

Temple University Technology Day April 8, 2011

Arts and Technology Showcase

H.E. Cicada Brokaw: *Dance/Animation Project*

Matthew Miller: *Use of Computers and Technology as Logistical and Creative Tools in Theater, Part 1*

John Hoey: *Use of Computers and Technology as Logistical and Creative Tools in Theater, Part 2*

Beau Hancock, Chris Farrell, Ryan Brandenburg: *The Everyday Body Project*

Warren Bass: *Burning Bright* (Animated Film)

Sandra James: *Random Walk*

Ryan Olivier: *Colorful Movements*

1. Metronomic Hommage
2. Additives
3. Partial Imitation
4. Polypartials

Maurice Wright: *Octet*

1. Octet Title Tunnel
2. Octour
3. Octoechos
4. Chinese Octet
5. Solo Octet
6. Turkish Octet
7. Maximal Octet
8. Final Octet

In the Rock Hall Auditorium Lobby: A looping animation of student projects from the Tyler School of Art provided by Dermot MacCormack, Associate Professor of Graphic and Interactive Design, Tyler School of Art

H.E. Cicada Brokaw: *Dance/Animation Project*

This real-time interactive project utilizes an accelerometer attached to a dancer to control 3D animation. Data from the accelerometer is sent to Pd, a real-time interactive programming application. Pd has an extension called GEM which allows real time creation and manipulation of imagery. A 3D particle system is created, certain parameters of which are linked to the data coming from the accelerometer in order to create an interesting visual connection to the dancer's movement. Further developments envisioned include creation of a wireless connection between the accelerometer and the computer running Pd, further development of the visual imagery, and using the data to interact with audio.

H.E. CICADA BROKOW is a composer, currently pursuing a DMA in Music Composition at the Boyer College of Music and Dance at Temple University. His background includes working as Associate Director at the University of Michigan's Center for Performing Arts and Technology and co-founding and working for MediaStation, a multimedia development company. In addition to instrumental and choral works, he enjoys creating sound montage using recorded sounds, creating visual music, computer animation and working with choreographers and artists. He has also recently been involved in creating interactive audio-visual works.

Matthew Miller: *Use of Computers and Technology as Logistical and Creative Tools in Theater, Part 1*

John Hoey: *Use of Computers and Technology as Logistical and Creative Tools in Theater, Part 2*

In the process of producing a theatrical work, two of the biggest hurdles are coordinating the schedules of dozens of people who are working in several different locations and communicating abstract design and artistic ideas. Computers and existing software have revolutionized this process. In his role of Production Manager, Matthew Miller establishes budgets and at least six weeks of scheduling for each departmental production. Through calendar programs and Excel spreadsheets, disseminated through the internet, he is able to stay in touch with everyone involved and to facilitate the flow of communication. And John Hoey, along with our graduate design students, has been developing a new use of an existing CAD program that gives the ability to actually show a director what a proposed design concept would look like in a completely virtual 3D space. Through the creative use of these programs as tools in our process, we're able to improve the efficiency of our limited time and money while allowing design ideas to be pursued to their full extent.

MATTHEW MILLER teaches Stage Management and serves as the Production Manager for the TU Theater's Department productions. He has extensive experience in the areas of Production Management and Technical Direction, working in professional venues such as Utah Shakespearean Festival, Shakespeare & Company, and Santa Rosa Repertory Theatre. Matthew has most recently served as the Production Manager for Barnard College/Columbia University in New York, as well as San Francisco State University, where his teaching duties included Stage Management, Technical Methods, Computer-Aided Drafting, and Intro to Technical Theatre & Design. He is part of the People of Color Networking Project through USITT (United States Institute for Theater Technology) and served on panel discussions regarding stage management at the most recent national

conference in Charlotte, NC. Matthew is also a freelance lighting and scenic designer. His work has been seen around the country, and on tour in Chile. In the next year he will design for Everyman Theatre in Baltimore and the Adirondack Theater Festival in Upstate New York. He holds an MFA from The University of North Carolina - Chapel Hill and a Masters degree in Education from Converse College. Samples of his work may be seen at www.mbmillerdesign.com

JOHN HOEY is the Head of the Design Program at the School of Communications and Theater, Department of Theater. John has designed at nearly every theater in Philadelphia, including the Arden, the Wilma, People's Light, and the Walnut Street Theatres. He designed over 20 operas for the Opera Company of Philadelphia, and just opened his 85th ballet for the Pennsylvania Ballet. He was on the design staff of New York City Opera, and was Lighting Director at New York City Ballet for 3 seasons. Nationally, he has designed for Luciano Pavarotti, Spoleto Festival, Pittsburgh Opera, Virginia Opera, Actors' Theatre of Louisville, Folger Shakespeare, Cleveland Playhouse and the Kennedy Center. Internationally he has designed and toured to all but one continent. In film he was the Assistant Art Director for the Columbia Picture's movie, "Center Stage". John is a graduate of the North Carolina School of the Arts ('89), and of Temple University ('92). He also studied privately with scenographer Josef Svoboda in Prague, Czechoslovakia in 1988. In 2005 he was the recipient of an Independence Fellowship grant and returned to Prague to work with Laterna Magika and the National Theatre. This June he will return to Prague yet again to represent the United States for the Prague Quadrennial, a worldwide symposium on theater and the arts. Recently, John received Barrymore Awards for the lighting design for Sweeney Todd at the Arden Theatre, and for 9 Parts Desire at the Wilma Theater, a Helen Hayes nomination for Measure for Measure at the Folger Theater, and a Millennium Award for Capuleti et Montegue at the Opera Company of Philadelphia. John was named to the faculty at Temple University's Theater Department in 2006.

Beau Hancock, Chris Farrell, Ryan Brandenburg: *The Everyday Body Project*

The Everyday Body Project combines music, dance, and photography in a series of site-specific performances throughout Temple University's campus. The character of each performance is shaped by the known elements (the three collaborators interacting with the chosen site) with the unknown (the unanticipated audience members, the specifics of the site on that day, the production of the music, dance, and photographer in the moment). For this event, the collaborators are highlighting their integration of technological tools within the creative process by presenting a portion of their work-in-progress *Circular Ruins*.

Dancer/choreographer Beau Hancock interacts with the visual world created by live-feed and edited video projections. The score for the improvisatory dance structure is grounded in the visual frame created by (and the movement information derived from) the projected landscape. To develop the instant compositions that accompany the dance, musician Christopher Farrell utilizes a customized pedal board that connects six individual signal processors from Pigtronix (www.pigtronix.com), the Long Island-based designer of futuristic analog effects. The featured effects are an Analog Synthesizer/Intelligent Ring Modulator, Compressor/Sustainer, Envelope & Rotary Phaser, Fuzz/Octave, Golden Ratio Delay with Modulation, and Envelope Modulated Tremolo. Ryan Brandenburg is photographing the entire Project process, documenting rehearsals, performances, and other events. The capstone to Everyday Body is the production of a project catalog, which will include

Brandenberg's photographs and Hancock's articles on improvisation and the creative process. The Everyday Body Project is generously supported by a grant from the Provost's Commission on the Arts. For more information on the project or to find out about upcoming performances, please visit the Project website at: www.everydaybodyproject.weebly.com.

RYAN BRANDENBERG is a full-time photographer for Temple University and a photojournalist in Philadelphia. A regular freelance contributor to local and national newspapers, he earned his bachelor's degree in photojournalism from the University of Pittsburgh and is earning a master's degree in documentary photography from Temple. View his professional photo site at ryanbrandenberg.com.

CHRISTOPHER B. Farrell is a composer, multi-instrumentalist, producer and founder of the critically acclaimed ensemble, the Rit Mo Collective. Christopher has scored music for film, television, dance, and spoken word poetry and performs regularly throughout the Northeast with the Rit Mo Collective, the Christie Lenee Project, SubLunar Minds, Suspicious Brown, and the Laura Thomas Band. He is currently an artist-in-residence at Temple University's Boyer College of Music & Dance and Drexel University's Westphal College of Media Arts & Design. Samples of his work can be heard at www.myspace.com/ritmocollective.

BEAU HANCOCK earned a BA in Dance and American Studies from the University of Kansas, and is currently a MFA candidate and University Fellow at Temple University. In 2009, he was the Cleveland Art Prize/Kathryn Karipides Scholarship recipient. While at Temple, Beau has had the pleasure to dance for Eva Gholson, Phil Grosser, Kun-Yang Lin and Merian Soto. He has also assisted Dr. Luke Kahlich with two iterations of the Liverpool Project, an Internet project researching the creative process through digital media. He is currently working on a research and performance venture entitled the Everyday Body Project.

Warren Bass: *Burning Bright*

Burning Bright is a structuralist animated meditation on the near extinction of tigers. *Burning Bright* originated with natural materials on paper, was filmed in 16mm, and augmented and further developed on computer.

WARREN BASS (Professor of Film & Media Arts) comes from a background in painting, film and professional theater. He was trained at the Yale School of Drama in directing (with honors) while simultaneously studying color, drawing and printmaking at the Yale School of Art, and eventually film at Columbia University as their School of the Arts Scholar. He has directed over 50 theater productions and made more than 60 films that have received over 120 regional, national and international awards. These include socially conscious documentaries and works that explore the nebulous borders between fiction and documentary concerned with issues of ideology and representation of those marginalized by mainstream culture. His animations are often minimalist, materialist and abstract motion studies that also have philosophical and political dimensions. He thinks of animation as "an essentially choreographic and painterly medium creating significance out of forms in motion."

Sandra James: *Random Walk*

Random Walk (2011) is an imagined snapshot of the dream of a White Marked Tussock Moth Caterpillar that was spotted and photographed beside the Wissahickon Creek at Valley Green. The first minute of the animation that roughly models the creature was rendered in pieces in POVray and assembled in Final Cut Pro. The animation and the rest of the piece run in real time through a pd/GEM patch. The first version of the work was created for the Ensonic Mirage synthesizer, with the purpose of mathematically modeling a trajectory. Pitch selection (+1 or -1) had a weighted probability that depended on the current note's position relative to the center of the keyboard and whether the upper and lower bounds had been reached yet. The piece terminated when notes at both ends of the keyboard had been played. This pd/GEM remake adds the possibility of staying in place and replaying the last note and removes the probability weighting. FM synthesis and simple filters on oscillators are employed to create game-like sounding pitches, and spheres indicate current positions of several random walks.

SANDRA JAMES is currently the Systems Support Specialist and Webmaster at the Boyer College of Music and Dance, Temple University. Sandra worked in the commercial software industry as a developer and analyst for over 12 years. She has a Bachelor degree in Computer Science from Temple University, a Certificate in painting from the Pennsylvania Academy of the Fine Arts, and has studied Latin Percussion at home and abroad since 1994. She is interested in using the computer to extend traditional mediums for installations, video and performance and has presented pieces created in Csound, pd, and POVray. She has done research using MIDI Controllers and sensors and recently developed an instrument created in pd that uses the Nintendo Wii and iPod Touch as musical interfaces. Ms. James has presented papers on this topic at the Sorbonne in Paris, France, and the joint College Music Society/ATMI annual meeting in Minnesota.

Ryan Olivier: *Colorful Movements*

Colorful Movements features four short experimental pieces exploring the relationships among sound, space, time, and light.

The first movement, Metronomic Hommage, applies the timing relationship of beats per minute found on the metronome to the intervallic ratios used in the harmonic series. In this piece I created 40 colorful metronomes, each set to one of the metronome markings found on Mäzel's Metronome, and started them all at the same time. As the frequencies of beats per minute align, the partials combine to create new timbres. The piece ends when all of the metronomes sync back up after one minute.

The second movement, Additives, is an experiment in timbral transformation. Throughout the piece, different partials of the same harmonic series are introduced as simple sine waves. At the beginning of the piece, the partials are spaced far enough apart as not to overlap. As the piece progresses, the partials enter more frequently and are no longer perceived as separate pitches but are fused together to form new timbres. A circular shape based on the combination of overlapping partials visually represents each timbre.

The third movement, Partial Imitation, is a quasi-fugue whose imitation is based on partial numbers rather than scale degrees. The voices enter spatially from the left, right, front, or

back and move across the room to the opposite plane. As the voices move, their timbres slowly change which is illustrated by a change in color.

In the last movement, Polypartials, embedded, translucent spheres visually represent each pitch. The appearance of each sphere within each phrase, as well as its associative pitch and color, relates directly to its designated partial number in the harmonic series. Starting with the fundamental, each partial is introduced one after the other until all sixteen partials have sounded, at which point the spheres fade into the distance.

RYAN OLIVIER is a doctoral student in Music Composition at the Boyer College of Music and Dance at Temple University. His music has been performed by the Momenta Quartet and the Cygnus Ensemble, and his various interests have led him to work with a vast array of media including electronics, video, and dance. His electroacoustic work has been featured at Miami's 12 Nights Festival, Pennsylvania State University's Crosscurrents Festival, the New York City Electroacoustic Music Festival, and the SEAMUS National Conference. Ryan graduated Magna Cum Laude in music composition from Loyola University New Orleans where he studied with James Paton Walsh and William Horne.

Maurice Wright: *Octet*

OCTET (the video) is a visualization of 8 electroacoustic compositions of the same name. Composed in the summer of 2006, I realized the electroacoustic composition first, then created a visual analogue. Synthesized initially in 8 channels, the video is accompanied by a 5.1 downmix of the original.

The first compositions were realized in Philadelphia, but most of the work was composed and rendered at 1/2 scale on my laptop at the Sokullu Pasa Hotel in Istanbul. I completed the ending sections of the work at a depressingly decadent resort hotel in southern Turkey. Upon returning to the US, I rendered the video components at full scale (1024x768), tweaked the 8.0 version, then made the 5.1 mix and compressed the video for the DVD.

OCTET premiered at the CYBERSOUNDS concert series in Philadelphia, and was also shown at the SEAMUS national conference and the Red Stick Animation Festival in Baton Rouge, Louisiana.

MAURICE WRIGHT (www.mauricewright.org) was born in Front Royal Virginia, a small town situated between the forks of the Shenandoah River near the Blue Ridge Mountains.

Wright's work is described by critics as "forthright and witty, a rarity in 'serious' music...fresh and completely natural but concealing a good deal of compositional craft."

Performed by the Boston Symphony Orchestra, the Emerson String Quartet, the American Brass Quintet and other outstanding musicians, Wright has composed for electronic and computer media since 1967. His most performed work is the Chamber Symphony for Piano and Electronic Sound (1976), recorded on the Smithsonian, CRI/New World, and InNova labels.

After experimenting with visualization of musical sound and with digital animation, he presented his first visual music composition in March, 1996. Recent work has been seen and heard in festivals across the United States, and in Beijing, Copenhagen, Dresden, Montreal, Seoul, Stockholm, and the United Kingdom.

Wright is Laura H. Carnell Professor of Music Composition at Temple University's Boyer College Of Music and Dance, and serves as Chair of the Music Studies Department and Coordinator of the Music Composition Division.

Tyler School of Art: *Graphic & Interactive Design Department Student Animations*

The animations appearing in the lobby area just outside the Rock Hall auditorium are a small sampling of recent work by students in the Graphic & Interactive Design Department at the Tyler School of Art. All the work is designed, illustrated, programmed and produced by the students listed below.

To view more of this work, go to: <http://tylergaid.squarespace.com/bfa-interactive>. Student names are followed by project title, description and technologies used.

ALEX KORECKA. Gangs of New York, movie title, AfterEffects, Photoshop.

NATHAN KASZUBA. Banned Books, website, Flash, Actionscript 3.0, Photoshop, AfterEffects, Stop-motion animation.

EDEM NORGAH. Voices, website, Flash, Actionscript 3.0, Photoshop, AfterEffects, Final Cut Pro, HTML.

ZAC VAN BENTHEM, Scuz Beer, website, Flash, Actionscript 2.0, Photoshop, HTML.

BRIAN CASSIDY, Kiss Rock and Roll, website, Flash, Actionscript 3.0, Photoshop, AfterEffects, HTML.

ZAC VAN BENTHEM, Camp 2011, website, Flash, Actionscript 3.0, Photoshop, AfterEffects, Adobe QTVR, Final Cut Pro, HTML.

NATHAN KASZUBA, Eldorado, animation, AfterEffects, Photoshop.

ZAC VAN BENTHEM, Stick and Move, website, HTML, CSS, Javascript, Flash, Actionscript 2.0.

ZAK ELKOUEN, Galastro, website, Flash, Actionscript 3.0, Photoshop, Illustrator, HTML.

ZAC VAN BENTHEM, Wesley Willis Dot Com, website, HTML, CSS, Javascript, Flash, Actionscript 3.0, jQuery.

ZAK ELKOUEN, Resident Evil, website, HTML, CSS, Javascript, Flash, Actionscript 3.0.

ALEX BLOOM, Voices (Education for India), website, HTML, CSS, Javascript, Flash, Actionscript 3.0, jQuery, Photoshop, AfterEffects.

ZAK ELKOUEN, Charles Bukowski Poem, animation, AfterEffects, Photoshop, Illustrator.

DOUG RICHARDS, Health Care, animation, AfterEffects, Photoshop, Illustrator.

SAM KENNEDY, Franz Kafka, website, Flash, Actionscript 3.0, HTML, CSS.

SAM KENNEDY, Pinnings, website, Flash, Actionscript 3.0, HTML, CSS.

EDEM NORGAH, Haiku, animation, AfterEffects, Photoshop, Final cut pro.

NATHAN KASZUBA, Haiku, animation, AfterEffects, Photoshop, HTML.

BRIAN CASSIDY, Three Little Pigs, animation, AfterEffects, Photoshop.

Student animations provided by DERMOT MACCORMACK, Associate Professor of Graphic and Interactive Design at the Temple University Tyler School of Art.