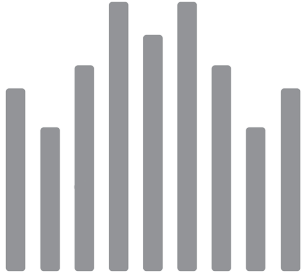


2016 **ICOM**  **MILANO**

24TH GENERAL CONFERENCE • 3-9 JULY 2016 • ITALY



INTERNATIONAL COUNCIL OF MUSEUMS

CIMCIM

COMITÉ INTERNATIONAL DES MUSÉES
ET COLLECTIONS D'INSTRUMENTS ET DE MUSIQUE



Museo del Violino



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PRACTICAL INFORMATION

Sessions on Monday, Tuesday and Wednesday will be held in the same room, **AMBER 2** (South Wing, Level +2), at MiCo – Milano Congressi (Piazzale Carlo Magno, 1 – 20149 Milano, Italy).

Wi-Fi will be available for all registered delegates free of charge at the MiCo. You can connect to the network **ICOM_Milano_2016** (password: **icom2016**) upon acceptance of the general conditions.

The internet area is located in the Museum Fair & Expo Forum area in the North Wing, Level +1. It is free of charge to all registered delegates. There is also a printer available for printing.

There is a **Speakers Lounge**, located in the room **Suite 1** (South Wing, Level +2). A certain number of laptops will be available in order speakers can prepare or work on their presentation. The Speakers Lounge will be open during the following hours:

Sunday	08:00-19:00
Monday-Wednesday	08:00-18:30
Saturday	08:00-17:30

MUSICAL INSTRUMENT MUSEUMS: INTERPRETING THE PRESENT

Because of their history, the majority of musical instrument collections focus their activities and displays on the past. This is accomplished through historic objects that, according to ICOM's definition of a museum, are acquired, conserved, researched, communicated, and exhibited in the service of society and its development. However, museums can and should exert a key role in promoting, representing, stimulating, and interpreting the present. This can take place in a number of ways, including supporting and working with instrument makers, individuating and proposing models for development, collaborating in the dissemination and understanding of contemporaneity to the wider public, influencing public perception of instrument museums and collections, and creating and sponsoring artistic productions in their many facets.

Several possibilities for movement in this direction could be drawn from art, design, and technology museums, where public impact, visibility, and economic success of temporary and permanent exhibitions related to our time have demonstrated the potential of this approach, both for the institutions and their users. This raises questions regarding how our field is reacting to this responsibility, and how musical instrument collections can develop a stronger role in support of contemporary music, musical instrument making, and modern musical culture in general. In which areas could our role become a powerful engine of innovation and communication, thereby increasing impact beyond the education of the public about music of the past? How can instrument museums promote innovation, not only within themselves, but particularly in the wider cultural landscape?

The conference aims to bring together different experiences, proposals, and approaches, both from museum professionals and from the widest perspective of all stakeholders, including users in general, musicians, and instrument makers.

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JULY

ICOM 2016 | Musical Instrument Museums: Interpreting the Present

PAST AND PRESENT IN THE MUSEUM

CHAIR **LISBET TORP** The Danish Music Museum, Frederiksberg

14.00-14.30 **FRANK P. BÄR** Germanisches Nationalmuseum, Nuremberg
Beyond education – Models of musical instruments and their meanings for research and the public

14.30-15.00 **DARRYL MARTIN** Musical Instrument Museum, Edinburgh University
A Museum, an Experience, or both?

15.00-15.30 **KLAUS MARTIUS** Germanisches Nationalmuseum, Nuremberg
100 Years of Symbiosis between Museum Research and Contemporary Instrument Making

COFFEE BREAK

CHAIR **CHRISTINA LINSENMEYER** University of the Arts, Helsinki

16.15-16.45 **PANAGIOTIS POULOPOULOS** Deutsches Museum, Munich
The Various Faces of the 'Authentic' in Musical Instrument Collections: A Problem or an Opportunity?

16.45-17.15 **SABINE K. KLAUS** National Music Museum, Vermillion
Interpreting the Past through the Present and Stimulating the Present through the Past

17.15-17.45 **MADELEINE MODIN** Stockholm University
The Use of History for Vitalisation of Contemporary Musical Life

17.45-18.15 **MARIE MARTENS** The Danish Music Museum, Frederiksberg
Musical Instrument Museums: Interpreting the Present. Whose present – and whose past?

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JULY

ICOM 2016 | Musical Instrument Museums: Interpreting the Present

SOUND, MUSIC AND LANDSCAPE IN THE MUSEUM

CHAIR **MARGARET BIRLEY** Horniman Museum and Gardens, London

09.00-09.30 **CRISTINA GHIRARDINI** Fondazione Ugo e Olga Levi, Venice
Ethno-Organology in Italy in the 21st Century

09.30-10.00 **KATHLEEN R. WIENS** Musical Instrument Museum, Phoenix
Speaking for Themselves: Ethnography as an Avenue for Representing Cremonese Luthiery

10.00-10.30 **VALERIA BELLOMIA** Università di Roma 'La Sapienza', Rome
Sounds from the Past, resounding in the Present

COFFEE BREAK

11.00-11.30 **RAFFAELE PINELLI** University of Nice Sophia Antipolis, Nice
Università di Roma 'La Sapienza', Rome
The Land of Accordions: Considerations for a Survey to Build the First Eco-museum of Mechanical Bellows Aerophones in Italy

11.30-13.00 **CIMCIM PANEL** *Musical Instruments in Museums of Different Origins and Profiles: An Assessment of New Display*
Coordinator: PANAGIOTIS POULOPOULOS

LUNCH

CHAIR **GIOVANNI PAOLO DI STEFANO** Rijksmuseum, Amsterdam

14.00-14.30 **XIANG ZHANG – ANNA WANG** Hubei Provincial Museum, Hubei
Layers and Presentation of the connotations of Music Instrument Collection. Case Study of the Chime-bell of Marquis Yi of Zengry

14.30-15.00 **MIMI S. WAITZMAN** Horniman Museum and Gardens, London
Creative Programming within an Uncreative Budget

15.00-15.30 **BRADLEY STRAUCHEN-SCHERER** Metropolitan Museum of Art, New York
"Fanfare" and the Art of Music in the Metropolitan Museum of Art's re-framed Musical Instrument Galleries

15.30-16.00 **HEIKE FRICKE** Musikinstrumenten-Museum, Berlin
History of the Musikinstrumenten-Museum Berlin between 1933 and 1945

16.00-16.30 **THOMAS LERCH** Musikinstrumenten-Museum, Berlin
The Development of a New Kind of Audio Controller. Linking Historic Musical Instrument Technologies with Up-to-date Sound Generation and Control

COFFEE BREAK

CHAIR **PATRICE VERRIER** Musée de la Musique, Paris

17.00-17.30 **GUIDO RASCHIERI** Università di Torino, Turin
The Museo del Paesaggio Sonoro at the crossway between Past and Present

17.30-18.00 **LEILA MAKARIUS – JORGE COMETTI** Museo 'Isaac Fernandez Blanco', Buenos Aires
Museo Fernandez Blanco Art Museum: Interpreting the Present

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ICOM 2016 | Musical Instrument Museums: Interpreting the Present

NEW TECHNOLOGIES AND NEW DISPLAYS

- CHAIR **DARCY KURONEN** Museum of Fine Arts, Boston
- 09.00-09.30 **ERIC DE VISSCHER** Musée de la Musique, Paris
A New Exhibition Model for Museum Collections: the TIDE Project
- 09.30-10.00 **CLEVELAND JOHNSON** National Music Museum, Vermillion
The Soldier's Musical Arsenal
- 10.00-10.30 **THIERRY MANIGUET** Musée de la Musique, Paris
The Preservation of Electronic Musical Instruments, a Challenge in the Face of Technological Obsolescence
- 10.30-11.00 **SEBASTIAN KIRSCH** Germanisches Nationalmuseum, Nuremberg
The MUSICES-Project: Making 3D-CT Imaging more Accessible to a Wide Range of Stakeholders

COFFEE BREAK

- 11.30-13.00 **CIMCIM GENERAL ASSEMBLY**

LUNCH

- CHAIR **RENATO MEUCCI** Conservatorio di Novara
- 14.00-14.30 **MARTIN KIRNBAUER** Historisches Museum – Museum für Musik, Basel
Old Violin versus Old Violin
- 14.30-15.00 **RUDOLF HOPFNER** Kunsthistorisches Museum, Wien
Inside a Stradivari. New insights by Means of High Resolution Computed Tomography
- 15.00-15.30 **FABIO ANTONACCI** Musical Acoustics Lab at MdV, Cremona
Politecnico di Milano
A Study on the Timbral Quality of Violins Based on Descriptors Extracted from the Sound

COFFEE BREAK

- CHAIR **ARNOLD MYERS** University of Edinburgh
- 16.15-16.45 **MARCO MALAGODI** Università degli Studi di Pavia
Arvedi Laboratory of MdV, Cremona
A Computer Aided Approach for the Analysis of UV-Induced Fluorescence Images of Historical Violins
- 16.45-17.15 **DAVIS MANNES** Paul Scherrer Institut, Villigen
Neutron imaging – an alternative perspective into musical instruments
- 17.15-17.45 **ADRIANA RIZZO et al.** Metropolitan Museum of Art, New York
Understanding Futuristic Materials of the Past: a Technical Study of Ebonite and Vulcanite in the Collection of Musical Instruments of the Metropolitan Museum of Art
- 17.45-18.15 **ADRIAN V. STEIGER** Hochschule der Künste, Bern
Brass Sheets for the Manufacture of Replica

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JULY

ICOM 2016 | Musical Instrument Museums: Interpreting the Present

OFF-SITE MEETING MUSEO DEL VIOLINO – CREMONA

The Off-site meeting is hosted by the **Museo del Violino** in Cremona, which will provide **transport, lunch** and a **visit to the museum and its laboratories**, restricted to the **CIMCIM members** regularly registered at the ICOM 24th General Conference.

FEES	• CIMCIM members registered at the ICOM Conference: free (bus + MdV ticket + lunch)	
	• Accompanying person:	
	MdV ticket:	€15,00
	Lunch:	€40,00
	All-inclusive (MdV tickets + lunch):	€55,00
	Journey by bus:	free until places are exhausted
	Journey by train:	€14,60

TRAIN TIMETABLE	From Milan Central Station:	08.20
	Arrival at Cremona Station:	09.28
	<hr/>	
	From Cremona Station:	17.30
	Arrival at Milan Central Station	18.40

- 08.00 Departure by bus from Milan, MiCo – Piazzale Carlo Magno, 1
- 09.30 Arrival in Cremona and Coffee Break at the MdV
- 10.00 Visit of the MdV
- 11.00 Brief Meeting in the Conference Room:
- **Gianluca Galimberti**, Mayor of Cremona – President of Fondazione MdV
 - **Giovanni Arvedi**, MdV Honorary President
 - **Virginia Villa**, MdV General Director
 - **Renato Meucci**, Director of the MdV Scientific Committee, with two special guests: **Cecilie Hollberg**, neo-Director of the Galleria dell'Accademia (Florence) and **Sandra Suatoni**, neo-Director of the Museo Nazionale degli Strumenti Musicali (Rome)
 - **Massimiliano Guido**, University of Pavia, Department of Musicology in Cremona
 - **Paolo Bodini**, MdV Administrator and President of friends of Stradivari
- 12.00 Performance on the Stradivari violin 'Vesuvius' (1727c.) at the Giovanni Arvedi Auditorium, introduced by **Fausto Cacciatori**, MdV Curator (Lena Yokoyama, violin)
- LUNCH – BISTROT 'CHIAVE DI BACCO' (MDV COURTYARD)**
- 14.00 Visit to the Civic Museum – Carutti's Collection of Historical Instruments, introduced by **Maurizia Quaglia**, Director of the Culture Department, Museum and City Branding of Cremona
- 15.30 Visit to the Cremona Cathedral or free time
- 16.30 Return at the MdV and visit of its Scientific Labs, introduced by **Marco Malagodi**, Technical Director of the Arvedi Non-Invasive Diagnostic Laboratory, and **Augusto Sarti**, Scientific Director of the Musical Acoustics Lab
- 18.00 Departure from Cremona
- 20.00 Approximate arrival in Milan, MiCo – Piazzale Carlo Magno, 1

04-06
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ICOM 2016 | Musical Instrument Museums: Interpreting the Present

SPEAKERS' BIOGRAPHIES AND ABSTRACTS

FRANK P. BÄR

Frank P. Bär is curator of the musical instrument collection and head of the research services and photo departments in Germanisches Nationalmuseum. He studied musicology and German linguistics at the University of Tübingen and holds a Ph.D. in musicology. Within the European community funded project MIMO (2009–2011) – Musical Instrument Museums online – he was responsible for coordinating the digitization of 45,000+ musical instruments in public collections. He is member of the MIMO Core Management Group who is caring for the sustainability and enhancement of the service and represents Germany in the COST action FP 1302 Wood-MusICK's management committee.

Beyond education – Models of musical instruments and their meanings for research and the public

For most museum visitors, historic musical instruments share a common question with machines and devices in technological and science museums: How do they work? One long established method to answer this question is the use of models, e.g. for piano actions, organs, bores of wind instruments or devices to explain and experiment acoustical characteristics.

But beyond the educational use, one can investigate in numerous respects about the purpose and different roles of models. Does a piano action model made for education has a value for research, and how closely is it made to the original instrument? Some of these functional models have been built before being integrated into a museum collection and have become museum objects in their own right. Can we still use them as hands-on objects, or do we have to apply the same rules as for the playing of historical instruments?

A model of an instrument, mostly miniaturized, can also serve for representation, for instance as symbol for a luthiers guild. Another kind of models is the reconstruction of musical instruments that have been delivered to posterity only by literary sources, or new constructions in their experimental state that might provide insight in the creative work of an instrument maker.

The question of what can be considered as model of a musical instrument will be linked to evident and less evident usages by museum visitors, instrument makers, researchers and other interested persons.

DARRYL MARTIN

Darryl Martin is Principal Curator at the Musical Instrument Museum at Edinburgh University. He started working at the Collection in 2004, having completed his PhD the year before. Most recently his work has been concentrating on the redevelopment towards

the opening of St Cecilia's Hall. Darryl's background is as an instrument maker and his research has tended to concentrate on instrument-making and design for much of his research output. He is also active in making technical drawings of stringed instruments, in particular those from the plucked string and keyboard families.

A museum, an experience, or both?

Musical instrument museum displays are, in general, full of instruments from earlier times rather than contemporary objects. In many ways this represents the perceived interests of the visitor, who is thought to prefer instruments that are hundreds of years old. The only instruments from modern times that generally appeal to the general visitor are those from different cultures. In this the visitor philosophy is much the same, having an interest in something which is not immediately accessible outside of a museum environment.

There are some exceptions to the common museum approach, generally found in museums attached to instrument companies which are still in operation, prime examples being the Fender and Martin guitar companies. Here one can get a tour of the factory and a visit to the corporate museum. However, these visits are more popularly attended with the primary focus on the workshop tour.

This paper will attempt to reconcile the paradox between the interests of the general museum visitor in the old and uncommon, and the modern manufacturer who is making something usually available to the mass market. This will question whether, and under what circumstances, it would be possible (and desirable) to create a "living museum" that can provide genuine interest to the visitor. In doing so it will look at the experiences of other similar museums and other outreach activities.

KLAUS MARTIUS

Since 1987 conservator of musical instruments at the 'Institut für Kunsttechnik und Konservierung' of the Germanisches Nationalmuseum in Nürnberg. Three years before he had studied with Friedemann Hellwig at the same place. Some publications on the technology of historical instruments, particularly on bowed string instruments and conservation of musical instruments and documentation techniques.

100 Years of Symbiosis between Museum Research and Contemporary Instrument Making

Ever since musical instrument makers have been consulting musical instrument collections to find models, the connection between museums and makers has become closer and developed different stages of symbiosis.

MUSEUMS' INSTRUMENTS AS SOURCE OF INSPIRATION

With the recourse to the supposedly 'simple' instruments (guitar, recorder) the 'Jugendbewegung' started put their focus on ancient music. Museums' instruments served as a source of inspiration for many years. Instrument makers aimed to use the

ancient shapes as orientation, and not to build exact copies. Their examination was not guided by any museums' staff.

MUSEUMS' INSTRUMENTS AS SOURCE FOR MAKING REPLICAS

During the late 1960s, a second approach on ancient music brought many instrument makers to the famous musical instrument collections. Their intention was, this time, to copy those instruments as exactly as possible. At the same time, instruments were given on loan to musicians for concerts and recordings, sometimes with unfortunate outcomes. Many of the desired instruments were measured again and again with tactile methods. The museums on the other hand meanwhile established sophisticated methods to save their original instruments and provide documentation material of the most requested items. In their efforts they drew on recent technical equipment (X-ray, endoscopy, microscopy, CT, advanced measurement tools).

MUSEUMS' INSTRUMENTS AS OBJECTS OF SOURCE CRITICISM

Today, interdisciplinary scientific projects try to use the historically grown shape of the museums' items as a criticism-deserving source. Instrument makers return as partners to the scientific staff to evaluate the technical and sounding parts of those investigations. The Germanisches Nationalmuseum was involved in several studies during the last years with different kinds of targets, like building replicas and reconstructing possible former shapes or lost instruments (Freiberg instruments, Lute projects in Salzburg and Kremsmünster, Ganassi project Basel).

PANAGIOTIS POULOPOULOS

Panagiotis Pouloupoulos is currently a post-doc research fellow at the Deutsches Museum in Munich investigating the development of the pedal harp between 1780 and 1830. Panagiotis has extensive training and experience in the documentation, preservation and exhibition of historic musical instruments, having worked in various museums and educational institutions in Greece, Great Britain, and Germany. He is also the author of several articles on stringed instruments and contributor to the New Grove Dictionary of Musical Instruments. His latest research interests include the history of musical instrument collections and issues of authenticity on musical instruments.

The Various Faces of the 'Authentic' in Musical Instrument Collections: A Problem or an Opportunity?

Due to their complex character as functioning artefacts, which are made to be played rather than to be looked at, musical instruments have frequently changed in order to meet new tastes and demands. This process, which reached a peak in the late nineteenth and early twentieth centuries, when most major instrument collections were formed, inevitably led to the distortion or loss of original features of many historic instruments. During this period a great number of surviving instruments were transformed through extensive restoration and

'modernisation' or through faking and forgery. At the same time, numerous copies of antique instruments were commissioned by private collectors or museums in order to fill gaps in their displays, thus further blurring the borders between the authentic and the non-authentic in museum collections.

This issue is currently becoming important among museum communities and the wider public since the acquisition, documentation, preservation and exhibition practices that were established in the last century have influenced the originality of museum artefacts in multiple ways. Consequently, this process not only had a strong impact in shaping our perception of the past, but continues to have repercussions for instrument collections today, as it can affect decisions about their present and future development, particularly in regard to new acquisitions, revision of conservation policies, forthcoming cataloguing and digitisation projects, etc. This paper will discuss various aspects of this significant topic by presenting the results of a recent project at the Deutsches Museum, which investigated issues of provenance and authenticity on historic stringed instruments.

SABINE K. KLAUS

Sabine K. Klaus is the Joe R. and Joella F. Utley Curator of Brass Instruments at the National Music Museum and Professor of Music at the University of South Dakota. She works on a multi-volume book series on the history of high-brass instruments (vol. 3 in layout stage) and is involved in the planning of the NMM's joining of MIMO. For her publishing activities on subjects related to historic keyboard and brass instruments she was awarded the American Musical Instrument Society's 2000 Densmore and 2014 Bessaraboff Prizes.

Interpreting the Past through the Present and Stimulating the Present through the Past

A musical instrument collection that aims at portraying the entire history of a family or type, naturally goes as far back in time as possible and stops only at the present—or in the case of a private collection at the time of the collector's death. Both aspects, the revitalization of the ancient past, and the representation of the present, can benefit from a close collaboration with instrument makers. Collectors and museums can play a crucial role in the recreation of lost instruments, by providing the maker with the required historical information through the interpretation of ancient texts and iconography. Faithful copies open up the possibility for the past to become alive once more, through instruments that do not require the same protection as the originals and can be played. Using original objects, the museum or collector can encourage the contemporary instrument maker to improve existing designs, and thus help to reintroduce historical models into the modern concert hall. Historical instruments, kept in private and museum collections, can

also inspire the decoration of newly created instruments, and the museum or collector can encourage the instrument maker to develop models and decorations hitherto unknown.

In this presentation these aspects of a close collaboration between collector/curator and instrument maker will be discussed with examples in the Utley Collection of brass instruments at the National Music Museum, newly commissioned between 1985 and 2010.

MADELEINE MODIN

Madeleine Modin is a PhD-student in musicology at Stockholm University. Her ongoing doctoral thesis deals with the history of the musical instrument collections of the Stockholm Music Museum (Scenkonstmuseet), with a focus on the intentions and ideologies motivating the collecting and the use of the instruments as museum species. The museum's strong connections to the Early Music Movement and the Folk Music Revival in Sweden are of particular interest. She has earlier been employed by the Stockholm Music Museum, and the Centre for Swedish Folk Music and Jazz Research (Svenskt visarkiv).

The Use of History for Vitalisation of Contemporary Musical Life

The advantages of using history to reflect upon the present are well known and one outcome of showing historical music and historical instruments is the perspectives it gives to current praxis. Creative artists have always used history as the well from where inspiration and material to new creations has been brought. Artists have used ancient sounds for transportation to alien and fantastic spaces.

It seems as if one of the motives for recreating historical music and instruments at the Music Museum in Stockholm has been that of vitalisation of contemporary musical life, from its start in 1899 until now. Examples of activities indicating such goals, as well as statements from involved persons, will be presented in this paper, as well as official declarations of the museum, like when it was formed. In the 50's and 60's, when the Early Music Movement had a particular strong connection to the museum, several of the leading modernist composers of Sweden were involved in the concert activities at the museum. Another example of influence on the contemporary musical life is the big revival of keyed harps (nyckelharpor), which had its origins at the museum in the 60's. 2010.

MARIE MARTENS

MA in Musicology and Italian from The University of Copenhagen. Majored in Musicology and has worked at The Danish Music Museum since 2001. Since 2006 assistant curator with the museum's library and archives as main responsibility, now also partly the instrument collections.

Musical Instrument Museums: Interpreting the Present. Whose Present – and Whose Past?

Based on The Danish Music Museum – Musikhistorisk Museum & The Carl Claudius Collection’s newly reopened permanent exhibition this paper will discuss the issue of interpreting the present from the point of view of a so called *ABM-Insitution*. The Danish Music Museum being *Archive (Arkiv)*, *Library (Bibliotek)* and *Museum (Museum)* in one and the same institution, it has been a natural and obvious approach to promote, represent, stimulate and interpret the present by including materials from

the museum archives and library in the exhibition. As such, it has been both an obligation and a desire to seek to interpret the present through including the museum’s collections of art, archive material, books and sheet-music from the past. Furthermore, *The Sounding Museum* and other educational activities, as well as the exhibition design, focus on the past and present as a way of subtle influence on the visitor’s perception of the museum and its collections.

The presentation will introduce and throw light upon our intentions behind the exhibition and our experiences of including other musical sources as food for thought to the museum visitor. Both in social and cultural context, as well as in relation to research and education, the paper looks into different ways of using the museum and making music history alive and relevant.

CRISTINA GHIRARDINI

Cristina Ghirardini obtained her PhD in History and critics of musical cultures and heritage from the University of Torino in 2007. Organologist and ethnomusicologist, she has dedicated her doctoral dissertation to the sources of of Filippo Bonanni’s Gabinetto Armonico (1722). She has collaborated with the Italian Association of Mechanical Music (AMMI) and with the Museo del paesaggio sonoro in Riva presso Chieri (Torino), now she works as a freelance with various cultural institutions and sound archives. Her actual research focuses on musical instruments of Italian traditional music, on Italian collections of traditional and non-European instruments and on improvised poetry in central Italy.

Ethno-Organology in Italy in the 21st Century

Italy preserves many important collections of traditional and non-European musical instruments. Some of them are displayed in well-known museums (Museo delle arti e tradizioni popolari and Museo nazionale degli strumenti musicali in Rome), others in recently founded institutions (Civico museo del paesaggio sonoro in Riva presso Chieri - Torino, Museo delle culture in Milan), other relevant collections are in less-known museums in the province of Italy (Museo Museo Ettore Guatelli in Ozzano Taro - Parma, Museo Cultura e Musica Popolare dei Peloritani in Messina), in private collections or in the stores of museums whose primary mission is not music (for example the remarkable collection of non-European instruments in the stores of the Museo Civico

Medievale in Bologna) and nearly impossible to visit. The almost tragic economic situation of many Italian cultural institutions has prevented the development of research on ethno-organology inside museums, however, since the 1980s this discipline has achieved many important results, especially thanks to academic research. Roberto Leydi (1928-2003), professor of Ethnomusicology at the University of Bologna since the early 1970s, has trained many researchers who conducted innovative studies on musical instruments and sound devices in many Italian regions. Febo Guizzi (1947-2015) has been Leydi's strict collaborator during the research on Italian traditional musical instruments carried out since the early 1980s, he has published innovative and seminal works and has trained students during his professorship at the University of Bologna and at the University of Torino. While Roberto Leydi was especially interested in making a cartography of the instrumental traditions in Italy within his larger investigation on traditional music, a distinctive feature of Febo Guizzi's approach was the ability to merge ethnography with historical and iconographical research, together with a particular attention to the systematic approach, as his translation and revision of the Hornbostel-Sachs classification demonstrates.

The Unfortunately, for a series of reasons that will be partially discussed during the presentation, these achievements have not succeeded in establishing a solid and internationally recognised 'Italian' tradition. This paper aims at a general survey of the present state of ethno-organology in Italy, starting from the collections and musical traditions that allowed the most original research. It also aims at acknowledging a distinctive 'Italian' approach and, taking into consideration a few case studies, it proposes some ideas on how to pursue research collaborations between institutions from and outside Italy.

KATHLEEN R. WIENS

Kathleen Wiens is Exhibition Developer at the Canadian Museum for Human Rights. Previous to this, she worked as curator of the European collection and gallery at the Musical Instrument Museum, Phoenix, where she curated the 2016 exhibition Stradivarius: Origins and Legacy of the Greatest Violin Maker. She obtained her Ph.D. in Ethnomusicology from UCLA (2012). An article based on her doctoral fieldwork with Serbian Jewish singers appears in Ethnomusicology Forum, Volume 23, Issue 1 (2014). Her museology interests include conceptualizing museum content for visitor experience and personal identity.

Speaking for Themselves: Ethnography as an Avenue for Representing Cremonese Luthiery

My case study suggests ethnographic research methods as one mode of representing the Cremonese luthiery tradition. I present content from a 2016 exhibition on Cremonese luthiery from the 16th century through to the present day. I, as curator,

invoked ethnographic research methodologies (namely interviews) represented in exhibition text and audio-visual content as personal narrative.

The inclusion of personal narrative was motivated by two points of inspiration. The first is the growing body of research on the domestic lives and personal histories of Cremonese luthiers of the 16th to 18th centuries. The second is critical museology that encourages transforming museum's roles from authorities of knowledge towards a nexus of multi-directional learning between content, the institution, its communities, and its users.

The insertion of personal narrative within exhibition narrative has multiple functions. It transfers authoritative voice from the museum institution onto the musicians and craftspeople who are the guardians of these living traditions. By allowing 'selfrepresentation' I avoid pitfalls of representing living cultures. As a literary device, personal narrative acknowledges the place of human action within in the story of fine string instruments. It creates a familiar point of entry between the visitor and the content by contouring the story of fine violins towards widely familiar themes: curiosity, workmanship, family life, and overcoming hardship. These familiar themes allow visitors to situate themselves within a topic that is the source of much curiosity but often hidden from the public eye by a veneer of exclusivity (the domain of collectors, experts, and aficionados).

VALERIA BELLOMIA

Ph.D. candidate in History, Anthropology, Religions at Sapienza, Università di Roma and member of the Italian Ethnological Mission in Mexico. She graduated in Archaeology in 2013 with a MA Thesis on two Mesoamerican musical instruments exhibited at Museo Nazionale Preistorico Etnografico 'Luigi Pigorini', Rome. From 2011 collaborated with Espera Libreria Archeologica, at Pigorini Museum, as scientific and editorial consultant. In 2015 participated in the set-up of the temporary exhibition Sogni del Rütrafe: ornamenti in argento dei Mapuche. She also took part in several international meetings on indigenous Mexico, in Italy and abroad. Her research focuses on ancient Mexican musical instruments in Italian museums, from their cultural meaning within the Mesoamerican context, to modern exhibition techniques within the Italian museum reality, as cultural witnesses of distant humanities.

Sounds from the Past, resounding in the Present

Here we present some results of the interdisciplinary study we carried out on two archaeological musical instruments made of human bones, which come from ancient Mesoamerica. According to the occidental organology, they are scraper idiophones, although their Aztec name is omichichauztli. Both the instruments are today exhibited at the Museo Nazionale Preistorico Etnografico 'Luigi Pigorini' in Rome. We made an integrated preliminary study of the properties of the bones, and then

reconstructed their cultural biographies, from the social role these artifacts played within the indigenous cultural context, to the paths that brought them in Italy. We also played them to study the sound, as part of the interdisciplinary research project. After the musical analysis of the recorded sound, we will insert the recordings into the exhibition. This study let us make some considerations about the museum context within visitors perceive this ancient sound, which comes from such a far cultural horizon and how can it be studied and mediated to the contemporary Italian public. Which is the social role these instruments can play in an European museum and what can they narrate us through their showcase? Which kind of sound are we perceiving today, in which characteristics it differs from the “original” sound they emitted when they still were played by indigenous hands, within their own indigenous context? And finally, how can we face the problem of the great cultural barrier between our present acoustic perception and a sound coming from such a distant time and space?

RAFFAELE PINELLI

Raffaele Pinelli graduated with honour in Musicology and Musical Heritage at the University of Rome “Tor Vergata” with a thesis in ethnomusicology. He is currently a PhD student at the University of Nice Sophia Antipolis (where is member of the interdisciplinary research laboratory LIRCES), in international joint supervision with the University of Rome Sapienza. Winner of more international scholarships, he is currently Lector of Italian at the Law Faculty of Aix-Marseille University. He is also musician (over 1000 concerts in/out Europe), artistic and executive producer (released over 50 albums), artistic director and advisor for NGO, private and public Italian institutions.

The Land of Accordions: Considerations for a Survey to Build the First EcoMuseum of Mechanical Bellows Aerophones in Italy

Here The Multisector Industrial District of Recanati-Osimo-Castelfidardo, in the Marches region (Italy), originated in 1863 with the establishment the first manufacturing firm of diatonic accordions. Since then its history, as well as his fame, have been linked to the production of musical instruments, especially mechanical bellows aerophones (above all accordions and diatonic accordions), an expression of high quality traditions of Italian craftsmanship, orally transmitted from father to son, and one of oldest and most important in the world. The District is currently affected by the phenomenon of a gradual reduction in skilled labour and a lack of any transfer of knowledge of manufacturing techniques among the artisan-workers employed in the production process. This produces the risk of the disappearance of knowledge heritage related to the manufacture of these instruments.

How are we to prevent the loss of 150 years of cultural and identity heritage? In my paper I propose, as a challenge to the

problem, the creation of a network of ecomuseums based on three independent units. The goal is to connect, for the first time, the sectors of manufacturing, education and artistic and cultural communities from this area. This interdisciplinary survey begins with an analysis of the processes related to knowledge transfer distinctive of this productive sector. The text describes a possible scenario where the existing International Accordion Museum in Castelfidardo is accompanied by a Museum of Diatonic Accordions in Recanati and a Museum of the Manufacturing and Processing of Metals, Leather and Cardboard in Osimo.

ZHANG XIANG
ANNA WANG

Layers and Presentation of the connotations of Music Instrument Collection. Case Study of the Chime-bell of Marquis Yi of Zeng

Musical instrument collections in museums as the historical and cultural carriers have diverse connotations. In exhibitions of museums, instruments are expected that their connotations that can be better presented. In the practices in real life, the methods of display are divided into different layers according to the contents, and which should be consider the objects, the related knowledge, and the educational background of audience. This paper takes the chime-bell of Marquis Yi of Zeng for the case study, which includes three methods of the presentation of connotations. Firstly, the chimebell shows in the space in traditional method as an ordinary relic. This traditional appreciation method is mainly to show the object through stage, panel and light. Secondly, instrument collection present via interacted performance and records. This interactive method realize by digital technology and installation to restore and reappear the original sounds and performing way. Thirdly, restore the original performing scene. This experienced method achieve by restored a complete performing scene, includes ancient royal musician band, costume, royal palace surroundings to create a back to the historical time atmosphere.

MIMI S. WAITZMAN

Mimi Waitzman gained degrees both in performance and musicology and was a partner in a London workshop making and restoring early keyboard instruments. For many years, she curated the National Trust's early keyboard collection at Fenton House and wrote its first complete catalogue. She joined the Horniman Museum in 2009 where, in 2010, she co-curated the Art of Harmony exhibition. Most recently she curated At Home With Music, an exploration of domestic keyboard instruments. Mimi serves as UK Reviews Editor for the Galpin Society Journal, as a member of the CIMCIM Conservation Working Group, and as an overseas advisory board member for the American Musical Instrument Society.

Creative Programming within an Uncreative Budget

The significance of event programming in the interpretation of musical instrument exhibitions, and in sustaining their vigour and

relevance, is widely acknowledged. Programming can respond to current trends quickly and flexibly, introducing themes that continually enrich the context of objects within an otherwise static display. But how can Museums achieve varied and high quality programming in today's challenging economic climate?

The Horniman Museum is piloting a new approach to programming in its latest display in the permanent Music Gallery. Opened in January 2014, the *At Home With Music* exhibit features domestic keyboard instruments from the 16th to 20th centuries, and it includes one harpsichord restored to playing condition. Made by Jacob Kirckman in 1772, this single instrument has spawned a multitude of new events under the umbrella title, *Hear It Live!*. Unified by the idea of presenting live musical encounters in the Music Gallery, the programme is now diversifying and expanding, having proven popular with all segments of the Museum's wide audience.

This presentation will trace the genesis of this programme, citing its growing roster of activities, from mini-concerts, and competitions to adult education classes, and recordings. *Hear It Live!* will then be discussed as an example of how programming can initiate collaborations, not only with individual musicians, but also with composers, musical instrument makers, local arts organisations, music colleges and other musical instrument collections. Finally, the methods for funding the events will be addressed, showing how many of the essential objectives of programming can be achieved within limited resources.

BRADLEY STRAUCHEN-SCHERER

Bradley Strauchen-Scherer is an Associate Curator in the Department of Musical Instruments at the Metropolitan Museum of Art, where she is project manager of the musical instrument galleries renovation and redisplay. Previously, she was Deputy Keeper of Musical Instruments at the Horniman Museum, London, where she worked extensively with the Boosey & Hawkes collection. She received her PhD from the University of Oxford and is an Associate of the Royal Academy of Music. In addition to organology, her research interests include historical performance and collections history. Publications include contributions to the Grove dictionaries, various journals and conference proceedings.

“Fanfare” and the Art of Music in the Metropolitan Museum of Art’s reframed Musical Instrument Galleries

In 2016, the Department of Musical Instruments at the Met will embark on the first major redisplay of its galleries since the 1970s. The refurbishment offers an opportunity to recast the typologically driven presentation of the galleries, a narrative focus since the pioneering nineteenth-century collector Mary Elizabeth Adams Brown gave over 3,600 instruments to the Met. How can the galleries be re-envisioned to enliven the perception of instruments in museums and amplify their role as a catalyst

for creative engagement between artists, art and the public?

Musical Instruments is one of the longest established collections at the Met and art relating to music can be found within all seventeen departments of the Museum. Should the modus operandi of the instrument collection at the Met differ from that of a stand-alone musical instrument museum? How would this impact upon Brown's formative work and the perception of this historic collection? These questions are at the heart of the concept and design of Fanfare, an installation of brass instruments from around the world planned for one of the Met's four musical instruments galleries.

Fanfare aims to achieve the dual status of art installation and instrument display. In departing from a traditional organological narrative and exploring the broader intersections between instruments, music, art, science and creativity, the display strives to create a dialogue around themes central to the artistic present. This talk will present the design and interpretative concepts behind the Fanfare display and will offer a snapshot of work in progress.

HEIKE FRICKE

Heike Fricke was born in Aachen, Germany, studied musicology, journalism and dramatics at the Freie Universität in Berlin and holds a Ph.d. in musicology. As a curator she prepared several exhibitions including «Faszination Klavier»; «Mozart auf der Suche nach dem neuen Klang»; «Czerny – Pianist, Komponist, Pädagoge»; and «Faszination Klarinette» for the Museum for Musical Instruments in Berlin. Recently she catalogued the war losses of the Berlin musical instruments museum. She also worked with the Edinburgh University Collection of Musical Instruments. Heike has been awarded by the New York Metropolitan Museum of Art with an Andrew W. Mellon Fellowship in art history in 2014. She published the books «Faszination Klarinette», the «Catalogue of the Sir Nicholas Shackleton Collection», and «Die Klarinette im 18. Jahrhundert».

History of the Musikinstrumenten-Museum Berlin between 1933 and 1945

Only in retrospect, one can understand the present form of the collection in the Museum of Musical Instruments in Berlin. Three-quarters of the collection's objects had been lost during the Second World War, the collection is only now – seventy years after the war – again quantitatively about the same level as before the war.

This paper will draw its attention to the objects that had been acquired after 1933 and the circumstances of their acquisition. Which objects had been acquired? Who were the previous owners? What were the collecting criteria and aesthetics? Who were the collection managers after Curt Sachs? What happened to these instruments and objects?

This talk offers a lot of new findings, because for the first time archival materials were evaluated, which previously were located in Russia. A reflection on the political misuse of culture in recent history is now indispensable.

THOMAS LERCH
HENRIK VON COLER
GABRIEL TREINDL

Tom Lerch, born 1958, studied musical education and crafts at the University Gesamthochschule Kassel between 1980 and 1983. Afterwards he made an apprenticeship as woodwind instrument maker. Having acquired experience volunteering at several European museums and brass- and woodwind making workshops in the following years, he obtained a DAAD research fellowship for studies in London, Oxford and Brighton. 1988 he started working as conservator at the Musikinstrumenten-Museum Berlin where he now is head of conservation. In 1995 he received a PhD for his research in historic recorder bores.

The Development of a New Kind of Audio Controller. Linking Historic Musical Instrument Technologies with Up-to-date Sound Generation and Control

The *Staatliches Institut für Musikforschung* (state institute for music research) belonging to the Stiftung Preußischer Kulturbesitz consists of three departments: 1. the Museum of Musical Instruments, 2. the Department of Music Theory and Music History and 3. the Department of Acoustics and Music Technology. These departments provide many opportunities of collaboration and synergy.

The advantage of digital musical instruments is that the gestural controller can be separated from the sound synthesis. This enables instrument designers to follow new approaches to the features of musical instruments.

In spring 2014 Henrik von Coler, member of the Department of Acoustics, started experimenting with a new kind of pressure sensitive sensors. Inspired by our brass wind exhibition ‘Valve. Brass. Music’ he soon realised the possibilities of the keywork of wind instruments to get an effective and ergonomic way to handle these sensors as a new kind of musical instruments.

As specialised in electronics he asked Tom Lerch to assist with his skills as a wind instrument maker and conservator.

Together with Gabriel Treindl, working on his master’s degree at the Berlin Technical University, they developed a new kind of controller, which is sought for monophonic melody instruments with discrete frequency selection and can be handled in a hitherto unknown intuitive but easy applicable way.

GUIDO RASCHIERI

Guido Raschieri studied and collaborated with Febo Guizzi. Under his tutelage he received his PhD in Ethnomusicology at the University of Turin, with a dissertation about the revival of traditional music in Piedmont. In the same period he curated the displays at the Museo del Paesaggio Sonoro of Riva presso Chie-

ri. More recently he has pursued his research activities among some communities of refugees and minorities in the former Yugoslavia. He cooperates with Italian and foreign research centers and teaches Ethnomusicology at the University of Basilicata.

The Museo del Paesaggio Sonoro at the Crossway Between Past and Present

In the occasion of the 2009 CIMCIM annual meeting in Florence, we presented the collections of the Museo del Paesaggio Sonoro, located in Riva presso Chieri, a small rural village not far from Turin. At that time, we referred to a provisional and partially homemade set-up. We displayed anyway our conviction that the project should have proceeded, in a close collaboration with the University of Turin, which I and my colleagues represented in that place. A collective effort led in 2011 to the constitution of

a permanent museum centre, and its inauguration in occasion of the celebration of 150^o Anniversary of Italian Unity.

The collections can enjoy today a modern and multimedia exhibition space, studied for the material safeguard of the instruments and for the multilayer display of their deep cultural meaning. The Museum, erected on the memory of the past, has been created and works now as a space of reflection on the Soundscape in a contemporary perspective.

A specific attention is paid to the identification of the human foundation and of the permanent instinct of sound production. The original value and density of this cultural heritage have found important connection ways with the actual reality and also the means for a real bringing up to date. Thanks to the intense cooperation with the school basin, the young generations have been stimulated to the innovative reading and learning of construction and interpretation practices. The musical group I Muscanti di Riva presso Chieri have continued in the new situation an attentive work of show transfer of the executive competences which the Museum documents and recounts. In a more recent and ambitious project, the same group converses in a musical performance with the Orchestra of the Teatro Regio of Turin. The Museum, absolutely unique in the national panorama, and its character of continuous workshop are opening new ways in the interpretation of traditional repertoires and in the contemporary practice of folk musical instruments.

LEILA MAKARIUS
JORGE COMETTI

Leila Makarius, Musicologist and photographer. She worked as researcher in musicology as well as a music teacher for children. Since 1996 she organizes the concert season at the Museo de Arte Hispanoamericano I.F. Blanco, so far more than thousand concerts. Together with Jorge Cometti she is working in the recuperation of the instrument collection of the museum. As curator, she organised the photo exhibitions of most important

Latin-American photographers, as well as Robert Frank and Josef Sudek. Furthermore, Leila is the co creator of Capilla del Sol, a baroque music ensemble. Besides, she supports young musicians by organizing master classes.

Jorge Luis Cometti, Psychologist. Studied at National University Buenos Aires and specialized in education and institutional fields. For more than 25 years, he works in cultural management in Buenos Aires; principally in museum activities and musical production within Argentina and abroad. He participated in the organization of around 80 fairs and was co curator in many photography exhibitions, such as the display of Robert Frank, Josef Sudek. Furthermore he edited books and catalogues. Within the music field he organized more than thousand concerts and is co creator Capilla del Sol. Since 2000, he is the director of the Museo de Arte Hispanoamericano I F Blanco.

Museo Fernandez Blanco Art Museum: Interpreting the Present

The Museum for Spanish American Art 'Isaac Fernandez Blanco' in Buenos Aires is one of the most prestigious institutions in America. Its artistic heritage is conformed of exquisite collections of silver crafts, furniture, paintings and other diverse objects of viceregal and republican objects, which allow to account and represent, through diverse curatorial scripts, a wide period of American history, of its syncretic features, of its society and its aesthetic tastes. Diverse temporary exhibitions about this subjects, which reach expressions of contemporary art and especially the diffusion of the wide visual patrimony of the XIX and XX century share the museum's permanent exhibitions. The photography exhibitions, for example, try to approach the art of great masters of American photography to the public, (unitig the representation of deep rooted traditions of this continent to contemporary art).

Nevertheless, the recent recovery and enhancement of its the primeval institutional collection, an interesting collection of violines and violas done by the master hands of the most important italian luthiers from XVII/XVIII/XIX century, collection which was lovely formed since 1890 by Isaac Fernandez Blanco creator and mentor of the Museum, has allowed our institution to expand and spread the museological experience in this new action field, as well as adding and transferring to the musical instrument collection's management all the potential of the community insertion of an art museum.

The MIFB imposes this management an emphatic dynamism: it has opened new patrimony exhibition rooms for the collection of musical instruments, (which also include other instruments apart from violins and violas) it organizes concert series in which the notable instruments come back to their sound life, it promotes conservation and restoration work which is at the same time a privileged opportunity for the training

of young luthiers from our country, it diffuses the technical features of the instruments promoting the interest of instrument makers and artists for making and playing actual copies of this historic instruments, it promotes new donations of musical instruments, it publishes books and cds, it organizes competitions to promote young argentine string quartets, motivating also the new compositions for string quartets. The museum works as “museum-school” program, for kidds and professionals, masterclasses for young musicians, as well as, conferences , book and cd presentations. Finally, off topic of the instrument collection but related to the task of diffusing the viceregal cultural expressions, we created a Baroque music ensamble, specialized in American Baroque music, this ensamble has participated in over 30 festivals in America and Europe, being a kind of ambassador of the museum.

In a museum the objects are given a voice, they are introduced into a narrative program, the objects are questioned, analysed, studied, understood and construed. There is no claim to find a unique truth in this process, but barely to tell a history. In the case of the musical instrument collection of the MIFB, this histories complement themselves with the own voices of this magnificent instruments.

The possibility to share the CIMCIM meeting 2016 will put into context the museum’s program with other international experiences and will permit to rethink and resignify its importance, interest and range.

ERIC DE VISSCHER

After studying philosophy, linguistics and music, Eric de Visscher has been artistic director of the Ars Musica Festival in Brussels. In 1997, he joined the Institute for Research and Coordination Acoustic / Music (IRCAM), attached to the Centre Pompidou in Paris, where he served as artistic director. He contributed to several exhibitions at the Centre Pompidou. In 2005, he joined the Cité de la musique in Paris, where he was appointed in 2006 director of the Musée de la musique. He has published in various magazines and exhibition catalogues, notably on the relations between visual arts and music. He’s a member of the CIMCIM board and secretary general of ICOM France.

A New Exhibition Model for Museum Collections: the TIDE Project

Supported by the Creative Europe program of the European Union, TIDE – for *Template for Travelling Interactive and Digital Exhibitions* – aims to incorporate new technologies in a prototype for successful future intermediate-scale travelling exhibitions. Because music exhibitions in particular are increasingly popular but are not yet widely offered, and because instruments provide sound and 3D presentation material in addition to a wealth of imagery, TIDE’s prototype exhibition will address a subject of widespread interest to the international public: the guitar.

This first exhibition, entitled *Guitar on/off*, will draw from the complementary collections of its co-producers: Musée de la musique in Paris (France), Museu de la Música in Barcelona (Spain) and Danmarks Rockmuseum in Roskilde (Denmark). Visitors will be invited to wander freely through a spectacular set design presenting immersive, narrative and experimental interactive modules. *Guitar on/off* will first be tested on the three museums' audiences: from June 18th to August 21st 2016 in Paris; from September 20th to November 27th 2016 in Barcelona; and from December 16th 2016 to February 26th 2017 in Roskilde.

The TIDE project will achieve the following objectives: addressing museum content to a wider public, not only in museums but also in venues such as train stations, malls, media libraries; conceiving a model that can be adapted to other types of instruments; exploring the financial and organisational issues related to such exhibitions.

While the project is still going on, first conclusions will be presented, as well as a short summary of the content, technological tools and work methods being used.

CLEVELAND JOHNSON

Cleveland Johnson is Director of the National Music Museum. He is Professor Emeritus of Music and past Dean of the School of Music (DePauw University) and is the immediate past Executive Director of the Thomas J. Watson Foundation in New York City. Dr. Johnson holds a doctorate from Oxford University. He is both a scholar and a performer of historic pipe organs, having spent many years in northern Europe. South Indian music is also an area of his expertise. At the National Music Museum, he is building the high-functioning institution needed to support one of the world's great musical-instrument collections.

The Soldier's Musical Arsenal

When, and under what circumstances in modern society today, do human beings still reach for a musical instrument for expression, communication, or entertainment? With the increasing sophistication of playback technology during the past 100 years, has the role of musical instruments changed significantly?

The National Music Museum explored such questions – through the unique lens of music-making across the history of the U.S. military – in its 2015 summer exhibit, “Banding Together: The American Soldier's Musical Arsenal”. In it, we examined how the arsenal of war is more than weapons. It is all the objects that accompany the soldier through the experience – whatever ‘defends’ the human, the self.

Unsurprisingly, musical instruments were discovered to play a significant, if underappreciated, role. Indeed, music and musical instruments have been used for centuries to rally individuals to enlist, to garner local support for the war effort, to convey orders on the battlefield and organize troops, to inspire, to

boost morale and bonding, to comfort, and to provide a means of human expression in arenas of hardship or celebration.

This paper examines the instruments – and their stories – as presented in “Banding Together”. Although the instruments change – as do the geographical and political battlefields – the relevance of instruments in military settings remains vital. Whether through an individual soldier’s own initiative, or through official military channels, music and musical instruments have continued to find their way into conflict zones and, increasingly, into related rehabilitative settings. Even (and, perhaps, especially) under the most challenging circumstances, music continues to nourish the human soul.

THIERRY MANIGUET

After studying sciences, musicology and musical acoustics at the Paris universities of Pierre-et-Marie-Curie and Sorbonne and at the Conservatoire National Supérieur de Musique de Paris, Thierry Maniguet teaches piano and theory in academy during ten years. Specialised in organology, he is, during eight years, a representative for the musical instrumental heritage. Curator at the Musée de la musique since 2000, he conceived the new exhibition of the rooms devoted to 19th and 20th centuries. He teaches at the Conservatoire National de Musique de Paris and is a lecturer in several French academic institutions.

The Preservation of Electronic Musical Instruments, a Challenge in the Face of Technological Obsolescences

As for art music and popular repertoires, electronic musical instruments have been of dramatic importance in recent past. However – and in spite of their modernity – conserving, restoring or keeping in playable condition these items in a museum context turn out far more complicated than for traditional instruments. Indeed, pioneer electronic devices were often made with modern materials: new metal alloys, plastic, Bakelite, cellulose nitrate... all these components that, especially when in contact with wood tannins, prove highly chemically unstable. Furthermore, electronic parts evolve badly in time and when the instruments rely on computers, the constant evolution of operating systems renders these devices frequently unusable. In addition, the persons who built these instruments – very often prototypes – have retired, or have passed away, and finding documentation becomes extremely difficult.

In front of this major problem, and along a specific policy of purchasing these items, the Musée de la musique has started a program that combines collecting of sources, specific conservation protocols, developing of virtual tools... in order to keep, as much as possible, these items in operation. This presentation aims to be an opportunity to share experiences with other museums and, possibly, set up a working group on these topics.

SEBASTIAN KIRSCH 2004-2009: *Magister Artium (M.A.) at Ludwigs-Maximilians-University, Munich. Subjects: German literature, Art history, Theatre sciences.* 2009-2014: *Diploma in Conservation-Restoration at Academy of Fine Arts, Vienna. Subjects: Wooden objects, specialization on musical instruments.* Since 2014: *Scientific assistant at Germanisches Nationalmuseum, Nuremberg. Project manager of DFG-funded MUSICES project, which develops a standard for 3D-computed tomography of musical instruments.* Since 2015: *PhD thesis in Musicology at Ludwigs-Maximilians-University, Munich.*

The MUSICES-Project: Making 3D-CT Imaging more Accessible to a Wide Range of Stakeholders

The conservation workshop of the Germanisches Nationalmuseum in Nuremberg was among the pioneers in the radiography of historical musical instruments in the 1970s and among the first users of three-dimensional computed tomography (3D-CT) in the same field in 1988. Until 2017, with funding by Deutsche Forschungsgemeinschaft, the museum and the Fraunhofer Gesellschaft, Development Center for X-ray Technology (EZRT) aim to create an examination standard for the 3D-CT of musical instruments in close collaboration with international partners.

The main targets are to define and to describe technical parameters for imaging of objects containing combined materials of highly differing densities, different object sizes, the definition of a minimum image quality for different scientific problems and providing free accessibility and long term archiving of the primary and meta data.

While scanning 105 instruments in a three years' project period, the limitation and the huge potential of this modern technique of high resolution industrial 3D-CT is evaluated. A digital model can be used as supplement to the original historical object and can answer different kinds of questions. The digital representative it is easily available and comparable. For organological research it is simple to detect typical construction features, do morphological analysis or take measurements at otherwise inaccessible locations, which can also be used by instrument makers. Discovering hidden damages can be an invaluable support to prevent further deterioration. 3D-data can be used for generating technical drawings; 3D-prints can be used as exact replica or to substitute missing parts.

This modern technique of investigation provides a unique insight in historical museum objects to scientists, musicians and instrument makers and is a powerful tool for further applications.

Sebastian Kirsch (1), Frank P. Bär (1), Theobald Fuchs (2), Christian Kretzer (2), Markus Raquet (1), Gabriele Scholz (2), Rebecca Wagner (2), Meike Wolters-Rosbach (1)

1. Germanisches Nationalmuseum, Nürnberg

2. Fraunhofer Gesellschaft, Entwicklungszentrum Röntgentechnologie, Fürth

MARTIN KIRNBAUER

Martin Kirnbauer (born 1963 in Cologne) was trained as a musical instrument maker and worked as a conservator for historical musical instruments at the Germanisches Nationalmuseum in Nuremberg. After studying musicology at the universities in Erlangen and Basel, he obtained his Ph.D. with a work on a late-medieval songbook in 1998 (Hartmann Schedel und sein "Liedererbuch". Studien zu einer spätmittelalterlichen Musikhandschrift (Bayerische Staatsbibliothek München, Cgm 810) und ihrem Kontext; Berne 2001), followed by a second thesis ('Habilitation') in 2007 (Viertönige Musik – Spielarten chromatischer und enharmonischer Musik in Rom in der ersten Hälfte des 17. Jahrhunderts; Basel 2013). Since 2004 director of the Musicmuseum of the Historical Museum Basel and curator of its collection of musical instruments, as well as lecturer ('Privatdozent') for musicology at the University of Basel. Numerous publications concerning Early Music, performance practice, organology and musical iconography.

Old Violin versus Old Violin

A few years ago in Switzerland a rustic violin was found during the restoration of a centuries-old farmhouse, stored there in an inserted floor. Examination using computer tomography showed that the instrument was not built in the modern way by glueing several parts (as ribs, back and top plates etc.) together, but by carving the back plate and ribs out of a single piece of wood. However, at the same time the violin shows in its outline and design several aspects of a 'modern' violin. This raises questions concerning not only about its dating and provenance, but also about our modern concepts of the history of the violin and its construction. It may look like a sacrilege to present an 'archaic' violin in the center of Italian violin making, but it seems the perfect place to discuss aspects of historiography and the value of musical instruments.

RUDOLF HOPFNER

Rudolf Hopfner was born in Neunkirchen, Lower Austria and received his first violin lessons at the age of seven. From 1972 to 1977 he completed several different courses of study at the Hochschule für Musik und darstellende Kunst in Vienna and later studied musicology and history at the University of Vienna (Dr. phil. degree in 1989). In the same year he was appointed director of the Department of Music Education at the Joseph Matthias Hauer Conservatory in Wiener Neustadt. In 1992 he became curator of the Collection of Historic Musical Instruments at the Kunsthistorisches Museum and has been director of the collection since 2000. Dr. Hopfner has taught at the University of Vienna, lectured on various topics related to organology, organized exhibitions (including one on the luthier Jacob Stainer at Ambras Castle in 2003), edited violin music, and authored numerous specialist essays, dictionary articles and books.

Inside a Stradivari. New Insights by Means of High Resolution Computed Tomography

Over the last years the examination and documentation of historic musical instruments by means of computed tomography has become more and more important. Micro CTscanning technique, with a resolution up to ten times higher than medical CT scanners, opens new doors for the study of the structure, the interior construction, of alterations and sometimes of the history of musical instruments.

The Collection of Historic Musical Instruments in Vienna has started a research project which aims at the documentation of violins by Antonio Stradivari and is funded by the Austrian National Bank. The starting point are high resolution CT scans, provided by the co-operation partner of the project, the Department of Anthropology at the University of Vienna. The lecture will give insight into the basics of high resolution CT scanning technique and the capabilities of different visualization methods. CT-data offer the possibility of taking measurements in places inaccessible by any other means of examination and it can be put to use for the mapping of plate thicknesses or the arching height.

It is a fair assumption that high resolution computed tomography, a non-invasive means of examination, which exposes the instruments to no mechanical or climatic stress, will become an increasingly important tool for the examination of historic musical instruments.

FABIO ANTONACCI
FRANCESCO SETRAGNO
MASSIMILIANO ZANONI
ANTONIO CANCLINI
AUGUSTO SARTI

Fabio Antonacci was born in Bari (Italy) in 1979. He received Laurea degree in 2004 in Telecommunication Engineering and Ph.D. in Information Engineering in 2008, both at Politecnico di Milano, Italy. He is currently assistant professor at Politecnico di Milano. His research focuses on space-time processing of audio and musical signals, for both speaker and microphone arrays (source localization, acoustic scene analysis, rendering of spatial sound), and on information retrieval for musical acoustics and on modeling of acoustic propagation. He is author of more than 65 articles in proceedings of international conferences and on peer-reviewed journals.

A Study on the Timbral Quality of Violins based on Descriptors extracted from the Sound

The classification of the tonal quality of an instrument is particularly interesting if it has as protagonist a fascinating and old instrument such as the violin. It has been told that the celebrated sound produced by the violins is also determined by the recipe of their varnishes. Nowadays, the impact of the varnish on both the timbre quality and the acoustics of the violin remains almost unknown.

In order to shed light on this issue, we analyzed a brand new violin during the different steps of its finishing process: before

the application of ground coat and varnish; after the application of the ground coat; and when the varnish is completely dry. The methodology is based on a joint analysis of the characteristics of the materials involved for this process and audio features extracted from the sound produced by the violin.

This analysis revealed that the finishing process has a significant impact on the violin sound, and the roles played by the ground coat and the varnish are different. The untreated violin exhibits a very loud sound, because the body is left completely free to vibrate, but the tone is quite rough and not so harmonic. The ground coat reduces the radiated energy, despite the limited thickness of the corresponding 'shell'. The varnish, on the other hand, enhances the partials in harmonic position by dampening those that are displaced with respect to them, thus reducing the inharmonicity.

MARCO MALAGODI (1, 3)
PIERCARLO DONDI (1, 2)
LUCA LOMBARDI (2)
MAURIZIO LICCHELLI (1, 4)
TOMMASO ROVETTA (1)
CLAUDIA INVERNIZZI (1)
FAUSTO CACCIATORI (5)

Graduated in Chemistry, is currently researcher of University of Pavia and the Scientific Head of the Arvedi Laboratory of the Museo del Violino in Cremona. The principal researches are focused on the characterization of wood artworks and ancient musical instruments, performing the main micro-invasive and non-invasive diagnostic techniques for the material characterization. The main research activities are related to the chemical area and concern the study of natural and synthetic products, normally used during restoration of Cultural Heritage. He has carried out different campaigns of microclimatic conditions for the proper conservation of works of art, such as wood, cloth and stone.

A Computer Aided Approach for the Analysis of UV-Induced Fluorescence Images of Historical Violins

UV-induced fluorescence (UVIFL) photography is widely used in the study of artworks, in particular for the analysis of historical musical instruments (e.g. violins). This imaging technique allows recognizing and qualitatively defining the spatial distribution of the substances constituting the superficial layers of artifacts surface. It highlights important details which cannot be observed with visible light, such as retouching, different paints coats or worn areas. However, the interpretation of UVIFL images may be very complex; the surface of an historical violin is very heterogeneous and stratified, because it has undergone several alteration and restorations during the centuries, and also presents mechanical wear due to continuous playing. For these reasons we created a new interactive tool to help scientists in the interpretation of UVIFL photos. It implements a set of image processing algorithms in order to identify similar colors (a clue of similar materials/substances) on the surface, to search for recurrent colors among different violins, to analyze the overall distribution of colors on the entire instrument, to detect and classify the wear. This tool could be helpful both for research (e.g. to quickly identify regions of interest for further analysis) and

from preservation (it can identify areas where a restoration is more needed, or it can memorize in a compact way the actual state of an instrument in order to evaluate how it evolves in time). The study was performed and tested on UVIFL imagery of the historical violins collection held in the Museo del Violino (Cremona, Italy).

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DAVIS MANNES
EBERHARD LEHMANN
ADRIAN V. STEIGER

Neutron Imaging. An Alternative Perspective Into Musical Instruments

Modern non-invasive evaluation methods such as X-ray imaging (radiography and computed tomography) are about to become standard methods for the examination and documentation of historic musical instruments. Neutron imaging (NI) is a method working along similar principles as X-ray imaging but providing a different contrast for materials. X-rays show a strong correlation of the attenuation with atomic number, i.e. the higher the atomic number (or the heavier an element) the more it will attenuate X-rays. Neutrons on the other hand show almost complementary attenuation behaviour. While some light elements such as hydrogen (H) attenuate neutrons to a high extent, some heavy elements such as lead (Pb) are practically transparent.

Due to this complementarity NI provides an alternative perspective for the investigation of historic musical instruments. As metals are in general more transparent for neutrons than for X-rays it proved to be a good alternative in the documentation of brass wind instruments. A further big advantage is the simultaneous high sensitivity for hydrogen. This allows beside the simple documentation of the instrument's shape to investigate small amounts of hydrogen-containing materials (e.g. corroded areas on the inside of the instruments, wax, laquer, moisture, ...). Furthermore, NI also allows investigating the condensation of water inside an instrument (brass and wood wind) while it is played as well as the subsequent dryingoff.

The method and its possibilities and limitations will be presented in this work on some case studies.

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Adriana Rizzo is Associate Research Scientist in the Department of Scientific Research at the Metropolitan Museum of Art. She graduated in Industrial Chemistry from the University of Venice, Italy, and received a Postgraduate Diploma in the Conservation of Easel Paintings from the Courtauld Institute of Art in London. She has worked at the Met since 2004 conducting analysis of materials from artwork of different periods and cultures, to

inform on their technique of manufacture, as well as their conservation. She is interested in the study of organic materials and their degradation, and conservation-related issues.

Understanding Futuristic Materials of the Past. A Technical Study of Ebonite and Vulcanite in the Collection of Musical Instruments of the Metropolitan Museum of Art

Ebonite and vulcanite have often been used as synonyms to indicate a product obtained from mixing natural rubber and sulfur at a given temperature, to obtain a polymer of chemical, thermal and physical resistance superior to that of natural rubber. The vulcanization process, invented by Charles Goodyear in 1838/39 in the United States and Thomas Hancock in the United Kingdom around 1843, had a revolutionary impact in the industrial field and also in the context of the performing and decorative arts. The versatility of ebonite as a wood substitute for musical instruments was illustrated with examples at the Great Exhibition in 1851 in London. One of the major advantages of ebonite was its dimensional and chemical stability, which made it ideal for the production of wind instruments and their parts, such as flutes, clarinets and mouthpieces. One of the drawbacks of ebonite/ vulcanite is its sensitivity to light, which can manifest itself with color change and increased acidity at the surface, sometimes with deleterious consequences for the objects and their surroundings.

While it is possible to ascribe an approximate date to wooden flutes and clarinets based on design and wood type, ebonite can be chronologically linked to a certain patented formulation through scientific analysis that also enables its condition to be assessed.

With this aim, a dozen ebonite/ vulcanite objects within the collection of Musical Instruments at the Met have been analyzed with a non-invasive approach using X-ray fluorescence spectroscopy and Fourier-transform infrared spectroscopy (FTIR), and occasionally invasively through micro-samples at the scanning electron microscope by energy dispersive X-ray spectroscopy (SEM-EDS). Infrared analysis indicated different degree of oxidation at the surface, as well as highlighted variability in the formulation, which was confirmed by different distributions of the chemical elements. The results of this study help us to understand how ebonite instruments can best be displayed and conserved so that this futuristic material of the past can serve as a springboard for instrument makers and artists of the present.

ADRIAN V. STEIGER

Adrian v. Steiger is a Swiss musicologist. He has completed his Ph.D. in 2013 on the large wind instrument collection of Karl Burri in Bern. His research includes organology, repertoire, conservation and materiality of historic brass instruments as well as facsimile editions, e.g. J.N. Hummel's Trumpet Concerto. He has

published essays in the *Grove Dictionary of Musical Instruments*, the *Galpin Society Journal*, the *Journal of the Historic Brass Society* and elsewhere.

Brass Sheets for the Manufacture of Replica

Museums today provide their musical instruments not only for metrical measuring and imaging of all kinds, but also for non-invasive analyses of materiality aspects. For the production of replica of brass instruments, the chemical composition of the brass as well as the wall thickness are of interest.

Interdisciplinary research has been performed on those two aspects in order to provide makers of replica with appropriate brass sheets (www.hkb-interpretation.ch). Most measured historic instruments come from French and German makers of the 19th and early 20th centuries.

Firstly, X-ray fluorescence measurements have been taken on 90 instruments for characterizing the chemical composition. This technique became state of the art in recent times. Currently, aspects of their comparability are under discussion.

Secondly, wall thickness measurements on 70 instruments of all types of lip-reed instruments have been taken by the author with the help of an ultrasound detector. With these data, we can better understand the manufacturing techniques of their makers. Furthermore, these measurements, combined with knowledge about thickness reduction during the manufacturing process, lead to an estimation of the original brass sheet's thickness. This paper concentrates on these aspects, using recent measurements and discusses their insights for replica production. (Former measurements are published in *Can We Look over the Shoulders of Historical Brasswind Instrument Makers? Aspects of the Materiality of Nineteenth-century Brass Instruments in France*, «Historic Brass Society Journal», 25 (2013), pp.21-38: 26-28.)

SOCIAL EVENTS

ICOM 2016 | Musical Instrument Museums: Interpreting the Present

ORGANIZED BY ICOM

04 JULY

19.30-24.00

CASTELLO SFORZESCO



OPENING PARTY

The Opening Party will be held on Monday 4 July at Castello Sforzesco, the famous 15th century castle in Milan's centre. On that occasion, participants will have the opportunity to visit the new display of Michelangelo's Pietà Rondanini and Leonardo's newly restored frescos in the "Sala delle Asse".

05 JULY

18.30-24.00

NATIONAL MUSEUM OF
SCIENCE AND TECHNOLOGY
LEONARDO DA VINCI



Cult Night – Special Open Night for ICOM Milano 2016

Special opening for the general public and ICOM Milano 2016 participants. The National Museum of Science and Technology Leonardo da Vinci, the largest technical and scientific museum in Italy, opens its doors to the entire city during the 24th ICOM General Conference in Milan. A special Open Night to discover the Museum's collections, experiments and interactive workshops and enjoy the evening in the 16th century monastery cloisters. Dive into the world of the Enrico Toti submarine and experience the life of sailors on-board. Discover Leonardo's artistic techniques and venture between new diets, DNA and the major ingredients of our food. Relax with live classical, jazz and rock and roll music. The Railway Pavilion comes alive with contemporary dance and live music performances.

DETAILS

- access is free of charge
- no identification is required, but ICOM Milano 2016 badge entitle participants to skip the line
- no booking is required
- no maximum number of participants

06 JULY
20.00-21.00

DUOMO
MILAN CATHEDRAL



Greta Concert in Duomo – The Veneranda Fabbrica del Duomo
The Duomo will host a special and dedicated concert for ICOM Milano 2016 participant.

Atmospheres of a cathedral – “The great Duomo pipe organ and the majesty of the brass instruments”. A dialogue in music

Nikolaj Rimskij-Korsakov (1844-1908)

Procession of Nobles

pipe organ and brass instruments

Georg Friedrich Haendel (1685-1759)

And the Glory of the Lord

brass instruments

Giovanni Gabrieli (1557-1612)

Canzon Undicesimi Toni

pipe organ and brass instruments

Edward Elgar (1857-1934)

Military March n.1

pipe organ and brass instruments

Gabriel Fauré (1845-1924)

Pavane

brass instruments

Marcel Dupré (1886-1971)

Poème Héroïque

pipe organ and brass instruments

Eugène Gigout (1844-1925)

Grand Choeur Dialogué

pipe organ and brass instruments

DETAILS

- access is free of charge
- identification through ICOM Milano 2016 badge is mandatory
- no booking is required
- dress code: women should have arms covered to elbow and legs covered to knee. Men should wear long trousers.
- a maximum number of 1500 participants will be admitted

07 JULY
18.30-22.15
PALAZZO BRERA



An evening in the Brera Palace

The 16th century Palace of Art and Science opens its doors with a public event dedicated to ICOM Milan 2016. After the institutional speech of the Directors, the Pinacoteca, the Academy of Fine Arts, the Braidense National Library, the Istituto Lombardo - Academy of Science and Letters, the Botanic Garden, the Astronomical Museum and Observatory will exceptionally stay open until 22:15 with events, exhibitions, installations and specific guided tours. During the evening a light dinner reserved to ICOM Milano 2016 guests will be offered. All the cultural institutes of the Brera Palace will be open to the public, whereas the participation at the events is exclusively reserved to ICOM Milano 2016 attendees and solely by reservation, while seats last.

08 JULY
09.00-20.00
EXCURSION DAY



Excursion Day

In order to book an Excursion proposal, you have to be registered to the Conference and have made the payment of the registration fee. All registered people have received the link to access the Participant Platform, through which it is possible to book an excursion. Check out all the proposals and discover all the wonderful opportunities.

09 JULY
19.30-23.30
TRIENNALE
PALAZZO DELL'ARTE



Closing Party

The Closing Party will be held on Saturday 9 July at Triennale's Palazzo dell'Arte. Participants will visit Triennale's Museum of Design, its park and the 21st International Triennial Exhibitions for architecture, visual and decorative arts, design, fashion and audio/video production.

