

# TOD MACHOVER

(b. 1953)

**1** **Bounce** (12:15)

(for Disklavier, Electronic Keyboard and Hyperinstrument Electronics)

*Robert Shannon, keyboards*

**Chansons d'Amour** (42:31)

(for Piano)

**2** I. Vita Nuova (16:07)

**3** II. Zwischen Himmel und Erde (26:24)

*Robert Shannon, piano*

Total time: 55:01

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## Notes by Anthony Brandt

This recording pairs two keyboard works by Tod Machover, written ten years apart. *Chansons d'Amour* for piano dates from 1982 when Machover was working in Paris, and *Bounce* for one player performing on two keyboards, was written in 1992 during the composer's current residence in Boston. *Bounce* offers a quirky playfulness, while the 42 minute, emotionally charged *Chansons d'Amour* is a score of conflict, contrast and turmoil. *Chansons d'Amour* was composed for pianist Alan Feinberg, who premiered the score's second movement in Paris in 1983. The complete work was first played at Harvard University in 1991 by Kathleen Supové. *Bounce*, scored for a Yamaha Disklavier Grand Piano and a Yamaha SY-99 electronic keyboard, plus a computer and several synthesizers, was composed in 1992 on a commission from the Keyboard Division of the Yamaha Corporation of America and was premiered in Chicago by Robert Shannon.

### **Bounce** *for Disklavier, Electronic Keyboard, and Hyperinstrument Electronics*

In *Bounce*, one pianist plays two keyboards, both of which are connected to a variety of synthesizers. *Bounce* makes extensive use of Machover's "hyper-instrument" work at MIT's Media Lab, where the composer strives to combine virtuosic performance with "sensitive" computers to extend the possibilities of traditional instruments, as well as to develop new modes of musical performance and interaction.

In *Bounce* these extensions and interactions are different in each of its six sections. At times the computer accompaniment shapes itself to the nuances of the live performance; at other times, embellishments and elaborations are generated "on the fly" by the computer in reaction to the pianist's playing; at yet other times the pianist uses the electronic keyboard to "shepherd" and shape a mass of rapid textural passages rippling across the entire range of the Disklavier. As the composition is developed and transformed in unexpected ways, so is the relationship between performer and instrument.

Though a sophisticated work technically, *Bounce* is at once musically direct and light-hearted. The piece is permeated with jaunty rhythms in constantly changing meters, always maintaining a sense of forward motion. Harmonically, *Bounce* is diverse, twisting between brief tonal efflorescences and more complex chord structures, the texture occasionally becoming saturated by dense clouds of sound.

### **Chansons d'Amour for piano**

*Chansons d'Amour* presents both the performer and listener with a work of epic proportions, the score filled to brimming with both pianistic and musical challenges. Part I of *Chansons d'Amour*, *Vita Nuova*, weaves together several strands of music, each with a different character. At first the music changes moods rapidly but gently, leading gradually to faster cuts and more unexpected interruptions, sustaining its chaotic discourse with a tidal force and fury. At the point of greatest tension, booming chords unify the diverse musical layers, coming eventually to rest on an emphatically repeated a-flat in the extreme high register, and b-flat in the extreme bass—the lower and upper neighbors of the a-natural which will become the harmonic “ground” of the second movement.

From its solitary opening note Part II, *Zwischen Himmel und Erde*, gradually blossoms in density, beginning at rest and gradually whirling, raga-like, into an ecstatic play of voices. *Zwischen Himmel und Erde* is a double set of variations based on a “spectral chord” over the piano’s low-A, and on a simple harmonized melody. This movement is as introspective as the first was extroverted, combining a constantly modulating surface with an Eastern sense of prolongation.

As the variations progress the music arrives at a state of great tranquility, the stillness preparing for a final section where all of the work’s materials are finally resolved.

As much as they outwardly differ, *Chansons d'Amour* and *Bounce* do have strong resemblances. Both pieces are made up of similarly spontaneous and flexible internal associations, with an absence of literal repetition, but with a sense of constant variation. Both contain fractal-like textures of exfoliating richness. In *Chansons d'Amour*, an acoustic piano is driven as close as it can get to electronic music; and in *Bounce*, that transformation is completed in a dance-like celebration.

### **Recording the Disklavier**

*Bounce* was composed specifically for the Yamaha Disklavier Grand Piano, and makes use of its features both for recording in MIDI form detailed information about all aspects of the pianist’s performance, as well as for sending MIDI data back from the computer in real-time to physically play its keys and pedals phantom-like. To make this recording of *Bounce*, Robert Shannon first recorded several takes of each section of the work on a Yamaha Disklavier Grand at the MIT Media Lab. Instead of editing these recordings acoustically the composer and performer edited the MIDI data. This complete MIDI piano recording was then played through the hyperinstrument system, which added all the extra keyboard and synthesizer parts. This multitrack MIDI file was later played back on a Yamaha DCIII Disklavier Concert Grand at the Mastersound Astoria recording session, so that the different layers of keyboards and synthesizers could be mixed carefully and accurately.

*Chansons d'Amour* used the same Yamaha DCIII Disklavier Concert Grand for the recording sessions at Mastersound, but in this case Robert Shannon performed live, with a normal acoustic recording being made. The only exception occurred in Part II, *Zwischen Himmel und Erde* for the climactic A-octaves (between 21:47 and 22:17 of track 3). In order to convey this very difficult passage accurately, Shannon chose to perform at a reduced tempo, using the Disklavier MIDI recording facility. The Disklavier was then played back at normal speed, recorded acoustically, and edited into the final performance.

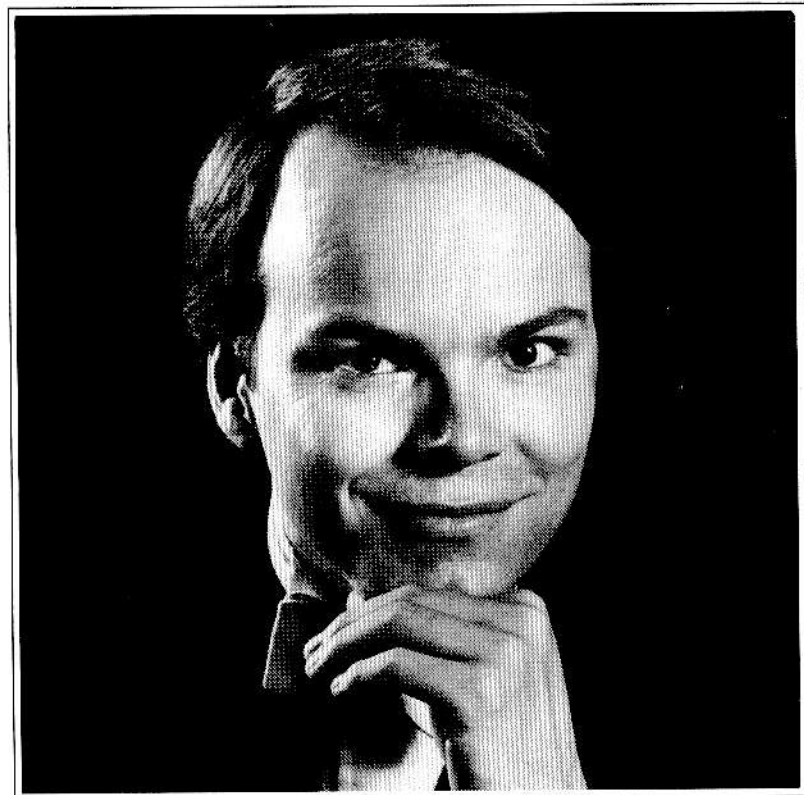
*Anthony Brandt is a composer living in Cambridge, Massachusetts*

**Tod Machover's** music has been widely performed throughout the world and has been awarded numerous prizes and honors from such organizations as the Koussevitzky Foundation, the Fromm Foundation of Harvard University, The American Institute of Arts and Letters, The National Endowment for the Arts, the Kennedy Center, and the French Culture Ministry. Machover's opera *Valis*, was named as 'Best Recording of the Year' by the New York Times, and his recording *Flora*, won the same award from the Boston Globe.

After studies at the Juilliard School with Elliott Carter and Roger Sessions, Machover spent 1978-85 in Paris, at Pierre Boulez's IRCAM, where he held the title 'Director of Musical Research'. Since 1985 he has worked at the MIT Media Laboratory, where he is Associate Professor of Music and Media, as well as Director of the Experimental Media Facility.

Tod Machover's recent compositions include a series of works for "hyper" string instruments: a solo work for cellist Yo-Yo Ma; a violin concerto for the St. Paul Chamber Orchestra, premiered by Ani Kavafian; and a viola concerto for Kim Kashkashian and the Los Angeles Philharmonic. Upcoming commissions include a mini-opera, *Medium/Media* for the magicians Penn & Teller, a "Hyper String Quartet" for the Kronos Quartet, and a new "interactive" piece designed for both live performance and for performance on computer networks, entitled *The Brain Opera*. Machover is currently completing a new orchestral work, commissioned by the Hallé Orchestra and conductor Kent Nagano.

**Robert Shannon** has performed and taught throughout the United States, Europe and Central America. He is particularly noted for his performances of twentieth century American works, including the sonatas of Ives and the solo piano works of George Crumb. A native of Minnesota, Mr. Shannon studied at the Oberlin College Conservatory of Music, where he is now Professor of Planoforte. His teachers have included Jack Radunsky at Oberlin, and Ania Dorfmann at Juilliard, and he works now with Dorothy Taubman. His widely acclaimed recording of the Ives violin sonatas, with violinist Gregory Fulkerson, is available on Bridge (BCD 9024); as is his recording of piano sonatas by Ives and John Harbison (BCD 9036).



Robert Shannon

Producer: David Starobin

Engineer: Paul Zinman

Software designer for *Bounce*: Fumi Matsumoto

Technical Assistance: Alex Rigopoulos

*Bounce* edited by David Starobin and Paul Zinman at SoundByte Productions, NY  
*Chansons d'Amour* edited by Michael Calvert, Miguel Kertsman & Allan Tucker at  
Foothill Digital, NY

Recorded at Mastersound Astoria on October 3rd & 5th, 1993

Mastered by Tod Machover, David Starobin and Paul Zinman at SoundByte

Disklavier technician: Michael M. Miccio

Mr. Machover's compositions are published by Editions Ricordi, Paris (BMI)

Cover art: P. Craig Russell

Cover colorization: Digital Chameleon

Both compositions were recorded on a Yamaha DCIII Disklavier concert grand

Photo of Tod Machover: Webb Chappell

Photo of Robert Shannon: Peter Schaaf

Design: Sir Speedy/Leslie Schechter

Bridge Records gratefully acknowledges the assistance of a grant from the Aaron  
Copland Fund for Music, Inc.

Special thanks to Joel Kabakov of Yamaha Corporation of America, and to the Yamaha  
Corporation for their generous support of HyperInstrument research at the MIT Media  
Lab.

These recordings by Tod Machover are also available from Bridge Records:

**Valis: Opera on a novel by Phillip K. Dick**

**BCD 9007**

**Flora: Four Compositions (1985-89)**

**BCD 9020**

**Spectres: Nature's Breath, Spectres**

**BCD 9002**

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