

**The University of Iowa School of Music And  
The Electronic Music Studios Present**

*Penelope's Loom*

Judith SHATIN

*Von Neumann's Last Dream*

Todd PAPKE

*Man and Machine*

John GRIFFIN

Digital artwork and video by Matthew Priest

*All at Risk*

Scott WYATT

*Mappaemundi*

Lawrence FRITTS

With Sue Hettmansperger and Walter Seaman

*Faithfully Blind Followers to the Faithless*

Andrew SCOTT

*Junk DNA*

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*Oh I am so Thirsty*

Israel NEUMAN

**Penelope's Loom** (2003), for electronic playback, as an offshoot of my, both inspired by the story of Penelope, wife of Odysseus, whose travels and travails are told in Homer's epic, the *Odyssey*. Penelope was left at home during the twenty-year absence of Odysseus, first during the Trojan war, and then during his adventure-filled return voyage. Penelope needed to find a way to stave off suitors, filled with greed and arrogance, who tried to woo her in order to become King of Ithaca. Among her methods, Penelope announced she would take no suitor until she finished weaving a shroud for her husband's aged father, Laertes. But she unraveled at night what she wove by day. This weaving and its reversal were musically suggestive, and I wove *Penelope's Loom* from a recording of local weaver Jane Russell, working on two wooden looms. I processed and shaped these sounds, weaving a new sonic fabric, imprinted with the sounds of the looms.

Called "marvelously inventive" by the Washington Post and "exuberant and captivating" by the San Francisco Chronicle, **Judith Shatin's** music is inspired by her explorations and inventive extensions of timbre. Her music ranges from acoustic to electronic and multimedia, from chamber and choral to orchestral. It is internationally performed, ranging from BAM's Next Wave Festival to the World Music Days in Slovenia, and across Europe, to Israel and Asia. Her music is widely recorded, with a new disk of orchestral music called *Piping the Earth*, just released on Capstone Records (CPS 8727). Her chamber music can be heard on the Centaur, Neuma, New World and Sonora labels. Her music has been commissioned by groups including the Ash Lawn Opera, Barlow Foundation, Core Ensemble, Kronos Quartet, National Symphony, Hexagon Ensemble and Wintergreen Performing Arts, the last through Americans for the Arts. A two year retrospective of her work, culminating in the premiere of *COAL*, a folk oratorio scored for Appalachian ensemble, chorus and electronics, was sponsored by Shepherd College, with major funding from the Lila Wallace-Readers Digest Arts Partners Program. Residencies include Bellagio (Italy), La Cité des Arts (France), Mishkan Amanim (Israel), MacDowell, Yaddo and the Virginia Center for the Arts. Recorded on Centaur, CRI, Neuma, New World and Sonora Records, Shatin's music is published by Ars Press, C.F. Peters Corporation, Time Warner and Wendigo Music, the latter distributed by MMB/Norruth. Currently, Judith Shatin is William R. Kenan, Jr. Professor of Music and Director of the Virginia Center for Computer Music of the McIntire Department of Music at the University of Virginia. Her teaching focuses on composition, computer music and related topics.

**Von Neumann's Last Dream.** "At the age of six, he was able to exchange jokes with his father in classical Greek. The Neumann family sometimes entertained guests with demonstrations of Johnny's ability to memorize phone books. A guest would select a page and column of the phone book at random. Young Johnny read the column over a few times, then handed the book back to the guest. He could answer any question put to him (who has number such and such?) or recite names, addresses, and numbers in order. Johnny was the only student I was ever afraid of. If in the course of a lecture I stated an unsolved problem, the chances were he'd come to me as soon as the lecture was over, with the complete solution in a few scribbles on a slip of paper. By his mid-twenties, von Neumann's fame had spread worldwide in the mathematical community. At academic conferences, he would find himself pointed out as a young genius. Von Neumann spent a considerable part of the last few years of his life working in [automata theory]. It represented for him a synthesis of his early interest in logic and proof theory and his later work, during World War II and after, on large scale electronic computers. Involving a mixture of pure and applied mathematics as well as other sciences, automata theory was an ideal field for von Neumann's wide-ranging intellect. He brought to it many new insights and opened up at least two new directions of research. When von Neumann realized he was incurably ill, his logic forced him to realize that he would cease to exist, and hence cease to have thoughts ... It was heartbreaking to watch the frustration of his mind, when all hope was gone, in its struggle with the fate which appeared to him unavoidable but unacceptable... his mind, the amulet on which he had always been able to rely, was becoming less dependable. Then came complete psychological breakdown; panic, screams of uncontrollable terror every night. His friend Edward Teller said, "I think that von Neumann suffered more when his mind would no longer function, than I have ever seen any human being suffer. Von Neumann's sense of invulnerability, or simply the desire to live, was struggling with unalterable facts. He seemed to have a great fear of death until the last... No achievements and no amount of influence could save him now, as they always had in the past. Johnny von Neumann, who knew how to live so fully, did not know how to die."

**Todd Papke** is graduating in May with a BA in Interdepartmental Studies. His program was designed with an emphasis in Digital Storytelling. He begins his MA work in The School of Journalism and Mass Communications this fall. He has been studying electronic composition with Professor Fritts.

**Man and Machine** draws inspiration from digital artwork by Matthew Priest entitled "The Human Computer." It attempts to convey the melding of human beings with the machines that have come to so totally dominate life in the twenty-first



century (especially computers). Over the course of the work, sustained wordless "sung" tones and more non-musical vocal sounds gradually meld with computerized and mechanical noises. By the end, humanity is completely absorbed into the engines of its own creation until man and machine have become indistinguishable from one another.

**John C. Griffin** is a pianist and composer from Kalamazoo, Michigan. Currently, he is working toward his Ph.D. in music composition at the University of Iowa, where he studies with David Gompper and Lawrence Fritts. He received both his Bachelor's degree (2002) and Master's degree (2004) in music composition from Western Michigan University. While at WMU, he studied piano with Lori Sims and composition with Richard Adams, C. Curtis-Smith, and Robert Ricci. While an undergraduate, he was the recipient of a four-year WMU Medallion Scholarship. As a graduate student, he was awarded the Graduate College Fellowship for the 2002-2003 academic year. At UI Griffin also serves as a teaching assistant in Music Theory.

*All at Risk* attempts to share some of the feelings I had when recently reading email messages from a news correspondent friend who had been sent to Iraq to cover ongoing events there. The emails were sent to his family who, in-turn, shared them with me. I have left out the much more graphic moments as I feel the excess gore, pain and suffering would detract from the basic message of this piece. The stress and overall sense of helplessness I felt when reading his emails, along with a better sense of the amount of danger that those in Iraq face on a minute-by-minute basis, is what motivated the creation of this work. I wish to express my appreciation to news correspondent Brian Rooney and his family for sharing his email, and to my assistant John Ritz for his help with the video editing.

**Scott Wyatt**, composer and Professor of Composition, is the director of the University of Illinois Experimental Studios, and among other honors that he has received, he was one of the winners of the International Society for Contemporary Music National Composers Competition of 1978, the National Flute Association's 1979 Competition, the 1979 Concorso Internazionale Luigi Russolo Composition Competition in Italy, the 1984 International Confederation of Electro-Acoustic Music GRAND PRIZE at the 12<sup>th</sup> annual International Electro-Acoustic Music competition in Bourges, France and a finalist in the 1989 International Electro-Acoustic Music Competition in Bourges, France. He was the 1990 recipient of an Arnold Beckman Research Award for the development of digital timescaling applications, and among others, several 1996-2000 grants for the development of a specific compositional and live performance methodology for use with multi-channel sound diffusion and projection. His current research is on the development and application of positional three-dimensional audio imaging for multi-channel audio. He served as president of SEAMUS from 1989 until 1996. His compositions are recorded on CENTAUR, GMEB Cultures Electroniques Series, Library of Congress, MARK, OFFICE, SEAMUS, UBRES and VERIATZA recordings.

*Mappaemundi* is a 9-minute work for digital animation and computer-realized sound created by artist Sue Hettmansperger, composer Lawrence Fritts, and mathematician Walter Seaman. Like Medieval mappaemundi--maps that integrated geographical, spiritual, and emotional worlds--our *Mappaemundi* map or transpose interdisciplinary modes of understanding and communicating. Thus, visual images are treated like sounds, music becomes an extension of mathematical thought, and mathematics becomes a way of understanding artistic creation. The visual imagery of *Mappaemundi* is based on a series of paintings by Sue Hettmansperger that explore biological form in the human body and in the natural world. The artist digitally transformed and animated these images to create complex, evolving visual structures. These structures were combined with mathematically-generated images, creating a dialogue between the biological forms of nature and the mathematical structure that lies beneath. Similarly, the music of *Mappaemundi* traverses the physical world of sound and its abstract representation. The sounds in the work originated with a recording of a human body in an anechoic chamber. Breath and heartbeat were then digitally analyzed by the composer into discrete audio components. These fundamental units of sound were then recombined to create musical imagery that complements and extends the physical and emotional worlds evoked by the work's visual imagery. Music and image are also interconnected at the mathematical level, where color, form, spatial orientation, and movement interact with timbre, harmony, and rhythm to create complex, evolving geometrical, topological, and algebraic structures.

**Lawrence Fritts** was born in Richland, Washington. He serves as Associate Professor and Area Head of Composition and Theory at the University of Iowa, where he has directed the Electronic Music Studios since 1994. He received his PhD in Composition from the University of Chicago, where he studied with Shulamit Ran, John Eaton, and Ralph Shapey. His music is recorded on the Frog Peak, Innova, Tempo Primo, EMF, SEAMUS, Southport Composers, Albany, and Iowa Composers' Workshop labels. He currently serves on the Editorial Board of *The Journal of Mathematics and Music*.



**Sue Hettmansperger** received B.F.A. and M.A. degrees from the University of New Mexico, and attended the Yale University Summer School in Art, 1971. Her exhibitions include one person shows at A.I.R. Gallery in New York (2007, 2003, 1999, 1994, 1990), where she has been affiliated since 1989. Other selected exhibition venues have included the Northern Arizona Museum of Art, Bowling Green University in Ohio, The University of Texas San Antonio Art Gallery, Artemisia Gallery, Chicago, the Hyde Park Art Center, Chicago, and numerous exhibits in galleries and museums across the country. She has received an Arts and Humanities Interdisciplinary Grant (2001), and the Faculty Scholar Award from the University of Iowa, (1997-1999); a National Endowment for the Arts Fellowship, (1983); as well as residency fellowships at the UCross Foundation (1992), Roswell Museum Artist in Residence Program, (1990 and 1975); and the MacDowell Colony, (1977). Included in numerous museum collections including the Art Institute of Chicago, the Metropolitan Museum of Art in New York, and the San Francisco Museum of Modern Art, she is currently a Professor of Painting and Drawing in the School of Art, University of Iowa.

***Faithfully Blind Followers to the Faithless*** was conceived with the idea of creating a way to uniquely splice the worlds of acoustically derived music with the technologically driven plethora of tools available via analog and digital electronics, software, and programs. The source materials for this project include the Moog synthesizer, acoustic guitar, bass guitar, djembe, and trumpet, processed using Pro-Tools, Sound-Hack, and other programs to alter the signal I generated.

My name is **Andrew Scott**, and I have studied biology and science at the university here for the last 6 years, with my focus the last 3 years in the PharmD program. Throughout my collegiate experience I attempted to pursue my passion of the arts, particularly music, without much yield due to registration and scheduling limitations. I eventually deemed this goal inaccessible since my program dominated all available opportunities to take advantage of classes such as this one. Then during the spring of 2004, I was so compelled by the depth and magnitude of the sounds I heard at an electronic music concert, I immediately introduced myself and told Professor Fritts that I needed to take this class. I then promised myself that somehow I would manage to fit this class into my curriculum prior to graduation this next year. I had to wait patiently for 2 years, but the experience I've gained here is invaluable. My background of creating music is mostly in progressive rock, so I am still experimenting with the practically unlimited possibilities these studios offer, and plan to keep incorporating more and more of these techniques into my musical roots in the future.

***Junk DNA.*** The double helix of DNA determines the development of all organisms, including humans and humpback whales, Tasmanian devils and turnips, fruit flies and finches. But 98.5% of that genetic code seems to serve no purpose. This part is called "junk DNA." I like the thought that so much of our essential nature is basically flotsam. So the piece you will hear is a somewhat jumbled, somewhat orderly sequence of brief motifs, repeated and overlapping to represent the many, many bits of DNA we don't use. Actually, there are two of these strands, one shorter spiraling counter-clockwise, the other longer spiraling clockwise, together making sounds strange enough to make Darwin scowl.

**Dennis Hutchison** has attended the University of Chicago, Florida State University, and the Freie Universität, Berlin. He has studied composition with Shulamit Ran, Ladislav Kubik, and most recently with Lawrence Fritts. Last year he was a visiting Assistant Professor at Grinnell College; he is currently a part-time lecturer at Cornell College.

***Oh I am so thirsty*** is based on processing of sounds, which are taken from an audio recording of a recitation of the traditional Chinese poem Shi diao ge tou. Its title refers to a joke from the Jewish folklore – A young college professor is going on the train on his way to give a lecture in a distance city. Since he is unprepared for this lecture he is planning to use the time on the train for this purpose. He finds a place in an empty compartment, occupied only by an old Jewish man, and immediately starts to prepare the lecture. After five minutes the old Jewish man leans back in his seat and says – "Oh I am so... thirsty". Another five minutes past and the old man again – "Oh I am so... thirsty". After two more times the young professor, who could not concentrate on his lecture, brings the old man two cups of water. The old man drinks the water and thanks the professor. The professor sits back in his place, and now he is confident that he will be able to prepare his lecture. Ten minutes past the old man leans back again and says – "Oh I was... so thirsty".

**Israel Neuman**, from Tel-Aviv, Israel, is happily married with Yi Fang, (the voice on the recording), from Tianjin, China, and to present day does not understand a word in Chinese. He is a graduate student in the jazz studies area. He studies composition with Prof. Larry Fritts.