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

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presents

A Concert of New Computer Music

Richard Karpen, *director*

April 27, 1998 8:00 PM Meany Theater

School of Music University of Washington

PROGRAM

AT
ID

1 PATER NOSTER'S TRICYCLIC COMPANION (1998) 7:46
for flute and computer-realized sound..... Bret Battey
Sarah Bassingthwaighte, *flute*

2 TWO PIECES for Disklavier (1995-1996).....Heinrich Taube 14:50
1. Zugie-Woogie
2. Amazing Grace

3 STILL, YET, AGAIN (1997) 8:30
for computer-realized sound.....Linda Antas

4 ON THE PRESENCE OF WATER (1997) 8:30
for video and computer music..... Bret Battey

INTERMISSION cass. A B

5 BRIGHT AIR/BRILLIANT FIRE (1997) 11:00
for flute and computer-realized sound.....Diane Thome
Pamela Butler Ryker, *flute*

6 NO MAN'S LAND (1992/1998) 18:15
for Disklavier and computer-realized sound.....Richard Karpen

7 LIZARD POINT for video and computer music (1997) 19:20
Music by Ludger Brümmer
Video by Silke Brämer and Ludger Brümmer

I completed *PATER NOSTER'S TRICYCLIC COMPANION* in 1998 in response to a commission from Sarah Bassingthwaighte. Perhaps it was Sarah's energetic personality—or her clear enjoyment of and command over fast passage work—that inspired me to write what is one of the most overtly "entertaining" pieces I have written.

While understandable at face value as a dynamic, virtuosic display piece for the soloist, the work is also one the most formalistic pieces I have written; many of they rhythms and pitches are derived from systematic usage of a small set of numbers: (3 4 4 5). In some sections, for example, you may be able to hear that what seems like standard 4/4 measures are actually broken up into continually shifting groupings of three, four, four, and five sixteenths.

I initially scored the pre-recorded part using Finale notation software and then utilized a software sequencer to create an orchestration of computer-controlled grand piano and a variety of MIDI synthesizers. I also utilized Common Music and Csound to provide microtonal colorations and other particular sounds for the orchestration.

As far as I am aware, the title, which simply came to mind one day while I was working on the piece, does not have any particular meaning. Its ambiguity—its sense of being strangely just-short of the distantly familiar—matches what I consider to be an essential character of the piece. *[Notes by Bret Battey]*

Bret Battey's electronic, acoustic, and multimedia concert works and installations have been presented in diverse venues across the United States and in Europe, including the Bourges, France "SynthÈse" Festival, the Hungarian Radio Summer Electroacoustic Music Festival, the Korean Society for Electroacoustic Music Festival, MTV Europe, and the Microsoft Advanced Technology Group. He is currently a DMA student in music composition at the University of Washington, where he also completed his Masters work. He received a Bachelor of Music in Electronic and Computer Music from Oberlin Conservatory and has worked in Manhattan at the Philip Glass production studio and Studio PASS, a non-profit studio for sound artists. Teachers in music composition and technology include Conrad Cummings, Richard Karpen, Gary Nelson, and Diane Thome. http://weber.u.washington.edu/~bbattey/

TWO PIECES FOR DISKLAVIER

Zugie-Woogie takes as its theme a weekly train trip I made between Karlruhe and Essen while I was a visiting lecturer at the electronic music studio at the Hochschule fur Musik in 1995. (Zug is the German word for train and Zugie rhymes with boogie.) My journey began at 6:02 am and took four hours each direction. The first leg from Karlsruhe to Mainz was a frantic affair, filled with the jerky bustle of commuters and caffeinated chatter. But at Mainz the train emptied out and the journey took on a completely different rhythm. Starting just north of the city the tracks hug the Rhine all the way to Bonn and provide for one of the most beautiful vistas in all of Germany. For about an hour and a half the train swooped around sharp river bends, each new turn revealed a different castle, ancient village and vine-covered hillside. The steep valley walls also magnified and focused the ambient sounds from crossing signals, car horns and passing trains so that the entire experience had a vibrant intensity to it. I switched trains in Köln and then headed eastward on another commuter run across the busy Ruhrgebiet into Essen. Despite the demands of a long day (eight hours journey and five hours teaching) this trip became one of the most memorable experiences of my years in Europe. What I enjoyed most about the journey was its fanciful mixture of irregular regularity, the simultaneous unfolding of the expected with the surprising; the sounds of chattering people, banging doors, warning signals, horns, passing trains, and beneath it all the persistence of the wheels.

Amazing Grace is an algorithmic fantasy based on the American folk song of the same name. The fantasy involves a process of becoming, in which certain melodic and rhythmic contours in the folk song serve as gravitational centers for the composition to coalesce around, like a dust cloud spiraling inward to form a star. Amazing Grace begins in a mode and texture very distant from the folk melody. As the composition unfolds the original tune gradually exerts more and more influence over the music. Short melodic motives and rhythmic figures first appear and are followed by progressively longer gestures and melodic contours. The process continues until the point of maximum influence, at which time the fantasy has congealed into homorhythmic texture whose melodic content is completely determined by the folk song. Amazing Grace was commissioned for the opening ceremony of the Multimedial III Festival in Karlsruhe Germany, where it received its world premiere in 1995. *[Notes by Heinrich Taube]*

Heinrich Taube is an assistant professor of music composition and director of CAMIL at the University of Illinois. He received his B.A and M.A. in music composition from Stanford University where he studied with John Chowning. He received his Ph.D. in music composition from The University of Iowa where he studied under D. Martin Jenni and William Hibbard. Active as a composer, researcher and music software designer, Taube has held senior positions in both business and academia. Prior to his current position, Taube was head of software design at the Institut fur Musik und Akustik, Zentrum für Kunst und Medientechnologie in Karlsruhe. While at ZKM he developed Common Music, a software environment for music composition in use at many electronic music centers and universities around the world. In 1996 Common Music won 1st Prize at the 1er Concours International de Logiciels Musicaux in Bourges, France. Taube has been active in electro-acoustic composition since his undergraduate studies at Stanford. In 1987 he was awarded a Rockefeller grant for composition at CCRMA. His string quartet and tape piece *Wilderness of Mirrors* won first prize at the Santa Cruz string quartet competition and his tape piece *Tremens* won honorable mention at Bourge. His algorithmic composition *Gloriette for John Cage* has been released on several CDs. He has published numerous articles on issues related to music composition and technology, and was appointed Associate Editor of the New Music Research journal in 1993.

STILL, YET, AGAIN was realized at the University of Washington's School of Music Computer Center. The sounds in the piece were created with Csound on a Silicon Graphics computer. The synthetic sounds in the piece use filtered noise or configurations of noise generators and simple oscillators. The sampled sounds include struck PVC pipe, piano, propeller-driven bomber airplane, cymbal, canon fire, and a short orchestral chord. These samples were processed using techniques including phase vocoding, linear predictive coding, filtering, and sndwarp time-stretching program. Score files were generated using the Common Music language and the final mix was done with rt. *[Notes by Linda Antas]*

Linda Antas received her Bachelor of Music (1994) and Master of Music (1996) degrees in composition from the University of Illinois at Urbana-Champaign. Her primary composition teachers there were Salvatore Martirano and Morgan Powell. During her graduate work at the University of Illinois, Linda was a teaching assistant, course instructor, a lab assistant in CAMIL (Computer-Assisted Music Instruction Lab) and studied electronic music with James Beauchamp, Sever Tipei and Scott Wyatt. Antas is currently a Graduate Staff Assistant at CARTAH (Center for Advanced Research Technology in the Arts and Humanities) at the University of Washington where she is pursuing a DMA. She has studied composition with Richard Karpen and Diane Thome. Her works have recently been selected for performance at the Sante Fe International Festival of Electro-Acoustic Music and the International Computer Music Conference. Linda's performance interests include conducting and playing the flute and she is currently Vice President of the Seattle Flute Society.

ON THE PRESENCE OF WATER is a sound and image meditation on water as a psychological and spiritual archetype. It was not my intent with this work to explore the sound and image of water as such. Indeed, no sounds and only a portion of the images in the piece originate with water. Rather, I used the contemplation of water-as-symbol as a lens to focus a disparate array of sounds, images, ideas, and experiences into a creative work. For the most part, the sound and images were created in parallel, with ideas and insights from each medium impacting my work in the other.

The audio composition was developed at the School of Music Computer Center (SMCC) of the University of Washington. Common Music and Csound, enhanced with extensions by Professor Richard Karpen, were my primary tools. I created the video at the University of Washington's Center for Advanced Researched Technologies in the Arts and Humanities (CARTAH), using Adobe Premiere to manipulate both video and still images. Special thanks to Andrew Hendry and Katie Sauter of the University of Washington Fisheries Department for their contribution of images to this project. (Bret Battey's biographical note is below the program notes for the first piece of the concert.)

At times my initial compositional impulse is connected with poetic metaphors. Such is the case with *BRIGHT AIR/BRILLIANT FIRE*, which was suggested by a quotation from the 6th century Greek physician poet, and philosopher, Empedocles: "For by earth we see earth, by water; by air bright air, and by fire brilliant fire." Exactly how these poetic images evoke sonic gestures is, of course, part of the mystery and exhilaration of the creative process. In any case, I believe it is always the listener's choice how far to carry a visually or programmatically suggestive title.

The flute and tape parts are shaped as complementary and contrasting partners in a continuously unfolding sonic structure that moves through time in three overlapping sections. The electronic music opens the piece very slowly in an ethereal airy, deliberate manner with the flute responding to its mysterious ambiance in a series of separate phrases that often take their point of departure from the melodic motifs in the tape.

The electronic music of the second section is articulated through a long succession of slowly changing harmonics which evolve out of a new timbral complex. The flute provides a constant line of reiterated and ebullient patterns which bubble irrepressibly on the surface of the much more slowly changing tape music until a clear and climactic fusion of the two is reached with high trills in both. This climax dissolves into a descending glissando in the tape, signaling the start of the third and final section of the piece. In contrast to the previous two, the tape portion of this section presents layers of multiple acoustic sounds electronically processed and integrated with the live flute in a conflagration of sound. The third section is the only one to utilize alto flute.

The electronic portion of *BRIGHT AIR/BRILLIANT FIRE* was constructed utilizing the following: KYMA software running on the Capybara-66 DSP System; SoundHack and Deck II.5 on a Power Macintosh computer; and a Kurzweil 2000 keyboard. Robert Austin was my collaborator in the production of the tape.

BRIGHT AIR/BRILLIANT FIRE was commissioned in 1996 by Sigma Alpha Iota, International Music Fraternity.

Diane Thome is a composer of a wide variety of works which span solo, chamber, choral, orchestral, and electronic media. She is the first woman to write computer-synthesized music. Her compositions have been presented in Europe, china, Australia, Israel, Canada and throughout the United States. She has been the guest of the Ecole Nationale Claude Debussy and featured on French Radio, composer-in-residence at the University of Sussex and the Bennington Chamber Music Conference and composers Forum of the East, and an invited composer at International Computer Music Festivals and many others. Her collaborative works include "Night Passage," an environmental theater piece presented in the pavilion of the Moore College of the Arts in Philadelphia and "Angels" for virtual reality artwork shown at the Biennale des Arts Electronique in Paris. Her music has been recorded on the CRI, Crystal Records, Opus One, Capstone, and Centaur labels, including "Palaces of Memory," an 18-year retrospective of her electro-acoustic music on the Centaur label. Recent performances of "Palaces of Memory" for chamber orchestra and tape have been given by the Memphis Symphony at the Society of Composers National Conference and by the Charleston Symphony Orchestra at the Piccolo Spoleto Festival. Dr. Thome has been a University of Washington faculty member since 1977 where she is Professor and Chair of the Composition Division of the School of Music.

NO MAN'S LAND is an uninhabited place often of potential treachery and violence, but as long as it remains uninhabited, it is a still and silent place. In *NO-MAN'S-LAND* one would expect to come face-to-face with certain harsh realities, but one senses too that other more positive "truths" are to be found there as well. In the Harold Pinter play of that title, the dialogue among the characters may seem disconnected or perhaps obscure, while at the same time one senses a menacing aspect to the conversation, a suppressed explosive, violent potential. The "Zone" in Tarkovsky's "Stalker" comes to mind and one senses this phenomenon also in isolated natural settings of rugged terrain. In this work of mine, the explosive potential is not subdued, the place in not uninhabited. The computer-realized part is the place where the piano part exists as the realization of that explosive potential. Although sometimes obscured by the volume of the piano, the sounds of the computer part are always there as terra firma, and can be heard during the windows of stillness in the piano part.

NO MAN'S LAND is a 're-setting' of "The Silence of Time," a piece I composed several years ago for percussion ensemble and computer-realized sounds. The

computer-realized part is the same for both works, but in *No Man's Land* the Disklavier has taken on the role of the "live, acoustic" part. The percussion ensemble was made up entirely of "un-pitched" instruments, primarily drums of various types and sizes. While preserving much of the rhythmic material of the older piece the current work has a quite different identity due to the addition of pitch and the harmonic-series-based sound color of the piano. The Disklavier part was realized using the Lisp-based Common Music language, Rick Taube's remarkable programming environment for composition. The computer-realized sounds were created using my own signal processing applications which have been built into the Csound synthesis language. Among the techniques in this work my, sndwarp time-stretching application was used extensively to transform a recording of a well known twentieth-century orchestral work by stretching short sections of music over long periods of time while simultaneously applying time-independent pitch shifting.

[Notes by Richard Karpen]

Richard Karpen is Professor of Music at the University of Washington in Seattle where he has been teaching composition and computer music since 1989. At the UW he is also Director of both the Center for Advanced Research Technology in the Arts and Humanities (CARTAH), and the School of Music Computer Center (SMCC). 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 extended residencies 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 (CCRMA). He is a native of New York where he studied composition with Charles Dodge, Gheorghe Costinescu, and Morton Subotnick. In addition to Karpen's work in electronic media, for which he is primarily known, he has composed symphonic and chamber works for a wide variety of ensembles. Karpen is also known for his work as a developer of signal-processing applications for music (primarily as extensions to the MIT-based Csound synthesis language) which are often used by other composers internationally. His compositions have been recorded on CD by Le Chant du Monde/Cultures Electroniques, Wergo, Centaur, Neuma, and DIFFUSION i MeDIA.

Lizard Point

The software "Genesis" was used for the sound synthesis as well as for the computer animation for *Lizard Point*. Genesis was developed at the Institute of Applied Mathematics (ACREO/IMAG, Grenoble) by Claude Cadoz, Annie Luciani and Jean-Loup Florens. The software is based on Newton's laws and simulates physical movement processes (physical modeling). The special feature of this software lies in the fact, that not only sound is generated with physical models, but also a visualization of the evolving energy-flow is created. The physics of vibrating structures (such as plucked strings) can be represented by mathematical equations. The vibrating process of these models can be manipulated and made audible and visible. To achieve this, certain "particles" of the vibration can be selected and placed in a virtual "patch." Each particle is integrated into the vibrating system through a link. The connection between the particles can be defined by Newton's laws, applying the reciprocal physical characteristics of inertia and viscosity. The combination of particles and links defined in the patch creates the specific flow of energy.

The primary sounds produced with these techniques for *Lizard Point* can be heard as strings, vibrating metal surfaces and sticks. The sound of metal is created by a rigid link between the particles in combination with a low damping factor. The composition plays with contrasting light and dark sounds. Accents initiate significant spectral modifications: surfaces of dark or light sound characteristics are combined with strong dynamic variations. Parallel repetitions in different tempi accompany the descending dynamics of extreme accents.

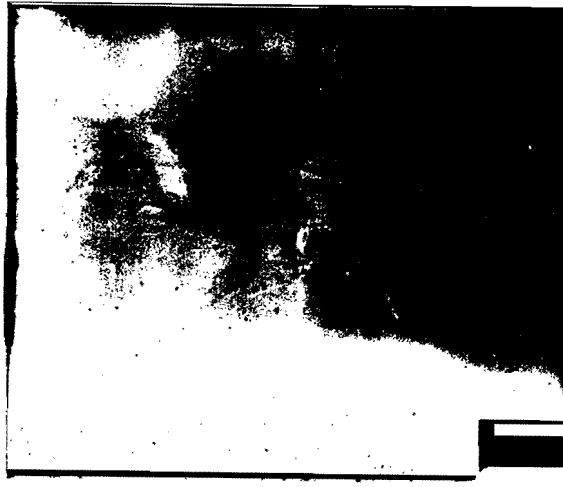
The animated physical model exhibits exceptional movement qualities, which can be associated to natural movement phenomena. The juxtaposition of computer-generated and natural movement (i.e. videotaped human bodies), creates a tension between, as well as a harmonious blending of, the two elements. The expressive character of moving human bodies stimulates an emotional interpretation of both pictorial and audio elements. Moments of unison, of similarity and mutual reinforcement change to phases of juxtaposition and tension. Based on the distinctly different types of pictorial elements and their dynamic relationship in interaction with the sound, an unusual synaesthetic perceptual space is generated.

Lizard Point was commissioned by the International Computer Music Association (ICMA).

Ludger Brümmer was born in 1958 in Werne, NRW, Germany. He studied composition with Nicolaus Huber and Dirk Reith at the Folkwang Hochschule, Essen, Germany. Collaboration with the choreographer Susanne Linke for "Ruhort," which toured in the US, Asia, and Europe. Research studies at the Center for Computer Research in Music and Acoustics at Stanford University. Lecturer in composition and analysis at the Folkwang Hochschule in Essen, at the electronic music studio of the Technishe Hochschule Berlin and the Institute Archimedia of the Kunsthochschule, Linz. Awards: Folkwang Award, WDR Award, Busoni Award of the Academy of Fine Arts, Berlin, Luigi Russolo, Golden Nica in the Prix Ars Electronica, Linz, Grand Prix des Concours, Bourges. Currently working with physical modeling and audio.

Silke Brämer was born in 1956 in Wilhelmshaven, Germany. Munich International School. 1975-77 studies of Fine Arts, University of Massachusetts Boston, USA. BA. 1979-84 study of Eurhythmics at Longy School of Music, Cambridge Massachusetts, USA and the Hochschule for Music, Westfalen Lippe, Detmold, Germany. MA in Detmold, Germany. 1985-92 Study of Visual Communications at the University of Essen, Germany. MA in Audiovisual media. Since 1988 freelance work as a media artist and filmmaker for corporations, TV and other media institutions such as Interartes productions, Essen Germany. Currently teaching at the University of Essen and working as research assistant to Professor Nadin, University of Essen, Department Computational Design, on the visualization of abstract contents with digital audiovisual media.

Sarah Bassingthwaighte is a professional flutist, composer, and teacher in Seattle and recently has been featured as a soloist on KING-FM and National Public Radio's "Performance Today". She has received degrees from Indiana University in Bloomington and Central Washington University, and has studied with Carol Wincenc, Julius Baker, Hal Ott, James Pellerite, Peter Lloyd, Bonnie Blanchard, and presently studies with Felix Skowronek. She has received many honors, including a grant to



study the tribal music of Eastern Africa, being a winner of the Northwest Young Artist's Festival, graduating with Honors from both I.U. and C.W.U., a Brechemin Scholar at the U.W., and recently, she has been featured as an author in Flute Talk magazine. Her interest in contemporary music is complimented by an interest in early music as well; she has performed recitals of Baroque and Renaissance flute and recorder. Presently, Sarah is President of the Seattle Flute Society, and is pursuing a Doctorate in Flute Performance and Master's in Composition at the University of Washington.

Flutist PAMELA BUTLER RYKER is director of Fear No Music, the Northwest new music ensemble. A member of the faculty at Olympic College, Bremerton, Ms. Ryker is a freelance musician in the Seattle/Tacoma area. She performed with the Hong Kong Philharmonic Orchestra and played for Radio/Television Hong Kong for several years while on the faculty of the Chinese University of Hong Kong. She was a faculty member of the New Music Ensemble at the University of Wisconsin River Falls and has performed frequently with The Contemporary Group at the University of Washington. Ms. Ryker has recorded two compact discs for Perspectives of New Music.

SPECIAL THANKS to Silicon Graphics Inc., Intel, Evans Pianos, Mackie Designs, Opcode, and Mark of the Unicorn for major donations of hardware, software, and musical instruments.

1997-98 UPCOMING EVENTS

Tickets and information for events listed below in Meany Theater and Meany Studio are available from the UW Arts Ticket Office at 543-4880.

Tickets for events listed below in Brechemin Auditorium (Music Building) and Walker-Ames Room (Kane Hall) are on sale at the door, beginning thirty minutes before the performance. Information for those events is available from the School of Music Calendar of Events line at 685-8384.

To request disability accommodations, contact the Office of the ADA Coordinator at least ten days in advance of the event. 543-6450 (voice); 543-6452 (TDD); 685-3885 (FAX); access@u.washington.edu (E-mail).

April 28, Ethnomusicology Visiting Artist Recital: Eva Ybarra, Tex-Mex Conjunto Accordion, and Choi Moon-Jin, Korean Kayagum. 8 PM, Meany Theater.
April 30, Collegium Musicum. 8 PM, Brechemin Auditorium.
May 5, Visiting Artist Recital: Robert Davidovici, violin with Craig Sheppard, piano. 8 PM, Brechemin Auditorium.
May 8, Jazz Artists Series. 8 PM, Brechemin Auditorium.
May 9, Young Internationals Chamber Music. 2 PM, Brechemin Auditorium.
May 9, World Music Sampler. Free. 7 PM, Brechemin Auditorium.
May 13, UW Opera: *Falstaff*. 8 PM, Meany Theater.