

The University of Washington
School of Music Computer Center
and
Center for Advanced Research Technology in the
Arts and Humanities

presents

E44
1995
5-2

**A CONCERT OF
NEW COMPUTER MUSIC**

Richard Karpen, *Director*

works by

Elizabeth Hoffman

Jonathan Harvey

Richard Karpen

Diane Gromala

Russell Pinkston

Ron Averill

**8:00 PM
May 2, 1995
Meany Theater**



School
of
Music
University
of
Washington

DATE #12, 584
CASS #12, 585

PROGRAM

ID2 Tesseract for computer-realized sound (9') Elizabeth Hoffman

ID3 Tombeau de Messiaen for piano and digital audio tape (9') Jonathan Harvey
Irene Bowling, *piano*

ID4 Life Study II (17') Richard Karpen
for oboe and computer-realized sound
I. *Slow Elliptic*
II. *Markings*
Alex Klein, *oboe*

INTERMISSION

CASS A
B

ID6 Dancing with the Virtual Dervish: Virtual Bodies (20') Diane Gromala, *Video*
for video and computer-realized sound (NOT ON CASS) Russell Pinkston, *Music*

ID7 this is the sound of my dreams: (20') Ron Averill
for flute, cello, percussion and computer-realized sound
Nancy Miles, *flute*
Loren Dempster, *Violoncello*
Mark Wilbert, *percussion*

ID8 Mortuos Plango, Vivos Voco (9') Jonathan Harvey

Tesseract (1994) computer-generated sounds on tape
This single-movement work emerged from numerous mosaic-like bits, tesseractae, each the result of experimentation with particular digital signal processing techniques, and all in the end belonging to a family of related sounds. The techniques used to create most of the related sounds, however, were widely divergent. They include frequency modulation, additive synthesis, filtering, and linear predictive analysis techniques. Many of the elements heard in this piece are reminiscent of natural sounds because these tape sounds were generated or shaped to some extent by linear predictive analysis. *Tesseractae* was written in the School of Music Computer Center using the Lisp and Csound languages.

Life Study II (1995)

Over the years I have composed a number of works for live performers (flute, violin, viola, soprano, saxophone, clarinet, percussion), and computer sounds. *Life Study II*, for oboe is the latest work in this genre. It is the second work to which I've given the title *Life Study* and as in the other work, the first movement of the current piece avoids instrumental virtuosity and high drama in favor of a more austere sensibility. However, a rather strange mixture of drums, drones and organs accompany an oboe part which draws from the Baroque in a more virtuosic and even a bit melodramatic second movement. All of the computer-realized sounds were derived from just two very short sound samples; an oboe sounding a middle-c, and one strike on a tom-tom. A wide variety of signal processing techniques were applied to these two samples using software I have been developing during the past decade. The listener might be interested to know that all of the musical materials, including the oboe part and the drumming patterns of the computer part were derived from computer programs I created using the Lisp programming language. *Life Study II* was composed for and is dedicated to oboist Alex Klein.

Richard Karpen is Director of both the School of Music Computer Center and the Center for Advanced Research Technology in the Arts and Humanities at the University of Washington. A professor in the School of Music, he teaches composition, computer music and music theory. Karpen's works are widely performed in the U.S. and internationally. He has been the recipient of many awards, grants and prizes including those from the NEA, the ASCAP Foundation, the Bourges Contest, Newcomp, and the Luigi Russolo Contest. Fellowships and grants for work outside of the U.S. include a Fulbright to Padua, Italy, Stanford University's *Prix de Paris* to work at IRCAM, and a Leverhulme Visiting Fellowship to the United Kingdom. He received his doctorate in composition from Stanford University, where he also worked at the Center for Computer Research in Music and Acoustics. In addition to Karpen's work in electronic media, for which he is best known, he has composed symphonic and chamber works for a wide variety of ensembles. His compositions have been recorded on CD by Le Chant du Monde/Cultures Electroniques, Wergo, Centaur, and Neuma. Most recently he has collaborated with the Royal Danish Ballet, he has been commissioned by Swedish National Radio, and he has been a featured composer in performances by WienerMusikForum in Austria.

Dancing with the Virtual Dervish: Virtual Bodies (1994)

This video is a fly-through of a work in virtual environments by artist Diane Gromala, choreographer Yacov Sharir, and composer Russell Pinkston. *Dancing with the Virtual Dervish: Virtual Bodies* was commissioned by the Canadian government through a two year residency at the Banff Centre for the Arts. Several differing iterations have been performed at the Fourth International Cyberspace Conference, the Symposium on Art and Virtual Environments, and the Fifth Biennial Conference on Art and Technology. A fully interactive Seattle venue is planned for late fall of next year.

Dancing with the Virtual Dervish: Virtual Bodies is comprised of several parts, which explore the notion of book, body, and architecture. The primary component is a three-dimensional, immersive environment, a torso, of enormous scale. Navigating through this body, which was in part comprised of MRI studies of Gromala's body, the participant can fly at will, or enter an organ to travel to more geometrically complex, otherworldly spaces. In a performance venue, the dancer on-stage wears a head-mounted display, which blinds him to all but the simulated virtual body. What he sees is simultaneously projected on a large video screen

Elizabeth Hoffman, a composer of acoustic and electronic music, is a doctoral candidate in composition at the University of Washington where she has studied with Diane Thome and Richard Karpen. She holds a master's degree in composition from SUNY Stony Brook where she studied with Bulent Arel and a BA from Swarthmore College. Recent compositions have been performed at SUNY Stony Brook, at Yale University by Sigurd Rascher and The Saxophone Orchestra, at the Seattle Art Museum by The Esoterics a cappella vocal ensemble, and at the Washington Center for the Performing Arts by the Olympia Chamber Orchestra. Commissions include a grant from the Seattle Arts Commission for the creation and production of a chamber opera to be premiered in June 1995. Hoffman is a recipient of a 1994 Bourges International Electroacoustic Competition Residence award and an honorary mention in the 1994 Prix Ars Electronica. She is currently a graduate research assistant at the Center for Advanced Research Technology in the Arts and Humanities at the University of Washington.

Tombeau de Messiaen (1994)

This work is a modest offering in response to the death of a great musical and spiritual presence. Messiaen was a protospectralist, that is to say, he was fascinated by the colours of the harmonic series and its distortions, and found therein a prismatic play of light. The tape part of my work is composed of piano sounds entirely tuned to harmonic series - twelve of them, one for each class of pitch. The "tempered" live piano joins and distorts these series, never entirely belonging, never entirely separate.

Tombeau de Messiaen was written for Philip Mead (who commissioned it with funds provided in part by Eastern Arts) and dedicated to him and to Jake Harvey Tavener who was born ten hours before Tombeau was finished.

Born in Sutton Coldfield, Warwickshire in 1939, Jonathan Harvey was a chorister at St. Michael's College, Tenbury (1948-52), a pupil at Repton (1952-57) and then a major music scholar at St. John's College, Cambridge. He gained doctorates from the universities of Glasgow and Cambridge. Whilst a Harkness Fellow at Princeton (1969-70) he was brought into contact, albeit briefly, with Milton Babbitt whose influence was one of great significance to Harvey's later development. An invitation from Pierre Boulez to work at IRCAM in the early 1980's has resulted in four commissions from the Institute to date, including the widely praised tape piece *Mortuos Plango Vivos Voco*, *Bhakti* for instrumental ensemble and tape, *Ritual Melodies* for computer-manipulated sounds, and *Advaya* for cello and live and pre-recorded sounds. Harvey has also composed for most other genres: large orchestra (*Madonna of Winter and Spring*, *Cello Concerto*, *Lightness and Weight*, and *Timepieces*), chamber (two *String Quartets*, *Song Offerings*, *Tendrils*, and *Lotuses*) as well as works for solo instruments. He has produced a large and varied output of choral works, many suited to church performance: the biggest being *Passion and Resurrection* (1981) which was the subject of a BBC television film, and has subsequently been toured on the Contemporary Music Network under Martin Neary in March 1993.

Now in his mid fifties, Harvey attracts commissions from a host of international organizations. He is regularly performed at all the major international contemporary music festivals, and has a reputation as one of the most skilled and imaginative composers working in electronic music. He has honorary doctorates from the universities of Southampton and Bristol, is a Member of *Academia Europaea*, and in 1993 was awarded the prestigious Britten Award for composition.

behind him. At the same time, a video camera sends his on-stage image into the simulation, so that he is also dancing with himself. Thus, his body appears and interacts both on-stage and in the simulation.

Diane Gromala is Director of the New Media Research Lab at the University of Washington, where she teaches courses in new media. Professor Gromala publishes and lectures on the interrelationships of technology, culture, and design and is the recipient of numerous scholarly awards and grants, including a Fulbright Fellowship. Her interface design and creative artwork have been widely exhibited and recognized by international art and technology communities. Professor Gromala has worked as a designer and art director in the corporate realm, most recently at Apple Computer, Inc. She received her graduate degree from Yale University and undergraduate degree from the University of Michigan. Recently, Professor Gromala was selected as a speaker and discussant for the National Endowment for the Arts conference, *Art 21: Art Reaches into the 21st Century*.

Russell Pinkston is an Associate Professor at The University of Texas at Austin, where he teaches instrumental composition, electronic and computer music, and directs the Electronic Music Center. He received degrees in music composition from Dartmouth College (BA 1975) and Columbia University (MA 1978, DMA 1984), studying with Jon Appleton, Bulent Arel, Jack Beeson, Mario Davidovsky and Charles Dodge. He has written music in a wide variety of different media, ranging from concert works and sacred anthems to computer generated tape pieces and live electronic music for dance. His compositions have been played throughout Europe, South America and the United States, including performances by such noted ensembles as the Smith Quartet, the Honolulu Symphony Orchestra, and the Danish Royal Ballet Company. Recent awards include the Charles Ives Fellowship from the American Academy and Institute of Arts and Letters and a senior Fulbright Fellowship in Composition and Computer Music to Brazil. Dr. Pinkston is also active as an author, consultant, and software developer in the field of computer music, for which he has received support from Apple, IBM, Motorola, Texas Instruments, and Yamaha International Corporations. His music is recorded on Boston Skyline, Centaur, Finnadar, Folkways, and Summit Records and published by Galaxy Music, E. C. Schirmer, and Columbia University Press. He is a founding member and former Vice President of SEAMUS (Society for Electro-Acoustic Music in the United States), which he continues to serve as Director of Archives.

this is the sound of my dreams: (1994)

While living in Barcelona last summer I derived inspiration from visual arts, particularly the works of Dali, Picasso and Miro. I was reminded of Miro's greatness each day as I went to compose in the Phonos studio at the Joan Miro Museum. Additionally, I lived in the house of a local painter and had many art books to peruse for further inspiration. I was reminded of the important place surreal painting held in my life 10 years ago and of my unsatisfactory attempts to communicate something of the spirit of surrealism in the music which I composed at that time.

The title of my piece, *this is the sound of my dreams*, was inspired by a work in the Miro Museum, *ceci est le couleur de mis rêves* (this is the color of my dreams), and is both an homage to Miro and a reference to the foundation of surrealism, dreams. However, the music in the piece is in no way inspired by nor programatically related to this particular painting.

In *this is the sound of my dreams*: the listener is repeatedly given a musical reference point (for example, a steady rhythmic pulse), only to have it taken away by what I came to think of as dream music, music characterized by a lack of pur-

pose or direction. As the piece progresses, the dream music gradually begins to overpower the rest of the music, leaving the listener adrift without any points of reference. The computer part is entirely derived from recordings of acoustic instruments which have been manipulated in various ways. Many of these manipulations were carried out using the SMS program written by Xavier Serra of the Phonos Foundation. This software enabled me to change the pitch and duration of recorded sounds, and more importantly allowed me to blend the timbres of acoustic instruments in ways that could not have been achieved otherwise.

Ron Averill is currently completing his DMA in composition at the University of Washington where he is the Graduate Assistant in the School of Music Computer Center (SMCC). His recent accomplishments include receiving an Honorable Mention in the 1994 Prix Ars Electronica for *gdod kreasl baru*; receiving a Mention in the Grands Prix Internationaux Bourges/94 for *painting legs on the snake*; the completion of a 1994 Fellowship from the Phonos Foundation in Barcelona for the composition of *this is the sound of my dreams*; a work for computer-realized sounds and chamber ensemble; receiving an Honorable Mention in the 1992 National Association of Composers, USA Composers' Contest for his *GDOD* for four trombones and piano; and a performance of *carlos: glazed with rainwater* for computer-realized sounds at the 1992 Seattle Spring Festival. Averill completed his Masters in composition at Western Washington University studying with Edwin LaBounty and currently studies composition with Richard Karpen.

Mortuoso Plango, Vivos Voco (1980)

From 1975 to 1980 my son Dominic was a chorister in the choir of Winchester Cathedral, England. I wrote much music for the choir and often listened to it rehearsing in the vast building, sometimes whilst the bells were pealing high above. The resonances of those years found their way into this my first IRCAM commission.

I recorded my son's voice singing the text inscribed on the great tenor bell: *Horas avolantes numero mortuos plango vivos ad preces voco.*

I then recorded the bell itself. These sources were analysed and resynthesized using CHANT and MUSIC V. Both the live sources and the artificial imitations were manipulated by the computer, often simultaneously. The in harmonic spectrum of the bell forms the harmony of the piece, on which everything is based. Modulations (and modulations within modulations) are effected by glissandoing from part of the spectrum of one bell to another (higher or lower) part of the spectrum of another bell. Each of the eight sections is based on a new 'tonic bell' (the tones are eight lowest partials of the tenor bell); each of these sections has a duration proportional to the tonic-bell's frequency.

In general, the bells' partials are distributed statically in space giving the listener the feeling of being inside the bell, whereas the boy flies like a free spirit around the concert hall space.

[Jonathan Harvey]