The Fourth International Symposium of Electronic Art

presents a performance event

in cooperation with The Minneapolis College of Art and Design

and

The University of Minnesota School of Music

Curated by Homer G. Lambrecht

a t The University of Minnesota School of Music Ted Mann Auditorium

November 6, 1993

8 p.m

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PROGRAM

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	<i>Night Visions</i> Celesta Haraszti, dancer Burton Beerman, clarinet and electronics	Electric Arts Duo
	Music for Clarinet and IMW John Anderson, clarinet Cort Lippe, signal processing	Cort Lippe
	*.*++ (star dot star plus plus) - World Premiere	Steve Kenny
	(Heather Barringer and Jay Johnson, percussion; Tom Robert Samarotto)	Linker, piano;
INTERMISSION		
	Concerto for MIDI'd Grand Piano - World Premiere Susan Flaskerud, piano Allegro Moderato Adagio Allegro Audacia	Stephen Solum
	Hok Pwah Marita Link, voice Heather Barringer, percussion	Zack Settel
	<i>inDELICATE Balance</i> Craig Harris, sampler & vocals Cloud to Clarity Somewhere between Room Talk Room Views	Craig Harris
	Shadows Sylvia Pengilly, dancer Michael Engel, dancer Meagan Mayer, dancer Solitaire: Revelations Dualities: Merging Triune: Kaleidoscope	Sylvia Pengilly

#### NOTES (in program order)

Night Visions by the Electric Arts Duo, integrates the media elements of electric clarinet, dancer and virtual reality video. Movements of the dancer control MIDI computer music and the projected video images and animations. The audiences see the dancer moving in front of a dark curtain and within a projected video system at the same time. Although the dancer moves freely in space, she is able to touch icons that appear in the video space. When she touches one of these icons in video space she is able to trigger either a video or musical event. Thus, the music is a combination of the electric clarinet and MIDI voice modules controlled by the dancer.

Music for Clarinet and IMW (IRCAM Musical Workstation) (1993), by Cort Lippe, is a work for clarinet and real-time digital signal processing computer. The computer tracks expressive musical parameters of the clarinet player, including amplitude, pitch, and articulation, and uses this information for continuous control of the digital signal processing. Thus, the performer has an intimate level of musical control over the electronic part. In addition, the musical and sound material for the instrumental and electronic parts are one and the same since all of the electronic sounds originate from the composed clarinet part which is recorded and transformed by the computer in real time during the piece.

Real-time signal analysis of instruments for the extraction of musical parameters gives composers useful information about what an instrumentalist is doing. High-level event detection combining the analyses of frequency, amplitude, and spectral domains can provide rich control signals that reflect subtle changes found in the input signal. This real-time audio signal analysis of acoustic instruments, for the extraction of continuous control signals that carry musically expressive information, can be used to drive signal processing and sound generating modules, and can ultimately provide an instrumentalist with a high degree of expressive control over an electronic score. In addition, compositional algorithms, which also control the signal processin, can themselves be controlled by every aspect of performer input.

The dynamic relationship between performer and musical material, as expressed in the musical interpretation, can become an important aspect of the man/machine interface for the composer and performer, as well as for the listener, in an environment where musical expression is used to control an electronic score, The richness of compositional information useful to the composer is obvious in this domain, but other important aspects exist: compositions can be fine-tuned to individual performing characteristics of different musicians, intimacy between performer and machine can become a factor, and performers can readily sense consequences of their performance and their musical interpretation.

*.*++ (star dot star plus plus) (Kenny) is a work for any number of composer and performers using a network of computers running NEXTSTEP and video projection. Tonight's performance will feature four performers and five NeXT Computers. The computers function to display real-time score material.

The score is represented by a large window within each computer's screen where two types of graphical notation wil be displayed and projected for audience view. The graphical notations are dynamically created and controlled by participants that are acting as composers, and are interpreted by participants that are acting as performers. Ideally, the musicians use acoustic instruments to musically render the dynamic graphical score.

Real-time animations are controlled and created at performance time by the composers. The animations can be used like a traditional conductor baton to give exact tempo and stylistic gestures, or they can invoke pre-set responses as an abstract free visual form of directing improvisation.

**Concerto for MIDI'd Grand Piano (Solum)** is a bridge between the traditional world of Western European concert music and the newer world of digital control and sound generation. Just as the modern piano design exploited mechanical technology in order to give a performer greatly enhanced conctrol and power over hammers striking strings, the MIDI Grand Piano exploits digital technology to extend that control much further, not only over tone colors, but over time, space, melodic direction and texture. Concerto is fully performed live; there are no recordings of computer sequences involved. The MIDI ensemble grow out of the piano over the three movements, the results of the pianist's finger movements becoming evermore complex and apparently independent, but remaining always physically caused by her. In this piece the computers are obedient, just as the piano hammers are. The composer and performer make and execute the musical decisions.

**Hok Pwah (Settel)** is a 20 minute piece intended for live performance. It is for two soloists (voice and percussion) with live electronics The two main ideas behind the piece are: 1) to extend the role of the duet, giving the two soloists an extremely large instrumental and timbral range nonetheless based on (oor controlled by) their instrumental technique, 2) to explore the possibilities of working with electronically (live) processed text.

Expanding the timbre range involves combining the instruments' acoustic sounds with similarly behaved electronic sounds, which tend to fuse with the former. The computer runs software which coordinates the following: 1) real-time audio signal analysis, 2) signal processing of the soloists, 3) "complementary"synthesis, which is meant to mix with the instruments' natura timbres, and 4)realtime sampling (recording and playback). Specialized interfaces incorporating envelope/pitch and spectrum followers are linked to audio signal processors, samplers and highly controllable sound generators, thus providing the players with direct control over the electronics based on their "natural" playing technique. In the case of the singer,k spoken and sung text or articulations such as trills, staccato, accents, slurs are analyzed and recognized by the computer. From this analysis, various control signals are drived, which control the synthesizers, samplers and and signal processors. Outside of their normal musical role, these articulations, sung by the soloist, makeup the interface, through which the singer may control the electronics. Thus the singer, throught what and how she sings, can have subtle (expressive) control of the electronics based on her instrumental technique. The electronics include sound generation and processing gear which is "patches' or programmed to be extremely sensitive to continuous control. These patches are built and tuned around the particular kinds of control signals coming from the players This approach compares in certain ways to instrument building, and is a vital part of the piece.

inDELICATE Balance (Harris) exists at the unseen, imaginary barrier, at once on all sides, and always inside and outside. The composition contains found sounds, live and manipulated piano sounds, and representations of sounds from the inner ear and internal world. This work offers a perspective on contemporary existence utilizing the sounds which surround us.

inDelicate Balance was realized using a combination of digital software processing and mixing techniques, and real-time sampling, processing, and mixing systems. Individual sounds exists as unique entities - as individual tones or as sound complexes - and are independently processed using room simulation software to produce distinct room environments and spatial movements. The resultant combination of sounds creates a quality of rooms within rooms, and environments which transform in shape and character. Sounds are used in and out of context; character and content are transformed; and environments mutate as relationships are developed at the micro and macrocosm. The composer performs the composition, employing an EIII sampler, a computer playing soundfiles, and live vocals.

**Shadows (Pengilly)** is a three movement work that operates at a number of different artistic levels. Its most immediate level describes the many different facets of our personalities: the solitary seeker of truth (Solitaire: Revelations), the Yin/Yang polarity (Dualities: Merging), and the glorious mixture that defines the richness of the individual personality (Triune: Kaleidoscope). At a deeper level it references Plato's Myth of the Cave, asking which is the true reality: the flesh and blood dancers or their digitized images.

Technically, the piece uses the Mandala software, written by Francis MacDougall, of Toronto, Canada, running on an Amiga 3000. The images of the dancers are introduced into the computer using a videocamera throught the Live! digitizer. Non-normative settings of the digitizer cause the dancers' images to act as stencils, thus their bodies become silhouettes, revealing cycling fraphics in the background. The piece is structured as a series of scenes, to each of which is assigned a specific musical sequence, thus the Amiga controls both the visual and musical aspects of the piece. The graphics, which will never be totally visible, were derived from many sources and were created in their final form using Deluxe Paint III.

#### **BIOGRAPHIES** (in alphabetical order)

John Anderson is Professor of Clarinet and Head of Woodwinds at the University of Minnesota. A native of Detroit, Michigan, he received his bachelor and master degrees in music from the University of Michigan, and his doctorate from Columbia University in New York. In addition to international recitals of the standard clarinet solo repertoire, Dr. Anderson has become on the the foremost proponents and performers of contemporary music, He has premiered works written specifically for him which involve solo use of the clarinet as well as works involving clarinet and electronic tape, synthesizer or other electronic sound manipoulation. In 1989, he die a four-week solo tour of China, Hong Kong, and Taiwan.

Heather Barringer is a member of the new music quartet, Zeitgeist, and a member of composer Mary Ellen Childs performing company, Swing Shift. In addition to these primary musical outlest she also freelances and teaches percussion. She is a graduate of the University of Wisconsin-River Falls and attended the Cincinnati Conservatory where she studied with Allen Otte, founding member of the Cincinnati Percussion Group.

**Burton Beerman**, a concert clarinetist of international reputation, has been hailed by audiences as one of the leading clarinetists of contemporary and avant-garde music whose vituosity and technical control of the instrument establish him as an extraordinary and compelling performer. As a composer he has straddled both worlds of acoustic and electronic music and is particularly known for the graceful integration of the two media. Performances have taken place in such diverse locales as Spolet Festival USA, ClariNet InterNational, Inc., Electronic Music Plus, the American Cultural Centre in Paris, the University of Japan, Town Hall in Brussels and Chopin Hall in Mexico City. A graduate of Florida State University and the University of Michigan, he studied composition with Leslie Bassett, Ross Lee Finney and Harold Schiffman and clarinet with William Stubbins. Founder of the acclaimed New Music Festival of Bowling Green State University, he is director of the university's Computer Music and Videographic Studios.

**Susan Flaskerud**, pianist, has appeared throughout the Midwest and West Coast in solo recitals and as a chamber musician. She recently compoleted a summer tour of concerts in the San Francisco Bay Area including recitals for Bay Concert Arts 192 season, and gave recitals in Napa, Petaluma, Santa Rosa, Scotts Valley, Yuba City, Sacramento, Los Gatos, and Spartks, Nevada. Her chamber music concerts have included performances with members of the San Francisco Opera Orchestra and Affiliate Artist, Robert Bonfiglio. The Flaskerud Piano Trio made its debut on the Manteca Kindred Arts 1990-1991 concert season in Manteca, California. This past April, she was featured in the Rockwall Chamber Music Series in Dallas, Texas.

She also is active as a performer and teacher in the Twin Cities. She has appeared in recital at the Minneapolis Institute of Arts, as Artist Performer for Thusday Musical, and on the Schuber Club's metro Artists Series. As a core member of The Foundry, a new music ensemble, she performs and frequently premieres new solo piano and chamber works.

She holds a doctorate in solo performance from Arizona State University, a Master of Music in pianoperformance/chamber music from Northwestern University, and an undergraduate performance degree from the University of Minnesota.

**Celesta Haraszti** is one of the leading soloists of the avant-garde Dance World. She has firmly established herself as an undaunted collaborator with many internationally known composers and directors of multi-media productions. She has a uniquely individual virtuosic style that combines the strength of an athlete with the grade of ballet and is noted for her dramatic ability to establish a perfect equilibrium between the rival magnetisms of music and dance. Featured in such festivals as Spoleto USA and Electronic Music Plus, she has studied with such noted dancers as Gus Solomons, Jr., Viola Farber, Alwin Nikolais, Murray Lewis and Bill Evans.

Craig Harris is a San Francisco based composer, performer, mutimedia artist, media arts consultant, and educator. His works include pieces for concert performance, musi theater and performance art, dance, video and art installation. They have been presented throughtout North America and in Europe, both live and on radio/television broadcasts, and are available on CD from Diffusion i Média and from Leonardo Music Journal. Harris is currently Executive Director of Leonardo, the International Society for the Arts, Sciences and Technology, where he is also Director of Electronic Publishing.

He holds Doctorate and a Masters degrees in music composition from Eastman School of Music and a Bachelor of Music from the University of Toronto.

Marita Link, mezzo-soprano, was a native of Indiana before coming to St. Paul in 1990 with her husband, Brian and son Ben. She is a founding member of the Waltham Abbey Singers, a 15-voice early music ensemble now in its thirde season. In the Twin Cities she has also appeared with Ex Machina, the Lyra Concert and the Early Music Ensemble of St. Paul, and is currently the alto section leader for the choir at Unity Church Unitarian in St. Paul. Ms. Link began her work in voice at Interlochen Arts Academy in Michigan. She spent a year at Westminster Choir College in New Jersey and holds a degree in voice performance from Indiana University where she studied with Paul Elliott and Thomas Binkley.

**Cort Lippe** (1953, USA) studied composition with Larry Austin. He spent a year in Florence, Italy, studying ancient music and three years in Utrecht, The Netherlands, at the Insituut voor Sonologie working with G.M. Koenig in the fields of computer and formalized music. Presently he lives in Paris, where he spent three years at the Centre d'Etudes de Mathematique et Automatique Musicales (CEMAMu), directed by Iannis Xenakis, while following Xenakis' course on formalized music at the University of Paris. For the past six years he has been employed at the Institut de Recherche et Coordination Acoustique/Musique (IRCAM), founded by Pierre Boulez, where he develops real-time musical applications and gives course on new technology in composition. He has followed composition and analysis seminars with various composers including: Boulez, Donatoni, K. Huber, Messiaen, Penderecki, Stockhausen, and Xenakis, and has written for all major ensemble formations. His works have received numerous international composition prizes and have been premiered at major festivals in North and South America, Europe, and the Far East. His music is recorded by ADDA, Apollon, CBS-Sony, CDCM, MIT Press, Harmonia Mundi, and Neuma Records.

**Zack Settel** was born in 1957 and raised in the New York area. He received a BFA in Music Composition at the California Institute of the Arts (CalArts), where he continued in the MFA program. As an undergraduate he studied composition withLeonard Stein and Morton Subotnick, and the as a graduate student, with Mel Powell.

For several years he has been involved in electro-acoustic music having pursued studies at MIT and elsewhere, in mathematics, computer science, digital signal processing and computer music. Since the fall of 1986 he has been living in Paris. He received a Fulbright grant to pursue Music Composition at the Institut de Recherche et Coordination Acoustique/Musique (IRCAM), headed by Pierre Boulez, where he continued composing the following year with a grant for Music Composition from the French Government.

In addition to composing, Zack works at IRCAM with the IRCAM Signal Processing Workstation (ISWP) Group, and does freelance computer music consulting for the Yamaha Corporation Japan, Vinko Globokar and Tempo Reale (in Italy with Luciano Berio).

His compositions include chamber works, filmscores and live electro-acoustic pieces (chamber works with live electronics). His main interests are mainly focused on the latter and his music is performed regularly in North America and in Europe.

Stephen Solum is a composer and teacher. After undergraduate work at St. Olaf College he continued a career in the commercial music industry, pioneering techniques for combining live performance with pre-recorded music tracks in the late 1970's. During this time, he became familiar with theories and techniques of acoustic and electrical design for audio, as well as continuing an interest in electro-acoustic music. He received an M.A. from New York University in 1987, with special work in syntheses and aesthetics, and is currently finishing his Ph.D. in composition at the University of Minnesota. He was awarded a Doctoral Teaching Fellowhip at New York University, as well as a Dissertation Fellowship at the University of Minnesota. He has also received several commissions and has had his works performed on the East Coast and the Midwest United States. He currently teaches sound technology in the Film and Video program at Minneapolis Community College.

Zeitgeist is a new music quartet whose express goal is the performance and of music by living composers. Zeitgeist offers over 180 compositions, half of which were written for the ensemble. Its repertoire includes music by established composers of our time as well as those just emerging, including Eric Stokes, Frederic Rzewski, Terry Riley, La Monte Young, Rand Steiger, Janika Vandervelde, Harold Budd, and more. The Quartet consists of Bob Samarotto, woodwinds, Jay Johnson and Heather Barringer, percussion, and Tom Linker, piano.

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