



American Musical Instrument Society

2022 Annual Meeting

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SEBASTIEN BUZZALINO PHOTO

American Musical Instrument Society Annual Meeting 2022

AMIS promotes the study of musical instruments and the interaction between scholars across musical disciplines. Through our peer-reviewed Journal, we provide an opportunity for scholars to publish their latest work. AMIS also celebrates the very best of musical instrument scholarship through awards for article and book length publications. The Curt Sachs award is presented to an eminent figure in the field who has dedicated their career to the study of musical instruments. We also support new research and young scholars through publication grants and travel awards to attend our annual meetings. The American Musical Instrument Society meets once a year, bringing together an eminent group of musical instrument historians, enthusiasts, makers, collectors, students, performers, and lovers of all varieties of music. Scholarly presentations, fascinating tours, behind-the-scenes access, and exceptional camaraderie abound. To find out more about AMIS, please visit amis.org.

Studio Bell, home of the National Music Centre

The National Music Centre (NMC) has a mission to amplify the love, sharing, and understanding of music. Since its inception, NMC has been preserving and celebrating Canada's music story from its home at Studio Bell in the heart of the East Village in Mohkinstsis (Calgary) on Treaty 7 Territory. A registered charity with programs that include exhibitions, artist development, performance, and education, NMC is inspiring a new generation of music lovers. For more information about NMC's onsite activities, please visit studiobell.ca. To check out the NMC experience online, including video-on-demand performances, made-in-Canada stories, and highly entertaining educational content, visit amplify.nmc.ca.

Wednesday, June 8

- 10:00 Registration table open
CANADA MUSIC SQUARE
- Self-guided and guided visits to
Studio Bell and recording facilities
- 6:00 AMIS Board dinner and meeting
OFFSITE
- 7:00 Meet and Greet at the King Eddy
- 8:00 Student get-together at
the King Eddy

Thursday, June 9

- 8:45 Welcoming remarks
ANDREW MOSKER
-
- Session 1 Electronic Instruments Part 1**
SESSION CHAIR: JESSE MOFFATT
- 9:00 Hugh Le Caine’s Electronic Sackbut,
1946 to 1954
GAYLE YOUNG
- 9:30 The Electronic Sackbut Project
TOM EVERRETT
- 10:00 The Tape Recorder as a Musical
Instrument: Placing Hugh Le Caine’s
Special Purpose Tape Recorders in
Context
JAMES MOONEY
- 10:30 Coffee Break 25 MINUTES
-
- Session 2 World Instruments**
SESSION CHAIR: JAYME KURLAND
- 11:00 Contemporary Innovations for
the Đàn Bầu Monochord in the
Canadian-Vietnamese Diaspora
LISA BEEBE



- 11:30

Apache Fiddles: Tradition, Forced Assimilation, Commerce, and Museums
KEN MOORE
- 12:00

The Puerto Rican Tiple Requinto Costero: From the Museum Collection to its Revival
WILLIAM CUMPIANO, NORALIZ RUIZ, AND NORMAN STORER CORRADA
REMOTE PRESENTATION
- 12:30

Lunch Break 90 MINUTES ON YOUR OWN

JAMIS Editorial Board Meeting

- Session 3

Preserving Musical Assets
SESSION CHAIR: ANDREW MOSKER
- 2:00

Preserving and Sharing the EMI Music Canada Archive at the University of Calgary
ANNIE MURRAY, ROBB GILBERT, ELIZABETH-ANNE JOHNSON, DAVID JONES, ANDY NICHOLS, AND KATHRYN RUDDOCK
ROUNDTABLE PRESENTATION
- 3:00

Historic Cardboard and Metal Discs Revisited
HEIKE FRICKE

- 3:30

Coffee Break 25 MINUTES
- Session 4

Wind Instruments
SESSION CHAIR: JANET PAGE
- 4:00

A Flute by Any Other Name: The Uncommon and Curious Dolzflöte
PATRICK CONNOR DITTAMO
- 4:30

Tone, Technique, and Technology: Nineteenth-Century Debates on Italian Flutes
SAMANTHA TRIPP
- 5:00

A Breath of Modernity! Camille Saint-Saëns and Wind Instruments
FABIEN GUILLOUX AND EMANUELE MARCONI
REMOTE PRESENTATION
- 7:00

Bar open
- 7:30

Doors open to Performance Hall
- 8:00

Concert:
Silent Movie Soundtracks
featuring Chris Maric performing on the Allen Theater Organ

Friday, June 10

Session 5 Electronic Instruments Part 2

SESSION CHAIR: ADAM FOX

- 9:00 Rebuilding the 5th Triad A Range
JASON TAWKIN
- 9:30 From Datasheet to Dancefloor: The Elektron Sid Station
DAVID JONES
- 10:00 The Pervasive use of English in Electronic Music Instrument Design and its Effect on Non-native Speakers
PABLO DODERO CARRILLO
- 10:30 Coffee Break 25 MINUTES

Session 6 Banjos and Harps

SESSION CHAIR: DARCY KURONEN

- 11:00 What is an Early Banjo?
An Exploration of an Instrument's Relationship to Organology and Ethnomusicology
KRISTINA GADDY AND PETE ROSS

- 11:30 The Mysterious Affair of Queen Marie Antoinette's Harp: A Case for the Harp Detective
FANNY GUILLAUME-CASTEL
- 12:00 The Hochbrucker Family and the Adoption of the Pedal Harp before 1760
MIKE BALDWIN AND LEWIS JONES
REMOTE PRESENTATION
- 12:30 Lunch Break and Annual General Meeting
90 MINUTES WITH LUNCH DELIVERY OPTION

Session 7 Musical Engagement

SESSION CHAIR: HEIKE FRICKE

- 2:00 Archiving Post-1960 Musics: Four Experiences of Engagement
YOU NAKAI, LUISA SANTACESARIA, VALENTINA BERTOLANI, AND GAYLE YOUNG
ROUNDTABLE PRESENTATION



2:30	Historical Instruments in Virtual Acoustic Environments: A Framework for the Generation of Interactive Virtual Acoustic Objects and Multimodal Organological Datasets DOMINIK UKOLOV	7:00	Bar open
		7:30	Doors open to Performance Hall
		8:00	Concert: Instruments Alive ft. TONTO with Robin Hatch/Ondéa & more with Karl Hirzer, Josué Valdepeñas

3:30 Coffee Break 25 MINUTES

Session 8 The Violin Family

SESSION CHAIR: MATTHEW ZELLER

4:00	The Serafin Violinmaker Family: Macro to Micro Level Approach for the Study of Two Violins Held in the Correr Museum in Venice CHAEHOON LEE
4:30	Hexagram or Star of David? A Modern Interpretation of Markneukirchen Violin Inlays Under the Microscope STELLA SMITH
5:00	Tuning, Timbre, and Technique: Reconsidering the 19th-Century Double Bass SHANTI NACHTERGAELE

Saturday, June 11

Session 9 **Miscellaneous Topics**

SESSION CHAIR: KEN MOORE

9:00 George Hooper Mead: One of
Canada's First Instrument Makers,
1827-1851

FRANCIS LAPOINTE

9:30 Italian Non-sounding Musical
Instruments in the Age of the
Marvelous: Functional Objects
Without Function

ARIANNA RIGAMONTI

10:00 “Clicking the Ivory” – A.M. Virgil's
Tekniklavier Revisited

JÖRG HOLZMANN AND PATRICK SPECKAMP

REMOTE PRESENTATION

10:30 Coffee Break 25 MINUTES

Session 10 **Guitars**

SESSION CHAIR: JONATHAN SANTA MARIA BOUQUET

11:00 The Instrumental Women of Fender

JAYME KURLAND

11:30 New Soundscapes on
the “Ligeti guitar”: Chopin,
Kurtág, and Saariaho

KATALIN KOLTAI

LECTURE-RECITAL

12:00 “I Can't Turn Off What Turns Me On”
A Queer Phenomenology and the
St. Vincent Signature Electric Guitar

ERIN A. FITZPATRICK

REMOTE PRESENTATION

12:30 Lunch Break 90 MINUTES ON YOUR OWN

Session 11 **Early American Instruments**

SESSION CHAIR: DARCY KURONEN

2:00 The Early Piano in America,
1745-1810

THOMAS STRANGE

2:30 An Ancient American Piano with
Clues About Piano Origins

JOHN WATSON

3:00 Coffee Break 25 MINUTES



Session 12 Electronic Instruments, Part 3

SESSION CHAIR: SARAH DETERS

3:30 The Radio as a Musical Instrument:
Five Composition Practices
from Electronic Music

THOM HOLMES

REMOTE PRESENTATION

4:00 The Ondes Martenot: A Brief
History and Contemporary Design
Trajectory, 1928-2022

DAVID KEAN

6:30 Banquet cocktail reception

SKYBRIDGE

7:30 Banquet

SKYBRIDGE

Thursday, June 9

Session 1: Electronic Instruments

Hugh Le Caine's Electronic Sackbut, 1946 to 1955

Gayle Young

The Electronic Sackbut was first played during World War II in after-hours jam sessions among physicists whose day job was the development of radar for the National Research Council of Canada, based in Ottawa. Acetate recordings of familiar songs played by Le Caine and his fellow physicists were made in 1946, demonstrating the instrument's development. Le Caine designed the electronics to achieve what he described as expressivity, providing methods of gradually and simultaneously shifting pitch, volume, and waveform, through inventive pressure-sensitive control devices.

Most electronic keyboards used systems of switches or buttons, each option leading to a distinct and pre-defined sound. Touch-sensitive controls were not available on comparable instruments for many years. The Sackbut electronics used capacitance to provide gradual changes in voltage that determined the nature of the resulting sound. Le Caine designed interface devices, including mobile conductive plates and methods of shifting keyboard position, to control the physical motion that increased or decreased the voltages.

Playing the Sackbut was a challenge for most musicians, though apparently less so for physicists. Few musicians questioned the nature of a musical instrument. Traditional instruments come with built-in characteristics, and musical training emphasizes the enhancement of, for instance, the sound of a bowed violin, by listening to the sound produced by subtle changes in bowing. The Sackbut opened the box, and the concept of instrument lost its pre-defined identity. To play it effectively a musician learned to listen simultaneously to all changeable elements and operate the controls in "real time" to affect every nuance of the sound. It is perhaps ironic that an instrument designed to facilitate expressivity could only be effectively played by a musician able to imagine sound in terms of acoustics. Le Caine could make it sound like a saxophone or a cello.

Gayle Young documented instruments invented by Le Caine at the National Research Council in Ottawa, then expanded her research, publishing *The Sackbut Blues* in 1989. Young has continued composing, building instruments, and writing about music and instruments, particularly as the editor of *Musicworks* magazine for over two decades.

The Electronic Sackbut Project

Tom Everett

The Electronic Sackbut, built by Canadian Hugh Le Caine in 1945–48, is widely regarded as the world's first modern synthesizer. Yet we still know surprisingly little about how it works. Complex electrical routing, buried capacitors, brittle wires, broken solders, and other material challenges have made knowledge-generation difficult. Thanks to a two-year conservation effort, led in 2015 by electronic instrument technician J. L. Leimseider (National Music Centre, Canada), we now know more about the Electronic Sackbut's design and functionality than ever before. Yet without being able to play the instrument—an impossibility given the degraded state of its original components—our understanding of the Electronic Sackbut's instrumentality remains limited. Although written descriptions, photographs, and audio recordings do exist, researchers have yet to unearth any film footage that might help us understand exactly how Le Caine built the instrument, or how he achieved the sounds that he did in performance. Moreover, the surviving audio recordings reflect prevailing musical sensibilities (traditional and experimental) of the 1940s–50s. As such, they offer only a glimpse at the instrument's technical capabilities and musical potential.

Recently, curatorial and conservation staff at Ingenium: Canada's Museums of Science and Innovation (Ottawa) initiated a project to build a hybrid mechanical/digital reconstruction of the Electronic Sackbut in order to deepen our material and musical understanding of the instrument. The idea is to physically reconstruct the instrument's mechanical elements—pressure-sensitive keyboard, finger-controlled filter and modulator, sliding tone wheel, various pots and switches—while patching these into a bespoke digital sound engine which can approximate its electronic functions

and sound. Our goal is therefore to deliver an ergonomically and sonically “faithful” reconstruction of the 1948 instrument that will permit new opportunities for hands-on experimentation, public performance, and fuller material culture exploration. This paper will describe the background and current state of the project, including reflections on the many practical, ethical, and interpretive issues involved.

Tom Everett, PhD, is Curator of Communications at Ingenium: Canada's Museums of Science and Innovation. He also holds an Adjunct Professorship at Carleton University, Ottawa. He curated the Canada Science and Technology Museum's permanent Sound by Design gallery, is co-editor of Sound & Science: a database for sources in the history of acoustics, and is currently leading a multi-year sound museology project called “Sound Artifacts: Histories & Futures.

The Tape Recorder as a Musical Instrument: Placing Hugh Le Caine's Special Purpose Tape Recorders in Context

James Mooney

After World War II, magnetic tape technology—advanced rapidly as part of Germany's war effort—came into its own as a new musical medium. European and North American avant-garde composers became interested in the extended timbral and structural affordances of tape and its associated tools and techniques as ways of creating what was variously known as *musique concrète*, electronic music, and tape music.

It was in this context that Hugh Le Caine (1914–1977), a Canadian physicist and ex-World War II radar engineer working at the National Research Council in Ottawa, designed and built a series of five “Special Purpose Tape Recorders.” These enabled composers to transpose, combine, and dynamically inflect sounds recorded on up to twenty independent tape channels, effectively transforming the tape recorder into a sophisticated musical instrument for electronic music studios. The first model is currently on loan to the National Music Centre and will, by special arrangement, be moved from its usual location (as part of the NMC's Plugged In exhibition) into the conference venue for viewing by delegates during my presentation.

Le Caine was not alone in his efforts to instrumentalize the musical potentialities of magnetic tape. Many composers and sound recordists creatively employed cutting, splicing, looping, and compositing techniques in their work with commercial tape recorders. Those with electronics skills sometimes modified their machines, e.g., to provide variable speed or multi-tracking capabilities. Some studios commissioned specially designed tape-machines for specific creative operations: RTF's two *phonogènes*, Philips'

tape-loop player/recorder, etc. Entrepreneur-inventors exploited tape's imitative capacities in new musical instruments like the Chamberlin and Mellotron.

Le Caine's tape recorders stand out as unique, however, as I shall elaborate: the extent of their programmability, musical expressivity, and electro-mechanical ingenuity are characteristics that make them, I will argue, some of the most advanced tape-based musical instruments ever made.

James Mooney, PhD, is Associate Professor of Musicology and Music Technology, University of Leeds, UK. His current research focuses on the history and development of electronic musical instrumentation. He co-leads the Music, Science, and Technology Research Group and sits on the committee of the Musical Instrument Resource Network, UK—a subject-specialist network that promotes understanding of issues surrounding the care and display of musical instruments and collections. He is a subject specialist in electronic music for the Computer History Museum (Mountain View, CA).

Thursday, June 9

Session 2:

World Instruments

Contemporary Innovations for the Đàn Bầu Monochord in the Canadian-Vietnamese Diaspora

Lisa Beebe

A monochord zither, the đàn bầu (also known by Vietnamese musicians as the đàn độc huyền or độc huyền cầm, both meaning “one string instrument”) is a symbol of cultural pride in Vietnam and in the Vietnamese diaspora due to its organological distinctiveness. For example, while other Southeast and East Asian cultures have monochords similar in construction to the đàn bầu, the Vietnamese instrument is unique in its use of natural harmonics rather than stopping the string directly.

In this paper, I argue that Vietnamese-Canadian musicians draw upon the distinctiveness of the đàn bầu to distinguish Vietnamese music from the music of other diaspora communities. I draw on a series of interviews and virtual đàn bầu lessons with Vietnamese-Canadian musician Bic Hoang. As a teacher, composer, and performing musician, Ms. Bic has introduced Canadian audiences to the đàn bầu through educational programs and collaborations with institutions such as the Vancouver Intercultural Orchestra (VICO). Ms. Bic’s 2016 collaboration with VICO, *River of Memory*, is a fretted đàn bầu concerto featuring violin, viola, cello, bass, flute, and percussion, as well as the erhu spike fiddle, yangqin dulcimer, yueqin lute, and the oud lute. Not only is Ms. Bic a talented performer on the standard đàn bầu monochord, but her compositions for đàn bầu modified with frets make use of extended techniques to continue to expand the sonic palette of the instrument.

Through the work of composer Bic Hoang, this paper explores contemporary organological innovations for the đàn bầu monochord and investigates the ways in

which musicians center the đàn bầu as a symbol of Vietnamese identity in multicultural Canada.

Lisa Beebe is Assistant Professor of musicology and ethnomusicology at Cosumnes River College in Sacramento, California. In 2017, she completed a PhD in cultural musicology from the University of California, Santa Cruz with a dissertation focused on the cultural history of the Vietnamese đàn bầu monochord. Along with the đàn bầu, she loves to play viola, tenor and bass violas da gamba, and recorders.

Apache Fiddles: Tradition, Forced Assimilation, Commerce, and Museums

Ken Moore

At the end of the nineteenth century, many ethnographic and art museums acquired examples of the Tsii`edo`a`tl (Apache Fiddle), a one- or occasionally two-stringed, bowed zither produced for personal entertainment by Western Apache bands from San Carlos and White Mountain in Arizona. Fourteen single-stringed instruments representing four styles are at The Metropolitan Museum of Art. Collected during the final years of the Apache-United States conflict and the establishment of federally funded Indian Industrial Schools, these examples bear witness to social and cultural pressures placed on Native American communities. This paper employs the tsii`edo`a`tl to explore continuity and change activated by population displacement and systematic reculturalization and attempts to document an impending vanishing culture and the commercialization of tradition.

Ken Moore is Curator Emeritus of Musical Instruments, The Metropolitan Museum of Art. He pioneered museological and programmatic approaches to interpreting and presenting non-Western musical instruments, contributed to or supervised more than 25 special exhibitions, 500 performances, 15 publications, numerous videos, recordings, and broadcasts. He has served many organizations including acting as President, CIMCIM, Board Member, American Association of Museums; Board of Governors, AMIS; Council Member, SEM; Board Member, Society for Asian Music.

The Puerto Rican Tiple Requito Costero: From the Museum Collection to its Revival

William Cumpiano,
Noraliz Ruiz, and
Norman Storer Corrada*

Remote Presentation

The field of Puerto Rican music history has defined a distinctive native family of lutes, namely, the cuatro, the tiple, and the bordonúa. Since the first half of the twentieth century, the cuatro has reached an advantageous position in the cultural memory of Puerto Ricans as it has been frequently used in the archipelago's folk and popular music expressions and regarded as a highly revered symbol of national identity. Although written records dating back to the nineteenth century reference the use of the three-member lute family, the cuatro's popularity and its promotion through an official cultural and national program resulted in the displacement of the other two instruments. As the cuatro overshadowed the tiple and the bordonúa, their use and construction became uncommon. Recently, however, both instruments have been objects of study and research among scholars, luthiers, musicians, and cultural institutions from Puerto

Rico that seek to raise awareness of these lutes and reintroduce their use in folk music practice. These efforts have been especially successful at renewing interest in the tiple doliente from the region of Morovis, albeit at the expense of other regional variations of the instrument.

This presentation examines the latest initiative to rescue and increase the visibility of one of these extinct regional variants, the tiple requinto costero. In 1898, the Smithsonian collected three tiples in Ponce, Puerto Rico, which remained mostly unknown on the archipelago for over a century and have now become the focus of efforts to revive the construction and performance of the tiple requinto costero. Museologist Norman Storer Corrada describes the instruments and their collection context, while renowned luthier William Cumpiano details the construction process of replicas of these tiples, and ethnomusicologist Noraliz Ruiz examines the implications and the importance of this finding for Puerto Rican music historiography.

William Cumpiano has created hundreds of individually crafted guitars and other stringed instruments in the European, North American, and Latin American traditions. He is the co-author of *Guitarmaking: Tradition and Technology*, a recognized textbook in guitar-making. Cumpiano is co-founder of the Puerto Rican Cuatro Project, an organization dedicated to studying, preserving, and promoting the musical and musical-craft traditions surrounding the cuatro family of musical instruments created in Puerto Rico since the eighteenth century.

Noraliz Ruiz holds a PhD in ethnomusicology-musicology from Kent State University. Her research focuses on the Puerto Rican lutes cuatro, tiple, and bordonúa, particularly in the continuity and change of the instruments' tradition and performance practice. She has taught various courses in popular music at the Inter-American University of Puerto Rico. Noraliz is a member of the electronic indie band Balún and an associate researcher of Colectivo de Estudios Musicales de Puerto Rico.

Norman Storer Corrada is a master's student in the George Washington University Museum Studies program. Originally from San Juan, Puerto Rico, he received his BA at Harvard University and worked as the Dumbarton Oaks Humanities Fellow at Smithsonian Folkways Recordings. He will be a curatorial intern with the National Museum of American History Musical Instruments Collection in Spring 2022. His interests include Caribbean and Latin American history and music, organology, and material culture.

Thursday, June 9 Session 3: Preserving Musical Assets

Preserving and Sharing the EMI Music Canada Archive at the University of Calgary

Annie Murray, Robb
Gilbert, Elizabeth-Anne
Johnson, David Jones,
Andy Nichols, and
Kathryn Ruddock

Roundtable

Six members of the EMI project team at the University of Calgary present a round-table discussion on their work to receive, describe, preserve, and provide access to audiovisual recordings from the EMI Music Canada Archive, which was donated to the University in 2016 by Universal Music Canada. With the support of the Andrew W. Mellon Foundation, the team has developed methods for the large-scale digitization, migration, and imaging of nearly forty audio-visual formats. The team has implemented an access and a preservation system to deliver and preserve this collection over time. Using artists and recordings from the EMI fonds, the team will demonstrate the project's overarching goals, methods, and decisions on how to make this collection available and useful to researchers now and in the future. Each team member will discuss an area of the project for five minutes.

We will provide an account of the kinds of challenges inherent in a preservation project of this scale, and the ways we have sought to mitigate those challenges.

Robb Gilbert holds a BA in Religious Studies from Carleton University and an MA in Religion and Culture from Wilfrid Laurier University. He obtained a Master of Information degree (Archives and Records Management) from the University of Toronto in 2012 and has over ten years of experience working as an archivist. He assumed his role as Assistant Archivist at the University of Calgary Archives and Special Collections in 2015. He has responsibility for the management of the Canadian Architectural Archives.

Elizabeth-Anne Johnson is Electronic Records Archivist at the University of Calgary. A graduate of the University of Manitoba Archival Studies program, her research interests include digital preservation, the digital and environmental humanities, and conveying the materiality of digitized objects. She has been working with born-and-made-digital archival material at the University of Calgary Archives and Special Collections since 2019.

David Jones holds Master of Information (Archives and Records Management) and Master of Arts (history) degrees from the University of Toronto. He has published his research in the Canadian Journal of History and contributed articles to the Routledge Online Encyclopedia of Modernism. He has performed as an experimental musician and video artist at hundreds of events in North America, including a live collaboration with members of the Tafelmusik baroque quartet.

His creative work has been featured in MacLean's, Exclaim, Musicworks, and Now magazines. David is currently the Project Archivist for the EMI Music Canada Fonds at the University of Calgary.

Annie Murray is Rare Books and Special Collections Librarian at the University of Calgary. She has been Project Coordinator for the EMI preservation initiative since 2016. She is a co-applicant in SpokenWeb, a multidisciplinary research project based in Montreal that aims to digitize, describe, aggregate, and make available literary audio recordings from archives and organizations across Canada. She holds Master's degrees in English Language and Literature as well as Library and Information Studies from the University of British Columbia.

Andy Nichols is a Calgary-based photographer with over a decade of commercial and editorial photography experience. He has a passion for documenting stories visually and has spent the past four years working with the EMI Collection and archival team to develop, implement, and execute an imaging methodology to produce photographs and scans of the collection's thousands of audio-visual items.

Kathryn Ruddock is Director, Digital Services at the University of Calgary. She completed her Master of Library and Information Studies degree at Western University in London, Ontario. She supports University of Calgary faculty, staff, and students by making academic works open access through our repositories—creating digital collections for research, teaching, and cultural heritage, as well as digital asset management.

Historic Cardboard and Metal Discs Revisited

Heike Fricke

Music comes in very different formats, for example as an audio recording, as a musical text or as a performance. “Analogue” musicology has not yet succeeded in bringing these three types of sources together in a comparable, comprehensible, or even automated manner. Computer musicology, on the other hand, succeeds in this direct comparison and analysis by converting these different formats into one exchange format.

The research project DISKOS at the Musikinstrumentenmuseum der Universität Leipzig, funded by the Federal Ministry of Education and Research, considers historic piano rolls in its collection as important and hitherto unexplored sources for the musical practice of their time: they store the finger movements of pianists using a pioneering recording system around 1900. Basically, all sound information carriers store coded movement impulses that are transferred to a musical instrument with a control interface. The 2400 piano rolls that have been digitized since 2018 will now be joined by their technical predecessors, cardboard and metal disks.

A condition for the quantitative analysis of the entire range of digitization formats and data visualizations is their conversion into one common format: as a prototype, the MIDI standard is chosen for this purpose. With this standard developed, it will be possible to access and compare printed music, musical storage media, and audio recordings.

The digitization of cardboard or metal discs has not been done anywhere so far. The DISKOS project also breaks new ground with the development of a distant-reading tool for the analysis of different source formats by means of an exchange format for multimodal sources. Also, computer philological questions, e.g., of stylometry, have not yet been applied to musical interpretation. This paper will introduce the concept and the working steps of the research project DISKOS.

Heike Fricke works at the Forschungsstelle Digital Organology at the Musikinstrumentenmuseum der Universität Leipzig. She studied musicology at Freie Universität Berlin and holds a PhD in musicology. She has worked with the musical instrument museums in Berlin, Edinburgh, and the Metropolitan Museum of Art in New York. Heike has published articles in MGG, New Grove, and Lexikon der Holzblasinstrumente and has written several books. She is the editor of the German special magazine rohrblatt and the CIMCIM Bulletin.

Thursday, June 9

Session 4: Wind Instruments

A Flute by Any Other Name: The Uncommon and Curious Dolzflöte

Patrick Connor Dittamo*

The flute family tree historically has been many-branched and bountiful. It includes the dolzflöte, an uncommon European transverse-blown duct flute of the early modern period with a six-hole fingering system (also known as the zwerchflöte or flûte traversière à bec), which left little impression on the historical record. It emerged sometime before the late sixteenth century, shared its name with an organ stop, seems to have paralleled the changes in instrument design of the seventeenth and eighteenth centuries, and fell out of use by the early nineteenth century, if not earlier.

This paper traces the curious history of the dolzflöte, incorporating its limited iconography (including a recently rediscovered family of three seventeenth-century Dutch paintings), its appearance in inventories, and its description in systematic reference works, including Michael Praetorius's *Syntagma Musicum* (1614–20) and Denis Diderot and Jean le Rond d'Alembert's *Encyclopédie* (1751–72). In encyclopedias, a self-cannibalizing genre, the dolzflöte persisted long after its obsolescence, albeit in garbled form. In nineteenth-century German encyclopedias, the dolzflöte was often equated with the *deutsche flöte* and *flute allemande*, before being gradually supplanted by the transverse flute, a trend which elicited a terse protest in an 1835 entry in Gustav Schilling's *Encyclopädie der gesammten musikalischen Wissenschaften*. As an instrument, the dolzflöte serves as a reminder of the complex diversity of early modern wind instruments; as a term, it adds yet another wrinkle to the complicated terminological history of the standard transverse flute and the recorder.

Patrick Connor Dittamo is a PhD student in musicology at the University of Chicago. His research interests include performance practice and material culture in the medieval and early modern eras, and in the modern Early Music Revival. He holds a master's degree in music history and composition from Kansas State University and a bachelor's degree in music from the College of William and Mary.

Tone, Technique, and Technology: Nineteenth-Century Debates on Italian Flutes

Samantha Tripp*

The nineteenth century witnessed a proliferation of new flute designs across Europe in the wake of industrialization that enabled mass instrument production. Although there is considerable research regarding nineteenth-century flutes in France, Germany, and England, the Italian tradition has been largely ignored. This scholarly neglect is despite the fact that one of the few lasting changes to Theobald Boehm's 1847 model was the addition of the B-flat thumb key, invented by Italian flutist and composer Giulio Briccialdi. In this presentation, I argue that Italian flutists' preferences in instruments offer evidence for how they prioritized certain musical qualities over others, and how technological advances made by Italian instrument designers informed their aesthetic and commercial decisions.

Drawing from published opinions in Italian journals, such as the *Gazzetta Musicale di Milano*, I demonstrate that three musical concerns preoccupied Italian flutists when discussing different models: preserving as many of the older fingerings as possible to allow for continuity of technique; improving the facility of trills through the addition of new keys and levers; and, most importantly, maintaining the voice-like timbre of the old-system flutes. Even Verdi became involved in these experiments, commissioning a flute in A for *Aida*. These concerns, especially that of timbre, were the center of a heated 1874 debate over whether the Briccialdi or Boehm flute was superior. The goal of many Italian inventors, including Briccialdi, De Michelis, Giorgi, and Albisi, was to create instruments that fulfilled these requirements. Such disagreements reveal in microcosm

how profoundly the industrialization of instrument-making affected contemporary compositional, performative, and even basic aesthetic discourses, the impacts of which are still being felt today.

Samantha Tripp is pursuing an MA in musicology at Tufts University. She graduated from Mount Holyoke College with a BA in music and a minor in romance languages. She plays flute and piccolo, and she wrote her undergraduate honors thesis on nineteenth-century Italian flute culture. Her research interests include flute history, film scores, and the music of Alan Hovhaness. She is interested in combining her loves of musicology, music theory, flute, and languages.

A Breath of Modernity! Camille Saint-Saëns and Wind Instruments

Fabien Guilloux and
Emanuele Marconi

Camille Saint-Saëns' long artistic career corresponds to one of the most inventive periods in the history of music instruments making: flutes, oboes, clarinets, bassoons, horns, and trumpets gradually adopted the modern form that we know today and the new families of saxophones, saxhorns or sarrusophones, born from the intuition of genius makers, enriched the sound palette of the orchestra.

Curious by nature, a tireless explorer, always in search of new associations of timbres, passionate about acoustic and technical inventions, Saint-Saëns mingles with this breath of modernity. From the Tarentelle for flute and clarinet, Op. 6 (1857) until the Sonata for bassoon and piano, Op. 168 (1921), he composed some fifty works dedicated to wind instruments and surrounded himself with the best performers. By exploiting all the technical possibilities of the winds and their expressive richness, Saint-Saëns thus opens the way to a renewal of the repertoire.

It was primarily in the Normandy town of La Couture-Boussey and its neighbouring villages—where famous dynasties of instrument makers such as Buffet, Godfroy, Julliot, Martin, Noblet and Thibouville practised their art—that most of these woodwind instruments innovations emerged and new instruments were mass-produced, initially using traditional methods and later on an industrial scale. It therefore seemed a logical progression to discuss Saint-Saëns' intense period of creativity in the context of these developments in wind instrument making. This has provided a glimpse of the areas of convergence between composers, distinguished performers and master craftsmen in the second half of the nineteenth and

early twentieth centuries in the advancement of new instruments and the creation of a distinctive repertoire.

Fabien Guilloux is Research Fellow at the Institute for Musicology Research (UMR 8223 – CNRS), Fabien devotes part of his work to nineteenth-century French music. He is a member of the editorial committee of the Complete Instrumental Works of Camille Saint-Saëns (Bärenreiter). He has participated in the critical edition of *Samson et Dalila* (2018), published *Quatuors à cordes* (2019) and the *Sonates pour violon et piano* (2021), and is currently preparing the *Concertos pour violon et orchestre*. He is also secretary of the Société Camille Saint-Saëns.

Emanuele Marconi: Organologist, conservator, and curator, he is Director of Le Musée des instruments à vent in La Couture-Boussey. His research interests include the history and philosophy of restoration and investigating all aspects related to the understanding of the relationships between society, culture, technical evolution, and aesthetic perception, as well as analyzing myths and symbolism related to musical instruments. He is webmaster and an advisory board member for CIMCIM.

Friday, June 10

Session 5:

Electronic Instruments Part 2

Rebuilding the 5th Triad A Range

Jason Tawkin

The Triad, also referred to as the Trident A Range, is a now-infamous piece of recording technology history. Its sound transformed Trident Studios into one of the most sought-after recording studios, attracting artists from around the world.

Originally developed by the technicians and engineers of Trident Studios, this console was developed out of a personal technical need for the studio. Upgrading to 24-track recording, the studio required a new recording console to facilitate this new setup. While many manufacturers were contacted, no one could make the equipment small enough to fit the room. The staff took it upon themselves to develop the circuit and design in-house, resulting in a prototype custom built for the studio. This afforded them the ability to achieve the quality and fidelity they wanted. Upon the success of the first A Range build, Trident studios opened Triad (Trident Audio Developments), going into business making their first product, the Trident A Range. Thirteen A Ranges were made before the product was discontinued and Triad moved from Class A audio designs to more affordable integrated circuit designs.

The National Music Centre has pioneered a new approach to collections access through its facility Studio Bell. Incorporating 160,000 square feet of exhibit space, performance spaces, recording studios, and classrooms in one building, the NMC is like no other place on earth. The recording studio features unprecedented access to musical instruments and recording equipment. The National Music Centre acquired the 5th Triad A Range in 2007. As a part of living collection, this A Range is

now the heart of NMC's Control Room A.

Jason Tawkin, Studio Bell's studio and electronics engineer, will take you through the process of restoring the original fidelity of these modules, while improving their reliability and longevity for future service. From designing the PCB using the original schematics, to designing new brackets to accommodate these PCBs, the process of the restoration will be shared. The talk will be followed by a demonstration of the working modules in a portable lunch box to demonstrate the unique musical sound of these electronics.

Jason Tawkin is the Studio and Electronics Engineer at the National Music Centre in Calgary, Alberta. A dedicated gearhead, he has a background in fine arts and radio, and over fifteen years of experience recording music. Since 2013, Jason has assisted with many of the conservation-restoration projects on NMC's musical instrument collection, including its three historic recording consoles. In his current role, Jason splits his time between maintaining and repairing NMC's "living" collection and facilitating recording sessions

From Datasheet to Dancefloor: The Elektron Sid Station

David Jones

The Elektron Sid Station is a pioneering Swedish synthesizer from 1997 built around the sound chip from the Commodore 64 computer. The MOS 6581 SID (Sound Interface Device) chip was designed by Bob Yannes in 1981 and featured three digital oscillators and a single analog filter. Nonetheless, it was the first chip that allowed computers to create musical sounds beyond the monophonic beeps no better than those emitted by consumer appliances like ovens or washing machines. Throughout the 1980s the SID chip earned a reputation for its musicality and unique sound. While extremely limited by today's standards, the design of the chip gave rise to new composition techniques that strove to push the primitive options to their limit. These creative techniques, which developed over time, gave rise to the first lauded video game soundtracks and video game composers. It also gave rise to a genre called "chiptunes," which developed over the decades following the popularity of the Commodore 64, when the hardware was long obsolete. Today, chiptunes and retro-themed or "8-bit" sounds are a popular part of electronic music. The Sid Station was one of the first devices to bring the technology and limitations of the early-1980s to electronic music producers more familiar with synthesizer composition than programming at a Commodore terminal. Production of the synthesizer ceased in 2003, when the supply of original SID chips was depleted.

Accompanying the presentation will be performance elements with an original Sid Station synthesizer demonstrating the sonic character of the SID chip, including "data burp," crosstalk artifacts, frequency dependent filter distortion, and other peculiarities.

The live performance will also feature an overview of the "tracker" implementation in the Sid Station—which emulates the compositional environment of the early 1980s, where musical data such as pitch and timbre are plotted on a data grid. This part of the presentation demonstrates how hardware limitations were squeezed to produce more complex and rich compositions, how digital glitches were used to implement unintended sonic possibilities, and how the Sid Station implemented more traditional synthesizer programming features to make the chip more familiar to electronic music producers.

David Jones holds Master of Information (Archives and Records Management) and Master of Arts (history) degrees from the University of Toronto. He has published his research in the Canadian Journal of History and contributed articles to the Routledge Online Encyclopedia of Modernism. He has performed as an experimental musician and video artist at hundreds of events in North America, including a live collaboration with members of the Tafelmusik baroque quartet. His creative work has been featured in MacLean's, Exclaim, Musicworks, and Now magazines. David is currently the Project Archivist for the EMI Music Canada Fonds at the University of Calgary.

The Pervasive use of English in Electronic Music Instrument Design and its Effect on Non-native Speakers

Pablo Dodero Carrillo*

The technical language surrounding electronic musical instruments is continually expanding with increased popularity and use. The field's prioritization of English, the most commonly used language among manufacturers, presents a language barrier for non-native English speakers. New generations of independent electronic music instrument developers in countries like Mexico utilize a mix of English and Spanish to label and describe the features and functions of their products. This is due to a lack of terminology in Spanish coupled with a desire to compete in the global market to reach more users. In this talk, I highlight current examples in which Mexican builders like Paradox are forced to combine languages and are actively searching for creative ways to enrich audio jargon in Spanish. Additionally, the talk will explore how this language barrier potentially stifles the creativity of electronic music instrument developers and users outside English-speaking regions.

Pablo Dodero Carrillo is a musician from Tijuana, México, based in San Diego, CA. He is currently pursuing a PhD in Integrative Studies at UCSD. His areas of academic interest relate to musical instrument manufacturing in globalized markets, technical language, and creativity. His work pulls from his experience as a buyer and seller at a music instrument shop specializing in norteño and mariachi instruments, as well as the use of modular synthesis in his own practice. He is an active member of the Tijuana and San Diego DIY communities, a touring musician, and a DJ. He also contributes to Remezcla and Reverb.com, reviewing and showcasing Latin American experimental artists and instruments.

Friday, June 10

Session 6: Banjos and Harps

What is an Early Banjo? An Exploration of an Instrument's Relationship to Organology and Ethnomusicology

Kristina Gaddy
and Pete Ross

This presentation outlines the organological characteristics of early banjos—pre-industrial gourd- and calabash-bodied instruments. It also analyzes whether organology alone can determine if an instrument is a banjo or to what extent we must consider an instrument's provenance, usage, and cultural context. Using seven images of early banjos and the three confirmed extant instruments, we outline the organological characteristics shared across early banjos, and how those characteristics differ from known African instruments. We also discuss the known cultural context of the banjo, which was created by people of African descent in the Americas and used as accompaniment for ritual dance. Finally, we introduce a newly rediscovered instrument from a collection at the Musée des Confluences in Lyon, a watercolor at the British Museum of an instrument once held at the Leverian Museum, and a watercolor from St. Domingue, and we explore whether by using organological characteristics alone we can conclusively say that these three newly discovered sources can be called early banjos.

Kristina Gaddy is the author of the forthcoming *Well of Souls: Uncovering the Banjo's Hidden History* (W. W. Norton, 2022) and holds an MFA in Nonfiction Writing. She has presented at the Anton de Kom University, Suriname; North Carolina Folk Festival; and Banjo Gathering. Her work appears in international, national, and local publications, and before writing, she worked in museums and historical societies.

Pete Ross is a banjo maker, researcher, and musician. He is one of earliest contemporary makers of gourd banjos, ranging from those of his own design to exact replicas of historic instruments. His reconstructions of eighteenth- and early nineteenth-century banjos have been featured internationally in museums, art galleries, movies, documentaries, and live performances. His essay "The Haitian Banza and the American Banjo Lineage" appears in the Bessaraboff Prize-winning collection *Banjo Roots and Branches* (University of Illinois Press, 2018).

The Mysterious Affair of Queen Marie Antoinette's Harp: A Case for the Harp Detective

Fanny Guillaume-Castel*

When talking about the pedal harp in the eighteenth century, it is almost impossible to avoid the figure of Marie Antoinette, queen of France from 1774 to 1791. Historians and musicologists have recognized her long-time practice of the harp, as she is described playing in many historical documents, and was painted playing in at least one of her official portraits. Because of the events resulting from the French Revolution, notably the dispersion of royal furniture, it has been difficult to trace items back to the queen's ownership, including pedal harps. During her reign, Marie Antoinette appointed two Parisian makers to her service, Jean Henry Naderman and Georges Cousineau, which has often misled harp owners to believe their Naderman or Cousineau harp had once belonged to the queen. This translated into museum collections, particularly in the nineteenth century, with many labeling several pedal harps as "the harp of Marie Antoinette" without further supporting evidence.

Through an examination of the last harp in French collections still thought to have belonged to Marie Antoinette, today held at the Musée de Vendôme, this paper will decipher the mystery of the elusive queen's harp. The investigation will be corroborated with what is actually known of the queen's practice of the instrument, notably from the accounts of her household. Furniture that has been traced back to the queen by historians and art historians will also be considered, in order to understand if it is possible to tell if this or that harp did indeed belong to the queen. Finally, and as it is better to end on a little hope, this

paper will propose the most convincing contestants for the title of "Harpe de la Reine Marie Antoinette."

Fanny Guillaume-Castel is a PhD student in Music and Material Culture at the Royal College of Music, London. She is preparing a thesis on the transformations of the pedal harp in the eighteenth and nineteenth centuries, under the supervision of Gabriële Rossi Rognoni and Thierry Maniguet. She has collaborated with several institutions regarding their musical instrument collections, including the Château de Versailles, the Musée de la Musique in Paris, and the Musée des Instruments de Musique in Brussels.

The Hochbrucker Family and the Adoption of the Pedal Harp before 1760

Mike Baldwin
and Lewis Jones

Remote Presentation

This paper examines the work of Jacob Hochbrucker (1673–1763), who invented the pedal harp in 1697, and his sons, Simon (1699–after 1762), Johann Christoph (1715–1762 or later), and Johann Baptist (1732–1812), in making and, through widespread performance and teaching, spreading use and awareness of the instrument. It seeks to integrate analysis of the design of Hochbrucker's harps, of which four well-preserved examples are extant, with selective examination of the initial presentation of the new instrument in centers including Vienna, Leipzig, London, and Paris. Hochbrucker's harp design, including the implications of his string scaling, is characterized in relation to the contemporary German hook harp and Doppelharfe, and his superbly engineered mechanism, demonstrating precision linkage work, is compared favorably with later designs.

This collaborative project also attempts to replicate Hochbrucker's harp for modern uses. Some suggestions will be offered on how a practice-led program of research into playing a range of early- and mid-eighteenth-century music using copies of Jacob Hochbrucker's early-eighteenth-century harps, alongside contemporaneous hook, double, and later crochet-action counterparts, might be designed.

Mike Baldwin, after completing a degree in Music Technology in 1995, in which he specialized in harp making, he worked for Pilgrim Harps, the UK's leading harp maker. In 2000, he retrained as a special-needs teacher and now teaches outdoor learning to teenagers with moderate and severe learning disabilities in a West London woodland.

Following his 2008 discovery of the Erat harp company papers, Mike completed an MA in Musical Instrument Technology; he completed an AHRC-funded PhD in 2017. In 2019, he won the Terence Pamplin Award for Organology from The Musicians' Company, London. *Harp Making in Late-Georgian London* (2020) is Mike's second book from Bright Light Books, a company he founded to publish history books.

Lewis Jones directs postgraduate research in music, musical instrument studies, and material culture at London Metropolitan University. He studied music at the University of York and musicology at King's College, London. As Professor of medieval and Renaissance music at the Royal College of Music in the 1980s–90s, he advanced novel approaches to teaching founded on deep reading of historical sources, improvisation, and critical listening, also lecturing on historical performance practice. In 1990, he introduced the first BSc course in Music Technology, and in the following decade he directed the Centre for New Musical Instruments of London Guildhall University. He has practiced as a performer and as a designer, maker, and restorer of musical instruments, both new instruments for new music and reconstructions of historical examples.

Friday, June 10

Session 7:

Musical Engagement

Archiving Post-1960 Musics: Four Experiences of Engagement

You Nakai, Luisa
Santacesaria, Valentina
Bertolani, and Gayle
Young

Roundtable

Post-1960s experimental musics created heterogeneous materials and traces: scores, preparations, electronic instruments, custom-made devices, recordings. The Romantic work concept on which traditional musical archives are based is unsuitable to preserve this expanded apparatus of objects and concepts. Rethinking the musical archive is becoming urgent. This roundtable compares four experiences engaging with the preservation of objects and documents (and how they need to be put in relation) at various institutions. The issues presented are eerily similar. Presenter 1, You Nakai: Materials by David Tudor (1926–1996) are at the Getty Research Institute (paper) and Wesleyan University (custom-made electronic instruments). The very fact that Tudor's materials have been separated in two radically different institutions prompts a discussion on how non-textual materials can be handled at institutional archives which have heretofore focused primarily on textual materials. Presenter 2, Luisa

Santacesaria: Materials by Mario Bertoncini (1932–2019) are at the Akademie der Künste, Berlin (paper) and at the Fondazione Isabella Scelsi, Rome (physical objects). This presentation addresses the issue of preservation of performance kits—which Bertoncini used for many of his works—for new generations of performers from the point of view of a musicologist and performer. Speaker 3, Valentina Bertolani: Gayle Young (b. 1950) uses custom-made instruments and objects. This presentation reports on the work done with Young to devise conservation strategies that fit the specificities of her work. Speaker 4, Gayle Young: Hugh Le Caine (1914–1977) created more than twenty instruments for electronic music studios. In 1978 an inventory with descriptions of the instruments was written. This research was followed by a biography based largely on interviews with Le Caine's associates and colleagues. This presentation contributes a reflection on the importance of decompartmentalizing musicological and archival/preservation practices, the acknowledgment of intellectual property beyond traditional authorship, and the ethical responsibilities of musicologists in supporting preservation of heterogeneous materials and practices.

You Nakai fabricates music(ians), dance(rs), haunted musical houses, nursery rhymes, and other forms of performances as a member of No Collective (nocollective.com) and publishes experimental children's books and other literary oddities as a member of Already Not Yet (alreadynotyet.org). His extensive research on David Tudor's music has been published as *Reminded* by the Instruments: David Tudor's Music (Oxford University Press, 2021, remind-

edbytheinstruments.info). He is currently affiliated with the University of Tokyo.

Luisa Santacesaria is a musician, musicologist, and curator. She works with Amici della Musica di Firenze concert season, Centro Studi Luciano Berio, and with the research center Tempo Reale. She is adjunct Professor of Music and Production at the University of Florence. She is a member of the collective of experimental music Blutwurst. Since 2009, together with Valentina Bertolani she has been studying and documenting Mario Bertoncini's work, both from a performative and musicological perspective.

Valentina Bertolani is a musicologist interested in experimental and electronic music and collective improvisation. Her postdoctoral project "ARPOEXMUS – Archiving post-1960s Experimental Music: Exploring the Ontology of Music Beyond the Score-Performance Dichotomy" (Carleton University/University of Birmingham) addresses the theoretical, ontological, methodological, and ethical issues that arise from archiving the heterogeneous instruments, objects, electronic devices, software, and custom-built materials that have been at the heart of sonic arts for the past sixty years.

Gayle Young documented instruments invented by Hugh Le Caine at the National Research Council in Ottawa, then expanded her research, publishing *The Sackbut Blues* in 1989. Young has continued composing, building instruments, and writing about music and instruments, particularly as the editor of *Musicworks* magazine for over two decades.

Historical Instruments in Virtual Acoustic Environments: A Framework for the Generation of Interactive Virtual Acoustic Objects and Multimodal Organological Datasets

Dominik Ukolov*

Musical instruments remain mostly silent and non-interactive in museums since conservation concerns rarely permit a daily playing by visitors. Nevertheless, quite a few instruments are theoretically playable and are occasionally restored or prepared for concerts and recordings with historical performance practice. After this, the instrument once again remains in a silent state and serves as an object that can only be experienced visually, but not auditorily. In the digitization project TASTEN, thirty-six historical keyboard instruments from the Museum of Musical Instruments at Leipzig University have been restored to a playable state for the purpose of recording them tone by tone and noise by noise, in order to obtain not only acoustic information, but also virtually playable digital “copies.” These virtual instruments can be played via MIDI keyboards or files in digital audio workstations or standalone applications, but also in web platforms like our lexical project musiXplora.

With the use of virtual instruments, the silent historical instruments can be experienced interactively and made available worldwide, but the recording and programming of the instruments requires specific frameworks for an authentic implementation. In this research, the strategies for recording historical musical instruments have been examined, evaluated, and integrated into recording-assistant software. Furthermore, techniques for processing the audio material and methods for the implementation of acoustical and organological properties have been developed, which resulted in a new standard for virtual acoustic objects (VAOs), whereby three-dimensional sound fields and object data can also be

included for augmented reality environments. These VAOs can be created, shared, examined and played on a newly created web platform, which also allows discussions about the virtualized musical instruments as well as the sharing of consistent acoustical and organological datasets for further research.

Dominik Ukolov is a musicologist and PhD student at Leipzig University. He has taught electronic music, worked in the digitization project TASTEN, and is currently researcher at the project DISKOS. In Lisbon, he worked at CESEM and co-founded the association Netzwerk Digital Organology. His research and doctoral thesis focus on the audiovisual virtualization of musical instruments as well as on the analysis and synthesis of their data through artificial neural networks.

Friday, June 10

Session 8: The Violin Family

The Serafin Violin Maker Family: Macro to Micro Level Approaches for the Study of Two Violins held in the Correr Museum in Venice, Italy

Chaehoon Lee*,
presenter; with Riccardo Angeloni, Tommaso Rovetta, Giacomo Fiocco, Francesca Volpi, Michela Albano, Massimiliano Guido, and Marco Malagodi

This investigation of the Serafin family collection in the Correr Museum was initiated when the chance arose of non-invasive scientific analysis (photographic documentation, stereo microscope analysis, X-ray radiography, X-ray fluorescence, and Fourier-transform infrared spectroscopy) on the instruments. Our attention was primarily focused on two violins made by Santo Serafin (1699–after 1758) and his nephew Giorgio Serafin (1726–1775), which displayed, at first glance, signs of intense use: worn-out areas, scratches, varnish cracks and detachments, and dust accumulation.

Santo Serafin was one of the most representative of the Venetian luthiers. The instrument by the elder Serafin was possibly influenced by the style of Nicola Amati because there is an inscription “Imitazione Stainer, 1730” inside, which represents Jacobus Stainer, one of Amati’s scholars (S. Pio, *Violin and Lute Makers of Venice, Liuteria Veneziana, Venezia 1640–1760, Venezia, Venice Research*, 2004, p. 345). Giorgio Serafin studied with the great Venetian violin makers of his time, Santo Serafin and Domenico Montagnana. But he is also known to have worked independently with his own style.

This presentation introduces the history and manufacturing method of Santo Serafin and Giorgio Serafin and their violins. Following visual observation, the conservation and restoration state of each violin was examined. The X-ray fluorescence and Fourier-transform infrared spectroscopy method supported recognizing these two representative makers’ material usage as distinguishing organic and inorganic components. This research addresses not

only the scientific results of the analysis of the violins but also historical research on the Serafin family of violin makers, for the future preservation and further study of these musical instruments.

Chaehoon Lee is a doctoral candidate in the chemistry department at the University of Pavia. She does musical instrument preservation at Arvedi Laboratory of Non-invasive Diagnostics in Cremona. There she is trying to create a new gel cleaning material used for Asian and Western musical instruments’ surfaces. Her previous research was done at the Metropolitan Museum of Art New York as an Andrew W. Mellon conservation fellow, and at Gugak Center, Seoul.

Hexagram or Star of David? A Modern Interpretation of Markneukirchen Violin Inlays Under the Microscope

Stella Smith

Over the past several years, violins which feature mother-of-pearl hexagrams (six-pointed stars) advertised as Judaica have been surfacing on auction platforms. Simultaneously, a collection that tours the U.S. for Holocaust remembrance concerts and educational initiatives features similar violins prominently in promotional materials and performances. The assumption that the symbols on these turn-of-the-century Markneukirchen violins are Stars of David is prevalent—the US Holocaust Memorial Museum’s curatorial team receives increasingly frequent requests for valuation and research from hopeful constituents who possess these instruments. To date, there has been no formalized research on these instruments, which are quickly growing in popularity and interest within the American Jewish community. It is imperative that the field of organology address these instruments and establish an authentic understanding of their relationship to Judaica.

My research, generously funded by the Gribbon Committee, has analyzed catalog records of Markneukirchen ornamented “fancy violins,” published for the international export market in the late nineteenth and early twentieth centuries. This investigation has been conducted in two dimensions. First, I comprehensively examined multimedia archival holdings at USHMM, the Library of Congress, Yad Vashem, the Mémorial de la Shoah, and private catalog collections. Second, I completed exploratory interviews with contemporary Klezmer and violin scholars. To date, I have uncovered no piece of evidence that these hexagrams, by and large, were ever intended as religious symbols. While I incorporate the German and Swiss catalog findings of Markneukirchen expert

Enrico Weller on the subject, I focus on the American archives to broaden the available evidence crucial to eventually bringing an evaluation of image and intention from the academic realm to the general population. Moving from evidence to implication, I’d like to then discuss the possible consequences of the semiotic misattribution at hand and the wider contextual value of provenance research in musical exhibition drafting and programming.

Stella Smith is a musicologist and emerging museum professional from Washington, DC. She holds an MA in Museum Studies from George Washington University and a Postgraduate Certificate in Nazi-era Art Provenance Research from the University of Denver’s Center for Art Collection Ethics. Concentrating on twentieth-century instrument provenance dilemmas, she has held curatorial internships at several national and international museums, including the Musikmuseum (Basel, Switzerland) and the United States Holocaust Memorial Museum (Washington, DC).

Tuning, Timbre, and Technique: Reconsidering the 19th- Century Double Bass

Shanti Nachtergaele*

The double bass remained less standardized than other string instruments in its construction, tuning, and performance conventions throughout the nineteenth century. Circa 1800, four primary tunings were in use across Europe—Viennese (F'-A'-D-F#-A), Italian (A'-D-G), French (G'-D-A), and German (E'-A'-D-G); a century later, the German tuning had become the international standard. Existing research offers only brief explanations for the decline of the other tunings, and these explanations have not been reconsidered or expanded for at least twenty years. For example, scholars offer the explanations that Viennese tuning was abandoned in favor of tuning in all fourths to match the rest of the string section more closely (Planyavsky 1984) or to adapt to the increased use of chromaticism in nineteenth-century harmonic language (Focht 1999; Brun 2000). Drawing on approaches from material culture studies, this paper explores the developments that contributed to the German system eventually supplanting the other tunings and becoming the standard that is known today.

For this purpose, I commissioned a double bass with interchangeable necks to allow me to compare timbral characteristics of the four historical tunings on the same instrument body. Acoustic data and several other technical considerations (e.g., fingering and bowing techniques, instrumental compass) constitute the performance characteristics analyzed in a performance matrix, a framework borrowed from behavioral archeology (Schiffer 2004). The performance matrix informs a discussion of the suitability of each tuning in various musical contexts and offers a

more nuanced view of why the German tuning eventually emerged as the favorite in the developing musical landscape of the nineteenth century. The analysis highlights several factors that likely influenced the spread of the German tuning, including the growth and standardization of the orchestra, changing performance and notational conventions, and the internationalization of both repertoire and performance careers.

Shanti Nachtergaele is a PhD candidate in musicology at McGill University, writing her dissertation on the sociomaterial history of the professional double bassist, 1760–1890. An active performer on double bass and violone, she specializes in historically informed performance practices. She is the recipient of an AMIS Small Research Grant for Students (2021), a Vanier Canada Graduate Scholarship (2018–21), and an International Society of Bassists Special Recognition Award for Scholarship (2021).

Saturday, June 11

Session 9: Miscellaneous Topics

George Hooper Mead: One of Canada's First Instrument Makers, 1827–1851

Francis Lapointe*

While some instrument traders were active in the late eighteenth-century Province of Quebec, we must wait until the first decades of the nineteenth century for a network of musical instrument makers to emerge in what was then called Lower Canada. Our research spanning several years in the Quebec provincial archives has shed light on the primary role played by the Mead family, especially George Hooper Mead (1799–1851), in this emerging network of musical instrument makers. A vast number of notarial deeds and legal cases concerning the activities of the Mead family helped us identify several aspects related to the organization of the trade in Canada.

These documents present the portrait of a family of craftsmen during the pre-industrial period. They bear witness to their activities and highlight the tensions in commercial networks, the contracts concluded between individuals for their exchanges of goods and services, and the manufacturing and climate issues that the first makers had to deal with. They are very detailed and revealing, and we use them to illustrate this rich history with examples linked to the notions of reputation, networking, and affiliation, but also to manufacturing, labor, and supply.

The paper focuses on some of these aspects as related to the advent of the musical instrument trade in Montreal. We also present inventories of Mead's shop, carried out by public notaries in the 1830s, where we found an incomparable window on the musical practices of the time and the cultural transfer happening from Great Britain to the North American colonies.

Francis Lapointe has been working with musical instruments for over twenty years. As a researcher, his area of expertise is the history of the music trade in Quebec. He is also a collector and is involved in the enhancement and conservation of the tangible and intangible heritage linked to Quebec's instrument making. He is currently working on his master's thesis on the emergence of the music trade in Montreal at Université du Québec à Montréal.

Italian Non-Sounding Musical Instruments in the Age of the Marvelous: Functional Objects Without Function

Arianna Rigamonti*

Why build a musical instrument that could not make any sound? Why wear a sumptuous and uncomfortable gown with many voluminous layers? Why own a treasured sword with no purpose of using it? The sixteenth and seventeenth centuries have been often described as the “age of the marvelous” for the extraordinary interest in the aesthetic of wonder, which emerged in literature, figurative arts, artifacts, and music. During this age, eliciting surprise became a primary aim, sometimes obtained through objects that had renounced their original function.

This paper looks at Italian marvelous musical instruments—or their iconographic representations—from the sixteenth and seventeenth centuries that could not make any sound. Their acoustical function was set aside in favor of their extraordinary manufacture, the preciousness of their materials, or their appearance. Musical instruments made of marble, tortoiseshell, gold, or with surprising shapes were exhibited in cabinets of curiosities or portrayed in allegorical depictions. They represented symbolic objects of marvel rather than tools to make music. For their visual attractiveness, such instruments have been retaining their places for centuries in museums and have attracted the attention of scholars who have studied their manufacture and technical features. Yet no research has ever assessed the comprehensive phenomenon of non-sounding musical instruments within their cultural context.

Looking at other objects or tools that were built in the shape of functional items, such as cloths, pieces of furniture and weapons, the proposed paper aims to discuss the significance of musical instruments that could not be played. Through the evaluation of silent instruments within their cultural context, this study will shed more light on the understanding of the aesthetic of marvel in sixteenth- and seventeenth-century Italy.

Arianna Rigamonti is a PhD candidate in Music and Material Culture at the Royal College of Music, London, as a London Arts and Humanities Partnership (LAHP) Doctoral Studentship Holder. She completed two internships, at St Cecilia’s Hall in Edinburgh, and at the Rijksmuseum in Amsterdam. She holds a master’s degree in musicology from the Department of Musicology and Cultural Heritage of the University of Pavia and a violin diploma from the Donizetti Conservatory of Bergamo.

“Clicking the Ivory” – A. M. Virgil’s Tekniklavier Revisited

Jörg Holzmann and
Patrick Speckamp

Remote Presentation

Antha Minerva Virgil was an American author, composer, and music educator who, together with her first husband Almon Kincaid Virgil, invented and developed the Virgil silent practice keyboard. In addition to her pursuits in piano teaching and composing, she further refined the practice piano and eventually established her own factory in New Jersey in 1901, following a divorce from her first husband, who continued producing his own patent version of the practice keyboard. During the first half of the twentieth century, Antha Minerva’s invention, selling under the name “Tekniklavier,” as well as her piano schools enjoyed great popularity and attracted praise from several eminent pianists, such as Moritz Moszkowski and Amy Beach. After the end of World War II, the silent practice piano as developed by A. M. Virgil gradually fell into obscurity and specimens from the original production plant are considered a rarity today.

Literature about Antha Minerva Virgil, her teaching methods, and especially about the Tekniklavier remains sparse to date. Having acquired an A. M. Virgil Tekniklavier, we set about examining its mechanics and functionalities and assessed its usability for developing and cultivating pianistic techniques in a hands-on fashion. Both strengths and weaknesses of the instrument were evaluated.

The presentation highlights the instrument’s usability for practicing evenness of touch (particularly in the context of scale practice), as well as the advantages of employing the Tekniklavier’s different touch-sensitivity settings for practicing more advanced piano techniques (double-thirds, chromatic scales using outer fingers as in Chopin’s

Étude, Op. 10, no. 2, for example). Among the drawbacks, are the instrument’s lack of pitched sound and the associated disembodiment of “correct technique” from “correct sound” when working on specific piano techniques.

Jörg Holzmann studied classical guitar, musicology, literature, and art history in Stuttgart, Halle (Saale), and Leipzig. His master’s thesis is on piano rolls recorded by women. From 2018 to 2020, he was employed at the Musical Instruments Museum Leipzig. In 2020 he became research assistant at the HKB in Bern, focusing on the “Historical Embodiment” project directed by Kai Köpp, under whom he is working on his doctoral thesis about early music film documents.

Patrick Speckamp is a translator and interpreter; he holds an MA in Intercultural Communication from the University of Surrey, UK. An avid pianist and music enthusiast, he has performed to great acclaim at music festivals such as the Oberstdorfer Musiksommer and successfully participated in music competitions such as Jugend Musiziert. A student of renowned German pianist Ingmar Schwandt, Patrick also attended piano masterclasses with Prof. Konrad Elser (MHL, Lübeck) and Prof. Oliver Kern (HfMDK, Frankfurt).

Saturday, June 11

Session 10: Guitars

The Instrumental Women of Fender

Jayme Kurland*

“The absence of women in the standard music histories is not due to their absence in the musical past. Rather, the questions so far asked by historians have tended to exclude them.”

Musicologists Judith Tick and Jane Bowers wrote this statement in their book *Women Making Music* in 1986, yet it is still relevant today. While we know the realm of musical instrument manufacturing has traditionally been dominated by men, scholars have begun to uncover stories of women working in family businesses, of women replacing men in factory work during World War II, and finally, the wave of women who entered the artisan workforce in the later part of the twentieth century.

This paper will introduce the digital history project “Instrumental Women,” which I founded to tell the stories of women in musical instrument manufacturing, and to provide a database of women currently working in the industry. I will then share my research on the women of Fender. In the early days of Fender Musical Instruments in the 1950s, Leo Fender hired many Latina women to wire the tube amplifiers and guitar pickups. These women were hired, in part, because of a commonly held belief that women’s hands were small and delicate, and ideal for the kind of detailed work.

Furthermore, his decision to hire them was an economic one, as he relied on their low paying labor. I will discuss the women who worked for Fender in the 1950s but will also assess the women who have worked in Fender factories in Japan and Mexico. Using a labor history lens and oral histories, I will also consider issues of sexism and race, and will contextualize their experiences in the broader history of factory work.

Jayme Kurland is a PhD student in US history at George Mason University, where she focuses on twentieth-century labor history and digital history initiatives. She is an AMIS board member and chairs the Ethnomusicology working group. Previously, Jayme worked as a research fellow in musical instruments at the Museum of Fine Arts, Boston, and a curatorial assistant at the Musical Instrument Museum in Phoenix.

New Soundscapes on the “Ligeti guitar”: Chopin, Kurtág, and Saariaho

Katalin Koltai*

Lecture-Recital

This lecture-recital explores a new world of guitar sonorities through novel arrangements: Chopin, Berceuse, Op. 57, Saariaho, Nocturne, and Kurtág, Ligatura Y, performed on a new instrument prototype, the “Ligeti Guitar.”

Between 2018 and 2021, I developed a new magnet capo system for the guitar, followed by a new guitar prototype, the “Ligeti guitar.” In previous work, I demonstrated how Bartókian clusters and Ligeti’s pitch sets were translated into radical open-string sets by deploying the new magnet capo system. These innovative transcriptions led further, opening the instrument’s idiomatic borders, hereby demonstrated in three arrangements.

Frédéric Chopin’s Berceuse (1844) is an improvisatory flow of variations on an ostinato ground bass. In this guitar arrangement, the ground bass is translated into an open string set.

Therefore, the variations are independent in the left hand, resulting in romantic and virtuoso passages in wide registers.

In my recent collaboration (August–November 2021) with György Kurtág, I had the opportunity to work with the composer on my arrangements of selected pieces from Games for Piano and Signs, Games and Messages for String Trio. My transcription has been in a fluid transformation throughout the collaboration with the composer, to be demonstrated here.

Kaija Saariaho dedicated her Nocturne for violin (1994) to the memory of Witold Lutosławski. This poetic piece offers kaleidoscopic timbres through harmonics and extended techniques. The translation of this unique timbral world results in a somewhat hypnotic new guitar nocturne.

Katalin Koltai is a PhD researcher and guitarist at the International Guitar Research Centre, University of Surrey, supervised by Stephen Goss. Her research expands the boundaries of the guitar’s idiom through arrangements, new music, and inventing a new magnet capo system and a guitar prototype: the “Ligeti Guitar.” Her scholarship include articles in Lute Society of America Quarterly and Soundboard Scholar, and the conferences of the Guitar Foundation of America, Royal Music Association, Royal Academy of Music, Dublin Guitar Symposium, and the 21st Century Guitar, as well as scores and CDs.

“I Can’t Turn Off What Turns Me On”: Queer Phenomenology and the St. Vincent Signature Electric Guitar

Erin A. Fitzpatrick*

Remote Presentation

In 2016, the queer art rocker St. Vincent collaborated with the Ernie Ball Music Man company to design the St. Vincent Signature electric guitar—the first commercially available model designed by and for women. This instrument performs remarkable interventions in an industry whose products demonstrate overwhelming investments in cisgender, able-bodied men. Dominant models favor strong hands and shoulders, long fingers and arms, and flat chests, with their dense bodies, high cutouts, and thick necks. But the St. Vincent Signature is significantly lighter, offers a cutout low enough to accommodate breasts, and features a thinner neck for maximum agility from small hands. I recently switched from the Fender Telecaster, my primary instrument for years, to the St. Vincent Signature (thanks to the AMIS Student Small Research Grant), and since, I have noticed a profound shift in my embodied musical experience. I have been grappling with what it means to be, for the first time, invited into physical intimacy with my instrument rather than an outlier to it—especially after decades refusing and reinventing canonically “virtuosic” techniques that my body could not physically replicate. Similarly, long before St. Vincent developed her Signature model, she became known for her own boundary-pushing, anti-virtuosic techniques—an approach which Sadie Hochman-Ruiz (2016) has theorized using Sara Ahmed’s notions of queer phenomenology and “dis-orientation” (2016).

In this paper, I pick up Hochman-Ruiz’s argument where it left off and sketch a queer phenomenology of the St. Vincent Signature guitar that combines questions

of performance studies with critical organology and queer subjectivity, considering the historical materialist implications of this object, the affective possibilities for queer female expression using “queer objects” (Ahmed 2006, Cusick 1998, Sedgwick 2003), and how this instrument philosophically upends old narratives about the electric guitar’s “phallic-ness” and instead proposes a more fluid, cyborgic relationship between body and prosthetic instrument (Waksman 2001, Haraway 1985).

Erin A. Fitzpatrick, MA, is a PhD candidate in musicology at UCLA and an active songwriter, recording artist, and producer. Her research takes an interdisciplinary, autoethnographic approach to considering the intersections between electric guitar technique and expression, queer phenomenology and reception, and affect and eroticism. She will be releasing her second album, *Do Your Worst*, with the indie label Carpark Records on June 10, 2022.

Saturday, June 11

Session 11: Early American Instruments

The Early Piano in America, 1745-1810

Thomas Strange

The concept for a stringed keyboard instrument that plays both soft and loud, the “pianoforte,” has now been shown to have arrived in America contemporaneously, and perhaps even before its appearance in London, and new examples have brought real understanding to the place of the piano in American culture. This paper will survey recent discoveries at the Sigal Music Museum collection of a piano making tradition that was smaller, but no less sophisticated, than the far larger and well-researched London tradition. The role of the builder’s wives is highlighted with examples of their involvement where examples have been found, and the beginnings of the dynamic shift from London-made pianos to American pianos is traced in written and object-oriented evidence. In particular, this paper will highlight the recent appearance of the first pianos made and advertised for sale in America by John Sheybli and John Behrent; it will discuss the pianos of Charles Taws, Charles Albright, Whaites & Charters, the John Geib family, and Benjamin Crehore, with several extant examples now in the Sigal Music Museum collections, and covering the three major piano building centers in early America. The paper will show how instrument building was imported from London and the continent to form a nascent piano industry that would later grow to eclipse the building traditions in the rest of the world, later in the nineteenth century.

Thomas Strange has a background in materials science and is the author of fifty-five patents and numerous papers covering power component development over the past forty years. Strange has presented lectures and concerts on early piano development in England and the US. His books on the Kirkman family of harpsichord builders and Geib family of piano makers have greatly expanded the understanding of the early keyboard industry. Strange is Executive Director of the Sigal Music Museum in Greenville, SC.

An Ancient American Piano with Clues About Piano Origins

John Watson

A small and remarkably early American upright piano with a long history among the Moravians of Pennsylvania is the subject of significant new research and a new playable reproduction made by the presenter with Tom and Michele Winter. Our hypothesis is that the instrument is an unrecognized product of John Clemm, who established his career in early eighteenth-century Saxony and later became America's first professional maker of keyboard instruments. Peculiar details of the instrument's design can be explained by Clemm's early work in Dresden and link the piano to the origins of a northern European, pantalon-inspired piano lineage that began independently of Cristofori's invention.

Even in Europe, few examples survive from that less familiar ancestral line in piano history. Sometimes the earliest specimen of a long extinct insect is perfectly preserved in amber. Could the Dresden "invention" of the piano have made the crossing to America in the mind of John Clemm, resulting in an instrument some years later that was preserved ever since in the Moravian enclave of Nazareth? This paper lays out the evidence.

The presentation will include an audio recording of the reproduction. What kind of impression would it have made to its first Pennsylvania German listeners, for whom the harpsichord, spinet, and clavichord would have been the norms? For us, it has a mix of all those characteristic sounds yet is something quite unique.

John Watson is a conservator and maker of early keyboard instruments. He retired in 2016 from The Colonial Williamsburg Foundation, where he served as conservator and curator of musical instruments. His research on issues in musical instrument conservation and keyboard history have resulted in several books and articles. He is currently working on Boalch-Mould Online, a free research database of makers of the harpsichord and clavichord.

Saturday, June 11

Session 12:

Electronic Instruments Part 3

The Radio as a Musical Instrument: Five Composition Practices from Electronic Music

Thom Holmes

When the three-element “Audion” vacuum tube was invented by Lee DeForest in 1906, it ushered in the age of modern electronics by making possible the first practical means of amplifying electromagnetic signals. This led directly to radio broadcasting and untold other media applications. Electronic music owes much to this invention. Many fundamental signals used in electronic music go back to the early days of broadcast technology. White noise, filtering, and audio signal oscillators are amongst these, as well as techniques for electronically shaping and controlling them.

While many electronic musical instruments, such as the synthesizer, were built around harnessing these signals and techniques, radio signals themselves have also provided source material for some composers, particularly those of experimental music. Before digital radio, the airwaves were packed with all kinds of radio broadcasts. AM, FM, and especially shortwave transmissions were fascinating because they represented a universal form of energy connecting the world. Listening to these broadcasts was akin to eavesdropping on other realms entirely disconnected from one’s own yet joined together momentarily by the radio set.

I explore how five different composers harnessed the power of radio as a musical instrument. I outline the compositional practices used by each and feature excerpts of each work. This diverse set of experimental composers will be presented in chronological order. It includes John Cage, *Radio Music* (USA 1956); Dick Raaijmakers, *Ballade Erbkönig* (Netherlands, 1967); Karlheinz Stockhausen, *Kurzwellen* (Germany, 1968); Michael Snow, *Two Radio Solos*

(Canada, 1980); and Ann Hamilton, *Mantle* (USA, 1998). Overall, the diverse approaches and practices of these composers turn the idea of radio inside out so that it is no longer a mere receiver of information from the outside, but a source of unique musical expression of its own.

Thom Holmes is an independent electronic music researcher and historian. He is author of *Electronic and Experimental Music* (6th edition, Routledge, 2020) and *Sound Art: A Primer* (Routledge, 2022). He produces the podcast *The Holmes Archive of Electronic Music*. Holmes has been writing about and making electronic music since the 1960s. He is an alumnus of *Composers Inside Electronics*, the music group devoted to the performance practices of David Tudor.

The Ondes Martenot: A Brief History and Contemporary Design Trajectory. 1928–2022

David Kean

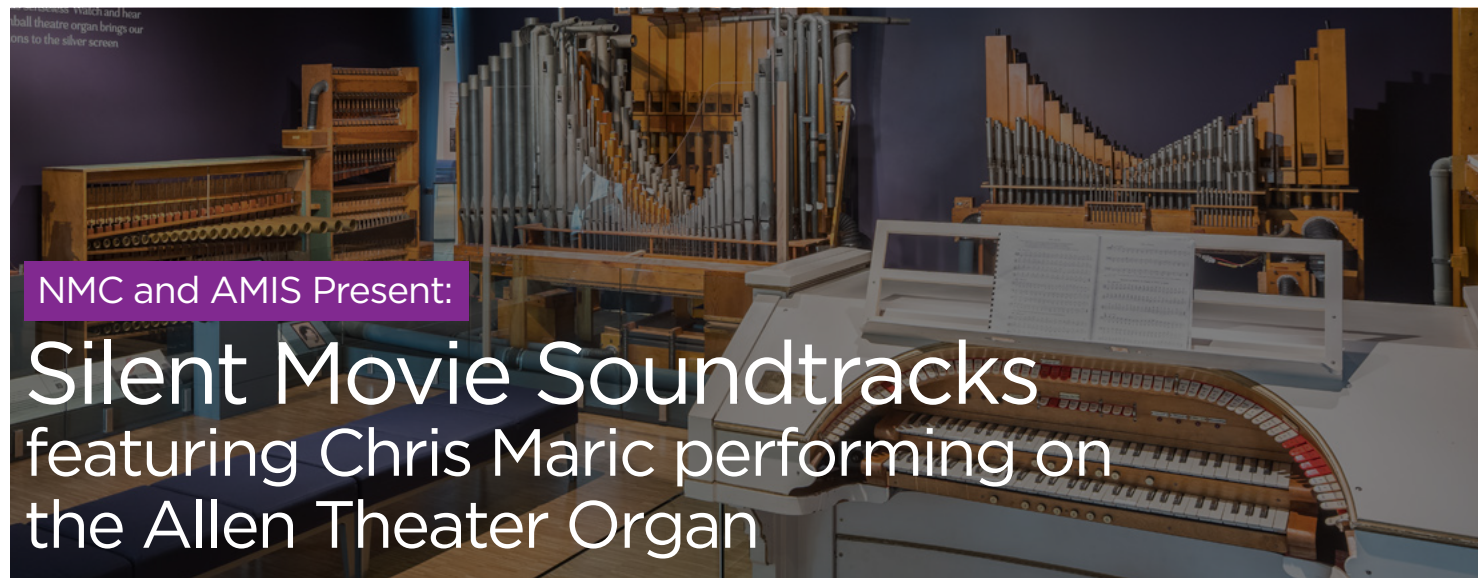
The story of the Ondes Martenot gives us a uniquely complete picture of the dynamics, opportunities, successes, and failures of Electronic Music's instrument design history. The instrument, invented and built by Maurice Martenot, was conceived in 1927–28, around the same time as Lev Theremin's ether instrument, although this seems to be coincidental and purely born out of a similar cross pollination of technologies evolving from early radio and telegraph design. Symbiotic relationships between technologies and musical instruments propelled electronic instrument designs in an ever-increasing tempo that both nurtured and threatened their value, potential, historical significance, and impact on post World War I culture.

We present the Ondes Martenot from the first prototypes to the current expression of the design esthetic and intended execution with the Ondéa, built here in Calgary. The Ondéa reveals how Maurice Martenot's original ideas have evolved with contemporary materials, fabrication techniques, circuit innovations, and modern interfacing possibilities to bring the potential of the Martenot's instrument to a world that badly needs its gestural controls and timbral expression.

Bringing an established musical instrument design into the realm of modern manufacturing, distribution, pedagogy, academia, and use for both legacy and contemporary composition is an act of interpretation. One has to consider both the inventor's intention and the needs of today's players of the Ondes, who perform the wide-ranging repertoire that has accumulated in the nearly one hundred years since the

instrument's inception. In this presentation, I would like to shine a bright light on our efforts to keep the Ondes Martenot instruments built in the previous decades alive and to reconceive Maurice Martenot's intentions for the present and the future.

David Kean is the founder and president of Audities Studio in Calgary, AB. The studio was built around the Audities Foundation collection that was begun in 1989. Early accomplishments include the acquisition and resurrection of the Mellotron company, the new production of tape replay instruments, and the restoration of multiple consoles. His publications include numerous contributions to the "Vintage Synths" column in Keyboard Magazine. David has placed instruments in numerous temporary and permanent museum collections, including the Museum of Fine Arts in Boston, EMIAPP in Philadelphia, and The NAMM Museum in Carlsbad, CA. At the National Music Centre, David has placed 75 instruments in the permanent collection, along with a substantial document archive for Moog, Buchla, E-mu Systems, Chamberlin, and Mellotron instruments.



Thursday June 09, 2022

Doors Open: 7:00 PM
Show Time: 8:00 PM
Location: Performance Hall

Join us for an evening of laughter, intrigue, and drama in this special presentation of two classic Buster Keaton silent films **Cops** and **Sherlock Jr.**

Watch as these classic films come to life as multi-instrumentalist Chris Maric provides a live soundtrack using National Music Centre's Allen Theatre Organ. Maric will act as a one-man orchestra, accompanying the genius of Buster Keaton. The performance will encompass several variations of original compositions, as well as improvisations.

About Chris Maric

Chris Maric is a multi-instrumentalist known for his truly unique and passionate musical style.

As a performer, composer and educator, he has demonstrated his talents to a wide variety of audiences, crossing paths with practically any musical genre and style. He has also worked with a vast array of artists and organizations, continually surprising audiences with fresh performances.

About Featured Films

Cops (1922): 18 min

Buster Keaton plays a young man who accidentally gets on the bad side of the entire LAPD during a parade and chased all over town

Sherlock Jr. (1924): 45 min

Buster Keaton plays a movie theater projectionist and janitor who dreams of becoming a famous detective



NMC and AMIS Present:

Instruments Alive ft. TONTO with Robin Hatch/Ondéa & more with Karl Hirzer, Josué Valdepeñas

Friday June 10, 2022

Doors Open: 7:00 PM
Show Time: 8:00 PM
Location: Performance Hall

National Music Centre (NMC) and American Musical Instrument Society (AMIS) presents an evening concert featuring curiosities from the NMC living collection.

The legendary synthesizer TONTO (The Original New Timbral Orchestra) is one of the world's largest synthesizers. TONTO was built in 1968 by music producers Malcolm Cecil and Robert Margouloff and was used by popular artists like Stevie Wonder, the Isley Brothers and Quincy Jones. TONTO will be performed by NMC's Artist in Residence Alumni, Robin Hatch, who will be performing her 2021 Album "T.O.N.T.O." which was recorded at Studio Bell during Hatch's residency. This concert marks the first live performance of the instrument in over three decades!

The Ondéa (a modern production replica of the original Ondes Martenot synthesizer) is an electronic instrument capable of producing tones that can be reminiscent of a violin, cello, flute, or even a human voice. Karl Hirzer and Josué Valdepeñas will present a program of repertoire for cello and piano from the early 20th century by composers Claude Debussy and Olivier Messiaen, as well as a new work composed for this occasion that will feature the Ondéa, ARP 2600, and Moog Matriarch synthesizer in addition to their usual acoustic instruments.

About Robin Hatch

Robin is a neoclassical multi-instrumentalist from Toronto. Over the course of 5 LPs, Hatch has cemented herself as a dynamic creative force, earning her place in lauded Canadian arts scenes like Toronto's Long Winter music and arts festival, artist in residence at the Banff Centre for the Arts, and a critical position as artist in residence at the National Music Centre, where she recorded her 2021 release, "T.O.N.T.O.", featuring the legendary synthesizer. "T.O.N.T.O." was featured on Bandcamp Daily, Exclaim!, and in The Guardian, and was the exciting culmination of a passion project for the legendary synthesizer, engineered by NMC's Jason Tawkin, and mastered by Robert Margouloff.

About Karl Hirzer & Josué Valdepeñas

Josué Valdepeñas and Karl Hirzer are both members of the Calgary Philharmonic Orchestra (CPO). Josué Valdepeñas is the Assistant Principal Cellist at CPO. Hirzer is a pianist and the Associate Conductor at CPO.

The American Musical Instrument Society takes pleasure in announcing the following awards for 2022:

The Curt Sachs Award

The Curt Sachs Award, the Society's highest award, honors lifetime contribution toward the goals of the Society—to promote the understanding of all aspects of the history, design, and use of musical instruments in all cultures and from all periods.

The recipient of the 2022 Award is **Stewart Carter**.

Dr. Carter is a tireless editor, author, and scholar in the fields of musical instrument research and practice. He is past president of AMIS and a founding member of the Historic Brass Society as well as the long-time editor of that society's Journal. Among his publications is *The Trombone in the Renaissance: A History in Pictures and Documents* (Pendragon Press, 2012). He has edited the *Performer's Guide to Seventeenth-Century Music* (1997, 2nd ed., 2012), two volumes of *Brass Scholarship in Review* (Amherst, 1995 and Paris, Cité de la musique, 1999), and the journal *Historical Performance*. His numerous articles contribute to scholarship on the trombone and the trumpet, performance practice, the Gütter family of wind instrument makers, and lip-blown aerophones around the world.

The Nicholas Bessaraboff Prize

The Nicholas Bessaraboff Prize is awarded annually for the best book-length publication in English that furthers the goals of the Society. The 2022 Bessaraboff Prize is awarded to **Matt Brennan** for *Kick It: A Social History of the Drum Kit* (Oxford University Press, 2020).

Kick-It is a lively history of the drum kit or drum set and its players, focused on drumming and being a drummer. “Equally illuminating and entertaining, *Kick It* showcases the cross-disciplinary relevance and far-reaching potential of organology.”

Matt Brennan is Reader in Popular Music at the University of Glasgow, where he also directs the Interdisciplinary Music Industries Research Group (IMIRGe). His other publications include *When Genres Collide* (Bloomsbury, 2017), which earned numerous accolades, and *The History of Live Music in Britain*, of which he was a co-author (Ashgate, 2013; Routledge, 2019, 2021). He is an editor of the Bloomsbury series *Alternate Takes—Critical Responses to Popular Music*; he has also served as chair of the UK and Ireland branch of the International Association for the Study of Popular Music (IASPM).

The Frances Densmore Prize

The Frances Densmore Prize is awarded annually for the best article-length publication in English that furthers the goals of the Society. The 2022 Densmore Prize is awarded to **Amine Beyhom** for his article “Was the Early Arabian ‘Ūd ‘Fretted’?” published in *Near-Eastern Musicology Online* 5, no. 9 (November 2020).

“Was the Early Arabian ‘Ūd ‘Fretted’?” is “an erudite and impressive piece of scholarship. The author persuasively demonstrates that the early ūd was unfretted but that tie-frets may have been used for teaching or training purposes. Beyhom’s argument has important implications for not just Islamic and Western organology but indeed for the critical work of recognizing early Arabian treatises on praxis as central to the development of Greek and, therefore, to the development of European musical systems. The extraordinary analysis of primary source material that made this article stand out within a strong field of candidates exemplifies crucial considerations in organology, musicology, and music theory today.”

Amine Beyhom trained as a civil engineer as well as a musician (guitars and bass) and a composer. After obtaining his MA from the École Nationale des Ponts et Chaussées (ENPC) in Paris, he worked as a research engineer in France, then changed the course of his life to become a professional musician and composer, firstly in France then in Lebanon, while learning the ūd and founding his own music production company. He completed his PhD in 2003 at the Sorbonne University, Paris, and his Habilitation at the same university in 2010. He later received the title of Professor in Music and Musicology.

Dr. Beyhom has published articles on numerous topics including Byzantine chant, the theory of music, and Orientalism in musicology. He has taught at universities in Lebanon and France, and in 2011 he founded the Centre for Research on the Music of Arabian and Akin countries (CERMAA), which he still leads. In 2018 he established VIAMAP (the Video Animated Music Analysis Project), which has produced more than sixty video analyses. He was awarded the Lois Ibsen Al-Faruqi triennial Award by the Society for Ethnomusicology in 2017. He is active as a music analyst and videographer, as Chief Editor of *Near-Eastern Musicology Online*, and as the head of the CERMAA research center. He is delighted to conduct workshops with international students on various themes, the last to date (before Covid) being about Artificial Intelligence and Music.

AMIS 2022 Annual Meeting

Studio Bell, home of the National Music Centre would like to take a moment to thank all the people who worked tirelessly to make this conference possible. The last two years have proven to be difficult times for everyone and with the 2020 AMIS Conference being cancelled due to the COVID-19 Pandemic, it is amazing to see everyone here at Studio Bell committed not just to a passion for the musical world, but to sharing, educating, and progressing our understanding of it. As such, we would like to extend a massive thank you to everyone who made this conference possible.

We would like to thank everyone who chaired a conference session, presented, spoke, or demonstrated an instrument for the conference, and everyone who attended the 2022 AMIS Annual Meeting. We would also like to thank the King Eddy, the National Music Centre, our entire staff, and all our amazing volunteers. Without everyone mentioned this conference would have never been possible.

Finally, we would like to give specific thanks to the following people:

Acknowledgments

AMIS Programing Committee

Darcy Kuronen
Programming Committee Chair

Janet K. Page

Kathleen Wiens

Matthew Zeller

Jesse Moffatt

NMC Evening Programing

Daniel Go

Adam Fox

Jesse Moffatt

The production, event teams,
and volunteers

Evening Performances

Chris Maric

Robin Hatch

Karl Hirzer

Josué Valdepeñas

Program Guide

Max Iapaolo

Chris Pecora

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