American Musical Instrument Society

52nd Annual Meeting

Scheidt Family Performing Arts Center

31 May - 3 June 2023

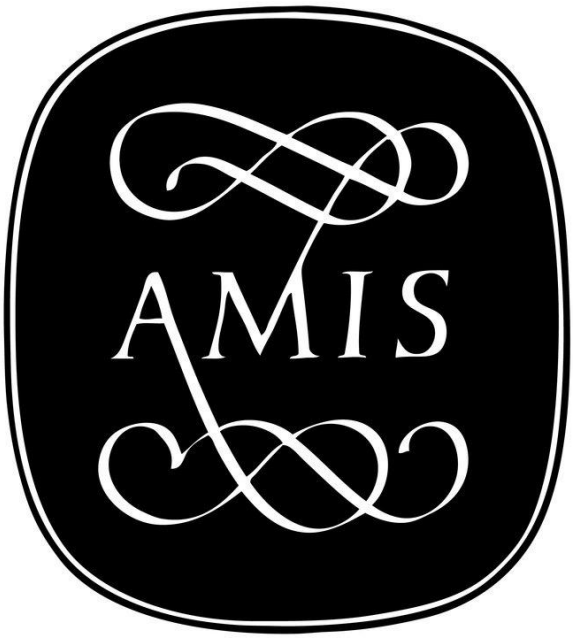
Rudi E. Scheidt School of Music

THE AMERICAN MUSICAL INSTRUMENT SOCIETY

52ND ANNUAL MEETING

HOSTED BY THE RUDI E. SCHEIDT SCHOOL OF MUSIC, MEMPHIS, TN

WEDNESDAY, 31 MAY 2023 – SATURDAY 3 JUNE 2023



2023 Meeting

LOCAL ARRANGEMENTS
Janet K. Page, Joel Roberts, Jeremy Tubbs

PROGRAM COMMITTEE
Jeremy Tubbs (chair), Allison Alcorn, Matt Zeller, Joel Roberts

PROGRAM BOOKLET
Janet K. Page, Robert T. Nance

CURT SACHS AWARD COMMITTEE
Carolyn Bryant-Sarles (chair), Heike Fricke, John Watson

FRANCES DENSMORE PRIZE COMMITTEE
Stephen Cottrell (chair), Lisa Beebe, Jim Kopp
Bibliographer: Devanney Haruta

NICHOLAS BESSARABOFF PRIZE COMMITTEE
Bradley Strauchen-Scherer (chair), Matthew Zeller, William E. Hettrick

WILLIAM E. GRIBBON MEMORIAL AWARD FOR STUDENT TRAVEL COMMITTEE
Manu Frederickx (chair), Lidia Chang, Esteban Mariño

SPECIAL THANKS TO:
The Rudi E. Scheidt School of Music at the University of Memphis, Kevin Sanders, Director
School of Music staff Todd Bauer, Kaleb Ritchie, Kristen Russell
The University of Memphis Libraries
Art Museum of the University of Memphis (AMUM), Leslie Luebbers, Director
Robert T. Nance, José Rivas, Mark Woodring, Tyler Fritts, David Evans

The American Musical Instrument Society takes pleasure in announcing the following awards, to be conferred at this annual meeting:

Darcy Kuronen is the recipient of the **Curt Sachs Award**, the Society's highest award, which honors a lifetime of contributions toward the goals of the Society—to promote understanding of all aspects of the history, design, and use of musical instruments in all cultures and from all periods. Following his graduate studies at the University of South Dakota and a position there as research associate at what is now the National Music Museum, Darcy began his ascent at the Museum of Fine Arts, Boston, in 1986 as Department Assistant, eventually becoming Curator of Musical Instruments. Besides contributing to several books on musical instruments during his tenure at MFA, Darcy authored two books on the collection including a catalog of his seminal guitar exhibition "Dangerous Curves." He contributed dozens of articles and reviews to *JAMIS* and other journals, including "The Musical Instruments of Benjamin Crehore" in *Journal of the Museum of Fine Arts, Boston*. Besides winning for him the 1994 Densmore award, the Crehore article characterized Darcy's important career contribution to the study of a rich regional heritage of instrument making, especially including Boston piano makers, and expanding outward, eventually becoming a database of surviving musical instruments throughout New England and the Northeast.

Darcy served AMIS as Vice President, on the Board of Governors, and on many committees. He hosted two meetings (2002 and 2015), and he chaired the Electronic Initiatives Online committee with significant success. His service has included generous consulting to numerous smaller university and institutional collections, curating, for example, an exhibition of the Boston Symphony Orchestra collection. He also provided advice and encouragement for private collections, including that of Marlowe Sigal before, during, and after its transfer to the Sigal Music Museum in Greenville. Perhaps the most lasting of Darcy Kuronen's legacies will be the encouragement, guidance, and opportunity he has always given to young people entering the field of organology and museums.

A fuller account appears at amis.org

The **Nicholas Bessaraboff Prize** is awarded annually for the best book-length publication in English that furthers the goals of the Society. This year there are joint winners: **Robert Adelson**, for *Erard: A Passion for the Piano* (New York: Oxford University Press, 2021) and **Murray Campbell**, **Joël Gilbert**, and **Arnold Myers**, for *The Science of Brass Instruments* (Cham, Switzerland: Springer Nature, 2021).

On *Erard*, the committee writes:

> This eloquently written volume reflects the author's lifelong interest in one of the most important figures in the development of the piano. … Through comprehensive access to both the extensive company archives and hitherto unresearched family papers, he has produced an academic, yet highly readable account of one of the truly great piano houses. … The author is to be commended for fresh and significant scholarship in producing this outstanding contribution to the field of organology.

On *The Science of Brass Instruments*, the committee writes:

> This collective effort of scholarship represents the culmination of decades of sustained, original, wide-ranging research into the science underpinning many facets of the world of brass instruments, including performance, design, timbre, acoustics, early history, and taxonomy. Scientific explanations and approaches are laid out for many aspects of brass instrument behavior that were previously the domain of subjective and heuristic understanding. … The content in each chapter has been cleverly layered to provide an accessible introduction to brass instrument science for the generalist while adding to the specialist knowledge in the field through engagement with recent research and mathematical modeling techniques. In combining their diverse expertise, the authors have produced a significant, authoritative, and pioneering contribution to organological literature.

The **Frances Densmore Prize** is awarded annually for the best article-length publication in English that furthers the goals of the Society. The prize is awarded to **Jennifer Kyker** for "Music under the Ground: Ethnomusicological Research on the Ground-Bow in Africa," *Ethnomusicology* 65, no. 2 (2021).

The committee writes:

> Based on ethnographic fieldwork in Zimbabwe, Kyker's article demonstrates how the categorization of musical instruments continues to be a complex and sometimes ambiguous practice, notwithstanding the intended rigor of the various taxonomic systems we employ to aid such categorization. Kyker also uses the instrument to critique certain aspects of our scholarly activities, such as the general lack of attention paid to instruments associated with children's music-making … The Densmore committee felt this to be a rich and persuasive article, the importance of which goes well beyond the specifics of the instrument on which it is based or the locales in which the ground-bow is found.

Schedule of Events Wednesday 31 May

1:00-4:00	Registration
5:00	Opening Reception (Lobby) *Sponsored by the Rudi E. Scheidt School of Music*
6:30	Board of Governors' meeting (TBA)

Thursday 1 June

8:00am	Registration, Coffee, Continental Breakfast (Lobby)
8:30	**Welcome** (SFPAC 1204)
8:45-10:15	**Session 1** – Bagpipes, Buttons, & Banjos (SFPAC 1204) *Chair: Núria Bonet* **Maeve Carey Kozlark* –** Sounding "Home": The Banjo and Irish Return Migration **Cassandre Balosso-Bardin** – The Metropolitan Museum's Bagpipe Collection: Aesthetics, Materials, and Symbolism **Hannes Vereecke** – Characteristics of the 142-tone bandoneons made by the Alfred Arnold Factory
10:15	Break
10:45am-12:15pm	**Session 2** – Sound Studies & Artistic Research (SFPAC 1204) *Chair: Matt Zeller* **Jack Adler-McKean –** The "Wiener" Tuba: A Mixed-Methodological Approach to Instrument Studies and Artistic Research *(Virtual)* **Devanney Haruta*** – Sound Design in Japanese Gardens: A Sound Studies Approach to Organology **Massimiliano Guido & Joel Speerstra –** Cognitive Organology: A Case Study in Reconstructing Musical Ecology at the Clavichord
12:15-2:00	Lunch (Lobby) – Boxed lunches provided *With David Evans and his Jug Band* (SFPAC 1215) JAMIS Editorial Board Meeting (SFPAC 2117)
2:15-3:45	**Session 3** – Harps (SFPAC 1204) *Chair: Carol Lynn Ward-Bamford* **Alfredo Colman –** The Paraguayan Harp: A 21st-Century Symbol of Paraguayan Cultural Identity *(Virtual)* **Sylvie le Bomin –** Studying the Diversity of Central African Harps by the Soundbox, the Number of Strings and the Carvings *(Virtual)* **Salomé Strauch*** – How and Why Describe a Musical Instrument? The Example of the Central African Harp
3:45	Break
4:15-5:45	**Session 4** – Keyboards (SFPAC 1204) *Chair: John Watson* **Darryl Martin –** Instruments Ahead of Their Time – the "2 payre of virginalles in one coffer" of 1530 **Bastian Neelen* –** The Remarkable Design of a Fleischer Harpsichord **Kamiel Dockx* –** Reconstructing the Hauslaib Claviorgan

Thursday Evening	Dinner on your own Informal Beale Street Visit (tour with Tyler Frits, 7:00)

Friday, June 2

8:00am	Coffee and Continental Breakfast (Lobby)
8:30-10:00	**Session 5** – Strings (SFPAC 1204) *Chair: Jayme Kurland* **Esteban Mariño Garza** – Historical and Dialectical Materialism in the Study of the Cittern during the Sixteenth and Seventeenth Centuries: Towards a Theory of Musical Instruments *(Virtual)* **Riccardo Angeloni –** The Santo Serafin Violin in the Museo Correr: Conservation Treatment and New Organological Discoveries **Wesley Somers* –** The *Jarana* as Baroque Guitar: A Neocolonial Claiming of *Jarocho* Instrument-Making Traditions
10:00	Break
10:30am-12:00pm	**Session 6** – Music Machines (SFPAC) *Chair: Allison Alcorn* **Thomas Strange –** New Wings for Song: The Intriguing Story of America's Flirtation with the Electric Piano **Núria Bonet –** The Jukebox: Examining a Democratic Musical Instrument **William E. Hettrick –** Out in Front: A Closer Look at the American Cabinet Piano-Player
12:00-12:30	Collecting Clarinets – Nophachai Cholthitchanta (SFPAC 2117)
12:30-2:00	Lunch (Lobby) – Boxed Lunches Provided AMIS General Meeting (SFPAC 1204)
2:15-3:00	**Session 7** – Panel Discussion (SFPAC 1204) *Chair: Jayson Dobney* **Timothy Anne Burnside, Hannah Grantham, Steven Lewis, Dwandalyn Reece –** Musical Crossroads: Stories Behind the Objects of African American Music
3:00	Break
3:30-4:30	Music Exhibits at the Art Museum of the University of Memphis (CFA) With Robert (Tucker) Nance
4:45-5:15	John Watson, et al., News on the MIRCAT Project (SFPAC 1204)
Friday Evening	Dinner on your own Gribbon Scholars get-together

Saturday, June 3

8:00am	Coffee, Continental Breakfast (Lobby)
8:30-10:00	**Session 8** – Instruments in America (SFPAC 1204) *Chair: Carolyn Bryant-Sarles* **Jayson Dobney –** Instrument of Power: The Side of Drum and Slavery in North America

	Abraham Ross* – "Powers and beauties unknown before": Late Nineteenth-Century Innovation in American Pipe Organ Construction and Its Implications for Performers **Loren Ludwig –** A New England Viol Consort c. 1820: New England Alto and Tenor Viols in Historical and Musical Context
10:00	Break
10:30-11:30	**Session 9** – Instruments in China in Cross-Cultural Perspective (SFPAC 1204) *Chair: Michael Suing* **Stewart Carter & Zhiyu (Alex) Zhang –** Kangxi, Father Amiot, and "Improvements" to Ritual Instruments in Eighteenth-Century China **Patrick Huang* –** Why Seven: Polychordia and String Standardisation of Ancient Greek Lyre and Early Chinese Guqin
11:30am-12:30pm	**Session 10** – Pedagogy (SFPAC 1204) *Chair: Bradley Strauchen-Scherer* **Allison Alcorn –** Start 'em Young: Musical Instruments in Children's Literature **Eddie Chia-Hao Hsu –** Reanimating the Intangible: Audio-visual Content as a Device for Representing World Musical Instruments
12:30	Lunch (Lobby)
1:30-3:30	**Session 11** – Woodwinds & Brasswinds (SFPAC 1204) *Chair: Jim Kopp* **Patrick Connor Dittamo* –** "The times for experiments are almost over": The New York Pro Musica and the Reproduction of Historical Wind Instruments **Robert Warren Apple –** A(n) (Un)Missing Link Between Keys and Valves: Three Keyed Trumpet Solo Works Arranged for Early Valved Trumpet, Flügelhorn, and Valved Trombone by Joseph Kail for the Prague Conservatory **Robert Bigio –** Abel Siccama and the Development of a Rational, Modular Key System for the Flute **Emanuele Marconi –** La Couture-Boussey: A Look at the Musical Instrument Making (*Virtual)*
3:30	Break
4:00-4:40	Lecture-Demonstration (SFPAC 1204) **James E. Cunningham & Glen Gillis** – What the Heck is the Sewerphone?
5:30	Meet & Mingle (Lobby)
6:00	Banquet (Lobby)

Student Papers Marked *

SESSION 1 – BAGPIPES, BUTTONS, & BANJOS

Sounding "Home": The Banjo and Irish Return Migration
Maeve Carey Kozlark*

One of the more interesting aspects of traditional Irish music today on both sides of the Atlantic is the rich variety of musical instruments on which the music is played. One instrument that is positively central to the music today and which causes no end of puzzlement to the uninformed outsider is the tenor banjo; it is now estimated (albeit somewhat informally) that there are now more banjos per capita in Ireland than in any other country in the world—including the United States with its rich and distinct traditions in Appalachia and the South.

The tale of how the banjo ended up in the Irish music tradition is a fascinating one, spanning several centuries and involving a great movement of music and musicians across and between three continents. This paper presents the story of its incorporation into Irish musical culture in all its peculiarities, positioning it as one of the strongest examples of the way a living, dynamic tradition can revitalize itself and accommodate innovation and change in the complex process of its evolution.

Maeve Carey Kozlark is a PhD student in Historical Musicology at New York University and holds a BA in Music and Society, Culture, & Thought from Bennington College. Maeve's work broadly examines music and organological practice under conditions of memory, migration, and displacement, particularly in Ireland and Irish-America.

The Metropolitan Museum's Bagpipe Collection: Aesthetics, Materials, and Symbolism
Cassandre Balosso-Bardin

The Metropolitan Museum of Art, New York City, hosts a collection of 52 bagpipes from around the world. Collected mainly by Mary Elizabeth Brown at the turn of the nineteenth century, these span a large geographical area, from India to Ireland, Russia to Libya. The instruments are made from a wide range of materials such as hide, wood, metal, and reed, that are not only functional but also highly aestheticized and imbued with symbolical meaning. Consider the finely carved goat head with miniature ivory teeth on a nineteenth-century Central French *musette*, a bejeweled square cross and tiny metallic bird ornaments on an old Russian *volynka*, small human features that anthropomorphize the Croatian *diple*, and the grotesque dolphin heads on the stock of a French nineteenth-century fantasy bagpipe—reminiscent of the coat of arms of pre-revolution French princes—as well as the use of tassels, satin, ribbons, ivory, engravings, lead incrustations, and even decalcomania on many other instruments.

This presentation opens with an introduction to the collection, providing a summary of how the instruments came to the collection. I then examine specific examples of how instruments merge functional materials (such as animal hide, textile, horns, and rope) and shapes (such as stocks, chanters, and drones) with aesthetics and symbolism. This includes forays into the realms of the animal kingdom, religion, superstition, and exoticism as well as into the social mobility and musical function of some of these instruments. This paper is the outcome of a Chester Dale Fellowship at the Metropolitan Museum.

Cassandre Balosso-Bardin is an Associate Professor in Music at the University of Lincoln. She is currently on sabbatical as a Senior Fellow at The Metropolitan Museum of Art, New York City, where she is carrying out the first in-depth study of the Museum's bagpipe collection. Cassandre is the founding director of the International Bagpipe Organisation and is the Digital Media Editor of the *Yearbook for Traditional Music*. She obtained a PhD in ethnomusicology from SOAS in 2012 and is a performer herself.

Characteristics of the 142-Tone Bandonéons made by the Alfred Arnold Factory
Hannes Vereecke

The sound of the pre-war 142-tone bandoneóns made by the Alfred Arnold factory (AA) of Carlsfeld, Germany, shaped the characteristic sound of the typical Rio de la Plata tango orchestras. Today only a few of these instruments survive. Many musicians are convinced that post-war bandoneóns are inferior in sound quality to AA pre-war instruments. Modern bandoneóns are more comfortable to play and their tuning is more stable, but the majority of professional tango-bandoneónists still prefer to play the pre-war AA instruments because they sound better.

The Alfred Arnold factory, founded in 1911, produced bandoneóns until the production came to a standstill because of the outbreak of WWII. In the second half of the 1930s virtually their entire production was exported to South America. The characteristic sound of the 142-tone AA bandoneón is the result of a variety of underlying factors. Critical sound-influencing aspects include the octave tuning and the ability to play chord inversions over a wide range due to the specific keyboard layout. From an instrument maker's point of view, the sound of the bandoneón can be purposefully influenced by the use of selected technologies, materials, and geometry.

Unfortunately, there is currently little insight into the characteristic properties of the 142-tone instruments made by the Alfred Arnold factory. This paper aims to contribute to a better understanding of this matter by means of in-depth analysis of selected 142-tone instruments from acoustical and technological points of view. Geometrical design, materials, and processing techniques will also be considered.

Hannes Vereecke is Professor of Musical Instrument Making and Dean of the Faculty of Applied Arts of the West Saxon University of Applied Sciences, Zwickau, Germany. He studied musical instrument making at the Royal Conservatory in Ghent, Belgium, and received a doctorate from the Institut für Wiener Klangstil of the University of Music and Performing Arts, Vienna, Austria. His research interests fall into the interrelated areas of musical instrument technology and design.

SESSION 2 – SOUND STUDIES & ARTISTIC RESEARCH

The "Wiener" Tuba: A Mixed-Methodological Approach to Instrument Studies and Artistic Research

Jack Adler-McKean

In recent decades, serpents, ophicleides, bass horns, and other low-pitched labrosones have undergone significant qualitative and quantitative research. However, critical approaches to instruments surrounding the invention of the bass tuba in 1835 are still relatively rare. Perhaps the most consequential instrument to emerge from this "Berliner" tuba was the so-called "Wiener" tuba; my recent research has shown how, following usage at the first Bayreuth Festival in 1876, this instrument was also described contemporaneously as a "contrabass tuba." This situation has dramatic implications for contemporary interpretation of not only the music of Richard Wagner, but also that of Gustav Mahler, Richard Strauss, and many other composers whose works are viewed today as canonical repertoire. Meanwhile, such instruments were indeed built in Austria and Germany, but also underwent significant development in Denmark and Sweden; they were still found in practice here later than elsewhere in Europe, where bombardon-derived military band instruments had largely replaced those which descended directly from the "Berliner" tuba by the mid-twentieth century.

This paper presents an examination of the historical background to this situation, demonstrating how such findings can find symbiotic relevance alongside quantitative data, and providing resources that can be of use to academics and practitioners. This includes both organological and musicological discussion of historical instruments alongside new forms of "Wiener" tuba currently under development, as well as demonstrations aiming to display the potential impact these instruments can have on broader pedagogical and performance-practice issues with regard to a range of late Romantic repertoire. This investigation also forms a case study to show how seemingly disparate paths of methodological inquiry can be used in combination to create cohesive arguments in the practice of artistic research, forming a rigorous, historical- and data-driven study that has the potential to have significant practical impact on contemporary performance practice.

Jack Adler-McKean's first book *The Playing Techniques of the Tuba* was published in 2020; other research outputs include presentations at conferences in Vienna, Bloomington, and Paris, contributions to the *Historic Brass Society Journal* and *Handbook of Wind Instruments*, collaborations with the Musikinstrumentenmuseum der Universität Leipzig, and curation of the *Contemporary Music for Tuba* collection for Edition Gravis. He was recently awarded his PhD from the Royal Northern College of Music, supported by the AHRC (UK).

Sound Design in Japanese Gardens: A Sound Studies Approach to Organology

Devanney Haruta*

In the 1970s, R. Murray Schafer reflected on the expanding horizons of musical practice and scholarship, a transformation that spurred the founding of Sound Studies: "Today all sounds belong to a continuous field of

possibilities lying within the comprehensive dominion of music. Behold the new orchestra: the sonic universe!" In this paper, I consider this lens of expanded sonic possibility as a way to think deeply about how we define musical instruments, with the Japanese garden soundscape as a case study. I introduce several garden features including the *suikinkutsu*, *shishi-odoshi*, and waterfall as potential instruments: material constructions designed to produce a particular sound within the overall soundscape of the garden. Each of these features utilizes running water for creative sonic potential—the plinking of drops within the reservoir of a ceramic pot buried underground, the periodic thwack of a bamboo tube against a rock, and the steady rush and gurgle of water onto and over rocks. For each of these features, I examine how their design, construction, and placement within the garden contributes to the total sonic experience of garden visitors. In addition, I frame these features in the context of the Japanese term ongaku (translated in English as "music") and the history of the term's evolution in Japan (Shūhei 2013). My research draws from garden design manuals, interviews with garden managers, designers and builders, and my own visits to Japanese gardens within the United States. Rather than define rigid boundaries for what does and does not constitute the definition of "musical instrument," I instead hope to offer space for reflection on how we think about instruments in the context of the expanded "sonic universe." Applying a Sound Studies perspective with a focus on Japanese gardens can help us more deeply understand our conceptions of musical instruments within organology.

Devanney Haruta is a PhD candidate in Musicology & Ethnomusicology at Brown University. She holds an MA in Ethnomusicology from Wesleyan University, where she worked with the World Instrument Collection and wrote her thesis on piano destruction in works of art and music. She was a recipient of the AMIS Gribbon Award in 2022. Her current research focuses on sound in Japanese gardens in the United States.

Cognitive Organology? A Case Study in Reconstructing Musical Ecology at the Clavichord

Massimiliano Guido & Joel Speerstra

Sound is a complex phenomenon. In his *Music at Hand* (2018), Jonathan De Souza advocates for a cognitive approach to explaining the ecology of sound production. It is not enough to study musical instruments as independent objects, focusing on their material properties and building techniques in a static dimension. Applying the most recent theory of embodied cognition (van der Schyff, Schiavio, Elliott 2022), we consider musical instruments and their affordances as an ecological system (Gibson 1979, Speerstra 2019).

In this paper, we explore the sound ecology of the clavichord, examining its simple but sophisticated action that allows the most direct link between nervous stimulus and the string and soundboard vibration. The few elements in the system also make each of them extremely valuable.

The study has been carried out on the Friederici clavichord inv. No. 30 Grassi Museum, Leipzig and a replica built in 2017. We demonstrate how small changes in the materiality of the key levers reflect upon the sound. The process of tuning the keys directly affects the ability of the musician to produce and artistically control the sound of the instrument. Evidence is collected by direct organological examination of the instruments, vibrational analysis, acoustic measurements, digital modelling, and perception experiments. Reinterpreting the markings left in the wood has led us to a better understanding of the reason why the clavichord was considered the best teacher for acquiring a flawless keyboard technique (Speerstra 2004).

Massimiliano Guido is the curator of the Musical Instrument Collection at Pavia University and Associate Professor in the Musicology and Cultural Heritage Department, where he teaches courses in the History of Musical Instruments and Music Iconography. He is the dean of the master's program in Conservation and Restoration of Musical Instruments. His focus is on historical keyboards and their entanglement with music theory and practice.

Joel Speerstra teaches and researches keyboard instruments at Gothenburg University, Sweden. Active as an instrument builder, performer and musicologist, his reconstruction of the Gerstenberg pedal clavichord documented in *Bach and the Pedal Clavichord: An Organist's Guide* (2004) has won a national prize in musicology from the Swedish Royal Academy of Music.

SESSION 3 – HARPS

The Paraguayan Harp: A 21st-Century Symbol of Paraguayan Cultural Identity

Alfredo Colman

Introduced in the seventeenth century to accompany liturgical functions in the Jesuit missions of southern South America, the European Renaissance harp underwent a series of regional transformations in the eighteenth and nineteenth centuries. In the early 1900s, the instrument was adapted into the performance practices of Paraguayan folk music. Considering that social discourses in twentieth- and twenty-first-century Paraguay have shown an interest in the dissemination of folklore—including music—in order to promote a Paraguayan identity rooted in cultural and musical nationalism, I argue that past and current cultural discourses have reinforced the Paraguayan harp as a practical illustration of *paraguayidad* ("Paraguayan-ness"). In fact, through compositions based on folk-style musicals genres—mainly the *polca paraguaya* and the *guarania*—as well as music festivals and government proclamations—including a 2010 document designating the Paraguayan harp as "instrument symbolic [of the] national musical culture" and a second proclamation signed in 2019 declaring it as "immaterial cultural patrimony of the nation"—the *national* instrument has been imbedded in the local social imagination through its promotion as the musical symbol of Paraguayan cultural identity.

Alfredo Colman is Associate Professor in Musicology and Ethnomusicology at Baylor University. He has authored *The Paraguayan Harp: from Colonial Transplant to National Emblem* (2015). His areas of specialty include Latin American musical nationalism and cultural identities, the Paraguayan harp, and the music of Paraguayan composer Florentín Giménez (1925–2021). Colman has presented his research at musicological and ethnomusicological conferences in England, Germany, Spain, Mexico, Argentina, Paraguay, and the United States.

Studying the Diversity of Central African Harps by the Soundbox, the Number of Strings and the Carvings

Sylvie le Bomin

Central African harps that are in existence today—and which are present in historical forms in museum collections—bear witness to a great diversity of morphological and acoustic characteristics, repertoires, and denominations. According to *The Grove Dictionary of Musical Instruments* article, the harp represents a tradition that is at least 5000 years old. The harp in Central Africa is evident in 150 populations.

The current situation shows a distribution of the harp in a belt that crosses Africa from Mauritania to Uganda, and even Kenya, and which appears mainly north of the equator. Despite this diversity, it is nevertheless possible to establish groupings on the basis of certain similarities, including the shape of the soundbox, the symbolic representation of the instrument, and the names or the theme of associated songs.

The results presented here are intended to illustrate our approach and to provide the first steps in a study on the diversity and origin of Central African harps. They concern the shape of the soundbox, the number of strings, and the carvings of two constituent parts, the top of the neck and the shelf. Contrary to prior literature—which tended to classify this diversity into types referring either to populations, denominations, countries, or geo-cultural areas based on more or less arbitrarily selected traits—we have shown that it was necessary to adopt new methodological perspectives in order to better account for this diversity: firstly, by describing as exhaustively as possible all the harps at our disposal, and then by not neglecting the important biases induced by the history of relations between Africa and the West.

Sylvie le Bomin is Professor of Ethnomusicology at the Sorbonne University. As a specialist in Central African music, she has been conducting research for several years on the diversity and evolution of Gabonese musics. She currently directs the Ngombi research program, which brings together ethnomusicologists, organologists, acousticians, and phylogeneticists to better understand the origin and diversity of Central African harps. She is the author of two books and four CDs on the music of Gabon, Central African Republic, and Mali.

How and Why Describe a Musical Instrument? The Example of the Central African Harp
Salomé Strauch*

Music and language are the only two cultural patrimonies common to all human societies (Arom 2008). The study of musical instruments is essential for understanding the music of a population and, by extension, the population itself. Indeed, musical instruments are widely used and steeped in tradition, and have a long history and multiple uses and functions. Moreover, they can be sacred or esoteric objects, related to religious or cosmogonic beliefs.

These characteristics apply to the harp in Central Africa, where it has been documented since the seventeenth century. It is the region of the world where the greatest diversity and variability of harps are to be found, in terms of shapes, uses, functions, and the societies which play them. These are oral tradition societies, which means that very little is known about their history and, thus, about harp history. In the past, many authors have proposed descriptions and classifications of the harp for a given population, country, or geo-cultural area, but there are too many biases for these descriptions to be compiled and considered true for Central Africa. Based on the observation of more than 500 Central African harps, both in the field and in international museums, we have established a method for describing this instrument, in terms of its morphology, its context of use, and the vernacular vocabulary associated with it. This has led to the *Organological Description Guide of Central African harps*, a descriptive aid document explaining over 500 parameters. It is inspired by previous work in ethnomusicology and biological classifications. The aim of this study is to explain the interests and objectives of the description process, but also the uses that can be made of it, such as analyses in statistics or phylogeny.

Salomé Strauch is a PhD student at the Muséum National d'Histoire Naturelle in Paris, under the supervision of Sylvie le Bomin. Trained as a biologist, she participated in the creation of the largest database on harps in Central Africa, designed to analyze their diversity and variability. She is interested in descriptive methodologies and processes, and she uses statistics and phylogenetics to study the evolutionary processes of Central African harp morphology.

SESSION 4 – KEYBOARDS

Instruments Ahead of their Time – The "2 payre of virginalles in one coffer" of 1530
Darryl Martin

A well-known—and enigmatic—early keyboard instrument reference appears in the English Court Privy Purse payments for April 6, 1530. In the accounts are payments for three instruments. The last of the three is a small virginal and need not concern us further. The first two refer to "2 payre of virginalles in one coffer", the first of which contained 4 "stoppes". There has been speculation on the identity of this first instrument (in particular) as far back as the writings of Galpin in 1896, with various options, ranging from a two-manual harpsichord, to a claviorgan, to two separate instruments in one box all being proposed through the years.

It has been bemoaned that the reference does not have the detail or clarity one might hope for, especially when compared to the Inventories of Henry VIII which were compiled in the following decade. In fact, this paper will present evidence and argument that rather than being by an anonymous civil servant scribe, the entries in the Privy Purse account and in the Inventories are both by the same person and use the same accuracy of language. The wording in the Privy Purse account is far more detailed than typical (even for transactions of much higher value) and will be shown to be that of William Lewes—the keyboard instrument maker and holder of the title "Keeper, tuner, and maker of instruments to the King".

With the author and relationship to the Inventories established, it will be shown that the meaning behind these entries can be determined. By comparison with other English keyboard instrument survivals of the period and having an understanding of keyboard performance practice from this era, it can be shown that the "2 payre of virginalles in one coffer" refer to double-manual harpsichords.

Darryl Martin was initially trained as a harpsichord maker. After his PhD in 2003 he became curator at the University of Edinburgh, where he also taught organology at all levels. In 2017 he moved to the National Museum of Denmark, and then in 2019 to the instrument workshops at KASK, Ghent, Belgium. In 2022 he moved to the USA to combine museum work and teaching again at the National Music Museum, University of South Dakota.

The Remarkable Design of a Fleischer Harpsichord

Bastian Neelen*

No other city in Germany leaves us so many harpsichords as Hamburg, yet it is just a fraction of what must have existed in that region at the time. The Hamburg harpsichords of the first half of the eighteenth century come in a variety of shapes and sizes, but most importantly with some of the most elaborate dispositions ever seen in historical harpsichord making.

After the Hass family, it is the Fleischer brothers who are the most prolific in terms of surviving instruments. Carl Conrad Fleischer has left three surviving examples, of which the most extraordinary is his 1720 harpsichord in Barcelona. In relation to his other instruments, it is longer, wider, and has a larger compass, but most interestingly, it has a hugely wide wrestplank for the two nuts and three tuning pin rows it needs to bear. The larger compass can in no way explain the extra wrestplank width, given the large amount of "redundant" area on the wrestplank, and especially given that it has only one keyboard and the same number of registers and disposition as his other examples. It seems like the instrument was designed to be more than it is today, and then possibly altered during its construction.

Comparing the 1720 Fleischer with other German harpsichords, it becomes clear that the instrument has more to it than meets the eye. Based on in-depth construction and scaling analysis of the 1720 Fleischer harpsichord and making comparisons with other early Hamburg harpsichords, it is evident that the design of the 1720 Fleischer might have been originally conceived as having a 16' 8' 4' disposition, instead of the expected (and present) 8' 8' 4' disposition. It can be shown that there is precedence for such a disposition on a single keyboard in Hamburg and other parts of North Germany at this time.

Bastian Neelen was born and educated in Ghent, Belgium, where he decided to follow the instrument making course at KASK & Conservatorium. During his studies he elected to specialize in early keyboard instruments. While continuing his studies, he collaborated with prestigious musicians, ensembles, and museums and did internships at the top of his field. He is currently completing his MA, where his research and making is focusing on German harpsichords, particularly harpsichords of eighteenth-century Hamburg.

Reconstructing the Hauslaib Claviorgan

Kamiel Dockx*

Built in the late sixteenth century by Nürnberg organ maker Lorenz Hauslaib, a group of three claviorgans combine a small spinet with an organ. All this is incapsulated in a baroque cabinet. At the present time only one of the three is still playable, and none is still in its original condition. The Barcelona instrument (which is the only playable example) was modified to suit the sixteenth-century Spanish organ fashion, probably soon after it left Nürnberg. The second instrument, now in the Metropolitan Museum of Art in New York, was probably altered in the eighteenth century. Its bellows were altered and several registers disappeared. The third instrument, in the Glinka Museum in Moscow, is almost undocumented. It appears that only the spinet and cabinet remain.

This paper will discuss research about the three instruments to determine the original state of the instruments when they left Hauslaib's workshop. The fundamental approach is to combine all the known original features of the extant instruments. Based on organological research about organs from the same time period and location, I will make a physical hypothetical reconstruction. Furthermore, there exists a possible fourth instrument, which bears great similarities to the other three. This instrument is a spinet contained inside a cabinet. It currently is part of the collection of the Cité de la Musique in Paris.

After having thoroughly studied the designs of these claviorgans, I can say with relative confidence that the spinet in Paris and its cabinet are probably related to Hauslaib. I will examine the instrument in Paris in the near future, and verify my assumptions about its possible attribution to Hauslaib, the results of which will be presented here.

Kamiel Dockx is currently a master's student at the Royal Conservatory, Ghent, Belgium. Interested in arts and music from a young age, Kamiel enrolled in the instrument-making course in Ghent. Along the way Kamiel got interested in organs and their construction. In his third Bachelor year he made a seventeenth-century regal. For his Master's project he is reconstructing and building a Renaissance claviorgan. Additionally, Kamiel is a student at the Royal Carillon School in Mechelen.

SESSION 5 – STRINGS

Historical and Dialectical Materialism in the Study of the Cittern during the Sixteenth and Seventeenth Centuries: Towards a Theory of Musical Instruments
Esteban Mariño Garza

The history of the cittern is the story of the battle between tradition and innovation in a cultural climate of major forces of change, mainly the economic circumstances of the sixteenth century, the beginnings of the modern age, and their effect on musical culture. The increase of wealth of not only nobles but merchants, bankers, government officials, and other lesser or non-aristocrats, as well as the demand for music, instruments, and art in general as means of acquiring and displaying social status and consolidating power, were major groundbreaking forces of change.

Music was conditioned by a larger investment and consumption of art, which brought a transformation of business organisations and international commerce. Such changes set a market for new varieties of musical practices and instruments, which brought a novel amalgam of ideologies, traditions, and innovations. Specifically, the cittern was dramatically transformed towards the growing practice of polyphonic instrumental music and basso continuo. While in the Italian Peninsula the instrument remained strongly bound to humanism, its transalpine counterpart underwent a greater commodification process. Within these transformations, the cittern acquired a range of contrasting social values and categorisations as it helped shape social identities. This metamorphosis can be considered both as progress but also as regression, for in each important stage, the cittern gained and lost values. This cultural process is fundamentally aligned with historical and dialectical materialism, both milestones in philosophical development and bedrocks of heritage and material culture studies. While much has been written and interpreted on the Marxist view of art and culture, there have been few analyses of musical instruments. The objective of this talk, then, is to use the methodological lens of historical and dialectical materialism and to reflect on its application to the history of the cittern as a first step towards a general theory.

Esteban Mariño Garza studied Cultural Heritage Conservation at the National School of Restoration, Conservation and Museography Manuel del Castillo Negrete (ENCRyM). After finishing his bachelor's studies, he received his master's degree in Music with a Specialization in the History of Musical Instruments at the National Music Museum in collaboration with the University of South Dakota. He is currently undertaking his Doctoral Studies on Music and Material Culture at the Royal College of Music in London.

The Santo Serafin Violin in the Museo Correr: Conservation Treatment and New Organological Discoveries
Ricardo Angeloni

The Santo Serafin violin in the Museo Correr is a rare specimen of a transitional violin by an eighteenth-century Italian maker. This presentation will describe the conservation treatment performed by the author on this important instrument, focusing on the decision-making process behind the intervention choices.

Prime importance was given to not causing any loss in organological and technological evidence: the broad set of documentation and analysis performed on the instrument introduced in last year's presentation was an important factor in this matter. For example, a full 3D laser-scan model was used for documenting the instrument's structural features: such a tool provided extra security when disassembling the soundboard, ensuring no change in the fingerboard and neck setup in the later regluing. The model was also used for making a 3D-printed plaster cast to be used for the treatment of a badly deformed crack.

The treatment led to the discovery of some interesting construction features, such as a series of concentric divider marks on the back that resemble in part those described by Antonio Bagatella in his 1786 *Regole*: this aspect will be further investigated and discussed. Archival research also played a significant role in the decision-making process, allowing us to retrace the instrument's own conservation history over almost two centuries, and acknowledge previous interventions.

This ongoing project was the main topic of the first thesis produced by the newly established master's degree in Conservation and Restoration of Musical Instruments at University of Pavia in Cremona. The presentation will be an opportunity for discussion of this novel approach in Italy's conservation and restoration scene.

Riccardo Angeloni is a violinmaker and licensed musical instruments restorer based in Cremona, Italy. After graduating from the Stradivari International Violin Making School, he got his master's degree in Conservation of

Musical Instruments at the University of Pavia, Cremona. Among other experiences, he worked as an intern at St. Cecilia's Hall Museum in Edinburgh and at Bruce Carlson's shop in Cremona. Recently, he assisted Grant O'Brien in the restoration of a Franco-Flemish harpsichord in Edinburgh.

The *Jarana* as Baroque Guitar: A Neocolonial Claiming of *Jarocho* Instrument-Making Traditions
Wesley Somers*

The *jarana jarocha* (hereafter called *jarana*) is a guitar-like instrument used in *son jarocho,* the music of the Afro-mestizo cultural group of south-central Veracruz known as *jarochos*. Many have noted the *jarana'*s semblance to the baroque guitar, suggesting its European lineage. Recently a strain of early music scholarship has claimed that the *jarana* is the survival of the baroque guitar itself. My work will offer the rejoinder that the unique construction technique of the *jarana* differentiates it from the baroque guitar, utilizing the concept of epistemologies within the field of organology to challenge traditional notions of instrument relations.

This work explores the genre of the Latin American Baroque (LAB), which grounds itself in early music scholarship. I will show how practitioners of LAB have created a market for *jaranas* that are modified to resemble baroque guitars more closely. I ask what knowledge *jarocho* luthiers might hold about the development of the instrument. Can they provide another perspective on the evidence supplied by early music scholars? Might there be neocolonial implications in claiming the *jarana* as a European cultural artifact? What do we learn by acknowledging the inequality of power in the relationship between the baroque guitar and the *jarana*?

The findings of two years of library research and a month of fieldwork in Veracruz demonstrate that scholars and *jarocho* luthiers both see the relationship between the *jarana* and the baroque guitar; yet what consistently emerges in my fieldwork is that the *jarocho* construction technique was a result of African-based instrument-making knowledge rather than that of Europeans. I propose that neocolonial ideologies are present in the scholarly analysis that claims the *jarana* as the baroque guitar. Considering epistemologies as crucial to understanding instrument lineage, I propose an adjustment to how organology places instruments in relation to one another.

Wesley Somers is currently a third-year PhD student in Cross-Cultural Musicology at the University of California Santa Cruz, advised by Dr. Russell Rodriguez. Wesley specializes in what are considered folk music forms, but more specifically the ethos of conviviality, or *convivencia,* viewing it as something that both disrupts and is disrupted by capitalist, neoliberal, and neocolonial ideologies. His research interests include, but are not limited to, organology, neocolonialism, *convivencia*, indigeneity, Celtic diaspora, and African diaspora.

SESSION 6 – MUSIC MACHINES

New Wings for Song: The Intriguing Story of America's Flirtation with the Electric Piano
Thomas Strange

Between 1929 and 1930, Walther Nernst, in association with the Bechstein piano company and Siemens Corporation, developed an electric piano, the "Neo-Bechstein-Flügel." The piano used a primitive form of electric pickup to replace the soundboard, and while economic conditions severely limited its adoption and production in Germany, the concept was picked up by the serial and prolific inventor Benjamin Miessner in America. After issuing at least 10 patents covering an electric pickup, primarily for piano, between 1933 and 1935, Epiphone guitars among others experimented with the concept. In late 1937, after licensing the needed patents, Story & Clark pianos began collaborating with RCA-Victor Corporation, and radio manufacturer Arthur Ansley collaborated with the Pratt-Read Piano Company, to bring forward all-electric pianos. Introduced within months of each other, they each took an approach that was both bold and slightly quirky, even for the time. Story & Clark engaged a prominent industrial designer for one of the two piano forms they brought forward, with RCA engaging its own design expert for the accompanying radio and phonograph. The Arthur Ansley design, while more restrained, was unique in its own right, and produced a truly compact design.

Now with an example of the Storytone and of the Ansley Dynatone piano in the Sigal Music Museum collection, this paper will examine these pianos and their origins in detail, including sound clips from the working Storytone piano. It will also clear up a general misunderstanding about the designers and their objectives, and it will

place the pianos in context of the design philosophies prevalent at the time. It also addresses the post-war dynamics that shuttered Ansley for good and caused Story & Clark to abandon the electric piano concept.

Thomas Strange has an extensive background in materials science and has authored fifty-eight patents and numerous scientific papers. Strange is the author of *A Respectable Inhabitant of This City: John Geib & Sons, Organ Builders & Piano Forte Makers*, and co-authored *Facing South: Keyboard Instruments in the Early Carolinas* and *Jacob Kirkman, Harpsichord Maker to Her Majesty*. He founded the Carolina Music Museum in Greenville, SC, in 2016; the museum was renamed for Marlowe Sigal in 2019, following a major gift from the Sigal estate.

The Jukebox: Examining a Democratic Musical Instrument

Núria Bonet

This paper proposes to theorize the jukebox as a musical instrument: as a means of musical production, rather than just reproduction. I argue that the jukebox as a musical artefact affords its "performer" creative agency and the possibility of acquiring playing skills. I also seek to interrogate the instrument's "social life" (Bates 2012) and demonstrate its democratic potential, particularly within capitalist patterns of music consumption. The mechanical jukebox developed during the first half of the twentieth century and gained great popularity after WWII. Since then, jukebox technology has taken a digital turn as machines update their playlists through an internet connection or file transfer, including apps such as TouchTunes to control the music selection.

The skillful use of a jukebox is dependent on the availability and organization of recordings of each individual machine, whether a 1953 Seeburg MC100 (50 records with two sides) or the digital Milestones in Music (30,000 tracks). The choice of music on a digital jukebox is determined by choices of the licensing company (licensed tracks), the establishment (which can request and block tracks), and the customers (whose choices determine "most played" playlists). Thus, each machine is potentially unique and requires practice and skill to master it in order to perform it in a manner that satisfies the performer. In fact, I argue that the jukebox can be a participatory and democratic musical instrument, as it offers a low-skill threshold performance while being almost exclusively played in public informal life. This paper will examine the jukebox as an organological object and seek to situate it as a musical instrument, beyond the reductive Hornbostel-Sachs qualification of radioelectric instrument (53). I will demonstrate that it should be considered as more than a means of music reproduction and as an opportunity for participatory music-making and musicking (Smalls 1998).

Núria Bonet is a Lecturer in Music at the University of Plymouth (UK). Her current research focuses on Catalan instruments and pub jukeboxes. She completed a PhD at the University of Plymouth, during which she investigated the use of scientific data as compositional material. Núria is also active as a composer and has recently completed the *Ten Wee Devon Pints* project, which commissioned ten composers to write clarinet pieces for then Devon-based breweries.

Out in Front: A Closer Look at the American Cabinet Piano-Player

William E. Hettrick

Coffee-table picture books and other publications on the American Cabinet Piano-Player get it wrong on several counts. This paper aims to set the record straight with documented facts, including the correct genealogy of self-playing piano mechanisms, which many authors misconstrue. American piano manufacturers in the 1880s resisted the application of automatic devices to their instruments, so the makers of these mechanisms adapted them instead to reed organs. Thus the "Symphony" was made by the Wilcox & White Organ Co. of Meriden, CT, and the "Aeolian" by the eponymous company in New York. In the 1890s, internal players began to appear in upright pianos. Wilcox & White offered to install their model, called the "Angelus," into customers' pianos in their factory, but this proved commercially impractical. Their successful solution was to create external players designed to be placed in front of existing pianos and to move their keys by mechanical fingers. These first came on the market in May 1897. This type of piano-player was known as the "cabinet" or "external" variety (the childish term "push-up" is not documented before 1926 and has no historical validity). Aeolian followed in April 1898 with its own cabinet player, bearing the trade name "Pianola," which soon became a generic term signifying all piano-players. Many more examples were made during the colorful heyday of the external player: twenty-eight new models first appeared in 1900–1905, after which began a decline in favor of internal players in "player-pianos." The last-known external

players were introduced as late as 1921 by the Welte-Mignon Corp. in New York, furnished with stylish cabinetry designed to appeal to wealthy clients not wishing to alter their expensive pianos. I have identified forty brands of American cabinet players, made by twenty-nine companies. All are listed in my handout, which also includes facsimiles of representative advertising.

Dr. William E. Hettrick has served AMIS as president, editor of the *Journal* and *Newsletter,* and member of the Board and many other committees. His translation and study of Martin Agricola's *Musica instrumentalis deudsch* (1529, 1545) was published in 1994 by Cambridge University Press. His subsequent studies of the American piano, music-trade journalism, and related topics led to his recent book, *The American Piano Industry: Episodes in the History of a Great Enterprise* (Pendragon Press, 2020).

SESSION 7 – PANEL DISCUSSION

Musical Crossroads: Stories Behind the Objects of African American Music
Timothy Anne Burnside, Hannah Grantham, Steven Lewis, Dwandalyln Reece

The ways we engage with music are constantly evolving. In recent decades, countless museums, historic sites, libraries, and archives have built music collections for research, exhibitions, and programming purposes. Within this movement to document, preserve, and interpret music's existence, is a growing interest in music's material culture, the tangible objects that are the evidence of its existence. This musical material culture encompassing everything from iconic musical instruments to seemingly mundane office equipment facilitates examinations of African American music and its position as a socio-cultural force within the American soundscape. E. McClung Fleming's 1974 model for artifact study has been a useful framework for analyzing material culture within the National Museum of African American History and Culture's Music and Performing Arts Collection. With four basic operations of identification, evaluation, cultural analysis, and interpretation, Fleming's model extends basic museum identification procedures, which carefully document the appearance and historical significance, into the realm of humanistic discussion. Applying this model to musical artifacts deepens our understanding of music's meaning in a social, historical, and cultural context. It has also opened up new and tantalizing possibilities for interpreting musical instruments' presence in African American life. The book *Musical Crossroads: Stories Behind the Objects of African American Music*, draws on the Fleming model to make insightful connections between objects of musical material culture and broader themes in African American history. In this round-table panel, contributors to the book will discuss examples of musical instruments from the NMAAHC collection to demonstrate how drawing on material culture and Black studies can serve organological discourse. Panelists Dwandalyn Reece, Steven Lewis, and Hannah Grantham will walk through analyses of musical instruments that reveal their resonance in broader cultural histories and place within African American life. Objects featured will be drawn from the NMAAHC's collection of nearly 5,000 music and performing arts related artifacts.

Timothy Anne Burnside is a public historian and museum professional with almost twenty years of experience at the Smithsonian. Her work explores intersections between history and culture through the lenses of music and performing arts by building collections inclusive of unique objects that center the experiences of those whose stories are captured. At the NMAAHC, Burnside develops exhibitions and programs that create engaging and educational experiences for visitors to the Museum and worldwide audiences online.

Hannah Grantham is a curatorial research assistant at the NMAAHC with a background in organology, jazz, and museum studies. Grantham stumbled upon the fascinating world of museum work when she was a student at the University of North Texas and continued her education at the University of South Dakota where she studied organology with staff at the National Music Museum. She is currently completing a doctoral degree in history at the University of Delaware.

Steven W. Lewis is Curator of Music and Performing Arts at the NMAAHC. Prior to joining the staff, he served as the founding curator of the National Museum of African American Music in Nashville, Tennessee. Lewis has also worked as historian and curator for the Ed Johnson Memorial Project and as an advisory scholar for the Carnegie Hall Corporation.

Dwandalyn R. Reece is Associate Director for Curatorial Affairs at the National Museum of African American History and Culture and chair of Smithsonian Music. Reece has spent decades working as a scholar, performer, grantmaker, and curator. Reece has curated and participated in award-winning projects including the Musical Crossroads exhibition, the 2016 music festival Freedom Sounds: A Community Celebration, the Smithsonian Anthology of Hip-Hop and Rap, and the podcast series, All Music is Black Music.

SESSION 8 – INSTRUMENTS IN AMERICA

Instrument of Power: The Side Drum and Slavery in North America

Jayson Kerr Dobney

The side drum was the main signaling instrument of North American colonial militias. Its association with these civilian military forces made the drum a patriotic symbol of the United States. In iconography, the side drum and its partner the fife replaced the kettledrums and trumpets that represented European royalty. In America, the side drum came to represent the idea of the common men who fought for and gained independence from the rule of European monarchs.

This narrative, however, is only a part of the history of militias and their use of the side drum in North America. The centering of this national story serves to conceal a much more complicated history of the instrument's place in British colonies and the early history of the United States. Most of the colonial societies established by Britain in the western hemisphere relied upon the labor of enslaved people. Societies that rely upon large systems of forced labor require a militarized presence to prevent rebellions. In colonial North America, the only available forces were the militias. Legal historian Carl Bogus wrote that the militias were the "principal means of protecting the social order and preserving white control over an enormous black population."

Is it possible to determine if the side drum was used by militias to enforce slavery? How were side drums used in this context? Did the instrument actively play a role in establishing a race-based power structure on the continent? Was the side drum a practical tool or a symbol of white militarized power, or both? This paper will use surviving eighteenth- and nineteenth-century memoirs, travel logs, newspaper accounts, and legislative acts to attempt to answer these questions and understand the role of the side drum as an instrument of power.

Jayson Kerr Dobney is the Frederick P. Rose Curator in Charge of the Department of Musical Instruments at The Metropolitan Museum. He has been the curator for several exhibitions including Play It Loud: Instruments of Rock & Roll (2019). He has published on a variety of musical instrument topics including the article "Royal Kettledrums from the House of Hanover," in the *Galpin Society Journal* (2016). He is a past president of AMIS.

"Powers and beauties unknown before": Late-Nineteenth Century Innovation in American Pipe Organ Construction and Its Implications for Performers

Abraham Ross*

In the mid-1860s, word of a new musical marvel spread across the United States. Churches and concert halls filled with audiences clamouring to hear an instrument hitherto restricted to dreary hymn and psalm accompaniments: the pipe organ. In the wake of the First Industrial Revolution, workshops in urban centers assumed a prolific production of organs, considerably increasing their scale, range of expression, and technical capability. By the 1870s, virtually every northeastern town and city boasted at least one of their own, and organ builders began to ship their instruments as far as Atlanta, Dallas, and San Francisco. In the hands of capable performers returned from studies in Europe, the pipe organ supplied public entertainment of grandiose scale, ubiquitous accessibility, and a uniquely American identity.

The new American organ was perfectly suited to its nascent performance culture. Quantity aside, industrial methods produced organs of higher quality and playability than ever before. New developments in metal alloys,

acoustics, and key action quickly approached the standard of European organ building. The expansion of keyboard- and pedal-compasses made possible the performance of serious solo repertory (above all, the music of J. S. Bach). Moreover, a general diversification of timbres and number of divisions distilled the capacity of an entire orchestra in the hands and feet of one performer; indeed, organ recitals often represented rare chances to hear favourite opera arias or symphony movements in transcription. Finally, the organ's popularity established its unique voice in society. It introduced music of the European canon to American audiences. It asserted political rhetoric, as in Paine's concert variations on the Union anthem, *The Star-Spangled Banner*. It also imparted wisdom and inspiration to organ students, among them Charles Ives, Florence Price, and G. W. Chadwick, whose formative experiences at the console would play out in American music culture of the next century.

Performer-researcher **Abraham Ross** is a candidate for Doctor of Music at McGill University, where his research interests include music of nineteenth-century North America and early modern improvisation practices. He maintains an active concert schedule as organist and has appeared as a finalist in international competitions. His current doctoral project examines performance practice for the foot pedals in early American organ music and applies these findings in the reconstruction of lost organ works by Charles Ives.

A New England Viol Consort c. 1820: New England Alto and Tenor Viols in Historical and Musical Context
Loren Ludwig

New England viols were widely built and played in the New England states (Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island) from roughly the 1770s through the middle of the following century. The so-called "church bass" (an anachronistic term for the New England bass viol that gained currency in the twentieth century) is only the most familiar and best represented member of what was, in effect, a family (or consort) of variously sized instruments. The recent discovery and restoration by the author of five smaller New England viols (four tenors and one alto) adds substantially to the known examples of surviving "smaller sized" New England stringed instruments, nearly all of which are in museum collections and inaccessible to restorers or performers. This presentation details the unique construction principles that seem to have guided New England viol makers, none of whom appear to have adopted the conventions of European luthiery. Rather, the five tenor and alto New England viols that comprise the core of this study show a remarkable variety of creative solutions to the acoustic, mechanical, and practical challenges of string-instrument construction. These include a range of bass bar designs, various methods of attaching ribs to plates, and different approaches to fingerboard, bridge, and tailpiece design. This organological evidence is supported by rich archival sources that testify to a diverse musical culture with New England viols at its center.

Loren Ludwig is a musician and music researcher based in Baltimore, MD. Loren's research explores connections between the materiality of musical instruments, performance practices, and emergent cultural meanings. Current research/performance projects include Ronde de Saisons (NewFocus 2023), a modern premiere recording of music for quatuor de violes by Ottorino Respighi and Henri Casadesus, and the reconstruction of a lost tradition of Early Republic New England string ensemble playing. Loren is a co-founder of LeStrange Viols and Science Ficta and is a founding member of the seventeenth-century string band ACRONYM. www.lorenludwig.com.

SESSION 9 – INSTRUMENTS IN CHINA IN CROSS-CULTURAL PERSPECTIVE

Kangxi, Father Amiot, and "Improvements" to Ritual Instruments in Eighteenth-Century China
Stewart Carter & Zhiyu (Alex) Zhang

The Kangxi Emperor (r. 1661–1722), third ruler of the Qing Dynasty, is well known for his interest in European music, engendered largely by European missionaries. As early as the eighth year of his reign, Kangxi became concerned about the construction of musical instruments used in traditional Chinese rituals. His concerns resulted in part from his encounters with European- style instruments built by missionaries at his court, which he saw as superior in construction to Chinese instruments, but he also wanted to correct what he perceived as the inferiority of Chinese instruments manufactured during the preceding dynasty, the Ming.

Kangxi's concerns persisted throughout his life, culminating in the 1710s when he commissioned a group of Chinese scholars to prepare a large treatise on music theory, *Lülü zhengyi*, under the direction of his third son,

Yunzhi. One of the sections of this work, *Lülü zhengyi xiabian*, provides detailed measurements for many Chinese musical instruments. These measurements apparently were included in the *xiabian* on the direct order of Kangxi himself.

Many of Kangxi's "reforms" in instrument construction were reported in Joseph-Marie Amiot's manuscript treatise *De la musique chinoise* (1754). Our paper demonstrates how Father Amiot, a French Jesuit missionary resident in Beijing, conveyed Kangxi's reforms of Chinese ritual instruments to the West. Amiot may not have understood fully all the dimensions and descriptions printed in *Lülü zhengyi xiabian*, but his treatise provides the most detailed information on Chinese musical instruments to appear in any European publication prior to the twentieth century.

Stewart Carter is author of *The Trombone in The Renaissance* (Pendragon, 2012) and Editor with Jeffery Kite-Powell of *A Performer's Guide to Seventeenth Century Music* (Indiana, 2012) and with Timothy McGee of *Instruments, Ensembles, and Repertory, 1300–1600: Essays in Honor of Keith Polk* (Brepols, 2013). He was President of AMIS 2008–11 and was the 2022 recipient of the Society's Curt Sachs Award. Carter holds an endowed professorship at Wake Forest University.

Zhiyu (Alex) Zhang is a third-year undergraduate student at the University of Michigan. He transferred from Wake Forest University to his current institution during his sophomore year. As a student member of the International Society of Music Education, Zhang published articles in journals and books in mainland China, *including Music Education in China*, *China Music Education*, and his own publication *Alex's Musical Picture Book*. His research interests reside in Chinese musicology and music therapy.

Why Seven: Polychordia and String Standardisation of Ancient Greek Lyre and Early Chinese Guqin
Patrick Huang*

String instruments had significant meaning across regions in antiquity. In China, *guqin* (古琴) is long considered an instrument that symbolised the literati culture, and its seven strings were considered to represent the five basic elements and two sages. However, various earlier myths and archaeological findings revealed that the string number of *guqin* varied during the Pre-Qin (before 221 B.C.) period (Yang 2016). Similar scenarios can be observed for the ancient Greek *lyre* (*λύρα*); despite polychordia features that can be clearly observed from descriptions and iconographic depictions (Maas 1992), the instrument was gradually standardised and became seven-stringed, then associated with the name of muses as well as various features in Greek music theory.

In my presentation, I will first describe the polychordia and standardisation of strings of the early Chinese guqinand ancient Greek lyre by summarising various historical sources, then try to analyse them to find the similarities and differences that led to such string standardisation. Lastly, I will compare both traditions within their cultural context, in order to further explore the theory and mechanism that is hidden underneath.

Patrick Huang is a PhD student at the University of Western Ontario, Canada. His research focuses on the comparative study of Ancient Chinese and Graeco-Latin musical systems, as both cultures associate music with mathematics, philosophy, astronomy, and political order (i.e., "musica universalis").

SESSION 10 – PEDAGOGY

Start 'em Young: Musical Instruments in Children's Literature
Allison Alcorn

Literature is born from the human need to tell stories and helps us make sense of the world around us and the emotions inside us. We sing stories to our infants; they curl into our arms as we read stories; they learn the power and the magic of story and become voracious consumers of literature: "Just one more story, pleeeeease?" These are not only precious moments with our children, however. Researchers are clear that reading to children supports cognitive development, improves language skills, increases concentration and discipline, expands imagination and creativity, prepares for academic success, and enlarges foundational knowledge. In fact, studies suggest the most critical stage of child development is birth to seven years of age, which places tremendous weight in the value of children's literature before the formal schooling even begins. With the elimination of music programs American

public schools have seen in the last twenty years, plus post-pandemic teacher shortages affecting music department staffing—so that some districts find it easier to cut the music program entirely rather than to find music teachers—picture books and early readers must be recognized as crucially formative now more than ever.

With that recognition, this paper surveys the state of children's literature specifically about musical instruments, analyzing quantity, quality, and type of books available for children. Additionally, it describes a study with children ages 3 to 12, in which parents read books about musical instruments to their children, recording their responses and concluding with questions designed to gauge the effectiveness of the books in interesting children in musical instruments. Independent young readers shared their impressions as a video book report. In conclusion, the paper suggests steps organologists can take—indeed *must* take—to help nurture new generations of instrumentalists and to encourage our budding organologists.

Allison Alcorn is Professor of Musicology at Illinois State University, where she is Coordinator of the Musicology-Ethnomusicology Area and is active in the Honors Program and in Study Abroad. She is a past editor and currently on the Editorial Board of the *Journal of the American Musical Instrument Society*, having previously served on the boards of the Organ Historical Society and the American Organ Archives.

Reanimating the Intangible: Audio-Visual Content as a Device for Representing World Musical Instruments
Eddie Chia-Hao Hsu

Museums with globally diverse collections of musical instruments have encountered particular curatorial challenges in delivering a culturally engaging presentation of music-related objects that values specific qualities and source communities' voices. Scholars have argued that those crucial aspects are often absent in traditional museum practices when musical instruments are presented as "dead" objects. However, the production of instrument-related audio-visual content involving music professionals and community members, including interview videos and performance recordings, provides potential opportunities for visitors to connect musical objects on display with a range of multisensorial, historical, material, and aesthetic associations.

As a major contemporary museum featuring musical instruments from every country in the world, the Musical Instrument Museum (MIM) in Phoenix aims to promote appreciation of the world's diverse musical cultures. Drawing upon examples from MIM's Asian instrument collection and related exhibits, this paper will address how the incorporation of audio-visual content on musical instruments can jointly facilitate the documentation of musical instruments and guide visitors toward a more comprehensive understanding of the historical background, aesthetics, and material cultures associated with musical instruments. Connected to a broader discussion of "collaborative approaches" advocated by a growing variety of museum professionals, I argue that the production of audio-visual content rooted in these approaches has the potential to enhance the representation of associated musical cultures and indigenous musical practices.

Eddie Chia-Hao Hsu is Curator for Asia and Oceania at the Musical Instrument Museum in AZ, where he is responsible for the Asian and Oceanic collection and related exhibits. Hsu received his PhD in ethnomusicology from the University of Texas at Austin, and he previously served as adjunct faculty at Boyer College of Music and Dance at Temple University. His research has focused on organology, material cultures, and the intersection between music, indigeneity, and sustainability.

SESSION 11 – WOODWINDS & BRASS

"The times for experiments are almost over": The New York Pro Musica and the Reproduction of Historical Wind Instruments
Patrick Connor Dittamo*

The pioneering New York Pro Musica, founded by Noah Greenberg in 1952, was instrumental in bringing the sound of early music not only to post-war America but also to a global audience, both on tour and on record. Until its disbandment, the ensemble was continuously engaged in the purchase and commissioning of reproductions of historical instruments, enabled by a series of generous grants. Examination of the Pro Musica's archival records at the New York Public Library for the Performing Arts highlights the especial difficulty of securing suitable reproductions of early wind instruments at the time.

The quality and availability of early reed instruments in the post-war period lagged considerably behind that of recorders, early strings, and keyboards. The Pro Musica's extant correspondence with wind-instrument makers underscores the gap between the needs of a professional ensemble and the limitations of their instruments. In one illuminating exchange, an instrument maker sympathized, opining that "the times for experiments are almost over" and that performers were justified in expecting higher-quality instruments than were then available.

During the lifespan of the Pro Musica, wind-instrument making gradually improved, leading the ensemble to sell off older instruments to finance new purchases and lean on members' personally owned instruments. Despite their shortcomings, the value of the Pro Musica's instruments to their players as unique objects which they had modified, to which they had become accustomed, and on which they depended to make a living came to the fore in discussions during the dissolution of the Pro Musica in 1974, when the bulk of the instruments were sold to New York University.

Ultimately, the New York Pro Musica's efforts to perform early repertoire at a professional level challenged wind players and instrument makers alike during a time of relative scarcity and experimentation in the reproduction of historical wind instruments.

Patrick Connor Dittamo is a doctoral candidate in musicology at the University of Chicago, working on a dissertation on the labor of wind instrument makers in the Early Music Revival and the legitimation of reproductions. His research interests also include performance practice and material culture in the medieval and early modern eras. 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.

A(n) (Un)Missing Link Between Keys and Valves: Three Keyed Trumpet Solo Works Arranged for Early Valved Trumpet, Flügelhorn, and Valved Trombone by Joseph Kail for the Prague Conservatory

Robert Warren Apple

A prevalent misconception regarding the music composed for the keyed trumpet is that it had little influence on that performed on and written for the valved instruments that eventually replaced it. In past conference presentations, however, I pointed out that much of the military band and church music that originally made use of the keyed trumpet was later performed using the early valved trumpet and flügelhorn. This ensured that much of the keyed trumpet's ensemble repertory continued to be performed long after the instrument fell out of use, which is perhaps unsurprising given the pragmatic nature of many music directors. What is unexpected, however, is that Joseph Kail—an early proponent and the first conservatory professor of the early valved trumpet—arranged three solo works originally composed for the keyed trumpet for the early valved trumpet, valved trombone, and flügelhorn with piano accompaniment for use at the Prague Conservatory. These works are the Divertimento currently attributed to Joseph Fiala, and an *Introduction et Polonaise* for solo keyed trumpet and orchestra and an *Adagio sammt III Variationen* for obbligato keyed trumpet and *Harmonie* by Joseph Höffner. In creating his arrangements of these works, Kail did far more than simply produce keyboard reductions of each piece's accompaniment and adjust the tessitura and key to better fit the valved trumpet, valved trombone, and flügelhorn. He also altered and ornamented the solo parts to demonstrate these valved instruments' expanded playing capabilities over those of the keyed trumpet. Kail's arrangements of these works represent a link between the music composed for the keyed trumpet and that later written for its valved successors, and their existence further builds a case for the transition from keyed to valved brasses not being a clean and immediate break as some believe, but rather one of overlapping and gradual change.

Robert Apple has earned a BM and MM in trumpet performance and completed a PhD in musicology in 2022. In 2018, he was awarded an Austrian Fulbright research grant. Robert is currently working to complete a graduate certificate in museum studies and will be awarded a graduate certificate in early music later this year from the University of Memphis. Robert also studies and plays the baroque, keyed, and low-F romantic trumpets, and the keyed bugle.

Abel Siccama and the Development of a Rational, Modular Key System for the Flute

Robert Bigio

Abel Siccama (d. 1861), a Dutch-born teacher of languages in London and apparently an outsider in the musical world, designed and marketed a flute that is a particularly interesting example of the many advanced simple-system flutes produced in the 1840s that attempted to use Boehm's design of correctly spaced holes while retaining the old system of fingering. Siccama's simple and elegant design was produced with outstanding skill by John Hudson, employing a system that rationalized the manufacturing process in a unique modular manner, using components that could be manufactured in bulk, with some components used in multiple locations on the flute. Siccama combined his design expertise with a marketing strategy that would be recognized today, using an aggressive campaign of advertising as well as celebrity endorsements. Siccama's design continued to be produced long after his death. This paper traces the development of Siccama's design by comparing a recently discovered early Siccama flute with a number of later, standardized examples.

Robert Bigio is a maker, collector, and restorer of flutes. He has a particular interest in historical methods of manufacture and their effect on instrument design. Robert is the author of two books: *Readings in the History of the Flute and Rudall, Rose & Carte: The Art of the Flute in Britain*, which was awarded the American Musical Instrument Society's Bessaraboff Prize. He has recently been appointed editor of the AMIS Journal.

La Couture-Boussey: A Look at Musical Instrument Making

Emanuele Marconi

From its creation in 1888 until the 1990s, the La Couture-Boussey Wind Instrument Museum has been intimately linked to the manufacturing activity of the La Couture basin, an expression of pride of a community and village known for being the "cradle of wind instruments" since the seventeenth century. For much of the twentieth century, this activity accounted for nearly 80% of French production, or about 25,000 to 30,000 instruments produced per year, almost all of which were exported, mainly to the United States but also to Japan, Australia, India, Mexico, Canada, and throughout Europe.

Local figures—entrepreneurs, bosses and workers, men and women—have contributed to the reputation and fame of this small Normandy village. Their advanced level of know-how and technical mastery, their inventiveness, their musical skills, and their ability to collaborate with leading artists have successfully contributed to the development of production techniques, to the improvement of the tone and quality of instruments, and to the establishment of effective commercial networks.

The paper describes the social history of the territory, of the organisation of work at home, in the workshops which were often epicentres of family life, or at the factory without ever being cut off from the outside world. This manufacturing activity has deeply marked La Couture-Boussey with its footprint, even in its topography, through street names and architecture. Finally, we would like to place local history in a broader perspective by highlighting in particular the interactions between the makers and (mostly Parisian) musicians who have greatly participated in the development of instrument making in the La Couture basin.

Emanuele Marconi. Organologist, conservator and curator, he is Director of Le Musée des instruments à vent of La Couture-Boussey, and CIMCIM Vice-Chair and webmaster. Research interests include the history and philosophy of restoration; investigating all aspects related to the understanding of the relationship between society, culture, technical evolution, and aesthetic perception; and analyzing myths and symbolism related to musical instruments.

LECTURE DEMONSTRATION

What the Heck is the Sewerphone?

James E. Cunningham & Glen Gillis

This lecture-demonstration illustrates the acoustic propensities of the sewerphone as a solo instrument and an ensemble companion to instruments tuned to the Western scale in original compositions which engage acoustic space created by the interaction of diverse instrumental approaches in digital reverberative environments. It will highlight the development and evolution of the sewerphone, a newly invented instrument that negotiates the liminal spaces between digital and acoustic realms via its purely timbral musical approach. The sewerphone is a 1½-inch-diameter didgeridoo, curved into the shape of a saxophone and constructed from black plastic (ABS) tubing, commonly used by plumbers for household sewage drainage purposes, thus the name. It was invented by James E. Cunningham in the early 1990s, who as a poor graduate student was unable to afford an expensive "authentic" wooden Australian Aboriginal didgeridoo. The sewerphone has several differences from its Aboriginal cousins due to its light weight, ease of Western tuning, and placement of the bell directly in front of the face of the player, making it easier to hear and mic. Unlike the warm sound of the wooden didgeridoo, with its irregular internal bore due to being hollowed out of a living tree by termites in Australia, the sewerphone features a tube-like timbre, owing to the regularity and resonance of its smooth cylindrical bore. Like the didgeridoo, the sewerphone has an ability to acoustically thrive in rich reverberative environments. For the past twenty-three years the sewerphone has been utilized in live performance and pre-recorded settings by Duo Gillis Cunningham, featuring Drs. Glen Gillis and James E. Cunningham, aided by the real-time integration of convolution reverb software and high-speed computer processing. Their experimental compositions feature the acoustic nuances of the sewerphone and alto saxophone in a wide variety of acoustically digitalized ethereal, programmatic, textural, and melodic applications.

James E. Cunningham is a Professor in the Department of Music at Florida Atlantic University, in Boca Raton. As an ethnomusicologist, he has explored the gamut of world and popular musics from cultural and organological perspectives. He is a composer and performer of experimental music for the Australian Aboriginal didgeridoo based on a nine-year study with avant garde trombonist Stuart Dempster at the University of Washington.

Glen Gillis is a Professor of Saxophone, Conducting, and Music Education at the University of Saskatchewan. His musical approach to the alto saxophone is greatly influenced by his study with the noted Fred Hemke at Northwestern University. Dr. Gillis has built a strong reputation as a performer and composer of music for wind bands, didgeridoo and saxophone, saxophone and piano, and saxophone and trumpet.