



Musical Instruments  
Resource Network<sub>UK</sub>



# The Life-Cycle of Musical Instruments

12 October 2017

## Abstracts and Speakers

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8.15 – 9.00 Registration, coffee, opening remarks, Tim Corum, Director Curatorial and Public Engagement, the Horniman Museum

Session A – Musical Instruments – Objects that Keep on Giving –  
Part 1. Wind instruments, Chair: Arnold Myers

### Keynote Address – 09.00 – 09.30

Simon Waters – Entanglements with Instruments

**Abstract:** Musical instruments are dynamic systems: not static ‘conservable’ objects, but items in a constant state of change, seasoning, adjustment and decay. They are also crucial indices of human activity – narratives of use and value – which can frequently only be appreciated through being **actively** engaged with. Without such intimate engagement, knowledge is palpably lost. Often the real experts in ‘conservation’ are not conservators, but those ‘private collectors’ who engage in active dialogue with their instruments - players. Of course the critical player **always** engages in this dialogue, knowing intuitively that musical instruments are assemblages. Flautists are forever switching head-joints and adapting tuning (with wax, bluetack, or soldering); trombones are now marketed as ‘modular’; guitarists spend vast amounts of time and money setting up and adjusting their instruments. Indeed this aspect of instrument ‘making’ is the most expensive and complex bit: the mutual adaptation between player and instrument which involves a dialogue between instrument, maker, other players, and other makers or experts, as the raw ‘instrument’ is gradually adapted to the player’s imagining (e.g. The most significant difference between a £500 and a £5000 electric guitar is the amount of time spent setting it up and tweaking it. The economics of guitar making and buying is largely determined by where in this spectrum of possibility the player ‘opts in’ to the life of the instrument.)

This paper will look at the various narratives around (and borne by) musical instruments, arguing that they function in a ‘performance ecosystem’ in which the distinctions between player, instrument and environment are not self-evident: that these apparently distinct categories are in fact always involved in multi-directional feedback loops in which it becomes misleading to study one component in isolation. Building on this argument it is suggested that current ‘instrument-building’ practices, in which maker/players avail themselves of hybrids of physical materials and computation systems (physical models in computers), and the interactions between these, offer up a significant challenge to ‘organology’s position as the study of objects. It is further argued that this suggests a more fruitful direction for musical instrument studies, in which all of the networks of knowledge around an instrument - acoustic, sociological, historical, sensory and imaginary – are regarded as equally significant.

Viewed in such a manner questions of scarcity, authorship (maker identity), measurement, and classification – which have been the stock-in-trade of organology’s emergence from antiquarianism – can be placed in a critical perspective. It can be seen that studies based in statistical analysis and computer modelling, or

personal narratives might contribute equally richly to an appreciation and understanding of the role of musical instruments.

To conclude the paper – and to give specific context - a number of ‘flute stories’ (referencing flutes by Collier, Koch, Skousboe, Potter, Armstrong, Rudall Carte and Prowse) are elaborated, with a view to illustrating the value of Latour’s encouragement to ‘follow the actors’ in understanding the entanglements between humans and things.

**Simon Waters** Simon Waters joined the staff of the Sonic Arts Research Centre, Queen’s University Belfast in September 2012, moving from his previous role as Director of Studios at the University of East Anglia (1994 - 2012). He was also made an associate researcher of the Orpheus Instituut, Gent in 2016. In the 1980s he established a reputation as a composer of electroacoustic music, working with many of the world’s major contemporary dance companies. He has supervised over fifty research students in areas as diverse as improvising machines, inexpertise in musical interaction, silence and silencedness, soundscape and acoustic ecology, real-time audio-visual composition and performance systems design as well as in more explicitly ‘compositional’ areas. His publications are similarly diverse, recent examples exploring empathy and ethics in improvised conduct, early nineteenth century woodwind instrument production in London, the notion of the ‘local’ in a ubiquitously digitized world, and hybrid physical/virtual instrument design.

### **Presentation 1 – 09.30-09.50**

Louise Bacon - Burghmote horns - *‘At the blowing of the brazen horn’*

**Abstract:** Ten Burghmote or Moot horns still exist mainly in the towns of the Cinque Ports, the earliest dating from possibly the 13th century. Analysis of the metal has shown them to be either bronze or brass, with a third category of a ternary alloy of copper, tin and zinc. They exhibit a variety of repairs, some botched, some refined, some tantalisingly strange, some to enable playing. All of them are still blown today and one has even had a piece of music written for it.

**Louise Bacon** was Head of Collections Conservation & Care at the Horniman Museum from 1986 to 2015, where one of her responsibilities was for the Musical Instrument collection. Her work has resulted in various research projects, such as the deterioration of ebonite flutes, and with the identification of metals. This latter work culminating in a PhD in 2003 ‘A technical study of the alloy compositions of ‘brass’ wind musical instruments from 1651-1867 utilizing non-destructive x-ray fluorescence’. The metallurgy of the early instruments threw up interesting variations and since 2015 she had been carrying out postdoctoral work on extant medieval Burghmote horns.

### **Presentation 2 – 09.50 – 10.05**

Graham Wells – The hard life of a serpent by Thomas Key

**Abstract:** This presentation will be illustrated by the presence of the actual serpent under discussion. The instrument was purchased at Sotheby’s in the 1980’s. Although the exact provenance was not recorded it was almost certainly a West Gallery instrument and shows all the signs of damage caused by its confinement in a small space and also extensive usage. Its owner/s have clearly gone to considerable lengths to keep it in playing condition if not in decorative order. This paper will detail and comment on the various ‘restorations’ that have taken place.

**Graham Wells**, after leaving school, studied oboe at the Guildhall School of Music and went on to play double reed instruments with various early music groups. His career in organology commenced in 1969 when he joined Sotheby’s and shortly after founded their Musical Instrument Department. During his time with Sotheby’s he was responsible for organising and cataloguing some 140 auction sales. He retired from Sotheby’s in 1999 but continues to act as consultant for them and other auction houses. After leaving Sotheby’s he studied for and was granted the degree of DPhil at the University of Oxford. He has been chairman of the Galpin Society since 1997 and has recently been appointed a Vice-President.

## Session A - Musical Instruments – Objects that Keep on Giving – Part 2. String instruments, Chair: Lewis Jones

### **Presentation 3 – 10.05-10.25**

Emanuele Marconi - Keeping Them in Playing Condition, A Brief History of Musical Instrument Restoration

**Abstract:** The practice of restoration of musical instruments has been characterized in the past centuries, by an approach aimed mainly to preserve the functional characteristics of the object, often to the detriment of its coherence and its historical unity. This approach is probably due to the traditional representation of the musical instrument, an object or – better - a tool producing sound, in opposition to the heritage object which has a special status in our society. According to the traditional representation, the quality of its 'conservation' is closely associated with the survival of its functionality.

Written sources before the 19<sup>th</sup> century are extremely rare and focusing mainly on lutes and violins. The violin occupies a special place. Unlike all the European musical instruments, from its appearance, it does not seem to have suffered a period of neglect: he has been used for over four centuries without interruption. This unusual situation imposed to makers and restorers a constant application and effort to keep these objects update to the contemporary musical taste.

During the 19th century, Paris was the heart of many of the most important technological developments in the musical instruments field. In the violin world, a strong tradition was accompanied by enthusiasm for new acoustic and chemical research which led to countless experiments attempting to modernize the instrument. The rich and complex Parisian cultural atmosphere allowed makers to experiment with new solutions -- combining creativity and a pioneering scientific approach with a new model of business. A series of publications were printed, taking violin construction as the main subject, with significant secondary material devoted to repair and restoration.

The entire production of treatises was the brainchild of a small group of luthiers, the most influential and important of their time -- "scholars" and innovative makers, all curious and interested in testing new techniques and materials, taking advantage of the latest technological developments.

It is just in recent years that restoration techniques have seen an evolution towards the use of technology as 3D-scan, CNC machines and 3D printing to achieve new technical and aesthetical results, a constant *fil-rouge* in the evolution of the restoration techniques.

**Emanuele Marconi** has been, since 2015, Conservator at the National Music Museum and Graduate Faculty Member for the Department of Music of the College of Fine Arts (University of South Dakota). He has worked as a conservator for many European museums and the Italian Ministry of Cultural Heritage. He was also a research fellow at the Musée de la musique (Paris). His main research field is the history of restoration, through the study of written and material sources.

### **20-minute Break - 10.25-10.45**

#### **Presentation 4 – 10.45-11.05**

Barbara Meyer – Two Cellos: the long and short of it

**Abstract:** I will talk about the lifecycle of two Italian cellos, both made at the end of the 17<sup>th</sup> century. The first, a cello by Francesco Rugeri made in 1695 in Cremona, was originally a big instrument which was shortened, and the second, a cello by the Rogeri family, made c.1690 in Brescia as a smaller sized cello, was

lengthened. Both lengthening and shortening a cello's body interfere irreversibly with the instrument's integrity and ultimately with its sound.

In manuscripts from the early 1600s by Mersenne or Praetorius, we find information about the variety of sizes and tunings within the violin family. In his book on Stradivari, (Antonio Stradivarius: His Life and Work (1644-1737) by W.E. Hill & Sons, London 1902) in the chapter on Stradivari's violoncellos, Hill suggests a close link between viols and string instruments of the classical makers. He mentions the different cellos sizes and their makers that existed during the classical period of violin making (1550-1750). By the time the Hill book was written, many instruments had already been altered to what, by the end of the 17<sup>th</sup> century, was considered a standard size for violin, viola or cello.

Cellos and violas in mint condition and original size from the 'classical period' have come to be regarded as a 'species in danger of extinction'. They give us invaluable clues about their maker's authenticity, skill, making techniques and understanding of size and proportion.

I will address the following questions:

1. How is the actual work undertaken to lengthen or shorten the instrument's body, from a technical point of view?
2. What were the motives for such alternations – from both a commercial and practical point of view?
3. After such an alteration, how much knowledge about the original proportion, design and building technique is lost?

Finally, through a focus on the Rugeri and Rogeri cellos, I will explore the ways that distinctions among the principles of repair, restoration and conservation, inform my work as a Curator of Instruments at The Royal Academy of Music.

**Barbara Meyer** is a professionally trained violin maker and restorer, gaining her Master Degree in Germany in 1993. For the last 23 years she has gained professional experience working in various European workshops. Barbara gained a Masters from London University of the Arts in 2007. She was appointed to her current position of Curator of Instruments at the Royal Academy of Music in January 2013, responsible for the prestigious stringed instrument collection.

### **Presentation 5 – 11.05-11.35**

Michael Fleming - Viol Bodies: the Triumph of the Bitsa

**Abstract:** This presentation discusses the adaptations of three viols. A combination of three factors means viols were particularly prone to modifications of various sorts. First, since the early 17<sup>th</sup> century, 'old English viols' had an unsurpassed reputation throughout Europe. This made them inherently worthy of change rather than abandonment, once their initial function had gone out of fashion. Second, they have been used to perform a great variety of music, aspects of which were novel for instruments of that type. And third, their design and component materials have been found to be both amenable and worthwhile for re-purposing.

The extent to which such instruments were modified covers the entire range of possibilities. At the least intrusive end are organologically and musically significant but easily reversible interventions to re-purpose instruments according to emerging musical demands. The archetype of this is retuning or restringing. Beyond this are interventions that involve some woodworking, such as the re-necking and addition of a seventh string to bass viols. More comprehensive and radical are many commercially-driven actions designed to bring instruments closer to states perceived as more saleable and financially valuable. Such work includes re-sizing or re-shaping instruments. And at the extreme end, fragments of original viols are re-cycled as components of otherwise completely new viols, or other types of instrument. With many of the more radical interventions, the user or owner may feel they have thereby acquired an instrument that better satisfies their needs. Others may regret the loss of the original or information about it (especially if it is distinguished or unusual).

These case studies consider the motivation and justification for the particular modifications in each case, alongside a close look at the instruments concerned. They are revealing both about the different actions that have been taken for these particular viols and, more generally, about the interpretation of instruments in their present state. It is possible to propose a way that such issues might be summarized for individual instruments, and then shared (in display labels, catalogues, websites etc.). This would promote deeper understanding both of individual instruments and instrument history.

**Michael Fleming**, equipped with a degree in philosophy and psychology from The Queen's College, Oxford, worked for Goble on early keyboard instruments (1974-79). Later, he attracted a national prize and an international clientele as a specialist maker of viols and bows. He was awarded a PhD by the Open University for his research into English viol-making (2001). He has produced *The Galpin Society Journal* since 2004 (editor 2005-09). He helped catalogue the musical instruments in the Ashmolean Museum (2011). He has written dozens of journal articles, and (with John Bryan) the book *Early English Viols: Instruments, Makers and Music* (2017).

## Session B – Preserving the Ephemeral: Electronic Instruments – Chair: Simon Waters

### **Presentation 6 – 11.35-12.05**

Dorien Schampaert - Social and technological factors influencing the redesign of the Ondes Martenot

**Abstract:** Efforts to keep the Ondes Martenot and its community alive have been met with several challenges. For one, original models from Martenot's hand (of which there were only 300) are becoming scarce, and the unique playing features make it extremely difficult to reproduce. Ethnomusicological research into the three main Ondes Martenot communities in France, Canada and Japan brings their counter efforts to the forefront. Players, teachers, repairers and enthusiasts have come together to repair original Martenot instruments as well as design new models suited to modern needs, aiming to reduce cost price and make them more accessible to beginners.

These efforts have culminated in three new instrument models on the market. The first is the Ondes Musicales Dierstein (2011), a high-end replica of Martenot's original instruments. It was created by Jeanloup Dierstein in Paris and is mostly aimed at professionals. The Ondéa (2016), a slightly cheaper model that is more adapted to 21<sup>st</sup> century needs, was an international collaboration revising an earlier effort by Ambro Oliva (1995). The Ondomo (2016) was built by Naoyuki Omo in Japan to create a cheaper, lighter model fit for studying the Ondes Martenot technique.

This paper will focus on the intersection of social and technological forces in this latest development of the evolution of the Ondes Martenot, and what it might mean for the future of the instrument. The designs incorporate the tension between demands from professional players, students, teachers, repairers and aficionados on one hand, and technological limitations on the other, each prioritising different needs. Where previous efforts had failed to produce an instrument upon which players of original Ondes Martenots could comfortably transfer their playing skills, each of these newest models has seen considerable praise from the community, which may mean that the future of the Ondes Martenot is more secure than ever.

**Dorien Schampaert** is Research Associate at the University of Leeds School of Music. Her doctoral research focuses on the history and evolution of the Ondes Martenot, and she is a part-time lecturer in popular music studies and music technology. In her spare time, Dorien performs at algoraves, live coding minimal techno as Belisha Beacon.

### **Presentation 7 – 12.05-12.20**

Fabio Morreale (presenter), Jack Armitage, Andrew McPherson - Ephemeral Objects and Enduring Knowledge in the Creation of Digital Musical Instruments

**Abstract:** The ongoing proliferation of digital technology is enabling a new prosperous period for Digital Musical Instrument (DMI) design. This prosperity is partly reflected by the interest of academic communities like NIME (New Interfaces for Musical Expression) in new digital musical instruments. As opposed to the centuries-long and by now well-established cultural categories of traditional instruments, DMI categories remain ephemeral. They are continuously defined and adjusted by the rapid succession of creation and discontinuation of new instruments, many of which disappear after only a handful of performances.

The short lifecycle of new musical instruments, for which we provided evidence in a recent publication (F. Morreale, A. McPherson. Design for Longevity: Ongoing use of Instruments, Proceedings of the International Conference on New Interfaces for Musical Expression, 2017), is considered a persistent problem: “Many new instruments are being invented. Too little striking music is being made with them” (S. Jordà. Instruments and Players: Some Thoughts on Digital Lutherie. Journal of New Music Research 33(3), 321-341, 2004). Short lifecycles limit the accessibility of instruments to composers and performers. The uptake of new DMIs is limited not only by the lack of instrument availability, which hinders the repeatability of performances, but also by the time it takes to develop skill on a new instrument.

Nevertheless, we argue that the existence of each new NIME gives rise to literacy and knowledge within the instrument creator community that transcends the specific design or use of any single instrument. This idea resonates with previous self-reflections of members of the community who stated that “NIME aims towards the goal of developing a shared body of work on new musical interface design” (A. Marquez-Borbon, P. Stapleton. Fourteen Years of NIME : The Value and Meaning of “Community”, Proceedings of the International Conference on New Interfaces for Musical Expression, 2015).

Rather than the success or non-success of the instrument itself, the legacy of each new instrument is related to the knowledge gained by its designer and by other members of the community, who use this knowledge to inform future instruments. Findings presented in our above-mentioned study indeed suggest that some DMIs are discontinued in their original version but that nevertheless they continue to contribute by informing future work.

**Fabio Morreale** is a Postdoctoral Research Associate at the Augmented Instruments Laboratory at C4DM, Queen Mary University of London. His PhD thesis focused on the design of new experiences of music making, with a particular focus on a population of non-expert musicians. His current research activities concern musical instrument design and evaluation. He co-authored more than 30 scientific publications in the areas of HCI, instrument design, sound processing, and interactive art.

### **Lunch – 1 hour – 12.30-13.30, during which there will be offered**

- a 20-minute *Introduction to the Horniman Music Gallery* 12.50-13.10, Margaret Birley (Keeper of Musical Instruments) and Mimi Waitzman (Deputy Keeper of Musical Instruments)
- MORN Q&A Surgery (according to demand)

### **Session C – Instruments in Context – Chair: Margaret Birley**

#### **Presentation 8 – 13.30-14.00**

Mumbua Kioko - The Relationship between Material and Discursive Practices in African Organology: Sengenya Music and Dance

**Abstract:** The Sengenya dance-drumming musical practice of Mijikenda people from the Coastal hinterland of Kenya, features an ensemble comprising an 8-set drum core, a heptatonic transverse flute (chivoti), an antelope horn (gunda) and an end blown ‘trumpet’ (nzumari). The music is based on integrated rhythm – characterized by complex interlocking composite patterns of the 1<sup>st</sup> and 2<sup>nd</sup> chapuo [double-sided cylindrical drums], and the four drums (ngoma nne), flowing in polyphonic style.

This paper addresses the material and discursive practices in African organology from the perspective of the Sengenya ensemble. It considers the instrument's physicality – its locatedness in time, space, history and culture and, the instrument as text i.e. the issues that underwrite the making of instruments and the principles by which they function in an ensemble.

Sound enabled transcriptions will be used to exemplify how rhythm works in the Sengenya ensemble. While several traditional musical instruments from Kenya have undergone structural changes either to improve their technology or to adapt to the problems of environmental degradation and wildlife protection, some of the most significant changes occur as a result of musical change, thereby, impacting the social and spiritual contexts of instruments.

The material and discursive aspects are, in a way, inseparable, and insist upon incorporating both to uncover the agency of instruments in shaping musical discourse. In the scholarship on African music, African rhythm has been an area most contested. Additionally, studies on rhythm in African music tend to focus on West Africa. The focus of my research is to bring an East African musical genre into the discourse on African music. Further, it demonstrates the salience of African organology from a multi-disciplinary perspective –both embracing and challenging ideas within the Sachs and Hornbostel classification system and recognizing the value of indigenous knowledge systems as the underpinning of an understanding of African musical instruments.

**Mumbua Kioko** earned a BA in Political Science: International Studies and Anthropology from Mansfield University of Pennsylvania, United States, and MMus in Ethnomusicology from the School of Oriental and African Studies, University of London, United Kingdom. A classically trained pianist, Mumbua also performs through voice and dance, and on a variety of African instruments including, a range of drums, percussion, flutes, horns, and the xylophone. Mumbua has been teaching in the Department of Music & Performing Arts at The Technical University of Kenya in Nairobi. She is currently pursuing a Ph.D. in Musicology at Princeton University, United States.

#### **Presentation 9 - 14.00-14.10**

Elisabeth Murray - Upcycling Instruments: A look at the Organ Hurdy-Gurdy

**Abstract:** In 1882 the V&A Museum acquired an Organ Hurdy-Gurdy. It was made in c.1750 by fixing an existing c.1650 Hurdy-Gurdy to new organ bellows, irrevocably transforming the original instrument. This paper examines this act of transformation. It explores the life cycle of this object, from its origins as a Hurdy-Gurdy, its re-fashioning into an Organ Hurdy-Gurdy, to its current existence as a museum object. It argues that in order to understand the object it must be explored in all its incarnations. It also seeks to situate the object within its historical context. It explores how the popularity of different instruments, along with changing social and cultural trends, resulted in the re-fashioning of the hurdy-gurdy, changing its form but more crucially, extending its working life.

Please note the Organ Hurdy-Gurdy referred to in this proposal is 338-1882

<http://collections.vam.ac.uk/item/O58945/organ-hurdy-gurdy-unknown/>

**Elisabeth Murray** received a BA (Hons) in History at the University of Birmingham in 2014 and went on to do her MA in Museum Studies at University College London, graduating in 2016. Alongside her MA she worked in the Curator's department at Historic Royal Palaces, based between Kensington Palace and Hampton Court Palace. She is now an Assistant Curator in the Furniture, Textiles and Fashion Department at the V&A.

## Session D – Museums and Playability – Chair: Mimi Waitzman

### **Presentation 10 – 14.10-14.40**

Jennifer Schnitker and Manu Frederickx - Preventive and Interventive Conservation of The Met's Appleton Organ

**Abstract:** In 1982, the Department of Musical Instruments at the Metropolitan Museum of Art installed a fifteen-foot, 16 rank pipe organ. Built in 1830 by Boston craftsman Thomas Appleton, this organ survived nearly unaltered musically. It is considered to be amongst the finest examples of Appleton's work, in addition to being the earliest known extant organ by him. At the Met, it has served as an important part of the musical instrument collection and has been played semi-regularly since 1982, to the delight of both public and patrons. In February 2016, the Department of Musical Instruments closed its galleries to the public to begin a two-year gallery renovation project. This offered a rare opportunity for conservators, alongside an outside restorer, to undertake a substantial evaluation, documentation, and treatment of this important organ.

The work undertaken on the organ falls into two categories: treatment of the musical mechanism and treatment of the casework. Treatment of the mechanism was critical at this point for satisfactory function and included work on pipes, bellows, and windchest, all performed by an outside organ restorer. Intervention on the casework, was completed in-house by the two instruments conservators. The mahogany boards and veneers faded significantly from light exposure and restoration coatings of beeswax had become dull and grey-tinged. Conservation work focused primarily on the development of a coating system which would protect the wood from further light damage and at the same time improve its aesthetic authenticity.

Clearly, treatment begins long before a conservator begins to touch a work of art and, further, musical instruments bring their own challenges in terms of conservation, use, and display. The environmental challenges of the display location, feasibility and longevity of our interventions, appropriateness of restoration work, monetary and time costs, and role of the instrument within and outside of the institution all needed to be weighed. While time and monetary costs of treatment are always significant factors in the decision-making process, in this case, the consequences of not intervening weighed heavily in the equation. The guarantee of further deterioration, at least in the short-term, change in the intended aesthetic, and loss of public access to a playing organ in a museum collection, coupled with the fact that opportunities for intervention are rare, argued in favor of treatment of mechanism and casework. Our approach utilized both true interventive conservation as well as preventive conservation strategies for the preservation of this important instrument.

**Jennifer Schnitker** is an Assistant Objects Conservator in the Sherman Fairchild Center for Objects Conservation at the Metropolitan Museum of Art. She received her M.Sc. in 2014 from the Winterthur/University of Delaware Program in Art Conservation, studying in the objects conservation department there. Specializing in musical instruments, she has worked with instrument collections at the Horniman Museum and Gardens and the Colonial Williamsburg Foundation (Virginia, USA) as well as having consulted independently. Her work includes conservation of broadly ranging instruments, in both playable and non-playable condition.

**Manu Frederickx**, Associate Conservator for Musical Instruments at The Met in New York, received a master's degree in Musical Instrument Making from the Royal Conservatory in Ghent in 2002. He has worked as an independent maker and restorer of harpsichords and plucked string instruments, and trained in the conservation of wood at the Royal Academy of Fine Arts in Antwerp. From 2004 to 2015, he was a lecturer at the School of Arts of University College Ghent, where he became head of the Musical Instrument Making Department in 2013. He worked as a conservator at the Musical Instrument Museum in Brussels from 2009 until joining The Met in 2015.

### **Presentation 11 – 14.40-15.10**

Elisabeth Salverda, Pierre Gevaert, Michel Terlinck - The Piano-Viole Lost and Found: Retrieving and Reviving the Sound Picture of a Mechanically Bowed Keyboard Instrument

**Abstract:** In 2006, an exciting discovery was made in the attic of the Belgian royal palace: a unique bowed keyboard instrument, the *Piano-Viole* of 1830, invented by the renowned Brussels piano firm Herman Lichtenthal. King Leopold I had acquired the instrument after the 1835 Exposition bestowed it a *Medaille d'or*. Until then known only in the literature, it is one of over 200 bowed keyboard instruments invented in the last 400 years. Its unique mechanism, of which it is so far the only extant example, can be traced back to a Leonardo da Vinci patent drawing circa 1490. With a six-octave range, each string (one per note) is bowed individually by a vertically turning leather belt-bow pedal-operated pulley mechanism. Comparable pursuits of acoustic bowed keyboard sounds are the Geigenwerk instruments of Akio Obuchi and the 2012 *Viola Organista* by Sławomir Zubrzycki, featured on Björk's latest album *Vulnicura*.

Much of the mechanism was missing, and apart from two imprecise drawings, a description from an 1832 patent and varying reviews from the time, only limited information is available. Beyond conservation, the brief for our project is to make the instrument playable and displayable at the MIM. As a process of reinvention, research and exploration of how the instrument might have worked and sounded, our project involves dozens of experiments regarding sound quality, consistency, dynamic and tonal potential, focusing on mechanism prototypes and interaction of different materials such as types of leather, strings, their advantages and disadvantages.

**Elisabeth Salverda** is a piano technician, piano tuner in training, and musician. She is assistant restorer and researcher in the instrument conservation workshop at the MIM on the *Piano-Viole* project. After studying 'Piano Tuning, Restoration and Repair' in Antwerp 2015-2017 (Syntra Flanders), she is starting a Masters in Music at Goldsmiths University in London. She also revises Dutch-English translations for the yearbook *The Low Countries: Arts and Society in Flanders and the Netherlands* (Ons Erfdeel).

**Pierre Gevaert** is an instrument restorer, piano tuner and technician, and researcher at the Musical Instruments Museum (MIM) in Brussels. He supervises Michel Terlinck and Elisabeth Salverda on the *Piano-Viole* restoration project. He is also a musician and plays piano and the seven-string guitar with a Choro (traditional Brazilian music) group in Brussels: Bruchoroës.

**Michel Terlinck** is a piano tuner, instrument builder, composer and musician. He volunteers at the MIM as an assistant restorer in the instrument conservation workshop and as an archivist in the library. He teaches hommél (plucked dulcimer with fret scale and drones), the main instrument he builds, at the Academie voor Muziek, Woord en Dans, in Gooik, Belgium. He also regularly performs with the Trio Mireor on hommél and the diatonic button accordion.

### **Presentation 12 – 15.10-15.25**

Eric De Visscher - The V&A's musical instruments collection: historical overview and possible perspectives

**Abstract:** Musical instruments are both sound-producing machines and aesthetical objects. Those which are then part of museum collections inevitably raise the question as to what extent they are kept and exhibited for their decorative value or for their musical interest. The history of the Victoria and Albert Museum's musical instruments collection, taken as a whole, is therefore an interesting case study. Some of these instruments appeared in the museum's collection even before its opening in 1857. But only fifty years later, around 1910, the first complaints about their relatively weak presence within the museum are being expressed. The comments, as well as the museum's reaction, predate, in almost the same terms, the radical decision taken a century later to close the musical instruments gallery. The present situation is not considered as fully satisfactory: some instruments are displayed in thematic galleries, others put on loan at the Horniman Museum, and the great majority is in storage. But at the same time, the museum's history shows an almost continuous involvement with music, through major concerts, a growing number of exhibitions and numerous educational activities. This leads to the present research undertaken as part of the V&A Research Institute: How could the museum benefit from this long-standing musical tradition? How

could this somewhat neglected collection be brought back to the public's attention and be part of the museum's future plans?

Next to a very general overview of the museum's involvement with music and its music-related collections, this presentation will invite the conference participants to share their memories of the V&A's collection and sketch some of the future lines of thoughts that are presently under discussion within the museum.

**Eric de Visscher** became artistic director of the Ars Musica Festival in Brussels after studying philosophy, linguistics and music. In 1997, he became Artistic Director of IRCAM, the musical institute of the Centre Pompidou in Paris. From 2006 to 2016, he was Director of the Musée de la musique (Philharmonie de Paris). He is now 'Andrew W. Mellon Visiting Professor' at the V&A Research Institute (VARI) (Victoria & Albert Museum, London). He has published in several magazines and exhibition catalogues, notably on the relations between visual arts and music.

## **20-minute Break - 15.25-15.45**

### Session D – Public-Private Nexus – Chair: Flora Dennis

#### **Presentation 13 – 15.45-16.00**

Katharine Waldron and Zoe Mercer-Golden - The afterlife of a Flemish harpsichord lid

**Abstract:** We undertook research on this painting for the 'Painting Pairs' project run by the Sackler Research Forum at the Courtauld Institute, a postgraduate research collaboration between an art history student and a conservation student. The object of study is a truncated harpsichord lid with an insert added to transform it into a panel painting. We believe that this lid was from a harpsichord made and painted in early 17<sup>th</sup>-century Antwerp. Research into the painting's iconography and costume styles provided clues to its Flemish origin, and this was borne out by the technical analysis of the painting technique, the identification of an original green paint layer on the back of the lid part and investigation into the lid's construction. These findings enabled us to identify paintings and musical instruments for comparison, and consider who the painter may have been and the possible working process. Thorough research into the painting's provenance through inventories was informed by the identification of the pigments in the lid part and insert, enabling us to propose a date for the insert. This enabled a better characterisation of the later campaigns of paint on the piece and their extent, which is important for the decisions about the painting's conservation. The project has been an exciting and fulfilling opportunity to connect with and learn from renowned experts in the fields of art history, historical musical instruments and paintings conservation, in the UK and abroad, and contribute to a growing body of research.

**Katharine Waldron** completed a BA in History of Art at the University of Warwick in 2014 and has enjoyed volunteering with museum and archival conservation teams for several years. She completed the IAP Chemistry for Conservators course before beginning her Postgraduate Diploma in Conservation of Easel Paintings at the Courtauld Institute of Art in 2015. She has completed paintings conservation internships at the House of Lords, the National Maritime Museum and the V&A, and worked for Katherine Ara. She was also awarded the Zibby Garnett Conservation Travel Fellowship in 2016 and carried out research at the Rijksdienst voor Het Cultureel Erfgoed in the Netherlands.

**Zoe Mercer-Golden** graduated from Yale University in 2013 with a BA in English and the History of Art. She will be completing an MA in Curating the Art Museum from the Courtauld Institute of Art in the fall of 2017. Zoe has held internship positions at the Yale University Art Gallery, the Frick Collection, the Metropolitan Museum of Art, and the Royal Museums Greenwich. Zoe was a Fulbright ETA in Brazil in 2014 and has also worked for a number of non-profits and at an education company.

### **Presentation 14 – 16.00-17.30 – Panel Discussion led by Alan Rubin**

Alan Rubin, Miles Hellon, Alun & Anne Smith - A 17<sup>th</sup> century English instrument unveiled: How restoration has brought a unique treasure to light.

**Abstract:** The restoration of musical instruments is rightly the subject of intense and sometimes controversial debate between specialists. While the curators of public and private collections have different priorities and constraints, it is clear that they have a common interest as temporary guardians of historic artefacts. As regards restoration, they both have to stand before the judgment of posterity but the private curator is, for better or worse, able to follow his or her own judgment, free from the constraint of being the custodian of public property. Given the history of occasionally ignorant and insensitive restoration in both the public and private sectors, benign neglect is sometimes the best fate for an historic instrument. There are cases, however, in which a failure to restore condemns an instrument to terminal decline and a sort of limbo from which it will never emerge. Simply conserving it as a historical curiosity is not enough. The unique 17<sup>th</sup>-century keyboard instrument, unveiled in public for the first time during this presentation, will be used as an example to show how a complex restoration, carried out by highly skilled specialists during more than four years of continuous work, has not just conserved and, indeed, revealed a remarkable work of art, but allowed it to fulfil its original function, to delight both the ear and the eye.

This panel will place the instrument in its historical context and discuss the technical and ethical aspects of the restoration from the points of view of the collector, the restorer of the instrument and the restorers of the decoration. A short musical performance will demonstrate the tonal qualities of the restored instrument.

Discussion will then be invited on the question of the remits of private and public collections, how they intersect and how mutual benefit may derive from relationships between the two sectors.

**Alan Rubin** is an art dealer and specialist in decorative arts who has been a collector of early musical instruments since the early 1970's. He has assembled one of the world's most significant private collections of keyboard instruments, dating from the early 16<sup>th</sup> century to the mid-19<sup>th</sup> century and has unrivalled experience of the dilemmas relating to the restoration and conservation of early musical instruments. He has acted as advisor to museums and collaborated with many of the most gifted restorers working in the field in Europe and America.

**Miles Hellon** is a builder and restorer of early keyboard instruments working in London. He graduated from the London College of Furniture in 1977 and established his workshop in the same year. He has restored instruments for the Royal Collection Trust, the National Trust, the Cobbe Collection Trust and for many private collections.

**Alun and Anne Smith** are specialist restorers of lacquer and painted furniture working in Narbeth in South Wales. With degrees in Fine Arts and graphic design they were apprenticed in 1988 at Antique Restorations Ltd, the leading specialist lacquer restorers in London. They took over the workshop in 1996 and have undertaken projects for the National Trust, English Heritage, dealers and private collectors. Japanned and lacquer pieces they have restored can be found in major museums worldwide.

### **20-minute Break - 17.30-17.50**

### **MIRN AGM 17.50-18.45 – Agenda to follow**

#### **18.45** Finish and Farewells

All are welcome to a social hour at a local Pub (details to follow), from 19.00.