

**AMIS 2018**

**ABSTRACTS**

**Thursday, 24 May 2018, 9:00-10:30 AM**

**Allison Alcorn, Chair**

**Stewart Carter**

***From Saxony to Bethlehem and Beyond:***

***Commerce in Musical Instruments of the Moravian Brethren in America***

In the early days of their settlements in North America, Moravians often sang chorales to the accompaniment of instruments and within a few decades they were also performing larger works by European and American composers. As their musical activities became more sophisticated, demand for musical instruments grew. Some of their instruments were manufactured in the New World, but many were imported from Europe.

More than two hundred instruments made before 1900 survive in Moravian-related collections in America. Using these instruments and surviving documents as source material, my paper demonstrates that the Moravians' early commerce in instruments centered primarily on two locations in Saxony: Herrnhut, the headquarters of the church; and Neukirchen, an instrument-making center in the Vogtland.

Moravians in America often relied on agents in Herrnhut to procure instruments for them. Gottfried Weber in Herrnhut, for example, arranged for the shipment of brass instruments to Salem, North Carolina, in 1784. The instruments probably were made by Johann Schmied of Pfaffendorf, a community not far from Herrnhut. Some fourteen instruments made by the Schmied family survive in Moravian communities in the United States.

Not long thereafter instrument makers and dealers from Neukirchen began to emigrate to America. In 1795 Christian Paulus arrived in Bethlehem, where he traded in musical instruments, and in 1817 his nephew, Heinrich Gütter, joined him. Gütter established a thriving music business, obtaining instruments from family members in Neukirchen and selling them to Moravian communities in the United States. The most prominent Neukirchen-born instrument maker in Pennsylvania, however, was Christian Friedrich Martin, who arrived in America in 1833. Martin made fine guitars in the Nazareth area, where the firm he established is still run by his descendants.

**Stewart Carter** is Past-President of both AMIS and the Society for Seventeenth-Century Music. Recent publications include (with Jeffery Kite-Powell) *A Performer's Guide to Seventeenth-Century Music*, 2nd edn. (2012) and *The Trombone in the Renaissance: A History in Pictures and Documents* (2012). He serves as Editor of the *Historic Brass Society Journal*. In 2012 the Galpin Society honored him with the Anthony Baines Prize. Carter holds an endowed professorship at Wake Forest University, where he teaches music history and theory and directs the Collegium Musicum.

**Darcy Kuronen**

***The Keyboard Instruments of Emilius N. Scherr***

Emilius Scherr was a Danish instrument maker who immigrated to Philadelphia in 1822, with a successful career there building pipe organs, reed organs, pianos, and guitars. Though a scholarly article is forthcoming regarding his patented harp guitars, his keyboard instruments have yet to be studied. There are unfortunately no surviving pipe organs by Scherr, and only six square pianos from his shop have been discovered to date, which is surprising, given that he operated a manufactory from the 1820s through at least the end of the 1840s. Although his pianos are not especially progressive musically, the handsome bronze-powder stenciled designs often adorning their casework would seem to have dictated a higher survival rate, at least as furniture.

Of particular interest is the recent discovery of two small reed organs by Scherr, one of which is labeled “Phys. Harmonika.” This wording solves the mystery of what Scherr meant when, during the mid-1830s, he advertised an instrument referred to only as a “harmonica,” which could easily have been construed to indicate musical glasses. These early reed organs are remarkable in many ways, and represent the only known examples of such instruments ever built in Philadelphia. Their five-octave range, from FF to f3, is exceptional in reed organs of this early period, and is made possible by rather narrow keys fitted into a relatively small case. The narrowness is surely because these instruments were intended primarily for a woman’s boudoir, underscored by the presence of several “workbox” compartments housed in a tray that folds down from inside the deep lid, all covered by a hinged panel with a writing desk on the outer surface and a mirror on the inside. I will offer preliminary findings about the history, design, and relevance of Scherr’s pianos and harmonicas.

**Darcy Kuronen** has worked since 1986 at the Museum of Fine Arts, Boston, where he is the Pappalardo Curator of Musical Instruments. He also serves as volunteer curator for the historical instruments owned by the Boston Symphony Orchestra. A specialist in early American instruments, he has written several articles and lectured widely on this subject.

### **William E. Hettrick**

#### ***Another Kind of Pitch: American Piano Advertising in the “Gilded Age”***

Piano manufacturing formed a considerable part of the American economy during the “Gilded Age,” and advertising was an important aspect of that enterprise. This paper examines the various features of piano advertising during the time and enumerates the several media employed to communicate the message, including the printed page, exhibitions, performance sites, and testimonials from performers and other celebrities. The constituencies that advertising was intended to reach will be identified, and pictorial and verbal methods used to persuade them will be described and quoted. A fine example of chromolithographic advertising created by the Sohmer Piano Co. will be examined.

A major stylistic mode of advertising at that time was the literary genre of poetry, which evidently attracted the attention of readers to a degree that we may have difficulty appreciating today. Entertaining examples of poems from Chickering and Steinway ads will be quoted. In this vein, I have also discovered an extensive series of anonymous poems, heretofore undocumented, published from 1892 to 1894 in leading music-trade journals, advertising the “Crown” piano and organ, manufactured by the George P. Bent Co. of Chicago. This paper includes an analysis of the varied styles and contents of these verses, illustrated by a representative sampling of the collection provided in a handout. In addition, an account of a strange restriction of advertising in

New York trade journals, mandated by the local association of piano manufacturers, will be presented.

**William E. Hettrick** has served AMIS as *Journal* editor, president, recipient of the Curt Sachs Award, and member of numerous committees. His musical-instrument research has produced a translation and study of Martin Agricola's *Musica instrumentalis deudsch* and several papers and articles related to American piano history, including a recent study of the piano-supply industry and the work of Joseph P. Hale. Hettrick's favorite hobby is searching for former piano factories.

**Hannah Grantham**  
*Iranian Instrument Makers in America*

Currently six nations are sanctioned by the United States Government, including the Islamic Republic of Iran. American sanctions against Iran have been in place since 1979 following the Revolution and overthrow of the Pahlavi dynasty. The United Nations subsequently sanctioned Iran in 2006 as a response to the country's uranium program. These international sanctions remain in place today and continue to affect the nation's culture and economy. The political and economic consequences of embargos, sanctions, and travel bans frequently appear in our news and social discourse, but they also cause detrimental impacts on cultural heritage and the fine arts that garner less attention. As museums continue to define their roles in twenty-first century society, promoting inclusive, multicultural experiences is an essential way to engage diverse museum audiences. Musical instrument collections are involved in these efforts and can be uniquely effective for making global connections.

But how do collectors and museums represent musical culture from sanctioned nations? The lengthy bureaucratic process often serves as a deterrent, discouraging attempts to acquire historical or contemporary objects from sanctioned nations. Perhaps the solution to the problem lies in commissioning active makers preserving their traditions outside of their homelands in countries like the United States or Canada. Iranians living in North America maintain many aspects of their cultural heritage, including music and instrument making. Purchasing instruments from makers living outside Iran allows museums to continue their representation of Iranian musical culture and enables them to act as an invested participant in the ongoing preservation of Iranian culture.

**Hannah Grantham** is an organologist with research interests in ethnomusicology and interdisciplinary connections between music and art. Her background in jazz and folk music instilled a deep appreciation of musicology and guided her to pursuing organology at the University of South Dakota. Hannah's academic research explores Iranian musical instruments and their development alongside the visual arts. After completing her degree, she looks forward to a museum career and cultivating diversity in organology.

**Thursday, 24 May 2018, 11:30 AM-1:30 PM**  
**Matthew Hill, Chair**

**Arian Sheets**  
*Between Old and New:*

## *Changes in Vogtlandish Stringed Instrument Production and C. F. Martin*

C.F. Martin & Company is one of the oldest continually owned family companies in the United States, and one that sprung from an even earlier musical instrument making tradition in the Vogtland region. By the time Christian Friedrich Martin arrived in New York in 1833, his home town, Markneukirchen, was on the cusp of major changes that had been a long time in the making. Professional instrument production in the area had its roots in the seventeenth century and quickly the manufacture of musical instruments for distribution to a national and international market became an important part of the economy. Issues of concern to local makers included management of qualifications for artisans, relationships with distributors, and shifts in market demand as fashions for instruments changed. The complexities and speed of change would accelerate dramatically in the first half of the nineteenth century. Makers were faced with a variety of difficult options in order to adapt and many were ill prepared to understand what was happening and what was to come.

This paper will examine the commercial environment in which Christian Friedrich Martin got his start, local conflicts that affected him, and reasons that immigration to the United States was appealing for someone of his skills and outlook. Additionally, it will look at the continued commercial relationship Martin had with his homeland and the complexities as those paths at once diverged but continued to affect one another.

**Arian Sheets** has been Curator of Stringed Instruments at the National Music Museum since 2001. She is the author of *The Masters' Bench; The Guitar-Making Workshop of D'Angelico, D'Aquisto, and Gudelsky* and has contributed articles and book chapters for a variety of publications concerning guitars, violins, and the instrument trade. She served as Contributing Editor, Stringed Instruments, and an author for the *Grove Dictionary of American Music*. She has a strong interest in economic aspects of the musical instrument trade as well as the impact of technology on instrument development.

**Nick Pyall**

### *Martin and Staufer: Guitars, Connections, and Those Who Stayed Behind*

Christian Martin and Heinrich Schatz celebrated their association with the Viennese stringed-musical-instrument maker Staufer on the labels of the guitars they made in New York in the 1830s. Martin is reported as having travelled from his hometown of Markneukirchen to Vienna to start his apprenticeship with Georg Staufer in 1811.

Previously the only documented witness to this apprenticeship was in written testaments from the dispute between the Markneukirchen violinmakers and cabinetmakers guilds. However, Michael Lorenz has uncovered a legal document between Staufer and his partner Ertl bearing Martin as a signatory. He has identified another common connection in Franz Rzehaczek, who served as best man at both Martin's and Staufer's respective weddings. He has also found the baptism record for Martin's daughter Emilie from St. Ulrich's in Vienna, identifying Schatz, his friend and colleague from Markneukirchen, in attendance as godfather.

From records of the guild dispute it is evident that the cabinetmakers had been making guitars for some thirty-five years over two generations. During the dispute (1806 to 1832), business and familial connections existed between Markneukirchen and the Moravian community of Bethlehem in America. These would then proceed to feature significantly in the story of Martin's immigration to America. The family names of Gütter, Paulus, Martin, and Schuster are

all linked by marriage and to the musical instrument trade in Markneukirchen and Bethlehem, with Christian Paulus first emigrating there in 1795.

The lack of extant Martin and Schatz instruments with identifying labels from the beginning of the nineteenth century to the time when they immigrated to America is surprising. This paper will ask why this is so and examine the connections between those who travelled to North America and those who stayed behind in Saxony and Austria.

**Nick Pyall** builds guitars inspired by those of nineteenth-century Vienna and North America. He is Subject Tutor—Musical Instruments and Programme Coordinator—FdA Historic Craft Practices at West Dean College. Previous teaching posts include Senior Lecturer—Guitarmaking at London Metropolitan University. He received his Ph.D. in 2014 for *The Influence of Nineteenth Century Viennese Guitar in North America*. In 2014 his article “Guitar Stringing in Late Nineteenth-century North America” appeared in the *Journal of the American Musical Instrument Society*.

**Lynn Wheelwright**

*A Path Not Taken? The Early Electric Guitar in America and Surprising Letters in the Martin Company Archives, 1933–35*

Technological developments in the first quarter of the twentieth century had laid the groundwork for the boom in electric instruments of the 1930s. Vacuum tube amplifiers, microphones, and speakers were rapidly developing and people were embracing the new technologies as they became more accessible and affordable. The increase of mains electricity to homes and workplaces enabled cumbersome batteries to be replaced with alternating current for the operation of radios, public address systems, and amplifiers/loudspeakers. Musicians quickly began to harness the technology for their own home-brewed experiments to amplify their instruments, but formal commercial marketing and sales of electric musical instruments did not begin in earnest until the early 1930s. The first companies to manufacture and launch electronically amplified stringed were Vivi-Tone of Kalamazoo, Michigan, and Ro-Pat-In (Rickenbacher Electro) of Los Angeles, which were founded in 1931 and had their products to market by fall 1932.

However, there were numerous other companies attempting to capitalize on the novel technologies, and a natural course of action was to contact and pitch their products to established, important members of the music industry. There are a number of letters in the archives of C.F. Martin & Co. documenting these pitches and their reception from company executives. This paper will examine the letters and discuss the companies who contacted Martin, their products, and the idea of add-on pickups for acoustic guitars in the period. In combination with sound clips and video of surviving examples of these guitars and pickups, this paper presents a tantalizing glimpse of a path not taken by Martin at the dawn of the electric guitar.

**Lynn Wheelwright** is a custom guitar builder and repairman with thirty-eight years of experience. His articles and photographs have been published in *20<sup>th</sup> Century Guitar* and *Vintage Guitar* magazines and he has contributed research and images to numerous books and articles. He has a collection of over 150 instruments and amplifiers from 1930 to 1942 that chart the development of electric stringed instruments, many of which have been featured in museum exhibits he has co-curated on the history of the electric guitar.

**Rick Meyers**

***Ritual and Regalia: The Odd Fellows Curious “Self Playing Harps for David”***

At the turn of the twentieth century, in response to an American populace increasingly drawn to events containing pageantry and theatrics, fraternal organizations fearing a decline in membership were compelled to modify their “dry” standardized rituals to make them more entertaining and appealing to potential new members. Following suit, regalia manufacturers anxious to profit from this new trend hastened to develop a tantalizing assortment of new lodge supplies. Among these was a line of stringed instruments exclusively designed for the Odd Fellows (IOOF) called “Self Playing Harps for David,” used in conjunction with conducting their “first degree” dramas.

To match the historical context of the Bible-based stories they were used in, Harps for David were fashioned in the likeness of “ancient” lyres and harps, with the curious addition of a music box built into the back of each instrument, controlled by an on/off switch situated along the top or side. While still playable in the usual way by plucking or strumming, the addition of this “automatic player,” mandated by Odd Fellows’ leadership, was purposely included for assuring that lodge members with little or no musical skill would feel secure in their ability to “play” the required musical interludes scripted in the enactments. Considering that these century-old instruments are still being used in degree rituals at IOOF halls throughout the United States, one cannot help being impressed by the quality and durability of these harps but also by the level of care they have received from lodge members that clearly value them.

The paper presentation will consist of photo documentation and sound recordings gleaned from a variety of models in the author's collection and others at the National Music Museum; a detailed summary of the “secret” ceremony these harps are still used in; illustrations, descriptions and pricing scanned from regalia catalogs ca. 1910–1944; and a live demonstration of a music box temporarily extracted from a rare harp in the author’s collection.

**Rick Meyers** is an independent musical instrument historian, performer, multi-instrumentalist, and teaching artist specializing in traditional American music from Colonial times to the present. He is also director of the American Fretless Zither Project, dedicated to collecting, restoring, recording and exhibiting American-made fretless zithers (1882–1972), and producing publications that combine illustrations and narrative to interpret their story for the benefit of museum professionals and the general public alike.

**Friday, 25 May 2018**

**9:00-10:30 AM**

**Carolyn Bryant, Chair**

**Jimena Palacios Uribe**

***The Brass Band of Santiago Chazumba in Oaxaca, Mexico: A Historical Reconstruction***

Oaxaca has been a very representative Mexican state for brass music since the nineteenth century. Its bands and musicians are recognized around the world, as they constitute an important manifestation of Mexican musical heritage. Santiago Chazumba, located at the north of Oaxaca, serves as a testimony for this. Following the discovery of thirty mainly European musical instruments in the choir of the Chazumba chapel, and after cataloging the music preserved, it is

certain that the band was one of the largest and most important musical groups of the northern part of the State, known as the Mixteca baja. According to the documents found so far, the brass band was formed toward the end of the nineteenth century and ceased to play around 1919. Local musicians, who later became renowned in the Mixteca, emerged from Santiago Chazumba and encouraged the formation of other bands, thus extending the learning and musical practice to southern Puebla and northern Oaxaca.

This paper will demonstrate the development of the brass band from the information in the local archives, analysis of the musical instruments, and the preserved music. The study will also show who were the band musicians, how they acquired their instruments, the band's participation in the community, its representation in the region, and its impact on the change of cultural and musical traditions at a time that looked forward to its modernization, combining both new and traditional ways of expression.

Finally, most of the approaches to the history of brass bands in Mexico have been based on the study of music and local documents; little has been said about musical instruments. It is therefore important for this research to demonstrate that large-scale manufacturing may have been decisive in the growth of bands from that century, in which they became definitive objects of exchange among musicians from communities eager to form national and regional brass bands.

**Jimena Palacios Uribe** is a conservator of musical instruments and historian. Her interests are related to cultural and economic history that involves the use of musical instruments, as well as the conservation and dissemination of Mexico's musical heritage. She coordinated the Musical Instruments Conservation Laboratory of the National School of Conservation (Mexico City, 2007–13). She studied professional practices at the National Music Museum (2008) and at the Musée de la Musique, Paris (2013). She is currently a researcher for the National Institute of Fine Arts (INBA) and is pursuing a Master's Degree in Modern and Contemporary History at the Dr. José Ma. Luis Mora Research Institute. In 2010 she received the William E. Gribbon Award from AMIS.

### **Stephen Cottrell**

#### ***The Saxophone in Britain at the Turn of the Twentieth Century***

From ca.1880 through the end of the World War I, Britain underwent a series of profound social, political and economic changes. A nineteenth-century national identity founded upon colonial networks and industrial power began to be re-assessed. Prevailing class distinctions were slowly eroded. In the arts, the hegemony previously enjoyed by the "legitimate" arts—including western classical music—was challenged by the rise of popular culture, which was increasingly appreciated by a population with expanding amounts of leisure time to fill. While the roots of these developments can be clearly identified earlier in the nineteenth century, by the turn of the twentieth century they were particularly acute, and were accompanied by profound changes in the social organization of musical performance (such as the establishment of self-governing orchestras). All of this impacted upon the production, dissemination, and use of musical instruments.

In this paper I shall consider the saxophone as a bellwether of these developments. The polyvalent identity that we ascribe to the instrument today was in part forged during this period. Less associated with the classical music tradition than other instruments, it nevertheless occasionally surfaced in the concert hall. It was adopted into military and wind bands, albeit less

rapidly than in some other countries. It also became increasingly employed by popular music performers, who capitalized upon both its novelty and the relative ease by which it might be mastered. All of this was underpinned by developments in the manufacture and distribution of instruments, and the establishment of a local saxophone manufacturing base that reduced reliance on imported models. This paper will provide an overview of these developments, and ask what we can learn from the symbiotic relationship between the production of the instruments themselves and the musical and cultural contexts for which they were intended.

**Stephen Cottrell** is Professor of Music and Associate Dean at City, University of London. His research interests fall into three inter-related areas: ethnographic approaches to musicians and music-making; the study of musical instruments, especially the saxophone; and the study and analysis of musical performance. His publications include *Professional music-making in London* (2004), and *The Saxophone* (2013), the latter for which he was awarded the Bessaraboff Prize by the American Musical Instrument Society.

**Jayme Kurland**

*Fine-tuned Design: The Musical Instruments of John Vassos*

In the early 1930s, manufacturers employed freelance artists and designers, the new-minted “industrial designers,” to re-imagine household objects with attention to color, style, ergonomics, and new technologies. These fashionable new products were often more affordable, due to the rise of mechanization and mass production. Much has been written about industrial design history, yet designers who were hired by instrument manufacturers deserve more attention.

Many iconic instrument designs were done in house by company employees, however we know of a few designers hired to design musical instruments. In 1946, Gibson Guitar Corporation hired the firm of Barnes and Reineke to design the “Ultratone” lap steel guitar, and in 1962, enlisted automobile designer Raymond H. Dietrich to design the “Firebird” electric guitar. Artist and designer John Vassos (1898–1985) was the lead consultant designer for the Radio Corporation of America (RCA) for almost forty years, and much has been written about his designs, yet his instrument collaborations with RCA and Hohner are less known.

The “Storytone” electric piano was introduced at the 1939 New York World’s Fair. The piano’s streamlined modernist case and bench were designed by Vassos, while Story & Clark created the musical components and RCA designed and fabricated its electrical components. The “Storytone” was marketed as the first electric piano, which according to advertisements could “virtually supplant the conventional piano” with its “richer and more expressive” sound. Also in the late 1930s, Hohner hired Vassos to design the “Echo Elite,” “Regina,” and “Comet” harmonicas, with a focus on ergonomics and art deco aesthetics. After several prototypes, Hohner also produced Vassos’s “Marchesa” accordion in the 1960s. Using examples from various instrument collections, I will show how Vassos influenced musical instrument design beyond his creations.

**Jayme Kurland** is currently the Curatorial Research Fellow in Musical Instruments at the Museum of Fine Arts, Boston, and was previously a curatorial assistant at the Musical Instrument Museum in Phoenix. Jayme received her BA in music history at the University of Oregon and her Master’s degree in music history at Arizona State University. Her research focuses on musical

instruments, music and the holocaust, accordions, and twentieth-century musical-instrument industrial design.

**Friday, 25 May 2018**  
**11:00 AM-12:00 noon**  
**Anne Acker, Chair**

**Charles Pardoe**  
***Reconstructing “the Kindian Lute”: An Invitation***

A vast literature addresses lutes and guitars in Europe since 1500. Less appreciated is the rich legacy of these and other fretted chordophones before that time. Today, several works attributed to the ninth-century “philosopher of the Arabs” al-Kindī are preserved in a few manuscripts that display a sophisticated appreciation of such an instrument. In particular, one manuscript offers a complete account of a four-stringed lute that is said to follow closely the example of the ancient philosophers. These individuals, and their example, remain unknown from direct evidence, but I cautiously venture that al-Kindī records a much earlier instrument than has hitherto been acknowledged: specifically, a characteristic Persian lute of ca. 400–700 C.E., which might even be traced to an archetypal “guitar” of ancient Greece.

Since at least 1895, evidence of a characteristic guitar of classical Antiquity has been mounting, but hardly touched. Reasons may include the declaration of one musicologist that the instrument was a “sham” after his belief that it could have been played like a lyre; alternatively, perhaps the area has simply fallen between the expertise of classicists, guitarists, and musicologists. Either way, I shall attempt to show, through more iconographical evidence than has been related in situ, that the sham thesis is improbable. More promising still is al-Kindī’s tuning: “his” lute is to use a system that can be attributed perhaps only to Didymus the musician, a scholar of great repute, but whose influence is known only via Ptolemy’s *Harmonics* and Porphyry’s *Commentary* on it.

Between a walkthrough of al-Kindī’s instructions, iconography from 500 B.C.E.–900 C.E., and a reconsideration of Didymus’s tuning, this talk is an invitation to any who might add to this conversation and all who enjoy guitars.

Following degrees in Music (B.A., M.Sc.R.), **Charles Pardoe** is reading for a Ph.D., also in Music, at Sidney Sussex College, Cambridge. His previous thesis, on the problem of tuning guitars, encouraged him to delve further into the history of these most popular instruments. In assimilating the musical writings of the ninth-century “philosopher of the Arabs” al-Kindī, he hopes to expose the construction, tuning, and music of perhaps the earliest lute according to extant literary sources.

**Stephen Birkett**  
***Joseph Webster’s Music Metal***

When Joseph Webster III finally developed a commercially and technically viable steel music wire, it was met by a weary piano industry that had suffered from many false leads with other steel music-wire products. Despite the widespread modern view that frequent metallurgical

advances drove changes in piano design, there are surprisingly only two fundamentally different ways to make steel piano wire. One of these was discovered by Webster, the other by his eventual business partner, James Horsfall. This paper begins by explaining the nature of early attempts at steel wire and why they failed in the marketplace. Details of Webster's revolutionary methods are given, deduced based on evidence obtained from analysis and physical testing of wire samples from historical pianos, as well as historical sources, including unpublished archival material.

Webster's contribution—"music metal," as he called it—was ultimately made possible through his outstanding abilities as a steel maker, by which he was able to produce the raw material he needed for drawing. Broadwood was an early adopter of Webster's wire, using it exclusively from 1831 to 1851. Other piano makers explored the capabilities of the new wire through the 1830s, cautiously evaluating it first with existing scaling intended for Berlin iron, before embracing it fully and adjusting their designs for the 1840s. Webster had an international monopoly on steel piano wire, prompting Chickering's well-known request to Washburn to make a domestic product to displace the English. Webster's monopoly continued until the 1850s, when Horsfall's wire appeared, heralding a second incremental change in piano design, and driving the founding of Steinway, Blüthner, and Bechstein in 1853.

**Stephen Birkett** is an Associate Professor of Systems Design Engineering at the University of Waterloo, Canada. His technical background is complemented by piano performance studies at the RCM, London. Birkett's research focuses on technology and design of historical and modern keyboard instruments and the physical properties of critical materials such as leather, felt, and wire. This work has been applied to the commercial production of authentic historical iron, steel, and brass music wires.

**Friday, 25 May 2018  
8:00 PM  
(two simultaneous sessions)**

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**Working Group on Collection Management for Universities, Colleges, and Conservatories  
Kathryn Libin, Chair**

**Elizabeth Clendinning and Andrew Gurstelle**  
*Collaborative Curation of Musical Objects in American Collegiate Settings*

Musical instruments and related performance objects constitute both a central subject of research in music and an important component of museum collections and exhibitions. The study and curation of such collections by undergraduate students presents unique opportunities to understand the technical, functional, historical, and sociological properties of musical instruments. Despite increased emphasis on participatory and sensory studies in ethnomusicology, anthropology, history, and related disciplines, the inclusion of critical analysis of instruments into introductory-level undergraduate curriculum remains relatively rare. Yet, the pedagogical benefits of early exposure to instrument-oriented studies make pursuing such an inclusion worthwhile.

This presentation examines the results of a recent collaborative exhibit project undertaken by a faculty member in music, the student members of an undergraduate non-music major survey

course, and the director and staff of a campus museum of anthropology within an undergraduate liberal arts setting. Over the course of multiple semesters, students examined instruments from six continents that are held in the museum collection, researched how the instruments were used within their original historical and cultural settings, wrote text panels, conceptualized and designed a thematic exhibit, and participated in related outreach events once the exhibit was installed.

In this presentation, we incorporate musical objects from the university museum collection as well as visual documentation of the exhibit project as we discuss all aspects of the collaboration, including: communicating and partnering with museums; articulating student learning objectives that are grounded in musical, historical, and anthropological theory; developing exhibit themes; facilitating collections-based research; teaching writing for a general public; and organizing community outreach programs. Finally, we discuss how these strategies for object-oriented learning are adaptable for collaborations involving personal or private collections in a variety of undergraduate learning contexts.

**Elizabeth A. Clendinning** is Assistant Professor of Music at Wake Forest University, where she teaches courses in ethnomusicology and directs the Wake Forest University Balinese gamelan, Gamelan Giri Murti. She is a graduate of Florida State University (Ph.D. 2013, M.M. 2009) and The University of Chicago (B.A. 2007). Elizabeth's research addresses concepts of space, time, cultural representation, and pedagogy within transnational Indonesian arts communities and in film and television music.

**Andrew W. Gurstelle** is Assistant Teaching Professor of Anthropology at Wake Forest University, where he teaches courses in African anthropology, historical archaeology, and museum studies. He is also the Academic Director of the Museum of Anthropology and spends much of his time mentoring student curators with a wide range of exhibit projects. He is a graduate of the University of Michigan (Ph.D. 2015, M.A. 2011) and the University of Wisconsin-Madison (B.A. 2007).

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**Collectors' Roundtable**  
**Mimi Waitzman, Chair**  
*End Games: Options for Private Collections*  
(discussion open to everyone)

**Saturday, 26 May 2018**  
**8:30-10:30 AM**  
**Sarah Deters, Chair**

**Hayato Sugimoto**  
*Emergence of Inexpensive Instruments in Industrial Britain:*  
*A Case Study of Harp Lutes by Edward Light*

In the early nineteenth century in Britain, economic growth caused by industrialization led to an increase in personal consumption. So dramatic was the economic growth that Edward Light, the

inventor of harp lute (a type of inexpensive instrument that was used as a fashion item), succeeded in business with a constant introduction of new models. Fast-forward nearly 200 years, and we that Toyota has reduced by half the number of its car models. This was intended to increase productivity; perhaps as the car market reaches saturation and consumer spending declines, people are less greedy for possessions, particularly in economically advanced countries. If we interpret this 200-year trend as dynamic consumerism, the conventional measurement for the prosperity of a country solely depending on their economic growth may no longer make sense.

This paper reconsiders the meaning of economic growth for the populace (consumers and manufacturers), exploring the roots of consumerism as applied to the musical instrument industry in Britain. As a case study, Light's series of harp lutes will be analyzed statistically, using his standard model (the harp-lute) as a criterion for the product that was sold in quantity. In conclusion, within a framework of socio-historical study, manufacturing of inexpensive instruments in a period of high economic growth, in which the basis of our sense of values for consumption was built, will be re-evaluated.

**Hayato Sugimoto** learned the skill of guitar making in England between 2000 and 2005. In 2005 he completed a B.A. in Music Technology (Musical Instruments) at London Metropolitan University, followed in 2009 and 2015 by a M.Mus. in Musical Instrument Research and a Ph.D. at the University of Edinburgh. Since 2016 he has been a part-time lecturer, researching inexpensive guitars used as “fast fashion” instruments manufactured between 1800 and 1970.

### **Byron Pillow**

#### ***Mid-Century Frauds, American Murder, and the King's Forgotten Lute***

In the throes of the Italian unification of the 1860s, history-minded *ébénistes* of Northern Sardinia, such as Ferdinando Pogliani, brought a newly revived style of Renaissance marquetry to the forefront of Milanese cabinetry. Some half a century later, in 1906, on a warm summer night in New York City, renowned architect Stanford White was shot to death at the rooftop theatre of Madison Square Garden. Ninety-two years later still, in the parvenu's summer enclave of Newport, Rhode Island, an anonymous mandolin was removed from a gothic-revival cottage, the place it had called home for over a century.

It is often seemingly disparate events, unconnected to musical motive, that craft the fabric of an instrument's path through history. These paths leave their record outside the canon of typical organological inquiry, unknown until quaint circumstance brings them to the light of day. Such is the case of a recently rediscovered instrument in the collections of The Preservation Society of Newport County: the anonymous mandolin, now better known as a lute attributed in part to the polynymous Vvendelio Venere of Padua, 1574.

Here is presented the known life of this instrument and the many threads it wove, reaching out from the musical world to connect itself to the unexpected: the Pogliani revival style, the questionably ethical Stanford White and his new-found continental aesthetic, and the family estate of a merchant of the Old China Trade. Looking forward, plans and progress of this long-lived lute's conservation and reinstallation are revealed, returning a once prominent artifact to its Gilded Age home and the curious eye of the public.

**Byron Pillow** is a Research Fellow with The Preservation Society of Newport County, where he documents and explores the presence and implication of musical material culture in Gilded Age

high society. He holds a Master's degree in the History of Musical Instruments from the University of South Dakota and pursues widely varied interests, including American aestheticism, French decorative arts, the history of the trombone industry, and cultural heritage digital imaging.

**Alexandra Cade**

*Music for All: Amateur Piano Making in Antebellum America*

In rural antebellum America, a curious convergence of piano production and exuberant creativity inspired craftspeople with little to no formal training to create their own keyboard instruments. Each amateur-made instrument deviates from the norm in construction, yet displays clear aesthetic influence from the conventional square piano form and showcases creative solutions to making intricate mechanisms that comprise some of the most complex objects extant in the early nineteenth century. Indeed, this was no small feat. Despite a bevy of work on the individual studies of antebellum piano production, vernacular craft, and amateur musicianship, very little is known about the presence of amateur piano making—a topic that puts these bodies of scholarship in conversation for the first time. The use of qualifiers like “amateur,” “vernacular,” or “folk” has had negative implications on the perceived quality and importance of these keyboard instruments, and has diminished the cultural significance of the few surviving examples.

This paper confronts the presence of amateur-made pianos in the antebellum period as examples of a self-sufficient zeitgeist that is unique to the United States. Inspired by an American sociopolitical environment that inherently fostered innovation and self-sufficiency in craft traditions, I will consider how patterns of exposure, trade networks, and craft backgrounds catalyzed amateurs to construct their own pianos. Drawing upon surviving rural instruments and written materials, this presentation complicates the current understanding of amateurism within American craft and musicianship that speaks to a distinctive musical culture in the backcountry. In closely examining the larger implications surrounding these unusual instruments, this paper calls for a renewed consideration of America's vernacular pianos as a remarkable testament to self-taught genius.

**Alexandra Cade** is a second-year fellow in the Winterthur Program in American Material Culture. She holds a Bachelor of Music in viola performance from the Eastman School of Music and a Bachelor of Arts in American History from the University of Rochester. After completing her undergraduate studies, Alexandra worked in Colonial Williamsburg as a Baroque musician and served as an apprentice harpsichord maker. At Winterthur she studies the material culture of music through instruments, sheet music, and soundscapes.

**Geoffrey Burgess**

*“Live from the Metropolitan Museum, 1955”*

In 1954 and 1955 Princeton University produced a series of more than twenty thirty-minute educational television programs that, to quote *Time* magazine, “emphasized research and scholarship related to problems of the day or to the enduring concerns of mankind.” Bach scholar Arthur Mendel represented the field of musicology with an investigation of the scoring of Bach's music. Broadcast on January 16, 1955, “Instruments of Bach's Orchestra” presented brief introductions to the instruments Bach called for in the sinfonia to cantata 152, *Tritt auf die Glaubensbahn*. Recorded in the exhibition halls and auditorium of the Metropolitan Museum, the

program features two performances of the sinfonia—one on modern, the other on baroque instruments. Mendel brought together New York free-lancers and early-instrument pioneers including Seymour Barab (cello and viola da gamba), Howard Boatwright (viola d’amore), Alfred Mann (recorder), and Josef Marx (oboes) for one of the first audiovisual recordings of Bach on “original instruments”.

In this paper I contextualize Mendel’s work in the burgeoning early instrument movement, evaluate how effective his demonstration was at negotiating the tensions between scientific enquiry and practical concerns, and consider what elements informed later developments in the field of Bach performance practice. As much as a snapshot of Bach performance in the U.S. in the mid-1950s, this document highlights the role of the Metropolitan Museum’s collection of musical instruments in the revival of historical instruments. The presentation will include footage from the film.

**Geoffrey Burgess** is a leading scholar in research related to the oboe. In addition to entries in the *New Grove* and *MGG*, he has published extensively on the history, repertoire, construction, performance, and culture of the instrument. *The Oboe* (Yale UP, 2004), co-authored with Bruce Haynes, was awarded the AMIS’s Besarraboff Prize. The sociological perspective he brings to the study of musical instruments has influenced the direction of organology. Recent publications include *Well-Tempered Woodwinds: Friedrich von Huene and the Making of Early Music in a New World* (Indiana, 2015), and *The Pathetick Musician: Moving an Audience in the Age of Eloquence* (Oxford, 2016) based on writings of the late Bruce Haynes. Forthcoming projects include entries in the *Lexikon der Holzblasinstrumente* and a detailed survey of Bach’s writing for the oboe. Geoffrey is Baroque Oboe instructor at the Eastman School of Music.

**Saturday, 26 May 2018  
11:00 AM-12:30 PM  
Edmund Johnson, Chair**

**Will Peebles  
*An Unstamped “Boehm-System” Bassoon***

An unstamped bassoon with saxophone-like fingerings was sold on eBay Australia in 2016. The bassoon resembles examples attributed to Gautrot in the Waterhouse collection and to Adolphe Sax in the Brussels Museum of Musical Instruments. While the typical French bassoon thumb keys are retained, the holes for the fingers have been moved to more rational positions and only one is left uncovered. To say that the instrument follows the “Boehm System” is an overstatement, since the large open-standing holes recommended by Boehm are not present here, but the simplification of the fingering system is certainly evident. Retaining the narrower tone holes preserves the traditional tone color of the bassoon, the loss of which was a primary complaint against bassoons such as the Triebert-Marzoli-Boehm instrument that featured radically larger tone holes.

The Australian seller knew nothing of its provenance, but the instrument shows signs of considerable use. The bell, bocal, and one key are missing. Fortunately, reasonable reconstructions can be made by comparison to the other two instruments. The presentation will

compare the Australian instrument to the two bassoons mentioned above and conclude with a short demonstration of the instrument's scale.

**Will Peebles** has taught courses in bassoon, music theory, music history, and world music at Western since 1992, and served as Director of the School of Music from 2005 to 2014. Will's doctoral work focused on the historical development of bassoon fingering systems. His interest in this area has led him to develop a small collection of historical double reed instruments, some of which he is restoring for potential performance.

### **Daniel Fox**

#### ***Authorship, Authority, and Agency in Alvin Lucier's I am sitting in a room***

Alvin Lucier's *I am sitting in a room* (1970) has gained canonical status in both the music and the art world, being both a highly performed work at music festivals and recently acquired by the Museum of Modern Art in New York. The literature on this piece in which the room becomes the instrument tends to either downplay the significance of its sonic materiality or to focus analysis on the exchange between fixed categories such as speech and music or body and architecture. Both positions overlook the fertile ambivalence manifest for most of the duration of a work that can last at least forty-five minutes. In this presentation I analyze the uncertain transitional states through transfers of agencies and a spendthrift proliferation of technologically mediated subject positions.

Lucier generates the piece using a recursive procedure that has parallels in Frank Stella's black paintings and the recent show *Jasper Johns: Regrets*. Recursion can be understood as one component in a constellation of techniques for reconfiguring the author-function in relation to agency and authority. Authorship expands as the scale of compositional intervention shifts.

**Daniel Fox** is a doctoral student in composition at the Graduate Center, CUNY. His dissertation is on acoustic resonance in the music of Alvin Lucier and Morton Feldman. His writing has appeared in *Perspectives of New Music*, *Hyperallergic*, and *Van Magazine*. His compositions have been performed by Either/Or, the Momenta Quartet, and Contemporaneous. He holds a Ph.D. in mathematics and has published in *Transactions of the American Mathematical Society* and *Communications in Analysis and Geometry*.

### **Ezra Teboul, Lauren Flood, and Thomas Patterson**

#### ***Developing an Electroacoustic Organology***

Our panel will consider ways in which electronics might be fruitfully situated within the field of organology. Building upon older models of analyzing electronic instruments, we will present new perspectives based on three in-depth studies of contemporary musical practices at various scales. Lauren Flood will summarize ethnographic fieldwork on hybrid virtual-physical instruments embedded with computer code. Thomas Patterson will explore concepts of instrumentality and agency in the Triadex Muse, and algorithmic melody generator invented in 1970 by artificial intelligence pioneer Marvin Minsky. Ezra Teboul will discuss a method for the comparative analysis of musical circuits, linking technical decisions with compositional ideas and ideals.

We will first be concerned with how electronics have developed in tandem with shifting cultural and market contexts. How can studying such techno-cultures of invention reveal aspects

of the co-construction of music and technology and thus inform an electroacoustic organology? Second, we will engage with the modes of analysis afforded by engineering and design. For example, we know part of the artistic and commercial success of devices such as the Minimoog of the Antares' Autotune was partially due to specific technical and design decisions, which shaped their products' musical potential: how should design and circuit analyses fit in our expanded view of instrument study? Finally, we will consider how studying the timbre and musical structures coming from commercial and custom devices might allow for a further nuancing of the category "electronic" in the field of organology.

**Ezra Teboul** focuses on the relationship between technological and musical structures. He is currently working on his dissertation at Rensselaer Polytechnic Institute, where his practice explores the musical potential of decaying materials. His chapter "The Transgressive Practices of Silicon Luthiers" was published in the *Guide to Unconventional Computing for Music* (Springer, 2017); "Electronic Music Hardware: Designing Post-Optimal Objects" will appear in print in January 2018 as part of *Making Things and Drawing Boundaries* (University of Minnesota Press).

**Lauren Flood** is a Mellon Postdoctoral Fellow in Humanities at MIT. She received her Ph.D. in ethnomusicology from Columbia University with a dissertation entitled "Building and Becoming: DIY Music Technology in New York and Berlin." Ashe conducts ethnographic fieldwork in the transnational circulation of experimental sound-producing instruments and the people who build them. Her research has been funded by the Free University of Berlin, the National Science Foundation, and the Whiting Foundation.

**Thomas Patteson** is a specialist in the history of twentieth-century music, in particular the electronic and experimental traditions. His book *Instruments for New Music* (University of California Press, 2016), a study of experimental sound technologies in Weimar Republic Germany, received the 2017 Lewis Lockwood Award from the American Musicological Society. His current research explores connections between cybernetics and compositional systems in music after 1945. Thomas teaches at the Curtis Institute of Music in Philadelphia.

**Saturday, 26 May**

**2:30-4:30 PM**

**Christina Linsenmeyer, Chair**

**Cleveland Johnson, Michele Marinelli, Jere Ryder**

***To Play or Not to Play: Capturing the Intangible from the Tangible***

Museums with assets of functioning objects—be they Alexander Calder mobiles, steam engines, automobiles, mechanical toys, or musical instruments—struggle perennially with competing questions of conservation, preservation, interpretation, and accessibility. Objects, with functionality as one element of their design, are only incompletely experienced by visitors, when matters of condition, unavailable expertise, or general policy stand in the way. The Murtoogh D. Guinness Collection of Mechanical Musical Instruments and Automata, at the Morris Museum, endeavors to evaluate and embrace these difficult issues, by acknowledging and building upon each object's unique attributes, period technology, art and history.

In our experience, we believe it is imperative to thoroughly consider an object's historical importance within its genre, original integrity and condition. Only afterward can one consider conserving, and at times, implementing a conservative repair approach, wherein the audio and/or visual performance of a particular object may be captured or documented for historical posterity. After all, these artworks were designed and created to be experienced in their many dimensions, including their visual, sonic, and functional appeal. Defining the process of capturing or documenting the *intangible* (audio and visual) aspect of a tangible artifact is eminently compelling; if the intangible aspect of an artwork is avoided or ignored, the historical information it contains, including the object itself, may never be fully revealed or understood.

This presentation will introduce some of the unique objects in the Guinness Collection and the varied challenge they present as we endeavor to introduce and interpret them for our museum visitors.

**Cleveland Johnson** is Executive Director of the Morris Museum in Morristown, New Jersey. He is Professor Emeritus of Music and past Dean of the School of Music at DePauw University and is the immediate past Director of the National Music Museum. He holds a D.Phil. from Oxford University and the B.Mus. from the Oberlin Conservatory. He is a scholar of German keyboard tablatures and the organs of northern Europe and has recorded the complete organ works of Heinrich Scheidemann on historic instruments. His research also embraces South Asian music and instruments.

**Michele Marinelli** is Curator of the Guinness Collection at the Morris Museum. Her museum career began as an educator at the Museum of Early Trades and Crafts (Madison, New Jersey), then at the Morris Museum, where, beginning in 2013, she transitioned into her present curatorial role, working specifically with the Guinness Collection. She oversees all aspects of collection management for the Collection. In addition, she researches, develops, and delivers Guinness-related programming, exhibitions, and publications.

**Jere Ryder** is Conservator of the Guinness Collection of Mechanical Musical Instruments and Automata at the Morris Museum. With more than forty years' experience in this specialized field, he has repaired, restored, appraised and has acted in an advisory capacity to some of the finest private collections and has acquired objects on behalf of state and privately owned museums worldwide. His expertise extends to secure packing, international transport, storage, location set-up, maintenance, staff operations, and institutional docent training.

### **Luca Rocca**

#### ***Under the dust: The Conservation Treatment of an Eighteenth-Century Salterio***

The salterio MIMEd 1093 in the musical instrument collection of the University of Edinburgh has been until now catalogued as a "dulcimer" of an unknown maker and dated "Probably 18th but possibly 17th century." A recent conservation treatment project, part of the Thomson-Dunlop Conservation internship in St Cecilia's Hall, brought attention to this instrument. Multiple cracks on the soundboard, severe rust blocking the tuning pins, missing parts, and a substantial accumulation of dirt and soot compromised the integrity of the instrument. A comprehensive treatment was implemented to consolidate the instrument structurally and bring back its aesthetic characteristics, whilst gathering as much documentation in the process. With this in mind, a

number of non-invasive documentation techniques were carried out: dendrochronology dating, visible light and UV-induced fluorescence photography, microscopic wood identification, as well as a mathematical analysis and dimensional documentation in order to produce a technical drawing and a possible copy of it.

New evidence discovered through this process narrows down the possible maker of the instrument, and provided a better understanding of the mathematical proportion and construction methods employed for its construction. The aim of this paper is to describe the process applied in the documentation and treatment of the salterio MIMEd 1093 and the information gathered during that process employing non-invasive methods.

**Luca Rocca** is a Thompson-Dunlop conservation intern at St Cecilia's Hall. He attended the University of Pisa to study macromolecular chemistry and later studied violin making under the supervision of Luca Primon. Currently Luca combines his passion for musical instrument making and music with his scientific knowledge as a student in the Restoration and Conservation of Musical and Scientific Instruments at the University of Pavia.

**Jonathan Santa Maria Bouquet, Sebastian Kirsch, Michela Albano, and Arianna Rigamonti**  
*Violins, Pochettes, or Mute Violins? Shining a Light on the "Violins without Sides"*

There are only three known examples of the so-called "violins without sides," all of which are currently held in musical instrument collections in Scotland: two in St Cecilia's Hall and a third in Dean Castle in Kilmarnock. But the lack of in-depth research on these three instruments has led to ambiguous attributions, conflicting dating, and confusing taxonomical cataloguing. A research project has been undertaken at St Cecilia's Hall that aims to clarify dating, provenance, and attribution, as well as to better understand these instruments' function within a musical context. The project is two-fold and investigates the instruments with both historical and scientific approaches.

The historical study of the instruments explores the provenance and historical context of the violins without sides through examination of iconographic and written sources, as well as through comparing the instruments with other extant taxonomically similar examples. The scientific approach provides a detailed analysis of the construction and age of the instruments through photographic documentation (both in visible light and under UV induced fluorescence), industrial computed tomography scanning, dendrochronological analysis of the soundboards, and a spectroscopic and micro-chemical analysis of their surfaces.

This paper will present the findings of this research and will provide valuable evidence to shine a light to these intriguing objects.

**Jonathan Santa Maria Bouquet** is the Conservator of St Cecilia's Hall. Previously Jonathan worked as Conservation Research Assistant for the National Music Museum and completed fellowships and internships at The Metropolitan Museum of Art in New York, the NMM, and the Museo degli Strumenti Musicali in Milano. Recently he completed a Ph.D. in organology at the University of Edinburgh, with a thesis focused on the reconstruction of a lute by Sixtus Rauwolf.

After his M.A. in art history and German literature studies **Sebastian Kirsch** studied conservation and restoration of musical instruments in Vienna. Since 2014 he has been working as a scientific assistant at the Germanisches Nationalmuseum, Nuremberg. His research focuses on 3D imaging technology and data processing and the history of repairs and alterations. In 2016 he began

working on a Ph.D. in musicology at the University of Munich and as a freelancer for restoration of stringed instruments.

**Michela Albano** received a Masters degree in Science for Conservation of Cultural Heritage from the Università di Roma “La Sapienza.” Her current field placement is with the Università di Pavia (CISRIC) at the Arvedi Laboratory of Non-invasive Diagnostics in Cremona. An internship at the University of Edinburgh allows her to take part in research projects at St. Cecilia's Hall Museum. She is interested in studying musical instruments' materials and alteration processes relating to their preservation.

**Arianna Rigamonti** completed a four-month Erasmus traineeship at St Cecilia's Hall. Arianna holds a bachelor's degree in musicology and is currently undertaking a master's degree in musicology at the Department of Musicology and Cultural Heritage in Cremona of the University of Pavia. She is also a violinist and received the violin diploma under the supervision of Enrico Casazza at the Gaetano Donizetti Conservatory of Bergamo.

### **Daniel Wheeldon**

#### ***3D Printing in Brass: Implications for Historical Reproduction***

3D printing is mostly used for rapid prototyping in projects which often rely on other methods for manufacturing a usable part. In recent years printing services have been trying to achieve *end-product* quality prints for their customers, but perhaps one of the most significant changes came when “raw brass” and “polished brass” among other precious metals became available in printing catalogues.

This paper intends to display the results of a project that attempts to reproduce the brass elements of surviving English guitars as found in Edinburgh University's musical instrument collection, namely the component parts of the watch-key tuning mechanism invented by John Preston and different ornate brass roses. High-definition 3D scanning is used to create a digital image of each brass rose; these are then altered to achieve a useable 3D file for printing. The University of Edinburgh has excellent examples to be used for this case study including English guitars by Longman & Broderip, John Preston, and Frederick Hintz (a Moravian).

Although 3D printing is different from most traditional manufacturing processes, it ought not be entirely separated from them. 3D printing is a *tool* for makers who can achieve previously impossible tasks. Working with a student grant from Shapeways, it has been possible to experiment with these technologies and to produce high-quality and usable results. This paper describes the methodology in creating the digital files needed for 3D printing, and also describes the steps following printing necessary to finish a part.

**Daniel Wheeldon** is a Ph.D. student at the University of Edinburgh in a creative practice-based project looking at technology being applied to musical instruments in the British pianoforte-guitar and the German *Tastenguitarre*. His background has been in musical instrument making and repair since his 2011 B.Sc. in Musical Instruments. In 2016 he completed his M.Mus. at the University of Edinburgh, and was subsequently based at The Metropolitan Museum of Art in New York.