## BRETT LEONARD

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### **EDUCATION**

Fall 2008 - present McGill University

Montréal, QC

## Ph.D in Music, Sound Recording (ABD)

- Focus on research in the areas of applied/task-based listening testing, room acoustics and virtual acoustics as related to sound recording
- Further development of advanced classical and acoustic music production techniques

2006 - 2008

New York University

New York, NY

## Master's of Music in Music Technology

 Focus on digital signal theory, advanced production techniques and psychoacoustics research

2002 - 2006 California Lutheran University Thousand Oaks, CA

## Bachelor of Arts in Music

- Focus on general recording and production techniques
- Emphasis on performing and developing musicianship skills

Summer 2005 Aspen Music Festival & School

Aspen, CO

Intensive study of modern classical music recording techniques

## **WORK EXPERIENCE**

# 2011 - present McGill University, Sound Recording Area Montréal, QC Lecturer – MUSR 300D1/2 "Introduction to Music Recording"

- Teach an intense 1-year overview course on basic thru advanced stereo recording, editing and mixing techniques, primarily in the area of acoustic music
- Help students hone critical listening skills, develop a recording aesthetic and teach the fundamental of serving as producer on a classical production

2009 - present McGill University, Sound Recording Area Montréal, QC Lecturer – MUSR 339 "Introduction to Electroacoustics"

- Deliver lectures on acoustic and electrical principles as applied to recording technology and audio equipment
- Teach and supervise methods of measuring salient features of rooms and recording equipment

2004 - present BLPaudio Arizona, California, New York & Québec

## Owner, Freelance Recording Engineer & Audio Consultant

- Recording, editing and mixing services, extending from classical music to pop, rock and jazz, radio broadcasts and film sound
- Projects working with Grammy-award winning producers, major label artists and large-scale radio broadcasting
- Consulting and system design for auditoriums, churches and recording studios

2009 - present Recording Arts Canada

Montréal, QC

## Lecturer - ElectroTech, Audio Consoles & Acoustics

- Develop curriculum to further the education of tomorrow's audio professionals.
- Deliver lectures on electrical theory and magnetism, electrical measurements and recording equipment maintenance and calibration
- Deliver lectures on console basics, signal flow and normal studio configuration, including tutorials to first-semester students on basic operation of the studios at RAC
- Lecture on the physics of sound, musical acoustics and studio design

2006 - 2008

NYU Tisch School of the Arts -

New York, NY

Clive Davis Dept. of Recorded Music

## Graduate Production/Teaching Assistant

- Deliver lectures on basic studio technique & studio layout (as needed)
- Perform studio/equipment maintenance (software and hardware)
- Assist students with technical problems during sessions
- Assist faculty and guest engineers during lectures, clinics and sessions

2006 - 2008 NYU Steinhardt School -

New York, NY

Dept. of Music & Performing Arts Professions

## Studio Technician

- Maintain multiple studios, listening rooms and mobile recording rigs
- Provide faculty, staff and students with troubleshooting and emergency technical service in the studios
- Provide recording services to recitalists and ensembles

Summer 2006 La Casa de Cristo Lutheran Church

Scottsdale, AZ

## Head Audio Technician

2005-2006

- Front-of-house mixing and monitors for multiple Sunday services and special events in a 1600+-seat space
- Tasked with debugging, recalibrating and rewiring house PA system

California Lutheran University

Departmental Assistant - Dept. of Music

Thousand Oaks, CA

 Recording and editing all faculty, student and ensemble performances for commercial and archival use 2012 Graduate Research Enhancement & Travel Award – McGill University

2011/12 Centre for Interdisciplinary Research for Music, Media & Technology Student Research Grant – McGill University

2011/12 Graduate Excellence Award - McGill University

2011 Centre for Interdisciplinary Research for Music, Media & Technology Student Travel Grant – McGill University

2011 Graduate Research Enhancement & Travel Award – McGill University

2011/12 Centre for Interdisciplinary Research for Music, Media & Technology Student Research Grant – McGill University

2010-2011 Schulich Scholarship - McGill University

2010 Centre for Interdisciplinary Research for Music, Media & Technology Student Travel Grant – McGill University

2010 Graduate Research Enhancement & Travel Award – McGill University

2009/10 Centre for Interdisciplinary Research for Music, Media & Technology Student Research Grant – McGill University

2008-2010 Schulich Scholarship - McGill University

2009/10 Audio Engineering Society Educational Foundation grant

2008/09 Audio Engineering Society Educational Foundation grant

2007/08 Music Technology Graduate Student of the Year – New York University

2006 Senior Award: Best Musician - California Lutheran University

2002-2006 Presidential Scholarship - California Lutheran University

2002-2006 American Lutheran Church of Sun City Scholarship

## **SKILLS**

Expertise in standard digital audio workstations (Pro Tools, Pyramix, etc.)

Studio construction, project management and system design

Matlab & Max MSP programming and software development

Curriculum & course development

Advanced listening test methodology

Acoustic enhancement and public address system design

Equipment design, repair and troubleshooting

Acoustic & electrical measurement methodology

## PROFESSIONAL MEMBERSHIPS

National Academy of Recording Arts & Sciences - voting member

Audio Engineering Society – educational committee member

Acoustical Society of America – member

## **PUBLICATIONS**

- :. = peer-reviewed \* = presenting author † = under peer review for journal inclusion
- \* Leonard, B. The Downsampling Dilemma: psychoacoustic issues in sample rate reduction. Proc. of 124th AES Convention, Amsterdam, May 17-21, 2008.
- \* Leonard, B., King, R. and G. Sikora. *The Effect of Acoustical Environment on Reverberation Level Preference.* Proc. of the 133<sup>rd</sup> AES Convention, San Francisco, Oct. 26-29, 2012.
- \* Leonard, B., Levine, S. and P. Buttner-Schnirer. *Objective and Subjective Evaluations of Digital Audio Workstation Summing.* Proc. of the 133<sup>rd</sup> AES Convention, San Francisco, Oct. 26-29, 2012.
- \* Leonard, B. and P. Buttner-Schnirer. Subjective Differences in Digital Audio Workstation Math. Proc. of the 132<sup>nd</sup> AES Convention, Budapest, April 27-30, 2012.
- \* Leonard, B., Sikora, G. and M. de Francisco. *In Situ Measurements of the Concert Grand Piano*. Proc. of the 131<sup>st</sup> AES Convention, New York, Oct. 20-23, 2011.

King, R., Leonard, B. and G. Sikora. *Consistency of Balance Preferences in Three Musical Genres*. Proc. of the 133<sup>rd</sup> AES Convention, San Francisco, Oct. 26-29, 2012.

- \* King, R., Leonard, B. and G. Sikora. *The Effects of Monitoring Systems on Balance Preference: A comparative study of mixing on headphones versus loudspeakers.* Proc. of the 131<sup>st</sup> AES Convention, New York, Oct. 20-23, 2011.
- King, R., Leonard, B. and G. Sikora. *The Practical Effects of Lateral Energy in Critical Listening Environments*. Proc. of the 131st AES Convention, New York, Oct. 20-23, 2011.
- \* King, R., Leonard, B. and G. Sikora. Variance in Level Preference of Balance Engineers: a study of mixing preference and variance over time. Proc. of the 129th AES Convention, San Francisco, Nov. 4-7, 2010.

King, R., Levitin, D. and B. Leonard. How Can Sample Rates be Properly Compared in Terms of Audio Quality? Proc. of the 133rd AES Convention, San Francisco, Oct. 26-29, 2012.

Levine, S., Leonard, B. and R. King. *Design and Construction of the Tri-Baffle:* A Modular Acoustic Modification System for Task-Based Mixing Experiments. Proc. of the 133<sup>rd</sup> AES Convention, San Francisco, Oct. 26-29, 2012.

\* Sikora, G., Leonard, B., de Francisco, M. and D. Eck. *Space Sampling: a novel method for acoustic mapping of the concert grand piano.* Proc. of the 128th AES Convention, London, May 22-25, 2010.

Woszczyk, W., Ko, D., and B. Leonard. *Convolution-based virtual concert hall acoustics using aural segmentation and selection of multichannel impulse responses.* Proc. of INTER-noise 2009, Ottawa, Aug. 23-26, 2009.

Woszczyk, W., Ko, D., and B. Leonard. A Convolution-Based System for Virtual Acoustic Support of Performing Musicians. Proc. of the 129th AES Convention, San Francisco, Nov. 4-7, 2010.

- .: Woszczyk, W., Ko, D., Benson, D. and B. Leonard. *The Effect Of Processing Two Overhead Channels On The Spatial Impression Of Virtual Rooms Rendered In Eight-channel Surround Sound.* Proc. of the 40<sup>th</sup> AES Conference on Spatial Audio, Tokyo, Oct. 8-10, 2010.
- \* Woszczyk, W., Leonard, B. and D. Ko. Evaluation of Late Reverberant Fields in Loudspeaker Rendered Virtual Rooms. Proc. of the 128th AES Convention, London, May 22-25, 2010.
- Woszczyk, W., Ko, D., Leonard, B., and D. Benson. Selection And Preparation Of Multichannel Room Impulse Responses For Interactive Low-Latency Rendering Of Virtual Rooms. Proc. of The Sixteenth International Congress on Sound and Vibration, Kraków, July 5-9, 2009.
- \*: Woszczyk, W., Leonard, B. and D. Ko. Space Builder: an impulse response-based tool for immersive 22.2 channel ambiance design. Proc. of the 40th AES Conference on Spatial Audio, Tokyo, Oct. 8-10, 2010.
- :. Woszczyk, W., Leonard, B. and D. Ko. Virtual Acoustics at the Service of Music Performance and Recording. Archives of Acoustics 37.1 (2012): 109-113.

Woszczyk, W., Leonard, B. and D. Ko. *Virtual Stage Acoustics*. Proc. of the International Symposium on Room Acoustics, Melbourne, Aug. 29-31, 2010.

#### PUBLISHED RECORDINGS

\* = currently in production Duo Giocoso. 2011, Axel Records. Recording, editing & mixing.

Matt Haimovitz & Christopher O'Riley. *Shuffle.Play.Listen.* 2011, Oxingale Records. Editing, additional recording.

Ian Kelly. *Diamonds & Plastic*. 2011, Audiogram Records. Additional recording.

Elias-Axel Pettersson. *Momentum*. 2010, Axel Records. Recording, editing & mixing.

Ben Wilkins. Ben Wilkins. 2010. Additional recording.

Christopher D. Lewis. *The New-fangled Clavier*. 2010, NewMixMusic. Mastering.

Shae Fiol. Catch a Ride. 2010, Purpose Records. Recording (rhythm section).

Spaces for Morning. EP 2010. Recording (rhythm section).

The Bronze Fondue. Bronze Fondue. 2009. Recording.

M Shanghai String Band. *Mapmaker's Daughter*. 2009, Red Parlor Records. Recording, editing.

Nick Joseph. New Shades of Blue. 2008. Recording & mixing.

California Lutheran University Choir. Spirit Movin'. 2006. Recording.

California Lutheran University Choir. *Blue Suns, Green Whirlwinds*. 2006. Recording & mixing.

Additional projects: (assistant engineer and/or technical coordinator) Michelle Ndegeocello, Bob Belden, Russ Titleman, Lenny Pickett & Combo Nuvo, Robert Glasper, Richard King, Jim Anderson, Devo Springsteen, Martha de Francisco, the National Youth Orchestra of Canada and others.

## OTHER ACADEMIC ACTIVITIES

Leonard, Brett A. "The Practical Effect of Lateral Reflections in the Control Room." TechnoBlitz. Montreal. 9 Nov. 2011. Lecture.

Panelist. "Capturing Height in Surround." 131st Convention of the Audio Engineering Society. New York. 20 Oct. 2011. Workshop.

Session chair. Perception Engineering Briefs, 131st Convention of the Audio Engineering Society. New York. 20 Oct. 2011.

Leonard, Brett A. "In Situ Measurements of the Grand Piano." Music and Research Laboratory Friday lecture series. New York University, New York. 25 Feb. 2011. Lecture.

Panelist. "Space Builder: A Comprehensive Production Tool for 22.2 Channel Sound Design." 40th Conference of the Audio Engineering Society. NHK Science & Technology Research Labs, Tokyo. 8 Oct. 2010. Workshop.

Panelist. "How to Get the Recording You Want: Creativity and Sound Recording." 2012 POP Montreal symposium. 20-23 Sept. 2012.

Panelist. "Sound Design Tools for Multichannel Audio with Height." 133<sup>th</sup> Convention of the Audio Engineering Society. San Francisco. 28 Oct. 2012. Workshop.

## **REFERENCES**

Available upon request