, the second slow and lyrical. The title refers to a formal technique of my invention, in which a short, simple idea elaborates into progressively complex and diverse patterns. (I have also called the method “expanding variations.”) Each cycle of elaborations enlarges the spiral. In previous pieces the expanding process typically continues to the end, but in this work, a little over halfway through each movement, the spiral reverses and contracts back to its point of origin while the musical material continues to develop. This combination of symmetrical reversal and continuing process culminates in points of high intensity.

In the first movement, the generating idea is a cadential progression that I first set forth at the beginning of my *First String Quartet* (BRIDGE 9352) and have often used since. Here, through elaborations and modulations, the progression is obsessive and pervasive.

In the second movement, the generating idea is a long, winding melody that derives from the beginning of the second movement, “Elegy,” of my *Duo for Violin and Piano* (BRIDGE 9269). In the context of *Spirals*, however, the melody arises from the voice-leading patterns of the first movement’s cadential progression. As the melody develops, other textures accrue, but it remains omnipresent, controlling the tonal motion and leading gradually to a powerful climax, which then evaporates in a short coda that recalls the texture and harmony of the beginning of the first movement.

## *Three Diatonic Studies*

*Three Diatonic Studies* originated in a commission from the Irving S. Gilmore International Keyboard Festival to write a variation based on the “Aria” of Bach’s *Goldberg Variations*. The result was the diatonic and canonic *Chasing Goldberg*, composed in 2004. After hearing a number of performances, I decided that this unusual little piece needed companions. It felt presumptuous to compose more variations on Bach’s masterpiece, so instead, in 2009, I added two movements, *Cyclic Descent* and *Scalar Rhythms*, that continue to explore the diatonic collection.

I. Each measure of *Chasing Goldberg* employs pitch classes from the equivalent measure in the “Aria” of Bach’s *Goldberg Variations*. Pitches played staccato are dislocated registrally in pointillistic fashion, creating intricate cross-rhythms out of the constant 16th-note texture. Instead of straight binary repeats, each repeat forms a canon (unison at the distance of a quarter note) on the original statement. *Chasing Goldberg* is dedicated to the pianist Gilbert Kalish.

II. The pensive *Cyclic Descent* juxtaposes the diatonic set with its pentatonic complement and follows diatonic sequences at multiple structural levels, successively transposed down a scale step. Contrasting ideas merge, and by a circuitous route the music ends up where it began.

III. *Scalar Rhythms* is built on a strict parallel between scales and rhythms. Counting up the major diatonic scale in semitones, the pattern is 2-2-1-2-2-2-1. Similarly, the pattern for the pentatonic scale is 2-2-3-2-3; for the major triad it is 4-3-5. West African drumming often employs these asymmetrical patterns as durational proportions. *Scalar Rhythms* is constructed entirely, in canonic fashion, from these isomorphisms between scales and rhythms. Though a fully formed piece in its own right, it also is a postscript to *The First Voices* (2007), for eight percussionists and three singers (NAXOS 8.559684), which exploits the same pitch-rhythm correspondences.

## *Imbrications*

I composed the short “occasional” piece *Imbrications* in 2001 in honor of the composer Andrew Imbrie’s 80th birthday. It is scored for flute, clarinet, violin, cello, percussion, and piano. The Berkeley Contemporary Chamber Players premiered it in 2001 in Berkeley, California.

Anyone friendly with Andrew knew that he was impatient with music that is slow, bombastic, and bereft of counterpoint. Therefore my little piece is fast, quiet, and contrapuntal. An imbrication is the repetition of a regular pattern so that the edges overlap, as in the tiles of a roof. The idea for the piece is that all the material imbricates. *Imbrications* is in ABA’ form. The A material derives from the “Happy Birthday” tune, and “Auld Lang Syne” appears in the B section.

Before or after a major creative effort I like to relax by composing a comparatively light piece. Both *Imbrications* and *Three Diatonic Studies* fit this pattern. *Imbrications* is an addendum to *Time after Time* (BRIDGE 9191), which has the same instrumentation. The second and third pieces of *Three Diatonic Studies* provided a break as I completed and revised the heavy-duty Second and Third String Quartets (BRIDGE 9352).

## *Wake*

In the summers of 1967 and 1968, while a graduate student at Princeton, I had the good fortune to be a resident composer at the Marlboro Music Festival on a grant from the Ford Foundation. Bethany Beardslee, the legendary soprano who devoted herself tirelessly to contemporary music, asked me to compose a vocal work for her. The result was *Wake*, for soprano, string trio, harp, and percussion (three players). Bethany and a group of Marlboro performers premiered it at the 1968 festival under my baton.

The inspiration for *Wake* came from James Joyce’s *Finnegans Wake*. I arranged the text out of passages from Book I, chapter 8 of the novel, to create the symmetrical formal shape of Introduction, Cycle I, Episode I, Cycle II, Episode II, Cycle III, and Coda. The main action of the piece resides in the cycles, which rise to parallel climaxes and which are meant to reflect the novel’s themes of recurrence and metamorphosis. The harp and percussion clothe the work in a lyrical atmosphere motivated by Joyce’s beautiful language.

*Wake* was the culmination of my early, post-Schoenbergian style. I wrote it with little system in mind, relying on Joyce’s words to carry my inspiration along. Composing it was exhausting, and after it was finished I went through a long crisis in search of a coherent musical language. *Wake* contains seeds of my mature musical style in its melodic writing but does not yet show the

characteristic formal procedures and harmonic syntax that gradually emerged in works of the 1970s.

This marvelous recording, by Bethany Beardslee and the Boston Symphony Chamber Players under the direction of David Epstein, was made originally for a record series funded by the hi-fi company Acoustic Research. The CRI record label later rereleased it on LP and then CD. It is gratifying to have it released yet again by Bridge Records, not only for the sake of the music, but also as a superb representation of Berhany's distinctive artistry.

Text from *Finnegans Wake* by James Joyce  
(arranged by the composer, with permission):

*But toms will till. Will toms till but. Till but toms will.*

*Tell me all. (Anna was.) The old cheb went futt, mythed with gleam of her shadda, holding doomsdag over hunself, dreeing his weird, queasy quizzers. And the cut of him. And the striat of him. With a hump of grandeur. For mine ether duck I thee drake. And by my wildgaze I thee gander. Saw him shoot swift up her sheba sheath, like any gay lord salomon, her bulls they were ruhbring, surfed with spree.*

*Do tell us all about. As we want to hear allabout. So tellus tellas allabout. Proxenete.*

*Where did I stop? Never stop! Garonne, garonne! Tongue your time now, flow now, ower more. And pooley pooley.*

*She was just a young thin pale soft shy (Livia is) slim slip of a thing then, nymphant shame, tigris eye. Of fallen griefs, of weeping willows. Deep dark, stagnant black pools, innocefree with her limbs aloft.*

*Mersey me! Shake it up, do, do! Calamity electrifies man.*

*Tell me the trent of it. Onon! Onon! Close only knows.*

*Tys Elvenland! The seim anew. (Pluvabelle's to be.) Look, look, the dusk is growing! My branches lofty are taking root. What age is at? It soon is late, 'tis endless now. It's churning chill. Der went is rising. Some here, more no more.*

*Can't hear with the waters of. The chittering waters of. Flittering bats, fieldmice hawk talk. Can't hear with hawk of bats, all thim liffeying waters of. I feel as old as yonder elm. Dark hawks hear us. Night! Night! My ho head halls, I feel as heavy as yonder stone. Night now! Tell me, tell me, tell me, elm! Night night!*

*Telmetale of stem or stone.*

*Beside the rivering waters of, higenandthithering waters of. Night!*

## *Fantasy Etudes*

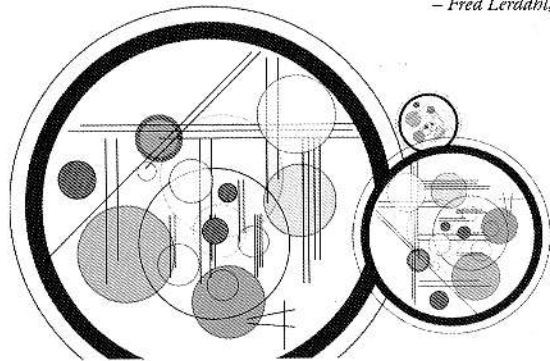
I composed *Fantasy Etudes* in 1985 with the support of a National Endowment for the Arts consortium commissioning grant to the ensembles Musical Elements, Alea III, the Arch Ensemble, and the Contemporary Chamber Players of the University of Chicago. The piece is in one movement and is scored, like *Imbrications*, for flute, clarinet, violin, cello, percussion, and piano. Musical Elements, Robert Beaser conducting, premiered it in 1985 in New York City.

The larger form of *Fantasy Etudes* evolves from 12 interlocking etudes. Each etude has a distinctive idea and color, so that the overall effect is one of fantasy. Against this surface variety there is an underlying similarity of procedure. Each etude is cast in spiral form, starting with a simple event and progressively elaborating into complexity. As the material of an etude begins to collapse under the weight of its elaborations, a new etude enters. These overlaps produce moments of dramatic tension—changes from one fantasy to another. Toward the end the etudes overlap more and more, rising to a broad climax, after which a coda quotes snippets from each etude in turn. The formal process is intricate yet audible.

*Fantasy Etudes* is the first work in which I employed spiral form in multiple, overlapping streams. Subsequent works, notably the orchestral pieces *Cross-Currents* and *Quiet Music* (BRIDGE 9269) develop the procedure further. Some of my pieces composed after *Quiet Music*, including *Time after Time* and *Spirals*, integrate the spiraling multiple-streams approach into a unitary framework in order to control the resulting polyphony.

With its familiar and practical “Pierrot plus percussion” instrumentation, *Fantasy Etudes* is one of my most frequently performed works, not least because for years the virtuoso ensemble eighth blackbird toured with it. When they first rehearsed with me early in their career, they astonished me by playing the piece by memory. This feat was particularly impressive given its intricate tempo modulations. Later on they choreographed their performance: cello, percussion, and piano remained stationary, while flute, clarinet, and violin moved around the stage in different groupings as the instrumental combinations for individual etudes changed. I am not a very visual person and hardly intended such a realization, but upon seeing it I was convinced of its validity. eighth blackbird recorded *Fantasy Etudes* on its first CD, “Round Nut Tool.” I am very pleased to have this dazzling rendition re-issued on the present disc.

— Fred Lerdahl, March, 2013



**F**red Lerdahl's music is greatly esteemed for having developed original harmonic syntaxes and formal processes, presented with elegant craftsmanship and expressive depth. His work is rare in today's musical world in that it seeks and achieves both complexity and intelligibility. It is indebted to the past yet committed to the exploration of new territory.

Lerdahl's music has been commissioned and performed by major chamber ensembles and orchestras in the United States and around the world, and he has been resident composer at leading institutions and festivals. His music is published by Schott and C. F. Peters and has been widely recorded for numerous labels, including Bridge Records, who have initiated an ongoing series devoted to his music.

His seminal book *A Generative Theory of Tonal Music*, co-authored with linguist Ray Jackendoff, is a founding document for the growing field of the cognitive science of music. His subsequent book, *Tonal Pitch Space*, won the 2003 distinguished book award from the Society for Music Theory and an ASCAP-Deems Taylor award. A third book (in progress), *Composition and Cognition*, based on his 2011 Bloch Lectures at UC/Berkeley, will bring together his dual activity as composer and theorist.

Lerdahl studied at Lawrence University, Princeton, and Tanglewood. He has taught at UC/Berkeley, Harvard, and Michigan, and since 1991 has been Fritz Reiner Professor of Musical Composition at Columbia University, where he directs the composition program. In addition to his teaching, he serves on boards of several major foundations and organizations devoted to contemporary music.

In 2010 Lerdahl was honored with membership in the American Academy of Arts and Letters. Three of his works composed since 2000—*Time after Time* for chamber ensemble, the *Third String Quartet*, and *Arches* for cello and chamber orchestra—have been finalists for the Pulitzer Prize in music.

The **Odense Symphony Orchestra** was formally established in 1946, but its roots go back to 1800. The orchestra gives approximately 100 concerts per season, most of them taking place in the acoustically superb Carl Nielsen Hall. The OSO's ongoing recording series for Bridge includes music by Carl Nielsen, Poul Ruders, Heitor Villa-Lobos, Alberto Ginastera, Stephen Jaffe, Elliott Carter, George Crumb, Charles T. Griffes, Virgil Thomson, Roy Harris, John A. Carpenter, Horatio Parker, Paul Chihara, Yehudi

Wyrner, Ursula Mamlok, Fred Lerdahl, Antonín Dvořák, Frederic Chopin, Peter Lieberson, John Musto, and an ongoing Mozart piano concerto cycle.

Born in Kuusamo, northern Finland, **Mirka Viitala** started her pianistic journey at age four. At ten years old, she began studies at the Sibelius Academy, where she studied with Matti Raekallio and Ralf Gothoni. Ms. Viitala has also studied with Jan Wijn at the Sweelinck Conservatory in Amsterdam. She has been a participant in masterclasses given by Murray Perahia, Dmitri Bashkirov, Olli Mustonen and Paul Badura-Skoda.

Ms. Viitala has won awards in several national and international piano competitions and has performed as a soloist and chamber musician in Finland, Europe, Russia and the USA. She has also appeared in music festivals,

including Schleswig-Holstein, Helsinki Festival, and Kuhmo Chamber Music. She frequently records solo and chamber music for the Finnish Broadcasting Company (YLE).

The **Argento Chamber Ensemble** is the performance arm of the Argento New Music Project. Consisting of nine dedicated members, the ensemble regularly expands to perform and record chamber orchestra works of up to 30 musicians. The Ensemble has toured widely in the US and abroad in festivals including the Norfolk Chamber Music Festival, the International Festival of Spectral Music in Istanbul, Turkey, the American Festival of Microtonal Music in New York, Sounds French Festival in New York, The Kilkenny Arts Festival, Ireland, and the International Festival of Electro-acoustic music, Shanghai. The group has worked closely with leading composers such

as Pierre Boulez, Tania Leon, Tristan Murail, Elliott Carter, Philippe Hurel, Gerard Pesson, Joshua Fineberg, and Philippe Leroux, and has collaborated with younger emerging composers internationally and at leading universities such as Columbia, Princeton, and SUNY/Stonybrook.

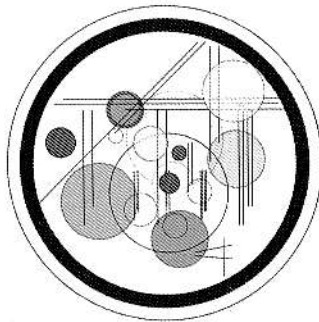
**Bethany Beardslee** is an American soprano noted for her collaborations with major 20th century composers, including Igor Stravinsky, Milton Babbitt, Pierre Boulez, George Perle, and Sir Peter Maxwell Davies as well as for her performances music by Arnold Schoenberg, Alban Berg, and Anton Webern. Her legacy amongst mid-century composers was as a "composer's singer." Milton Babbitt said of her: "She manages to learn music no one else in the world can." Ms. Beardslee was born in Lansing, Michigan, and trained first at Michigan State College, later doing post-graduate work at

the Juilliard School. She trained with Louise Zemlinsky (wife of Alexander Zemlinsky), and has received honorary doctorates from Princeton University (1978), the New School for Music (1984), and the New England Conservatory (1994).

The **Boston Symphony Chamber Players** were launched in 1964. They are a chamber ensemble composed of principal players from the Boston Symphony Orchestra. In addition to regular performances in Boston and Tanglewood, they have performed throughout the United States and Europe. They have also recorded for RCA Victor, DG, Philips, and Nonesuch.

Chicago-based, three-time Grammy Award-winning sextet **eighth blackbird** combines the finesse of a string quartet with the energy of a rock band and the audacity of a storefront theater company. The ensemble

performs more than 50 concerts each season at major venues across the United States, and has toured to the UK, Holland, Germany, Australia, Mexico and Canada. eighth blackbird holds Ensemble-in-Residence positions at the University of Richmond, the University of Chicago and the Curtis Institute of Music. The name "eighth blackbird" derives from the eighth stanza of Wallace Stevens's evocative aphoristic poem, *Thirteen Ways of Looking at a Blackbird* (1917).



Producers: David Starobin: *Spirals, Three Diatonic Studies, Imbrications*; Marc J. Aubort: *Wake*; Michael Schultze: *Fantasy Etudes*  
Engineers: Viggo Mangor: *Spirals, Three Diatonic Studies*; Adam Abeshouse: *Imbrications*; Joanna Nickrenz: *Wake*; Michael Schultze: *Fantasy Etudes*  
Editors: Viggo Mangor, Doron Schächter: *Spirals, Three Diatonic Studies*; Doron Schächter: *Imbrications*; Joanna Nickrenz: *Wake*; Michael Schultze: *Fantasy Etudes*  
Piano technician: Henrik Clement (*Three Diatonic Studies*)  
*Spirals and Three Diatonic Studies* recorded at Carl Nielsen Hall, Odense Koncerthus, Odense Denmark, May, 2012; *Imbrications* recorded at the Academy of Arts and Letters, New York City, NY, 2010; *Wake* recorded Symphony Hall, Boston, Massachusetts, January 31, 1970; *Fantasy Etudes* recorded: 1999  
Executive Producers: David and Becky Starobin  
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Photograph of Fred Lerdahl: Peter Schaaf

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