

Daniel L. Steele

daniel.steele@mail.mcgill.ca
3661 Peel St.
Montreal, Quebec, Canada
(438) 825-0580

Diplomas:

PhD Candidate, Information Studies (Graduate) McGill University, Montreal, QC, Canada Advisor: Catherine Guastavino	2012- (expected: 2016)
MArch, Urban Design and Housing (Graduate) McGill University, Montreal, QC, Canada Advisor: Nik Luka	2012
MA Music, Science, & Technology (Graduate) Stanford University, Palo Alto, CA Center for Computer Research in Music and Acoustics (CCRMA) Advisor: Chris Chafe	2007
BS Mathematics (Undergraduate) Massachusetts Institute of Technology (MIT), Cambridge, MA Advisor: Denis Auroux	2006
BS Music (Undergraduate) Massachusetts Institute of Technology (MIT), Cambridge, MA Advisors: Ellen Harris and Lowell Lindgren	2006

Research Interests:

Soundscape, Urban Design and Planning, Sound, Acoustic Environments, Built Environment, Auditory Perception and Cognition, Urbanism, Urban Quality, Environmental Psychology, Mixed Methods Research, Cognitive Sensors, Transportation and Infrastructure, Music History, Analysis, and Performance

Work Experience – salaried positions:

- Starkey Hearing Research Center, Research Programmer – Berkeley, CA, USA 2007-2011
Created software and hardware interfaces for the study of hearing-impaired research participants in a laboratory setting, researched state-of-the-art music and speech technologies for Starkey hearing aids, maintained electroacoustic equipment
- INCAS3, Pre-doctoral Researcher – Assen, the Netherlands (and Montreal, Canada) 2013
Explored soundscape applications for novel urban monitoring network and conducted research interviews with urban planners to understand priorities for soundscape planning

Work Experience – appointments and internships:

- INCAS3, Visiting Researcher, Cognitive Systems Group, Assen, the Netherlands 2012
Continued as employee after CIRMMT-funded research exchange (see salaried positions)
- M.I.T., Research Assistant, Laboratory Assistant – Cambridge, MA, USA 2006
Worked as a member of a research team to design and conduct an experiment aimed at improving technologies for the hearing impaired and designed a modern implementation of classic experiments for an MIT Course.
PI: Louis Braida, Professor of Health Sciences and Technology
- Pratt & Whitney, Engineering Intern, West Palm Beach, FL, US 2002, 2004, 2005
Rocket Division – Summer intern. Analysis and selection of high-performance seals, population of database with newly acquired technology
- Pilgrim Nuclear Power Station, Entergy Corp., Chemistry Intern, Plymouth, MA, USA 2003

Peer-Reviewed Conference Proceedings:

1. ***Steele, D.**, Tarlao, C., Bild, E., Guastavino, C. (2016). Evaluation of an urban soundscape intervention with music: quantitative results from questionnaires. Proceedings of Internoise, 2016.
2. *Bild, E., **Steele, D.**, Tarlao, C., Coler, M., Guastavino, C. (2016). Sharing music in public spaces: social insights from the Musikiosk project (Montreal, Canada). Proceedings of Internoise, 2016.
3. *Tarlao, C., **Steele, D.**, Guastavino, C. (2016). Validation of soundscape evaluation scales across French in English in Montreal. Proceedings of Internoise, 2016.
4. *Steffens, J., **Steele, D.**, Guastavino, C. (2016). Music influences the perception of our acoustic and visual environment. Proceedings of Internoise, 2016.
5. ***Steele, D.**, Bild, E., Tarlao, C., Guastavino, C. (2016). Soundscape and activity: a comparison of data collection methods in a pleasant urban park. Proceedings of the 22nd International Congress on Acoustics.
6. Steffens, J., **Steele, D.**, & Guastavino, C. (2016). Der Einfluss von Musik auf die Bewertung der Umwelt. In Fortschritte der Akustik - DAGA 2016 (Aachen). CD-ROM.
7. Steffens, J., **Steele, D.**, & Guastavino, C. (2015). Measuring Momentary and Retrospective Soundscape Evaluations in Everyday Life by Means of the Experience Sampling Method. The Brunswik Society Newsletter, 30, 45–48.
8. **Steele, D.**, Dumoulin, R., Voreux, L., Gautier, N., Glaus, M., Guastavino, C., Voix, J. (2015). Soundscape Evaluations of Musikiosk: a mixed-methods impact study of a musical installation in an urban park. July 15-17, Montreal, Canada. (full paper peer-reviewed).
9. ***Steele, D.**, Steffens, J., Guastavino, C. (2015). The role of activity in urban soundscape evaluations. Proceedings of EuroNoise 2015. May 31-June 3, Maastricht, the Netherlands.
10. †*Steffens, J., **Steele, D.**, Guastavino, C. (2015). New insights into Soundscape evaluations using the experience sampling method. Proceedings of EuroNoise 2015. May 31-June 3, Maastricht, the Netherlands.
11. Steffens, J., **Steele, D.**, Guastavino, C. (2015). Die Experience Sampling Methode – Ein Werkzeug der Zukunft für die Soundscape-Forschung? Fortschritte Der Akustik, DAGA, 2015. March 16-19, Nuremberg, Germany.
12. ***Steele, D.** & Guastavino, C. (2013). How do urban planners conceptualize and contextualize soundscape in their everyday work? Proceedings of InterNoise 2013. September 15-18, Innsbruck, Austria. (7 pages)
13. Nielbo, F., **Steele, D.** & Guastavino, C. (2013). Investigating soundscape affordances through activity appropriateness. Proceedings of International Congress on Acoustics. June 2-7, Montreal, Canada. (8 pages)
14. **Steele, D.**, Krijnders, D. & Guastavino, C. (2013). The Sensor City Initiative: cognitive sensors for soundscape transformations. Proceedings of GIS Ostrava 2013: Geoinformatics for City Transformations. January 21-23, Ostrava, Czech Republic. (8 pages)
15. **Steele, D.**, Luka, N. & Guastavino, C. (2012). Constructing ideal soundscapes: a practical study on closing the gaps between soundscape studies and urban design. Proceedings of Acoustics 2012, joint meeting of the 2012 IOA annual meeting and the 11th Congrès Français d'Acoustique, April 23-27, Nantes, France. (6 pages)
16. **Steele, D.**, & Luka, N. (2012). Constructing the ideal soundscape: a practical study on closing the gaps between soundscape and urban designers. The Journal of the Acoustical Society of America, 131(4), 3475-3475. (abstract only)
17. **Steele, D.L.** & Chon, S.H. (2007) A Perceptual Study of Sound Annoyance. Proceedings of the 2nd Audio Mostly Conference, pp. 19-24. September 27-28, Ilmenau, Germany. (6 pages)

* *invited*

† *Best Paper Award*

Awards, Distinctions, Fellowships, and Tuition Assistance:

1. McGill Finalist, Forces Avenir competition - Project AVENIR: Society, Communications, and Education for Musikiosk. Applied on behalf of the Musikiosk team. Results for the Quebec competition to be announced in summer 2016.
2. Young Professionals Grant for Inter-Noise 2016, International Institute of Noise Control Engineering (I-INCE) for travel and registration. Inter-Noise 2016, Hamburg, Germany.
3. Archie Malloch Graduate Fellowship in Public Learning, the Institute for the Public Life of Arts and Ideas (IPLAI). Awarded in Apr2016 for 2016-2017.
4. Urban Seed Grant - *Urban Public Space and Data Gathering: a multi-disciplinary challenge. In the spotlight: sound and the Amsterdam acoustic experience*. Centre for Urban Studies, University of Amsterdam. Collaborator and invited guest. For the organization of a professional network and event. Mar2016.
5. CIRMMT Student Award, Apr2012, renewed in Apr2013, Apr2014, and Apr2015 - Project title: Spreading soundscapes: A collaborative and practical study on closing the gaps between soundscape researchers and urban designers. Center for Interdisciplinary Research in Media, Music and Technology (CIRMMT), McGill University.
6. Graduate Excellence Fellowship, 2015, McGill School of Information Studies
7. Dean of Arts Development Fund - to support research activities on the Musikiosk project. Mar2015.
8. Ruth Hoyt Cameron Fellowship, 2014-15, McGill Faculty of Education Award - for academic merit
9. WYNG Trust Fellowship, 2014-15, McGill Faculty of Education Award - for international doctoral students on the basis of academic merit
10. Graduate Excellence Fellowship, 2014, McGill School of Information Studies
11. Students Grant of the Internoise2013 Organisation Committee, Sep2013, Innsbruck, Austria
12. Graduate Fee Waiver, 2013, McGill School of Information Studies
13. Graduate Excellence Fellowship, 2013, McGill School of Information Studies
14. Research Stipend with Dr. Catherine Guastavino, 2012, renewed 2013, 2014, 2015, 2016, McGill School of Information Studies
15. Graduate Excellence Fellowship, 2012, McGill School of Information Studies
16. McGill Engineering International Tuition Award (MEITA, declined), 2012-15, McGill Department of Engineering
17. Norbert Schoenauer and David Farley Fellowship in Architecture, 2012, McGill School of Architecture
18. M.I.T. - Arts Scholar - MIT arts leadership group, cultivated through events and mentorship. 2004-2006.
19. M.I.T. - Richard D. Nordlof Award - for distinguished service and musical contribution to the MIT Wind Ensemble. Jun2006.
20. M.I.T. - The Gregory Tucker Memorial Prize - for ability in composition, performance or music-historical studies and overall contributions to the music and theater arts section. Jun2005.
21. M.I.T. - Ragnar and Margaret Naess Award - for exceptional talent and commitment to private performance study. Jun2005.
22. M.I.T. - Emerson Scholarship Recipient, 5 times, on both piano and clarinet, 2003 - 2006
23. Pathfinder Award, Distinguished Students (Music, 1st Runner Up) - Palm Beach County, Jun2002.
24. Kiwanis Club of Riviera Beach Service Scholarship. Jun2002.

Travel Assistance Awards

1. CIRMMT Student Travel Award – for intercontinental travel to Inter-Noise 2016 in Hamburg and Berlin, Germany. McGill – Center for Interdisciplinary Research in Media, Music and Technology (CIRMMT), McGill University. Sep2016.
2. ICA-ASA Young Scientist Conference Attendance Grant – for presentation of invited paper at the International Congress on Acoustics 2016 in Buenos Aires, Argentina.
3. SIS Travel Grant – for presentation of invited paper at the International Congress on Acoustics 2016 in Buenos Aires, Argentina.
4. McGill Graduate Research Mobility Award (GRMA) – to conduct international research.
5. Faculty of Arts Graduate Student Travel Award – for presentation of invited paper at the Euronoise 2015 Conference and for data collection, interviews with European urban planners and designers. May2015.
6. SIS Travel Grant – for paper presentation at INTERNOISE 2013, Innsbruck, Austria. McGill – School of Information Studies. Sep2013.
7. SIS Graduate Research Mobility Award – for travel to INCAS3, Assen, the Netherlands for research, fieldwork, and methodological training. Feb2013.
8. SIS Travel Grant, for paper presentation at GIS Ostrava, Czech Republic. McGill – School of Information Studies. Jan2013.
9. CIRMMT Student Travel Award – for intercontinental travel to GIS Ostrava, Czech Republic. McGill – Center for Interdisciplinary Research in Media, Music and Technology (CIRMMT), McGill University. Jan2013.
10. CIRMMT Inter-Centre Research Exchange – conducted at INCAS3, Assen, the Netherlands. Center for Interdisciplinary Research in Media, Music and Technology (CIRMMT), McGill University. Feb2012.
11. CCRMA International Travel Grant to Ilmenau, Germany for AudioMostly Conference Presentation. Center for Computer Research in Music and Acoustics (CCRMA), Stanford University. Jul2007.

Teaching – Full Courses:

1. Instructor, McGill University Course GLIS634 – Web Systems Design and Management, Winter 2016.
Principles and practices of designing websites in the context of libraries and information centers. The course focuses on a conceptual approach to organizing information for the world wide web including design, implementation and management issues. Topics include web development tools, markup languages, internet security and web server administration.

Teaching – Teaching Assistant:

1. Teaching Assistant (TA) for McGill Course, GLIS617 – Information System Design.
Leading a weekly 3-hour laboratory session for coding in JavaScript. Included associated grading, preparation, and office hours. (Mean scores on all evaluation points were above 4.0 out of 5). Fall, 2014, repeated Fall, 2015.
2. Laboratory Assistant for MIT Course, 6.182 - Psychoacoustics Project Laboratory.
Provided laboratory assistance to students enrolled in course and wrote modern implementations of the required software in advance of the course.

Teaching – Guest Lecture:

1. McGill University, Course PLAI600 - The Art, Study and Practices of Listening. Led an adapted soundwalk of Montreal for students in music, communications, and education. 18Sep2016.
2. Amherst College, Sonic Architecture, undergraduate course. *Soundscapes and the Built Environment: two studies linking the user, designer, and researcher for positive auditory outcomes*. Amherst, Massachusetts, USA, 06Oct2015, 90 minutes.

3. McGill University, Course EDPE 605 - Research Methods. *Interview Research*. 3-hour lecture and laboratory on turning research questions into semi-structured interviews and analyzing the data. 09Feb2015.
4. McGill University, Course URBP 633 - Planning Methods. *Conducting Successful Interviews*. 3-hour lecture and laboratory on turning research questions into semi-structured interviews and analyzing the data. 30Oct2014.
5. McGill University, Course GLIS 703 - Research Paradigms in Information Studies. *Interviews in Depth*. A 1.5-hour lecture on when to conduct semi-structured interviews and analyzing the data. 26Nov2014.

Teaching – Student Mentoring:

1. Training of Masters Student – Cynthia Tarlao – training on research methods including interviews, questionnaires, and participant observations; and data analysis techniques.
2. Training of Masters Student – Baptiste Guastavino – training on soundscape methods and conducting semi-structured interviews.

Research Assistantships, non-thesis

1. Restaurant Soundscapes and Ambiance – Institut de tourisme et d'hôtellerie du Québec (ITHQ), Montreal, QC, Canada. Mar2015-present.
Conducted literature review, performed data collection via questionnaire and audio recordings, completed analysis of data, including restaurant recording annotation with acoustic indicators, and analysis of quantitative and qualitative questionnaire responses
2. GIS, human perception, and cognition – for Dr. Ilja Frissen, School of Information Studies, McGill University. Jan-May2015.
Conducted literature review and summary of research opportunities at the intersection of information visualization and human perception and cognition.
3. Experience Sampling Method for Soundscape and Soundscape Cognition – with Dr. Jochen Steffens. Sep2014-Feb2015.
4. Music Information Retrieval – with PhD Candidate David Weigl. Mar-Dec2014.
Conducted literature analysis on findings from studies on relevance in music information retrieval studies using inter-rater coding scheme developed for the study
5. Bicycle Comfort – with Dr. Fouaz Ayachi. Dec2013-May2014
Conducting laboratory studies on bicycle comfort and analyzing data at University of Sherbrooke, Quebec, Canada

Public Events, Media, and Outreach:

1. Musikiosk – a collaborative research project with McGill, ÉTS (L'École de technologie supérieure à Montréal), and the Plateau Borough. The team developed and installed a publicly accessible sound amplification system, Musikiosk, in a public park and encouraged users to connect at their discretion. A multidisciplinary soundscape research study accompanied the installation, viz. [Musikiosk project website](#), [public news and events page](#), and press: [CBC: Homerun radio interview with D. Steele](#), [Radio Canada interview with Musikiosk team \(in French, audio linked within\)](#).
2. *Urban soundwalk for urbanists and designers*. Steele, D., & Dumoulin, R. Listening to Public Space – Sound, City Planning and Architecture - Events for Urban Planners and Designers, a series at the Goethe-Institut Montreal. 23Sep2015.
3. *Balade en Écologie Sonore: Ramdam Urbain* (in French). Dumoulin, R., & Steele, D. Guided tour of Montreal's soundscape. Part of a series of *Balades Scientifiques* (Science Excursions) at the *Cœur des Sciences* center at UQÀM (Université du Québec à Montréal). 06Nov and 13Nov2014, renewed for Summer, 2015. Press: [CIBL Radio coverage](#), [Le Devoir article](#), and [McGill dans la ville](#) (all in French).

Editorial Service:

1. Book Reviewer, Springer Publishing (2015). Seeing Cities Through Big Data – Research, Methods and Applications in Urban Informatics.
2. Ad hoc reviewer, Urban Studies (2014)

Departmental and University Volunteer Service:

1. Axis 4 Student Representative - Center for Interdisciplinary Research in Media, Music and Technology (CIRMMT), Multimodal Immersive Systems, 2012-present
2. CIRMMT, Student Executive Committee, 2012-present
3. MIT MacGregor Music Chair, 2004-2006

Invited Presentations:

1. Sound/Science/Environment, *Two Studies of Users, Experts, and Soundscape Concepts: Towards Better Outcomes for Urban Soundscape*. Penn State University, State College, PA, USA, 08Apr2014, 30 minutes
2. Miasta 2.0+ (Cities 2.0+), *Vote with your feet: planning for affordance and activity by sensing the city*. Poznan, Poland, 17May2013, 15 minutes

Conference and Workshop Leadership:

1. Global Sustainable Soundscapes Network Maine Workshop, Session on Urban Soundscapes. Talk: Urban Planning and Soundscapes. Breakout session chair: Psychoacoustics. Location: Rachel Carson Wildlife Refuge, Maine, USA. Role: Co-organizer (with Drs. C. Guastavino & J. Steffens).
2. SIS-CIRMMT Joint Workshop on representing human information in GIS, 16Dec2013, 5 hours. Talks: *Introduction to issues of visualization of qualitative data in maps* (15 minutes), *GIS and soundscape* (15 minutes). Location: Montreal, Canada. Role: Lead organizer.
3. INCAS3-CIRMMT Workshop – Beyond Free Sorting, Oct 11-12. Location: Assen, the Netherlands and Montreal, Canada. Role: Montreal lead.

Selected Academic Presentations:

1. Institute of Sound, Acoustics, and Vibration Engineering (ISAVE), Hochschule Düsseldorf, Wissenschaftlichen Kolloquium (Science Colloquium) – *Soundscape Evaluations of Musikiosk: A Mixed-Methods Impact Study of a Musical Installation in a Public Park*. 09Jun2015, 1 hour.
2. CIRMMT General Assembly – *The role of activity in urban soundscape evaluation*. 28May2015, 25 minutes.
3. CIRMMT Student Award Workshop – *Musikiosk: a soundscape intervention and evaluation in an urban park*. 06May2015, 20 minutes.
4. Quartier des Spectacles-CIRMMT Collaboration Workshop. *The Musikiosk Project*. With Louis Voreux. 16Mar2015, 20 minutes.
5. CIRMMT Music Perception and Cognition Student Colloquium - *Urban soundscape appropriateness evaluations and the role of activity in providing context*. 13Feb2014, 45 minutes
6. New York University (NYU) – Center for Urban Studies and Progress (CUSP) – *Soundscape Projects Summary*. Brooklyn, New York, USA, 20Dec2013, 3 hours
7. CIRMMT Workshop in representing information in GIS (lead organizer). *Introduction to issues of visualization of qualitative data in maps* (15 minutes) and *GIS and soundscape* (15 minutes), 16Dec2013
8. Global Sustainable Soundscapes Network Workshop, *Soundscape Standards*. Baraboo, WI, USA, 22-25Jul2012, 1 hour
9. MIT Senseable City Lab, *Designing Ideal Soundscapes: a practical study on closing the gaps between soundscape studies and urban design*. 14Dec2011, 10 minutes

Professional Presentations:

1. Music Perception and Cognition Laboratory, McGill University. *Hearing Loss, Musicians, and Hearing Aids*. A summary of Starkey's Music Projects. 20Aug2009, 1.5 hours

Posters:

1. CIRMMT General Assembly and Student Symposium. *Spreading soundscapes: a practical study on closing the gaps between soundscape researchers and urban designers*. 05Jun2014.
2. Global Sustainable Soundscapes Network Workshop, Steele, D. and Guastavino, C. *A practical study on the role of urban soundscape design*. Baraboo, WI, USA, 22-25July2012.

Contribution to Peer-Reviewed Publication as Research Programmer:

1. Recker, K. L., & Edwards, B. W. (2013). The Effect of Presentation Level on Normal-Hearing and Hearing-Impaired Listeners' Acceptable Speech and Noise Levels. *Journal of the American Academy of Audiology*, 24(1), 17-25.
2. Luizard, P., Katz, B. F., & Guastavino, C. (2013, June). Perception of reverberation in large coupled volumes: discrimination and suitability. In *International Symposium on Room Acoustics*.
3. Strelcyk, O., Nooraei, N., Kalluri, S., & Edwards, B. (2012). Restoration of loudness summation and differential loudness growth in hearing-impaired listeners. *The Journal of the Acoustical Society of America*, 132, 2557.
4. Baskent, D., & Bazo, D. (2011). Audiovisual asynchrony detection and speech intelligibility in noise with moderate to severe sensorineural hearing impairment. *Ear and hearing*, 32(5), 582-592.
5. Chon, S. H. (2007). An assessment of sound annoyance as a function of consonance. In *Proceedings of the Neural Information Processing Systems, Music, Brain and Cognition Workshop*.

Music:*Select Performances and Appointments:*

1. Orchestre philharmonique et chœur des mélomanes – Piano soloist/accompanist for Orff's *Carmina Burana* (2 piano version) and Saint-Saëns *Le carnaval des animaux*. Montreal, Canada. April, 2016
2. Rehearsal Accompanist and Celesta Player – (American) West Coast Premiere, R. Strauss' *Ariadne auf Naxos* (1912 version), SF Conservatory, San Francisco, CA, USA
3. Stanford Lively Arts – Purcell's *The Moor's Pavane* ballet with Limon Dance Theater, harpsichord
4. Rehearsal Accompanist, piano, and Principal Clarinetist – Verdi's *La Traviata* and Puccini's *La Bohème*, Virago Theater, Oakland, CA, USA
5. windquintet@mit - clarinetist and founding member, 2004-2006; dedication and world premiere, Charles Shadle's *A Romance (for Miss Jewett)*; group remains active as of 2012.
6. Stanford Philharmonia, New Music Ensemble, Symphony, Principal Clarinet and Piano – 2007-2011 (Freelance after graduation). Includes: Schumann *Piano Concerto* with Jon Nakamatsu, piano; 50th Anniversary of Messiaen and Carter, Stanford New Ensemble, song selections with Tiffany Cromartie, soprano
7. Staff Accompanist, Stanford University Music Department
8. Bay Area Classical Harmonies (B.A.C.H.) – 1st Clarinet
9. M.I.T. Wind Ensemble, Principal Clarinet – 2002 – 2006

Training:

1. Solo teachers – **clarinet**: Carey Bell (Principal Clarinet, San Francisco Symphony, former Principal, San Francisco Opera), Tom Hill (Principal Clarinet, Boston

- Philharmonic, Boston Chamber Music Society), Dan Salmasian; **piano**: Fred Weldy (Stanford), Heng-Jin Park (MIT, New England Conservatory, Boston Trio), Ken Chappel
2. Chamber music coaches – St. Lawrence String Quartet, George Barth, David Deveau, Marcus Thompson, Laura Dahl

Professionally Released Recordings:

1. Selections from Schumann's *Kinderszenen*, documentary recording: *Un fueguito: la historia de César Milstein*. www.historiamilstein.com, Buenos Aires Film Festival, 2010.
2. Mark Applebaum, *Sock Monkey* for orchestra. On piano. Recorded at Skywalker Sound, Marin, CA, USA, 2008.
3. MIT Wind Ensemble – *Waking Winds*. Clarinet soloist. Recorded at Jordan Hall, New England Conservatory.
4. MIT Wind Ensemble – *Solo Eclipse*. Recorded at Killian Hall, MIT.

Music Reviews:

1. The Tech, Friday, October 21, 2005, MIT, Cambridge, MA. "Steele's performance was lovely and captured the simplicity of the folk-like ballad." On the solo piano version of Copland's *Down a Country Lane*. ([Link to MIT Tech article](#)).
2. The Tech, Tuesday, October 21, 2003, MIT, Cambridge, MA. "The good clarinet solo of Daniel L. Steele '06 is worth singling out." On Copland's *Appalachian Spring*. ([Link to MIT Tech article](#)).

Coursework and Workshops:

1. Extensive coursework in urban design, physical/building acoustics, speech/music signal processing, spectrum analysis techniques, computer programming, and sound recording
2. Research Ethics for Qualitative Methodologies

Training and Skills:

1. Strong background in MATLAB, JavaScript, Java, Scheme, and various sound synthesis languages (SuperCollider, Pd, Chuck) and sound manipulation software (Audacity, ProTools, Snd)
2. Working knowledge of C, C++
3. Working proficiency in French; conversational in Spanish, Dutch, and German; diction coaching as piano accompanist - German and Italian