
John E. Bower

Education

Duke University, Department of Music, Durham, NC

Ph.D., Music Composition

May, 2007

- Dissertation composition: *The Echo Over the Voice*, concerto for viola, chamber ensemble, and real-time computer processing
- Dissertation article: "*soundSense: Sonifying Pyroelectric Sensor Data for an Interactive Media Event*"

Advisor: Scott Lindroth

A.M., Music Composition

January, 2002

Berklee College of Music, Boston, MA

B.M., Music Composition (Summa Cum Laude)

May, 2000

Principal Teachers:

Scott Lindroth, Stephen Jaffe, Anthony Kelley, Marti Epstein, Randall Woolf, James Russell Smith

Teaching Experience

Peabody Institute of The Johns Hopkins University, Baltimore, MD

Instructor

Fall, 2011 – Spring, 2012

Courses Taught:

Music Theory 5: Late Romantic and 20 th Century Musical Practices	2011
Graduate Seminar: Music Since 1945	2011
Music Theory 6: The Music and Influence of Jean Sibelius	2012

Department of Music, St. Olaf College, Northfield, MN

Visiting Assistant Professor

Winter & Spring, 2011

Courses Taught:

Music in the Electronic Medium	2011
Music Theory and Aural Skills II	2011
Composition II	2011
Composition III	2011
Studio Composition	2011

Department of Performing Arts, American University, Washington, DC	
<i>Professorial Lecturer</i>	Fall, 2010
Courses Taught:	
Harmony I	2010
Musicianship I	2010
Department of Music, University of St. Thomas, St. Paul, MN	
<i>Instructor</i>	2008 – 2010
Courses Taught:	
Music Theory and Aural Skills II	2009, 2010
Aural Skills component instructor	
Studio Composition	2009, 2010
Music Theory and Aural Skills III	2009
Theory component instructor	
Eighteenth Century Counterpoint	2009
Music Theory and Aural Skills I	2008, 2009
Aural Skills component instructor	
Music Theory Tutorial	2008, 2009
Department of Music, St. Catherine University, St. Paul, MN	
<i>Instructor</i>	2009
Course Taught: Music Theory II	
Department of Music, Duke University, Durham, NC	
<i>Instructor</i>	2005 – 2006
Course Taught: Computer Music	
Department of Music, Duke University, Durham, NC	
<i>Teaching Assistant and Lab Instructor</i>	2001 – 2004
Courses Taught:	
Electronic Music	2004
Theory and Practice of Tonal Music II	2002, 2003
Theory and Practice of Tonal Music I	2001
Information Science & Information Studies program, Duke University, Durham, NC	
<i>Instructor</i>	2003
Course Taught: ISIS Capstone Seminar	
Department of Art, Art History & Visual Studies, Duke University, Durham, NC	
<i>Teaching Assistant</i>	2000
Course Taught: Modern and Postmodern Architecture	
Private Composition, Theory, and Musicianship Studio	2000 – present

Teaching Interests

Core music theory topics including all levels of tonal harmony and counterpoint
All levels of aural skills and musicianship
Advanced theory topics including Schenkerian and post-tonal analysis
Studio and class composition, instrumentation, and orchestration
Music technology and recording arts
Beginning to advanced computer music including audio programming, digital signal processing, and interactive media
History of Western music post-1900; history of electronic music
Current trends in critical theory/scholarship, the Frankfurt School, and Adorno

Research Experience

- Fitzpatrick Institute for Photonics and Communications; Center for Computational Science, Engineering, and Medicine, Duke University, Durham, NC
Research Associate 2004 – 2005
- Conducted research related to the processing and sonification of high dimensional and time-varying data and information from multiplexing sensor networks
 - Designed and implemented elements of a fully-immersive virtual reality research center
 - Sought and maintained relationships with partner institutions and industries; coordinated educational outreach and workshops
- Center for Computational Science, Engineering, and Medicine, Duke University, Durham, NC
Research Assistant 2003 – 2004
- Conducted data sonification research
 - Developed virtual reality applications for clinical and analytic use utilizing electromagnetic tracking, stereo-vision, and real-time audio rendering

Scholarly and Research Interests

Application of critical and cultural theories and their derivatives to issues of production, consumption, and reception of musical art
Representation and musical narrative
Sonification (mapping data aurally) as an information/machine interface
Computer music, music technology, and collaborative new media

Honors, Awards, and Fellowships

ASCAP Standard Award 2002 – 2010

McKnight Foundation Artist-Composer Fellowship Competitive career advancement award providing one year of professional support with unrestricted funding	2008
ASCAP Morton Gould Award Finalist <i>subito</i> career advancement grant, American Composers Forum with funding from the Jerome Foundation; awarded in support of the Dinosaur Annex Music Ensemble's performance of <i>The Echo Over the Voice</i>	2006, 2008 2007
John Hope Franklin Humanities Institute Interface Seminar Fellowship	2006 – 2007
Duke University Summer Research Fellowship	2006
Duke University Aleane Webb Dissertation Fellowship	2006
Mary Duke Biddle Graduate Study Fellowship	2000 – 2007
Richard Levy Composition Award	2000
Jazz Performance Scholarship, Berklee College of Music	1997 – 2000

Selected Festivals and Residencies

Zeitgeist Ensemble Composer Residency, St. Paul, MN Supported by funding from the Jerome Foundation	2010
<i>Music09</i> Festival, Hindemith Music Center, Blonay, Switzerland	2009
<i>soundSCAPE</i> Festival, Istituto Superiore di Studi Musicali Franco Vittadini, Pavia, Italy	2009
Community Music Center of Boston Young Composers Festival, Boston, MA	2008
<i>Encounters with the Music of Our Time</i> Festival, Durham, NC	2006
<i>Imagine</i> Festival, Memphis, TN	2004
<i>Milestones</i> Festival, Chapel Hill, NC	2004
<i>June in Buffalo</i> Festival, Buffalo, NY	2001

Selected Talks

American Composers Forum, St. Paul, MN McKnight Foundation Artist-Composer Fellowship talk	2009
Department of Music, Yale University, New Haven, CT <i>Imag[in]ing Subject: Narrative and Representation in The Echo Over the Voice</i>	2008
International Conference on Auditory Display, University of Limerick, Ireland <i>soundSense: Sonifying Pyroelectric Sensor Data for an Interactive Media Event</i>	2005
Department of Computer Science, Duke University, Durham, NC <i>The Road to soundSense</i>	2005
<i>Sonification and Data Representation</i>	2003
John Hope Franklin Humanities Institute, Duke University, Durham, NC <i>Oswenka</i> ; Panel discussion with TJ Lemon and Veit Erlmann	2004

Selected Publications

Bower, J. E. et al., "*soundSense*: Sonifying Pyroelectric Sensor Data for an Interactive Media Event," in Proc. of the 2005 International Conference on Auditory Display, Limerick, Ireland, 2005.

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Featured in the third edition of *SoundLab Channel*, a curated online collection of sound works with the theme "Memory and Identity" (2005): <http://soundlab.newmediafest.org>.

Professional Service

Department of Music, St. Olaf College, Northfield, MN

Independent Research Advisor

2011

Faculty mentor for student independent research project exploring programmatic approaches to sound design and music composition.

Recital Adjudicator

2011

Department of Music, University of St. Thomas, St. Paul, MN

Music Theory Adjudicator

2010

Music theory and aural skills assessor for the Department of Music's Undergraduate Music Audition Day.

Recital Adjudicator

2010

International Conference on Auditory Display

Invited Publication Reviewer

2006 – 2008

American Composers Forum

Invited Grant Reviewer

2007

IEEE Visualization Conference and Information Visualization Symposium

Invited Publication Reviewer

2006 – 2007

Office of the Provost, Duke University, Durham, NC

Member, Committee for Technology in the Arts and Humanities

2005 – 2006

Committee member on a body charged to advise Duke's strategic planning on matters of faculty, curricular, and infrastructural development in an effort to expand and support interdisciplinary collaboration and education across the University.

Other Professional Experience

e-Learning Consultant

2006 – present

Freelance developer of Web-based training courses and related technologies for student audiences in government and private industry organizations. Course subjects vary from general, compliance-based training (e.g., ethics, information security) to role-based courses for management and professional cohorts that reflect current and pending regulatory and legislative requirements.

Other Musical Studies

Composition master classes with Chen Yi; Mark Applebaum; Rand Steiger; Robert Beaser; Scott Wheeler; David Felder; and others	2001 – 2009
Erhu and Chinese music studies with Hua Chen, Minneapolis, MN	2007
Classical guitar studies with Michael Newman, Mannes College of Music, New York, NY	1995 – 1997

Technical Skills

Sound design, audio programming, computer music, and recording studio technologies
Virtual reality and related technologies: electromagnetic and ultrasonic motion tracking, cluster-based computing and rendering, 3D projection systems, and 3D audio
ADL SCORM and e-learning technologies
Music software: SuperCollider, Csound, PVC, Digital Performer and similar DAWs, Peak, WaveEditor, Finale, and other relevant software
Programming languages: Objective-C, Ansi-C, Perl, some C++, Visual Basic, JavaScript, PHP, ASP, SQL, ActionScript

Professional Affiliations

American Society of Composers, Authors, and Publishers (ASCAP)
American Composers Forum (ACF)
International Community for Auditory Display (ICAD)
International Computer Music Association (ICMA)
Society for Electro-Acoustic Music in the United States (SEAMUS)
College Music Society (CMS)
