Curriculum Vitae
Martha E. Thomae Elías
martha.thomaeelias@mail.mcgill.ca
thomaemartha@gmail.com
LinkedIn: https://www.linkedin.com/in/martha-thomae/
Website: https://martha-thomae.github.io
Montréal, QC, Canada

Education

2017–2022: McGill University, Montréal, Canada.
PhD in Music Technology. Dissertation: "Guatemalan Cathedral Choirbooks: From Manuscript to Digital Images to Edited Symbolic Scores" supervised by Prof. Ichiro Fujinaga and Prof. Julie E. Cumming.

2015–2017: McGill University, Montréal, Canada.
M.A. in Music Technology. Thesis: "Automatic Scoring Up of Mensural Music Using Perfect Mensurations, 1300–1550" supervised by Prof. Ichiro Fujinaga and Prof. Julie E. Cumming.

2013: Universidad del Valle de Guatemala, Guatemala City, Guatemala.
B.S. in Mathematics. Undergraduate thesis: "Desarrollo de un modelo algorítmico para la transformación de partituras musicales escritas en notación mensural blanca a notación contemporánea" supervised by Lic. Luis Francisco Soto and Juan Pablo Pira.

2012: Universidad Francisco Marroquín, Guatemala City, Guatemala.
Diploma in Art History: Medieval and Islamic Art.

Academic Experience

2015–present	Research Assistant, "Single Interface for Music Score Searching and Analysis" Project. Distributed Digital Music Archives and Libraries Lab, Department of Music Research, Schulich School of Music, McGill University.
Fall 2020	Co-lecturer, "MUMT 301: Music & the Internet." McGill University.
Fall 2018	Teaching Assistant, "MUMT 306: Music & Audio Computing I." McGill University.
Winter 2018	Teaching Assistant, "MUAR 211: The Art of Listening." McGill University.
Fall 2017	Teaching Assistant, "MUMT 202: Fundamentals of New Media." McGill University.
First term, 2014	Teaching Assistant, "Mathematical Models 1." Universidad del Valle de Guatemala.
First term, 2011	Grader, "Complementary Subjects in Mathematics" (basic contents: partial differential equations and complex functions). Universidad del Valle de Guatemala.
First term, 2009	Grader, "Linear Algebra 1" and "Physics 2." Universidad del Valle de Guatemala.
	Teaching Assistant, "Physics 2 – Laboratory." Universidad del Valle de Guatemala.
Second term, 2008	Grader, "Physics 1." Universidad del Valle de Guatemala.

Publications (refereed)

Paper   Thomae, Martha E., Julie E. Cumming, and Ichiro Fujinaga. "Counterpoint Error-Detection Tools for Optical Music Recognition of Renaissance Polyphonic Music." In *Proceedings of the 23rd International Society for Music Information Retrieval Conference*. Bengaluru, India, 2022.

Paper   Thomae, Martha E., Julie E. Cumming, and Ichiro Fujinaga. "Digitization of Choirbooks in Guatemala." In *Proceedings of the 9th International Conference on Digital Libraries for Musicologists*, 19–26. Prague, Czech Republic: ACM, 2022. https://doi.org/10.1145/3543882.3543885.

Paper   Desmond, Karen, Laurent Pugin, Juliette Regimbal, David Rizo, Craig Sapp, and Martha E. Thomae. "Encoding Polyphony from Medieval Manuscripts Notated in Mensural Notation." In *Proceedings of the Music Encoding Conference*, edited by Stefan Münnich and David Rizo, 197–219. Alicante, Spain (online): Humanities Commons, 2021. https://doi.org/10.17613/tf2j-x697.

Chapter Thomae, Martha E. "The Guatemalan Choirbooks: Facilitating Preservation, Performance, and Study of the Colonial Repertoire." In *Christian Sacred Music in the Americas*, edited by Andrew Shenton and Joanna Smolko. New York, Rowman & Littlefield, 2021.

Poster   Desmond, Karen, Andrew Hankinson, Laurent Pugin, Juliette Regimbal, Craig Sapp, and Martha E. Thomae. "Next Steps for Measuring Polyphony: A Prototype Editor for Encoding Mensural Music." In *Proceedings of the Music Encoding Conference*, 121–24. Tufts University, Boston, MA: Humanities Commons, 2020. http://dx.doi.org/10.17613/5k88-9z02.

Paper   Thomae, Martha E., Antonio Ríos-Vila, Jorge Calvo-Zaragoza, David Rizo, and José M. Iñesta. "Retrieving Music Semantics from Optical Music Recognition by Machine Translation." In *Proceedings of the Music Encoding Conference*, 19–24. Tufts University, Boston, MA: Humanities Commons, 2020. http://dx.doi.org/10.17613/605z-nt78.

Paper   Thomae, Martha E., Julie E. Cumming, and Ichiro Fujinaga. "The Mensural Scoring-Up Tool." In *Proceedings of the 6th International Workshop on Digital Libraries for Musicology*, 9–19. National Library of the Netherlands, The Hague, NL: ACM, 2019. https://doi.org/10.1145/3358664.3358668.

Invited Talks / Conference Presentations

2023   "Updates and Outcomes from the Guatemalan Digitization and Encoding Project." Presented at the Music Encoding and Text Encoding Initiative Joint Conference, Paderborn, Germany, September 8th. (*Refereed*)

"MEI-Workshop: Mensural Music." Workshop presented with co-authors at the Medieval and Renaissance Music Conference, Munich, Germany, July 25th. (*Refereed*)

"Codificación y publicación de música: Un taller sobre Music Encoding Initiative (MEI)." Workshop presented at the Semana de Humanidades Digitales, Online, May 12th. (*Refereed*)

2022   "Counterpoint Error-Detection Tools for Optical Music Recognition of Renaissance Polyphonic Music." Presented at the International Society of Music Information Retrieval, Bengaluru, India, December 6th. (*Refereed*)

"AMS-IAMSG Lightning Lounge – Cantorales: Spanish Chant Books in the Americas and Beyond." Presented at the American Musicological Society / Society for Ethnomusicology / Society for Music Theory Joint Meeting, New Orleans, LA, November 11th. (*Refereed*)

"Music Encoding for Research, Pedagogy, and Discovery – Guatemalan Cathedral Choirbooks: From Manuscripts to Digital Images to Symbolic Editorial Scores." Presented at the American Musicological Society / Society for Ethnomusicology / Society for Music Theory Joint Meeting, New Orleans, LA, November 11th. (*Refereed*)

"Guatemalan Cathedral Choirbooks: Automatic Transcription of Mensural Sources for Their Preservation, Access, and Study." Presented at the International Musicological Society Congress, Athens, Greece, August 24th. (*Refereed*)

"Digitization of Choirbooks in Guatemala." Presented at the Digital Libraries for Musicology, Prague, Czech Republic, July 27th. (*Refereed*)

"Interactive OMR-Assisted Transcription of Mensural Sources Using MuRET." Workshop presented with other co-authors at the Music Encoding Conference, Dalhousie University, Halifax, Nova Scotia, Canada, May 19th. (*Refereed*)

"Accidental Discoveries." Presented at the DACT Workshop 7: Cantorales in the Americas and Beyond, Online, March 11th.

2021   "OMR and Digital Technologies Applied to Music." Invited lecture for Paleography course, Centro de Estudos de Sociología e Estética Musical (CESEM), NOVA University of Lisbon, Portugal (online), December 2nd.

"Encoding Polyphony from Medieval Manuscripts Notated in Mensural Notation." Presented with co-authors at the Music Encoding Conference, Alicante, Spain (online), July 21st. (*Refereed*)

"Guatemalan Cathedral Choirbook 1: From Manuscript to Digital Images to Digital Scores." Presented at the Medieval and Renaissance Music Conference, Lisbon, Portugal (Online), July 6th. (*Refereed*)

"Workshop I: Making Rodan Work for You." Invited lecture for the Digital Humanities in Early Music Research 2021 – Session I: OMR-Capable Chant Editors, Prague (online). March 18th.

"Digital Infrastructures for Mensural Music Using MEI." Invited lecture for the Kolloquium Musikwissenschaft, Freiburger Forschungs- und Lehrzentrum Musik (FZM), Freiburg, Germany. January 26th.

"Encoding Mensural Notation with MEI." Invited lecture for Paleography course, University of Freiburg, Freiburg, Germany. January 25th.

2020   "Workshop II: Hands-on MEI Encoding." Invited shared lecture and hackathon for the Digital Humanities in Early Music Research I Series – Session II: Early Music Databases and Encoding, Prague (online). June 30th.

"Workshop I: Introduction to MEI." Invited shared lecture for the Digital Humanities in Early Music Research I Series – Session II: Early Music Databases and Encoding, Prague (online). June 24th.

"MEI for Encoding Mensural Music – A Survey." Invited lecture for the Digital Humanities in Early Music Research I Series – Session II: Early Music Databases and Encoding, Prague (online). June 22nd.

"Retrieving Music Semantics from Optical Music Recognition by Machine Translation." Presented at the Music Encoding Conference, Tufts University, Boston, MA (online). May 27th. (*Refereed*)

2019   "Digitization and Encoding of the Musical Contents of a Set of Guatemalan Choirbooks." Invited lecture for Multimedia Systems (GLIS 633) course, McGill University, Montréal, Québec, Canada. November 27th.

"The Mensural Scoring-up Tool." Presented at the Digital Libraries for Musicology, National Library of The Netherlands, The Hague, The Netherlands. November 9th. (*Refereed*)

"OMR for Mensural Notation: Looking at a Guatemalan Music Manuscript." Presented at the SIMSSA Workshop XIX, CIRMMT, McGill University, Montréal, Québec, Canada. September 21st.

"Taking Digital Humanities to Guatemala, a Case Study in the Preservation of Colonial Musical Heritage." Presented at the Digital Humanities Conference, Tivoli Vredenburg, Utrecht, The Netherlands. July 10th. (*Refereed*)

"Guatemalan Manuscripts: Digitization Issues and Future Challenges in the Adaption of the OMR Workflow for Mensural Music." Presented at the SIMSSA Workshop XVIII, Department of Musicology, University of Vienna, Vienna, Austria. June 2nd.

"Application of Music-Encoding Technologies to Guatemalan Choirbooks, Facilitating Preservation and Musicological Studies of the Colonial Repertoire." Presented at the Music Encoding Conference, University of Vienna, Vienna, Austria. May 31st. (*Refereed*)

"Preservation of the Colonial Musical Heritage of Guatemala through Digitization and Music Encoding Technologies." Presented at the Association of Canadian Archivists McGill Student Chapter's annual colloquium: Archival Outreach & Hidden Collections, McLennan-Redpath Library Complex, McGill University, Montréal, Québec, Canada. March 18th. (*Refereed*)

2018   "Guatemalan Manuscript Digitization Project." Presented at the SIMSSA Workshop XVII: Infrastructure for Music Discovery, CIRMMT, McGill University, Montréal, Québec, Canada. December 1st.

"Automatic Scoring up of Parts in Mensural Notation." Presented at the Medieval and Renaissance Music Conference, Maynooth University, Maynooth, Ireland. July 6th. (*Refereed*)

"Automatic Scoring up of Music in Mensural Notation." Presented at the Music Encoding Conference, Maryland University, College Park, Maryland, US. May 23rd. (*Refereed*)

"Automatic Scoring up of Mensural Parts." Presented at the Digital Musicology Workshop, CIRMMT, McGill University, Montréal, Québec, Canada. April 27th.

2017   "Automatic Scoring-up Tool for Mensural Music." Presented at the SIMSSA Workshop XII, CIRMMT, McGill University, Montréal, Québec, Canada. August 7th.

"A Methodology for Encoding Mensural Music: Introducing the Mensural MEI Translator." Invited talk at the Music Technology Group, Universitat Pompeu Fabra, Barcelona, Spain. May 22nd.

"A Methodology for Encoding Mensural Music: Introducing the Mensural MEI Translator." Presented at the Music Encoding Conference, Université de Tours, Tours, France. May 17th. (*Refereed*)

2016   "Digital Encoding of Mensural Music." Presented at the SIMSSA Workshop X, CIRMMT, McGill University, Montréal, Québec, Canada. September 24th.

Honors and Awards

May 2018–April 2022   FRQSC Grant ($21,000 CAD/year for four years).
Fonds de Recherche Société et Culture du Québec, Canada.

2019–2020   McGill nominee for the Northeastern Association for Graduate Schools (NAGS) Distinguished master's Thesis Award.
Graduate and Postdoctoral Studies, McGill University, Canada.

2019   CIRMMT Inter-Centre Research Exchange Funding ($2,500 CAD).
Centre for Interdisciplinary Research in Music Media and Technology, Canada.

2019   Best Paper Award: "Application of Music-Encoding Technologies to Guatemalan Choirbooks, Facilitating Preservation and Musicological Studies of the Colonial Repertoire." Music Encoding Conference, Vienna.

2018, 2019   CIRMMT Travel Award ($1,000 CAD) for conference presentation.
Centre for Interdisciplinary Research in Music Media and Technology, Canada.

2013   Honors mention for undergraduate thesis.
Universidad del Valle de Guatemala, Guatemala.

2007, 2010   Academic distinction.
Universidad del Valle de Guatemala, Guatemala.

2007–2009   Blackburn Scholarship.
Universidad del Valle de Guatemala, Guatemala.

Community and Affiliations

Conference Organization
- Program chair, Digital Libraries for Musicology (DLfM 2023)
- Session chair, Digital Libraries for Musicology (DLfM 2022)
- Program committee member & session co-chair, Music Encoding Conference (MEC 2021)
- Program committee member, Digital Libraries for Musicology (DLfM 2021)

Music Encoding Initiative (MEI).
- Board Member (2020–2022)
- Mensural Interest Group Co-Chair (2020–2021)
- Editor of the Guidelines (2020–present)
- Member and collaborator of the Mensural Interest Group (2016–present)

Digital Analysis of Chant Transmission (DACT), Canada.
- Member of the DACT Cantorales Working Group focusing on Spanish chant books (cantorales) in the Americas and beyond (2022–present)

Distributed Digital Music Archives & Libraries (DDMAL) Lab. McGill University, Canada.
- Lab Manager (Sep. 2020–Dec. 2021)
- Research Assistant (2015–present)

Centre for Interdisciplinary Research in Music Media and Technology (CIRMMT), Canada.
- Student coordinator of the Research Axis 2: Music information research (2017–2019)
- Student member (2016–present)

International Society for Music Information Retrieval (ISMIR).
- Member (2017–present)

Other Activities

2011	Choir member in Gluck's "Orfeo ed Euridice" opera, directed by Massimo Pezzutti. Universidad Internaciones, Guatemala City, Guatemala.
2010–2012	Opera singing training with soprano Karin Rademann. Guatemala City, Guatemala.
2009	Workshop in Music Reading. Universidad Internaciones, Guatemala City, Guatemala.
2010, 2012	Basic training in violin and piano
2007–2014	Personal tutor for Mathematics, Statistics, and Physics.

Computer Experience

Programming languages: Python, JavaScript, Max/MSP, MATLAB
Music encoding formats: MEI, LilyPond, Humdrum
Document markup language: LaTeX

Languages

Spanish: native language
English: fluent