

SAISON 2019-2020
INTERNATIONAL CONFERENCE
COLLOQUE INTERNATIONAL

4, 5 & 6 February 2020 – 09h30 - 18h

Playing and operating: Functionality in museum objects and instruments

Jouer et actionner les instruments des collections patrimoniales

AMPHITHÉÂTRE – CITÉ DE LA MUSIQUE



CITÉ DE LA MUSIQUE
PHILHARMONIE DE PARIS

The value of objects and instruments resides as much in their physical supports, that must be preserved, as in the representation of the cultural networks of meanings and interactions of which they were part. For some types of objects, this includes a particularly strong 'performative' element, where the object is a tool to accomplish an action. Musical instruments, vehicles, clocks and watches, machinery and objects of science and technology are few of the most obvious examples of this type of functional objects that are fully understood when they are played or operated. For decades, museum approaches have been divided between preserving the capability of the object to operate and emphasizing the preservation of its material support. This conference aims at offering a platform to discuss and compare current approaches regarding the preservation and interpretation of functional objects, comparing practices across collections, institutions and countries. It is hoped that, by highlighting overlaps and differences, it will be possible to develop a greater understanding of the practical and ethical reasons that inform different policies.

La valeur patrimoniale des instruments de musique et des objets des musées réside autant dans leur matérialité, qu'il faut préserver, que dans les interactions et les pratiques culturelles dans lesquelles ils sont ancrés. Pour certains, une dimension « performative » particulièrement forte peut exister, puisque l'objet est l'outil qui permet d'accomplir une action. Les instruments de musique, les véhicules, les horloges, les machines et les instruments scientifiques sont des exemples de ce type d'objets dont on ne comprend pleinement la fonction que lorsqu'ils sont joués ou actionnés. Depuis des décennies, les politiques de conservation des musées tiennent compte de la nécessité de mettre en mouvement ces objets et du risque que cela peut représenter pour leur conservation. La mise en avant des différences et des points de rencontre qui existent entre les pratiques de plusieurs collections, musées et pays permettra de mieux comprendre les enjeux éthiques et techniques qui sont à l'origine de ces politiques.

Language/Langue : English (simultaneous translation) - anglais (traduction simultanée)

The conference is jointly organized by the Cité de la musique – Philharmonie de Paris, International Committee for Museums and Collections of Musical Instruments and Music (ICOM-CIMCIM) and the International Committee for Museums of Science and Technology (ICOM-CIMUSET). It is supported by the International Council of Museums ICOM (<http://icom.museum>) and ICOM France.

The International Council of Museums is an international organisation of museums and museums professionals which is committed to the research, conservation, continuation and communication to society of the world's natural and cultural heritage, present and future, tangible and intangible.

Colloque organisé conjointement par la Cité de la musique – Philharmonie de Paris, le Comité international pour les musées et collections d'instruments et de musique (ICOM-CIMCIM) et l'International Committee for Museums of Science and Technology (ICOM-CIMUSET). Avec le soutien de l'International Council of Museums ICOM (<http://icom.museum>) et d'ICOM France.

L'International Council of Museums est une organisation internationale composée de musées et de professionnels des musées, engagée pour la recherche, la conservation, la préservation et la transmission du patrimoine naturel et culturel dans le monde, présent et futur, matériel et immatériel.



Programme

TUESDAY 4 FEBRUARY 2020
MARDI 4 FÉVRIER 2020 – 9H30-18H

9h30 – GREETINGS/ACCUEIL

9h50 – Frank P. Bär (Germanisches Nationalmuseum, Nuremberg): Introduction to the research project “Preserving Functionality” and to the conference.

10h10-11h15 – Interpretation of Functional Objects/Interprétation des objets fonctionnels (1)

Session chair: **Eric de Visscher**

10h15 – Ekaterina Grechikhina (Russian National Museum of Music, Moscow) “Collection of Mechanical Musical Instruments of the Russian National Museum of Music. Practical Usage”

10h35 – Hannah Grantham (Smithsonian Institution, National Museum of African American History & Culture, Washington D.C.) “Revisiting Narratives: Demonstrating Black Music’s Power at the National Museum of African American History & Culture”

10h55 – Discussion

Morning break/Pause

11h40-13h15 – Interpretation of Functional Objects/Interprétation des objets fonctionnels (2)

Session chair: **Frank P. Bär**

11h45 – Jean-Philippe Échard (ECR, Musée de la Musique, Cité de la musique-Philharmonie de Paris) “Musical performances on historical violins, and audience expectations

12h05 – Geerten Verberkmoes (University Ghent & School of Arts, Ghent) “Instrument replication – just making copies... or more?”

12h25 – Ech-Cherki Dahmali (Morocco Telecom Museum, Rabat) “Challenge of working old telephone switchboard system in Morocco Telecom Museum”

12h35 – Lingman Li (Chinese Museum Association, Music Museum of Xinghai Conservatory)

"Interpretation of Rehabilitation Instruments – Taking Chinese Music Museums as an Example"

12h45 – Discussion

Lunch Break/Pause déjeuner

14h50-16h40 – Interpretation of Functional Objects/Interprétation des objets fonctionnels (3)

Session chair: **Ech-Cherki Dahmali**

14h55 – KEYNOTE: Masahiko Kako (Toyota Commemorative Museum of Industry and Technology, Nagoya) "Pursuing for Keeping Exhibits in Functional Condition"

15h25 – Laura Haendel (Deutsches Panzermuseum Munster) "Operating and Playing with Killing Machines – Practices in the German Tank Museum"

15h45 – Marco Fioravanti (DAGRI - University of Florence) "Wood ageing and its implication on playing of wooden musical instruments"

16h05 – Giovanni Cella (National Museum of Science and Technology Leonardo da Vinci, Milan) "Shooting with old cameras – Towards a new strategy of using old cameras from the Museum collections for a better conservation and valorisation of the objects"

16h15 – Discussion

Afternoon break/Pause

17h-17h45 – INTERVIEW: William Christie (founder of the baroque ensemble Les Arts Florissants, conductor, harpsichordist) « Jouer les instruments des collections patrimoniales » moderated by Catherine Massip. In French with simultaneous translation.

17h45 – Conclusions

After the conference /Après le colloque :

18h30 - TALK AND BOOK SIGNATURE*

* in French

Florence Getreau and Joël-Marie Fauquet (musicologists)

Médiathèque, Cité de la musique - Free entrance

20h30 – CONCERT

Salon de la Duchesse du Maine by musicians from Les Arts Florissants directed by

William Christie* Harpsichord-Clavecin Ruckers/Taskin 1646/1780

Amphithéâtre, Cité de la musique

* Access limited to ticket holders for the concert – Entrée réservée aux personnes munies d'un billet pour le concert

Programme

WEDNESDAY 5 FEBRUARY 2020
MERCREDI 5 FÉVRIER 2020 9H30–18H

9h30-11h05 – The Ontology of Functional Objects/Ontologie des objets fonctionnels (1)

Session chair: **Gabriele Rossi Rognoni**

9h35 – KEYNOTE : Éric de Visscher (Victoria and Albert Museum, Research Institute, London) "Tools and Objects - Engaging with Functional Museum Artifacts through Narrativity and Theatricality"

10h05 – Sebastian Kirsch (Musée de la musique, Cité de la musique – Philharmonie de Paris/University of Leipzig) "The sounding biography of a lute – about the diversity of the 'original' sound"

10h25 – Martin Grünfeld (Medical Museion and CBMR, University of Copenhagen) "Caring for objects beyond saving: Re-growing collections and the functions of deaccessioned things"

10h45 – Discussion

Morning break/Pause

11h35-12h35 – The Ontology of Functional Objects/Ontologie des objets fonctionnels (2)

Session chair: **Gabriele Rossi Rognoni**

11h40 – Emanuele Marconi (Musée des instruments à vent, La Couture-Boussey) "Icons, myths, relics, symbols, and totems: the necessity of playing original instruments. An historical overview of why we need to believe"

12h – Panagiotis Pouloupoulos (Deutsches Museum, Munich) "Manufacture, Usage, Recycling, and the Concept of Functionality on Historical Objects"

12h20 – Discussion

12h35 – Poster Session : Flash Talks

- Jean-Claude Battault (ECR, Musée de la Musique, Cité de la musique-Philharmonie de Paris) "Myth and Reality: The «Blanchet» Harpsichord"
- Heba Khairy (The Grand Egyptian Museum) and Norhan Salem (The Egyptian Museum in Cairo) "Melodies From The Past"
- Marie Grima (Institut national du Patrimoine) "The mechanical musical box "Stella": A conservation project to replayed it"
- Thomas Lebée (Ecole du Louvre) "The Cursed Trumpets of Tutankhamun: Performance Hazards & Urban Myth"
- Marianne Odlyha (Birkbeck, University of London) "Monitoring changes in surfaces of varnished musical instruments by atomic force microscopy (AFM) and nanomechanical techniques"

Lunch Break/Pause déjeuner

14h30-15h35 – The Ontology of Functional Objects/Ontologie des objets fonctionnels (3)

Session chair: **Jean-Philippe Echard**

- 14h35 – Tamar Hestrin-Grader (Universiteit Leiden and Rijksmuseum Amsterdam) "In Life I was Silent, In Death I Can Still Sweetly Talk: listening in new ways"
- 14h55 – José Carlos Rodrigues de Oliveira (Centro da Memória da Engenharia UFMG, Belo Horizonte) "Using models to give functionality to museum technical objects in the bicentenary of the discovery of electromagnetism"
- 15h15 – Discussion

Afternoon break/Pause

16h-18h – Interpretation of Functional Objects/Interprétation des objets fonctionnels (4)

Session chair: **Alexandre Girard-Muscagorry**

16h05 – Madeleine Leclair and Isabel Garcia Gomez (Musée d'ethnographie de Genève)
"A project of creation around the instrumental collection of the MEG"

16h35 – Esther Kabalanyana Banda (Lusaka National Museum) "Safeguarding Intangible Cultural Heritage: A Case of Traditional Instruments in the Lusaka National Museum"

16h50-17h50 – ROUND TABLE: "Raising the Volume? The playability of historical non Western musical instruments: Relevance, Approaches and Actors"

moderated by Alexandre Girard-Muscagorry (ECR Musée de la musique, Cité de la musique-Philharmonie de Paris) with Emily Collins (Flienders University), Stéphanie Elarbi (Musée du Quai Branly-Jacques Chirac, Paris), Esther Kabalanyana Banda (Lusaka National Museum) and Madeleine Leclair (Musée d'ethnographie de Genève)

17h55 – Conclusions

Programme

THURSDAY 6 FEBRUARY 2020
JEUDI 6 FÉVRIER 2020 – 9H30-18H

9h30-13h15 – Objects Functionality in the 21st Century/La fonctionnalité des objets au XXI^e siècle (1)

Session chair: **Thierry Maniguet**

- 9h35 – KEYNOTE: Marie-Pauline Martin (Musée de la Musique, Paris) “How does that sound today? When historical instruments experience the sound poetry of present”
- 10h05 – Byron Pillow (National Music Museum, Vermillion S.D.) “Touching the Untouchable: Facilitating Interpretation through Musical Instrument Virtualization”
- 10h25 – Tom Everett (Ingenium - Canada’s Museums of Science and Innovation, Ottawa) “Playing the world’s first synthesizer: exploring a hybrid mechanical-digital approach to restoring electronic instruments”
- 10h45 – Niko Plath (Hamburg University of Applied Science) “From Bone Fragment to Sound - Virtual Reconstruction of an Unplayable 15th Century Flute”
- 11h05 – Dorothea Zimmermann (ETH Library, Zürich) “The Collection of Scientific Instruments and Teaching Aids at ETH Zürich – First Ideas for its Usability in Virtual and Real Space”
- 11h15 – Discussion

Morning Break/Pause

12h-13h15 – Objects Functionality in the 21st Century/La fonctionnalité des objets au XXI^e siècle (2) **Musical papers in the Musée de la Musique***

- Stéphane Vaiedelich and Mina Jang (ECR Musée de la musique, Cité de la musique-Philharmonie de Paris) and Claudia Fritz (Sorbonne Université, Institut Jean le Rond d’Alembert, Équipe LAM, Paris) “A transverse flute by Hotteterre – Original and copy by rapid prototyping”
- Marie-Anne Loeper-Attia and Thierry Maniguet (ECR Musée de la musique, Cité de la musique-Philharmonie de Paris) “The restoration of a Bruder barrel organ, towards a new way of playing a musical instrument in a museum”

- Henri Boutin (STMS, Ircam, Sorbonne Université) and Emmanuel Flety (Ircam) "Towards facsimiles of Ondes Martenot. An ergonomic replica of the Onde 169"

**Pas de traduction simultanée/No simultaneous translation*

Lunch Break/Pause déjeuner

14h15-15h45 – Good Practice and Risk Management/Bonnes pratiques et gestion du risque (1)

Session chair: **Juliette Raoul-Duval**

- 14h20 – KEYNOTE: Nina Robbins (University of Helsinki) "Museological value discussion as an aid in finding balance between usability and durability"
- 14h50 – Adrian V. Steiger (Hochschule der Künste, Bern) "To Play vs. To Display – Towards Guidelines for Brass Instruments"
- 15h10 – Isabel Tissot (LIBPhys-UNL, NOVA University of Lisbon) "Can it work? Analytical strategies for the conservation of historical operating objects"
- 15h20 – Discussion

Afternoon break/Pause

16h15-18h – Good Practice and Risk Management/Bonnes pratiques et gestion du risque (2)

Session chair: **Juliette Raoul-Duval**

- 16h20 – Katariina Mauranen (London Transport Museum) "Stories on wheels. London Transport Museum's operational buses and trains"
- 16h40 – Louisa Burden (Science Museum Group, London) "Operating Objects – practical use of policy and procedures"
- 17h – Rosène Declementi and Laurent Rabier (Musée de l'Air et de l'Espace, Le Bourget) "Functionality of museum airplanes as a measure of their historical importance for the institution"
- 17h20 – Marco Galloni and Mara Fausone (ASTUT - Archivio Scientifico e Tecnologico dell'Università di Torino, Turin) "The instruments for the selection of airplane pilots during WW1 in Italy"

17h30 – Discussion

18h – Conclusions

Please note that coffee breaks and lunches will only be provided to speakers and to the members of the organising committee.

Cafés et déjeuners réservés aux intervenants et aux membres du comité scientifique.

Scientific committee/ Comité scientifique :

- Frank P. Bär (CIMCIM)
- Gabriele Rossi-Rognoni (CIMCIM)
- Ech-cherki Dahmali (CIMUSET)
- Juliette Raoul-Duval (CIMUSET)
- Johanna Vähäpesola (CIMUSET)
- Stéphane Vaiedelich (Cité de la musique - Philharmonie de Paris)
- Thierry Maniguet (Cité de la musique - Philharmonie de Paris)
- Marie-Pauline Martin (Cité de la musique - Philharmonie de Paris)
- Emmanuel Hondré (Cité de la musique - Philharmonie de Paris)

Programme

TUESDAY 4 FEBRUARY 2020
MARDI 4 FÉVRIER 2020 – 9H30-18H

9h30 – GREETINGS/ACCUEIL

9h50 – Frank P. Bär (Germanisches Nationalmuseum, Nuremberg)
Introduction to the research project “Preserving Functionality” and to the conference.

Within CIMCIM, ICOM’s International Committee for Museums and Collections for Instruments and Music – a steady subject of discussion has been the function of musical instruments to sound. Between 1967 and 2002, a tendency from restoration to conservation and from playing to not playing is documented. While the dangers of playing have been well documented, the incentives for this practice haven’t been thoroughly investigated yet, and ontological questions need much more research. CIMUSET, ICOM’s International Committee for Museums and Collections of Science and Technology deals with the same questions and problems. Together, the two committees will create new guidelines that shall facilitate informed choices for functional objects serving a wide range of stakeholders in a responsible way.

**INTERPRETATION OF FUNCTIONAL OBJECTS
INTERPRÉTATION DES OBJETS FONCTIONNELS
10H10-17H**

Session 1: 10h10-11h15

Session chair : **Eric de Visscher**

**10h15 – Ekaterina Grechikhina (Russian National Museum of Music,
Moscow) “Collection of Mechanical Musical Instruments of the
Russian National Museum of Music. Practical Usage”**

The Russian national museum of music is one of the oldest and largest musical museums of the world. The museum holds about 1 million items, more than 4 thousand of which are musical instruments. The Museum instrument collection includes mechanical instruments. At present this collection has more than 500 depository items and comprises the period from the beginning of 18 century to the end of XX century. It includes musical clocks, musical boxes, harmonicas, pianolas, phonolas, orchestrion.

Within the framework of this report a brief review of the composition of the collection of the mechanical instruments will be represented. The main focus of the report will be devoted to the history of individual items and to our experience in demonstrating their functionality.

**10h35 – Hannah Grantham (Smithsonian Institution, National Museum of
African American History & Culture, Washington D.C.) “Revisiting
Narratives: Demonstrating Black Music’s Power at the National
Museum of African American History & Culture”**

In 2016 the Smithsonian Institution’s National Museum of African American History & Culture (NMAAHC) opened its doors with a celebration hosted by the nation’s first African American president. Three years later as the US confronts a new generation of intolerance, our museum has become a leading force in addressing the global history of racial injustice.

Our collection of musical instruments highlights both celebrities like James Brown and lesser known musicians like the enslaved protegee Thomas Greene Wiggins. Collecting

functional instruments aides in conveying the lives of those who were enslaved and their descendants who continue to face racism to our visitors. This presentation will address how we use musical instruments to teach and celebrate African American history.

10h55 – Discussion

Morning break/Pause

INTERPRETATION OF FUNCTIONAL OBJECTS INTERPRÉTATION DES OBJETS FONCTIONNELS

Session 2: 11h40-13h15

Session chair : Frank Bär

11h45 – Jean-Philippe Échard (ECR, Musée de la Musique, Cité de la musique-Philharmonie de Paris) “Musical performances on historical violins, and audience expectations

Recently, two 16th-18th-centuries Italian violins of the Musée de la musique were programmed for concerts and recordings, while at least ca.40-60 16th-18th-centuries Italian violins, violas and cellos could be heard under soloists’ bows each year in the concert halls of the Philharmonie de Paris. This paper addresses what makes the specificity of performances of historical violins of museum collections from the listeners’ viewpoints. This paper will attempt to draw the main thrusts of listeners’ expectations — less studied than listeners’ evaluations — in the scope of enhancing the relationship between the institution and its community of concertgoers. This paper invites to consider possible contributions of museums in the collective social construction of the authenticity of historical violins.

12h05 – Geerten Verberkmoes (University Ghent & School of Arts, Ghent) “Instrument replication – just making copies... or more?”

The life, instruments and working methods of the violin maker B.J. Boussu (1703-73), active in Brussels, are studied. The MIM in Brussels preserves a violin and cello by him in original configuration. Those instruments are not allowed to be tuned nor played, preventing assessment of their playability and sound characteristics. The two original instruments were extensively documented by CT-scanning. Using these results, replicas were constructed. During the replication, specific making techniques were tested. Next, the musical and sonic possibilities of the replicas are studied through musical performance. The paper will demonstrate the pivotal role of instrument replication, in generating interlocking knowledge of organology, biography, instrument construction and performance practice.

12h25 – Ech-Cherki Dahmali (Morocco Telecom Museum, Rabat) “Challenge of working old telephone switchboard system in Morocco Telecom Museum”

Maroc Telecom museum has a rich collection of items and old equipment that represent the technological and institutional developments of telecommunications in general and Morocco in particular. The museum is distinguished by the presentation of the elements of its collection according to a didactic purpose; it was designed to be a real informal learning site.

Most items and equipment exhibited are still working, even the oldest. Visitors can test them with the help of experts from the museum and manipulate the majority of exhibited items. The big challenge we are facing in our museum is the continuity of their functionality, the lack of qualified technicians of those old technologies, and the problem of the cost of their periodic maintenance.

12h35 – Lingman LI (Chinese Museum Association, Music Museum of Xinghai Conservatory) “Interpretation of Rehabilitation Instruments – Taking Chinese Music Museums as an Example”

In China’s music museums, a large proportion of the exhibitions focus upon Chinese traditional music, and the restoration of musical instruments has become an important research direction of Chinese music museums. Through analysing a case study based on the restoration of traditional musical instruments in several major music museums in China, this paper explores how Chinese music museums can achieve the goal of establishing contact with the audience by restoring the most basic attribute of traditional instruments, that is, the playability. At the same time, it is discussed that the restored musical instrument is essentially a replica, how to become a museum collection, and how to achieve the effect of museum information transmission.

12h45 – Discussion

Lunch Break/Pause déjeuner

INTERPRETATION OF FUNCTIONAL OBJECTS INTERPRÉTATION DES OBJETS FONCTIONNELS

Session 3: 14h50-16h40

Session chair : Ech-Cherki Dahmali

14h55 – KEYNOTE: Masahiko Kako (Toyota Commemorative Museum of Industry and Technology, Nagoya) “Pursuing for Keeping Exhibits in Functional Condition”

One of purposes of our museum is to preserve old buildings as an industrial heritage. The other purpose is to impart the importance of «Being Studious and Creative» and «Making Things» through real mechanical movement exhibition and various demonstrations to public. A technological change in a textile machinery and an automobile are introduced. “Watching, Being surprised, and Learning” is key word of our museum. In order to do movement preservation of an exhibition machine, doing maintenance and repair, acquisition of consumable parts, arrangements of a raw material for demonstration, transferring of technology and skill to new operators and various demonstrations being performed by ourselves are important. We are still struggling with above items. Those efforts are introduced.

15h25 – Laura Haendel (Deutsches Panzermuseum Munster) “Operating and Playing with Killing Machines – Practices in the German Tank Museum”

Until today one core objective of tank museums is to make their vehicles operational again which sometimes outweighed the need for authenticity. However, a tank museum cannot be operated like a museum for historical cars: they haven’t been designed for pleasure, but for killing.

Due to extensive rebuilds on the museum grounds, this year’s event *Stahl auf der Heide* will have been the last in the foreseeable future, which also means a choke point for tank repairs. At one point the vehicles will be beyond repair naturally. To take on the difficult task of incorporating the multi-sensual experience of our event into the new permanent exhibition we explore several alternatives to the actual operation like miniature operating

tanks, computer games as well as virtual and augmented reality.

15h45 – Marco Fioravanti (DAGRI - University of Florence) "Wood ageing and its implication on playing of wooden instruments"

The paper aims to summarize the results of over ten years of researches conducted on the theme of the effects produced by the use of musical instruments on the phenomena of aging of wood in relation to both their use and to the preservation of instruments of historical collections. The presentation will be focused on the effects produced by both mechanical stresses, in its elastic and viscoelastic components, and the hygroscopic variations in conservation environments. The paper will also be focused on the results of more recent researches on the study of chemical and physical changes occurring in the wood as consequence of aging phenomena that naturally occur in wood, and characterised by the analysis of VOCs emitted by the wood of historical and recent musical instruments.

16h05 – Giovanni Cella (National Museum of Science and Technology Leonardo da Vinci, Milan) "Shooting with old cameras – Towards a new strategy of using old cameras from the Museum collections for a better conservation and valorisation of the objects"

The Science Museum of Milan is the largest science and technology museum in Italy. Among its heritage, the museum holds a collection of about 400 objects related to the history of photography ranging from the end of the 19th century to the contemporary age.

Thanks to the recent rediscovery of photography in Italy the Museum has started to work on this collection and specifically on the use of these objects with the aim to:

- Document their use
- Check the operation in order to preserve the mechanical and moving parts
- Build a network of experts and artists
- Explore the educational opportunity
- Realize photos with ancient techniques

These goals are the basis to define a Museum's strategy for the use of these objects that

can hopefully contribute to the construction of shared standards.

16h15 – Discussion

Afternoon break/Pause

17h-17h45 – INTERVIEW

« Jouer les instruments anciens et les instruments des collections patrimoniales »

William Christie (founder of the baroque ensemble Les Arts Florissants, conductor, harpsichordist).
Moderated by Catherine Massip (musicologist)

William Christie est l'artisan de l'une des plus remarquables aventures musicales de ces quarante dernières années. Claveciniste, chef d'orchestre, musicologue et enseignant, il a joué un rôle pionnier dans la redécouverte de la musique baroque en révélant à un large public le répertoire français des XVII^e et XVIII^e siècles. Américain de naissance installé en France depuis 1971, sa carrière prend un tournant décisif lorsqu'il crée en 1979 Les Arts Florissants. À la tête de cet ensemble instrumental et vocal, il impose en concert comme sur la scène lyrique une griffe très personnelle. C'est en 1987 qu'il connaît une véritable consécration avec *Atys* de Lully à l'Opéra-Comique puis dans les plus grandes salles internationales. De Charpentier à Rameau, en passant par Couperin et Mondonville, William Christie est le maître incontesté de la tragédie-lyrique, de l'opéra ballet, du motet français comme de la musique de cour. Un attachement à la musique française qui ne l'empêche pas d'explorer aussi les répertoires de Monteverdi, Rossi, Purcell, Haendel, Mozart, Haydn ou Bach.

Parmi ses récentes productions lyriques, citons en 2018 *Jephtha et Ariodante* de Haendel, respectivement à l'Opéra de Paris et au Staatsoper de Vienne, ainsi que *The Beggar's Opera* de John Gay au Théâtre des Bouffes du Nord et *L'incoronazione di Poppea* de Monteverdi au Festival de Salzbourg. En tant que chef invité, il dirige régulièrement des orchestres comme le Berliner Philharmoniker ou l'Orchestra of the Age of Enlightenment sur des scènes telles que le Festival de Glyndebourne, le Metropolitan Opera ou l'Opernhaus

de Zurich. Sa discographie compte plus d'une centaine d'enregistrements, dont les derniers – *La Messe en si*, « Si vous vouliez un jour » et *L'incoronazione di Poppea* – sont parus dans la collection « Les Arts Florissants » chez Harmonia Mundi. Soucieux d'approfondir son travail de formateur, il fonde en 2002 l'Académie du Jardin des Voix. Depuis 2007, il est artiste en résidence à la Juilliard School of Music de New York où il donne des master-classes deux fois par an. En 2012, il crée le festival Dans les Jardins de William Christie à Thiré, en Vendée, où il réunit Les Arts Florissants, ses élèves de la Juilliard School et les lauréats du Jardin des Voix. En 2018, il donne tout son patrimoine à la Fondation William Christie – Les Arts Florissants.

Catherine Massip, musicologue, a publié articles et ouvrages sur la musique française des XVII^e et XVIII^e siècles, notamment sur les compositeurs, Michel Lambert et Michel-Richard Delalande. Ses travaux portent aussi sur les sources et collections musicales (*Le livre de musique*, 2008). Elle a contribué à des catalogues d'expositions (Olivier Messiaen, Darius Milhaud, Hector Berlioz) dont *Barockissimo* (avec Martine Kahane, Moulins, CNCS, 2016) sur les productions scéniques des Arts Florissants.

17h45 – Conclusions

Programme

WEDNESDAY 5 FEBRUARY 2020
MERCREDI 5 FÉVRIER 2020 – 9H30–18H

THE ONTOLOGY OF FUNCTIONAL OBJECTS ONTOLOGIE DES OBJETS FONCTIONNELS 9h30-15h35

Session 1: 9h30-11h05

Session chair: Gabriele Rossi Rognoni

9h35 – KEYNOTE: Éric de Visscher (Victoria and Albert Museum, Research Institute, London) “Tools and Objects - Engaging with Functional Museum Artifacts through Narrativity and Theatricality”

This paper will show how tool analysis (as proposed by anthropologist Tim Ingold in *Being Alive*, 2011) and object ontology (initiated by philosopher Graham Harman) provide insightful concepts to describe the functionality of museum objects, and of musical instruments in particular. They raise questions such as : which story (-ies) do we tell about our objects ? Which voices do we hear ? How do we make objects from the past relevant to present-day audiences ? How do we allow embodied learning and gestural re-enactment to take place in the museum ? And, when museums are being considered as “Gesamtkunstwerk” (Boris Groys), how does the theatricality inherent in most objects and in our approach to them, come to expression in that context ?

10h05 – Sebastian Kirsch (Musée de la musique, Cité de la musique – Philharmonie de Paris/ University of Leipzig) “The sounding biography of a lute – about the diversity of the ‘original’ sound”

The discussion about playability, soundability and the aesthetic or educational value of the sound of historic instruments is a dichotomy that usually oscillates between whether it's better to play historical instruments or to play copies. The information of aged sound of an old instrument is questionable as well as it is impossible to prove that a copy is sounding “original”.

In fact, there is not one original sound. Every instrument has different sounding profiles during its life and most preserved historic instruments were used over decades and centuries. Every repair and the natural process of ageing changed their sound already during their time of usage.

The presentation introduces in the different possible shapes and sounds of European lute instruments.

10h25 – Martin Grünfeld (Medical Museion and CBMR, University of Copenhagen) “Caring for objects beyond saving: Re-growing collections and the functions of deaccessioned things”

I explore the relationship between materiality, time and life processes in collections. At the museum, life processes can be devastating not only destroying the original functions of objects but also their functions as museum objects. In the end, they may lead to deaccessioning and loss. This paper is about finding new ways to think the end of the lifecycle of museum objects beyond saving. Ways that transgress the dichotomy between accessioning and deaccessioning. What I wish to propose is to think decomposing and deaccessioned objects as a potential both materially and narratively. As I will argue, such a move induces deaccessioned objects with new functions that may lead to an opening of the museum to other temporal ideologies and a proliferation of the object into novel modalities.

10h45 – Discussion

Morning break/Pause

THE ONTOLOGY OF FUNCTIONAL OBJECTS ONTOLOGIE DES OBJETS FONCTIONNELS

Session 2: 11H35-12H35

Session chair: **Gabriele Rossi Rognoni**

11h40 – Emanuele Marconi (Musée des instruments à vent, La Couture-Boussey) “Icons, myths, relics, symbols, and totems: the necessity of playing original instruments. An historical overview of why we need to believe”

Museums are challenged by the board, by visitors, musicians, and makers to play their instruments: the equation silent museum=dead museum is often the argument. Preservation reasons seem difficult to accept and be fully understood.

We are all fascinated by icons, myths, relics, symbols, and totems, categories that can be attributed to a Stradivari violin or Paganini’s guitar. Musical instruments are multifaceted: containers of hopes, projections of our desires, emotional connectors, representation of the society they belong. The paper will discuss the psychological reasons behind the need of listening to museum objects, myths and symbols related to the concept of originality, and propose an approach to combine audience’s demands, preservation, and to offer an enjoyable visiting experience.

12h – Panagiotis Pouloupoulos (Deutsches Museum, Munich) “Manufacture, Usage, Recycling, and the Concept of Functionality on Historical Objects”

The functionality of historical objects is a highly controversial issue within the museum community, yet a common approach or methodology across disciplines is currently lacking. For instance, functionality has different attributes and implications for popular, standardised objects that were industrially produced in large numbers when compared to unique or rare artefacts of cultural heritage, such as prototypes or experimental devices. Focusing on representative cases of musical instruments, this paper will examine the concept of functionality and its impact on the biography and authenticity of historical objects, discussing particularly aspects of manufacture, usage and recycling.

12h20 – Discussion

12H35 - Poster Session: Flash Talks

Foyer de l'Amphithéâtre

- Jean-Claude Battault (ECR, Musée de la Musique, Cité de la musique-Philharmonie de Paris) "Myth and Reality: The «Blanchet» Harpsichord"
- Heba Khairy (The Grand Egyptian Museum) and Norhan Salem (The Egyptian Museum in Cairo) "Melodies From The Past"
- Marie Grima (Institut national du Patrimoine) "The mechanical musical box "Stella": A conservation project to replayed it"
- Thomas Lebée (Ecole du Louvre) "The Cursed Trumpets of Tutankhamun: Performance Hazards & Urban Myth"
- Marianne Odlyha (Birkbeck, University of London) "Monitoring changes in surfaces of varnished musical instruments by atomic force microscopy (AFM) and nanomechanical techniques"

Lunch Break/Pause déjeuner

THE ONTOLOGY OF FUNCTIONAL OBJECTS ONTOLOGIE DES OBJETS FONCTIONNELS

Session 3: 14h30-15h35

Session chair: Jean-Philippe Echard

14h35 – Tamar Hestrin-Grader (Universiteit Leiden and Rijksmuseum Amsterdam) “In Life I was Silent, In Death I Can Still Sweetly Talk: listening in new ways”

A decades-old bias towards perceiving objects monocularly, as though each has only one function, has left us today with a series of preconceptions: often with some grain of truth, but frequently unhelpful or even misleading. Rather than a complete break, this presentation proposes simply a shift in point of view: the possibility of taking as a starting point that musical instruments had and have many functions, and are not dead when silent; that museums are part of the real world, even when their goal is that of material preservation; that research is a living process which can be communicated to the public in such a way as to increase understanding of both the past and present. Unplayable instruments are silent literally, but can speak in other ways: let us find ways to hear them still.

14h55 – José Carlos Rodrigues de Oliveira (Centro da Memória da Engenharia UFMG, Belo Horizonte) “Using models to give functionality to museum technical objects in the bicentenary of the discovery of electromagnetism»

The employment of replicas and models is common in technological museums, to preserve objects while showing their performance. This work demonstrates the usefulness of this, as long as we aim to an educational purpose and because of the difficulties of operating the original equipment. Most objects cannot work anymore or their functioning may put them in risk. We use this methodology to teach laboratory classes in Engineering and, transposing it to technological museums, we are convinced that we can (and we may) apply this. Finally, for celebrating in 2020 the bicentenary of the discovery of Electromagnetism by Ørsted, we present a modern “replica” of his experiment, extending

it to perform a rudimentary ammeter. We also describe other educational models that we have conceived.

15h15 – Discussion

Afternoon break/Pause

INTERPRETATION OF FUNCTIONAL OBJECTS INTERPRETATION DES OBJETS FONCTIONNELS

Session 4: 16h-18h

Session chair: **Alexandre Girard-Muscagorry**

16h05 – Madeleine Leclair and Isabel Garcia Gomez (Musée d'ethnographie de Genève) "A project of creation around the instrumental collection of the MEG"

Since 2014, several meetings have been organized by the department of ethnomusicology of the MEG with contemporary musicians. One of these encounters has given voice to musical instruments thanks to percussionist Midori Takada, and has contributed to a recent reflection on the theme «Reviving collections». As part of a recording project, about fifteen instruments were made available to the musician for a musical improvisation. Several questions were raised by this initiative, more particularly with regard to professional and ethical standards of conservation, institutional responsibility and intellectual property.

16h35 – Esther Kabalanyana Banda (Lusaka National Museum) "Safeguarding Intangible Cultural Heritage: A Case of Traditional Instruments in the Lusaka National Museum"

Material culture, tangible and intangible, are perceived as an example of knowledge, of know-how, and performances, where objects stand as processes rather than an outcome per se; and preserving these collections is a first step to safeguard ICH. There is need to

support such object knowledge in terms of functionality and interpretation tied up with the cultural history with practical ways of captioning object in order to understand the skills behind the object.

16h50 – ROUND TABLE: “Raising the Volume? The playability of historical non Western musical instruments: Relevance, Approaches and Actors”

moderated by: Alexandre Girard-Muscagorry (ECR Musée de la musique, Cité de la musique-Philharmonie de Paris)

with:

Emily Collins (Flienders University)

Stéphanie Elarbi (Musée du Quai Branly-Jacques Chirac, Paris)

Esther Kabalanyana Banda (Lusaka National Museum)

Madeleine Leclair (Musée d’ethnographie de Genève)

Several museums occasionally play non-Western musical instruments kept in their collections or even plan to undertake functional restorations. While many voices actively call for “resocializing” ethnographic objects “trapped” in Europe, the idea of reactivating these artifacts through music, in collaboration with the communities of provenance, can be appealing. However, if the issue of playability of Western musical instruments has generated intense and contentious debates, the specificity of African, Asian or Oceanic collections has been largely overlooked. Drawing on several case studies and combining the perspective of curators, conservators and ethnomusicologists, this round table intends to address some of the scientific, ethical and practical issues raised by playability in a non-Western context and to question its various forms as well as the actors involved in such an approach.

17h50 – Conclusions

Programme

THURSDAY 6 FEBRUARY 2020
JEUDI 6 FÉVRIER 2020 – 9H30-18H

OBJECTS FUNCTIONALITY IN THE 21ST CENTURY
LA FONCTIONNALITÉ DES OBJETS AU XXI^E SIÈCLE
9h30-13h15

Session 1: 9h30-11h45

Session chair: Thierry Maniguet

9h35 – KEYNOTE: Marie-Pauline Martin (Musée de la Musique, Paris) “How does that sound today? When historical instruments experience the sound poetry of present”

As an actor in the use of historical instruments, the Musée de la musique has developed a restoration policy, in line with its research programmes and its artistic projects. Several of these projects focus on the reception of old instruments’ timbre in the contemporary creation. Today, a new generation of artists (classical music, jazz, electronic music) is developing a strong interest in ancient sound heritage. With them, the Musée de la musique is carefully opening up research and reflections on the playability of instruments to new questions. When playing an historical instrument, should we scrupulously link the time when the instrument was made and that of the repertoire performed? Should the instrument’s timbre remain the audible witness of its own past ? Or is the timbre a sensitive object that transcends history, offered yesterday as today to interpretation and recreation?

To these epistemological questions, the Museum will provide some reflections based on concrete experiences of play, where the historical sound heritage meets the sound poetry of the present.

10h05 – Byron Pillow (National Music Museum, Vermillion S.D.) “Touching the Untouchable: Facilitating Interpretation through Musical Instrument Virtualization”

By using virtual instruments to approximate the qualia of typically off-limits objects, museums can allow physical and digital patrons to experience a multi-dimensional glimpse into different worlds by ‘playing’ instruments they would never otherwise be able to access. The 1530 ca. Neapolitan harpsichord of the National Music Museum (NMM) is used here as a launching point for conversation on the process of creating, implementing, and defending the integration of virtual instrument technologies. While the NMM designs new permanent exhibits, the use of surrogates raises numerous pertinent questions. Perhaps most importantly in achieving the NMM’s public-serving mission: when do the gains of implementing inherently flawed surrogates outweigh the pursuit of unwavering historical fidelity?

10h25 – Tom Everett (Ingenium - Canada’s Museums of Science and Innovation, Ottawa) “Playing the world’s first synthesizer: exploring a hybrid mechanical-digital approach to restoring electronic instruments”

The Electronic Sackbut (built by Canadian Hugh Le Caine, 1945–48) is widely regarded as the world’s first modern synthesizer. Yet we still know surprisingly little about how it works. Brittle wires, buried capacitors, broken solders, and other material challenges have made knowledge-generation difficult. Recently, our museum initiated a project to bypass the instrument’s degraded original electronics with modern digital components. If successful, the Electronic Sackbut will once again be playable – for the first time in over half a century – thereby presenting new opportunities for material culture exploration and public performance. This paper will describe the current state of the restoration project, including reflections on the many practical, ethical, and interpretive issues involved.

10h45 – Niko Plath (Hamburg University of Applied Science) “From Bone Fragment to Sound - Virtual Reconstruction of an Unplayable 15th Century Flute”

Co-authors: **Sebastian Kirsch** and **Jost Leonhardt Fischer**

A novel approach is presented for the reconstruction of geometry and sound of an unplayable historic wind instrument, combining X-ray computed tomography, computer-aided design, fluid dynamic simulation, and additive manufacturing. The object under consideration, a bone flute fragment dating from the 15th century, is in unplayable condition since the block has not been preserved. Under the assumption that the instrument had been playable in its original condition, the flute and its sound are virtually reconstructed. The 3D printed replicas are playable and can be used in museum-didactics or being further investigated. Although being purely virtual, the process of restoring the instrument leads to a fruitful engagement with issues related to the instrument building process.

11h05 – Dorothea Zimmermann (ETH Library, Zürich) “The Collection of Scientific Instruments and Teaching Aids at ETH Zürich – First Ideas for its Usability in Virtual and Real Space”

The collection of scientific instruments and teaching aids at ETH Zurich was founded in 2019. The most important aim of this collection is that it should be used by research and teaching and perceived by the public. We are discussing various approaches to make the objects usable, whereby two approaches are being pursued in parallel. The objects should be available as hands-on objects for research and teaching. Especially with rare objects, single pieces or objects in bad condition this use can be justified only with difficulty. For this reason we follow a second approach. All objects are digitized and presented online in a database. In addition to conventional object photography, we would like to a) animate selected objects digitally, b) scan them 3-D or c) document them with video.

11h15 – Discussion

Morning Break/Pause

OBJECTS FUNCTIONALITY IN THE 21ST CENTURY LA FONCTIONNALITÉ DES OBJETS AU XXI^E SIÈCLE

Session 2: 12h-13h15

Musical papers in the Musée de la Musique

Stéphane Vaiedelich and Mina Jang (ECR Musée de la musique, Cité de la musique-Philharmonie de Paris) and Claudia Fritz (Sorbonne Université, Institut Jean le Rond d'Alembert, Équipe LAM, Paris) "A transverse flute by Hotteterre – Original and copy by rapid prototyping"

In the context of the dissemination by a museum of its collections, it seems relevant to explore and question new ways of copying historical instruments with current 3D printing techniques. These techniques could indeed open, at low cost, the possibility of playing instruments that are similar to original instruments, which are no longer playable. New techniques, new analyses and new materials break with traditional making at each stage of the production of a musical instrument and questions our practices and our deontology, in historical as well as

visual and acoustical terms. This presentation proposes to give a work in progress report on the project led by the Musée de la musique aiming at a 3D printed reconstitution of a flute from its collection, attributed to Hotteterre "le Romain". A brief presentation of the technical and scientific elements of the project will be followed by a musical performance. This will be an opportunity to make this instrument heard in its museum context in order to evaluate its evocative, musical and historical power. The musical performance will include as well a short blind listening test which could serve as a pilot study for a psychoacoustic experiment being currently designed.

Marie-Anne Loeper-Attia and Thierry Maniguet (ECR Musée de la musique, Cité de la musique-Philharmonie de Paris) "The restoration of a Bruder barrel organ, towards a new way of playing a musical instrument in a museum"

The Bruder barrel organ kept in the Musée de la musique was the subject of a study and restoration campaign, as part of a final master's degree in Conservation-Restoration. In addition to the barrel organ mechanism, this instrument is equipped with a complex

system of automaton figures and one of the main purposes of this study was to evaluate both the playability of the organ and the functionality of the automata. A multidisciplinary work has been set up, involving the museum team, an organ builder and members of different laboratories. The prospect of regular operation had to be scrapped in favour of a stabilisation of the entire instrument. Nevertheless, this presentation will show how, without physically putting the instrument into operation, it might be possible to play it.

Henri Boutin (STMS, Ircam, Sorbonne Université) and Emmanuel Flety (Ircam)
“Towards facsimiles of Ondes Martenot. An ergonomic replica of the
Onde 169”

We propose an ergonomic replica of the Onde Martenot n° 169, intended to show to museum visitors how the instrument operates and sounds. The non-linear electronic components are numerically simulated by using the formalism of Port-Hamiltonian Systems, which preserves the system power balance. This model is implemented on an embedded ARM processor platform connected to a musician interface. The output level is controlled by the performer's left hand, pressing a touch-sensitive midi controller. The pitch is controlled by the right hand, either continuously, using a strip force-sensing resistor, or note by note using a monodical MIDI keyboard. In order to replicate the sound of the original Métallique diffuseur, the processor output feeds a vibrator connected to a gong, via a rigid rod.

Lunch Break/Pause déjeuner

GOOD PRACTICE AND RISK MANAGEMENT BONNES PRATIQUES ET GESTION DU RISQUE 14h15-18h

Session 1: 14H15-15H45

Session chair: **Juliette Raoul-Duval**

14h20 – KEYNOTE: Nina Robbins (University of Helsinki) “Museological value discussion as an aid in finding balance between usability and durability”

My paper introduces a tool for museum professionals to help assess the value balance between the functionality and display of museum objects. Understanding the term “museological value discussion” helps professionals to see value-related issues of everyday museum work. It indicates the need for professionals to actively engage themselves in value-based discussions, in order to make sound decisions in matters such as usability, durability and long-term preservation.

14h50 – Adrian V. Steiger (Hochschule der Künste, Bern) “To Play vs. To Display – Towards Guidelines for Brass Instruments”

At the 2017 CIMCIM Conference in Switzerland, we presented research into corrosion in brass instruments. For historical instruments in playing condition, one conclusion reached was that interior corrosion can be minimised significantly. Using a ventilator to dry the interior surface each time after playing it, this process is barely activated. A protocol of preventive conservation based on these insights has since then been applied to brass instruments in playing condition of the Bern University of Arts HKB and at the “Klingendes Museum” in Bern. This paper discusses our experiences. Whether to play these instruments or not remains a dilemma for every single one of them. The results of this study may provide a basis for curators and conservators to take informed decisions in future.

15h10 – Isabel Tissot (LIBPhys-UNL, NOVA University of Lisbon) “Can it work? Analytical strategies for the conservation of historical operating objects”

A major challenge of operating objects preservation is to decide on mechanisms conservation. As movement is essential to understand the object function and significance, it is often chosen to preserve it in operation. The preservation in operation has constraints related to, among others, the objects conservation sustainability. Thus, two methods should be considered – conservation in static or operation mode. The choice of the method should be based on exam and analytic techniques adapted to operating objects. We present new analytical protocols using radiography, XRF and Raman spectroscopies, ultrasonic testing and vibrational analysis to assess the material and dynamic condition of operating objects. A 20th C polygraph from the University of Lisbon is used as a case study.

15h30 – Discussion

Afternoon break/Pause

GOOD PRACTICE AND RISK MANAGEMENT BONNES PRATIQUES ET GESTION DU RISQUE

Session 2: 16h15-18h

Session chair: Juliette Raoul-Duval

16h20 – Katariina Mauranen (London Transport Museum) “Stories on wheels. London Transport Museum’s operational buses and trains”

When passenger vehicles become museum objects it is not always possible to operate them how they were originally intended, and compromises must be made. These compromises and interpretation are examined through two case studies: Battle Bus, built in 1913, and restored for the WW1 centenary; and Q stock, a 1930s train London Transport Museum is restoring.

Key themes of Interpretation, Safety and Integrity will be explored, first through the stories we can tell with an operational vehicle. Then by examining the compromises to ensure the safety of the artefacts, crews and passengers. And finally, by showing how London Transport Museum seeks to maintain integrity and deliver a safe and authentic experience.

16h40 – Louisa Burden (Science Museum Group, London) “Operating Objects – practical use of policy and procedures”

The Science Museum Group is renowned for the number of operating objects in the collection. These range in type from computers to rail vehicles, electrically powered musical instruments, magic lantern equipment and many more. Our policy and procedures for assessing operation and its impacts have developed to encompass all these objects regardless of type, scale and how often we want to operate them. Examples of how the process has been followed to ensure clear decisions and records of these will be shared. This will include recent decisions to run a 1916 electric car, enabling public access into iconic rail vehicles and some unexpected difficulties associated with running an early electrical musical object.

17h – Rosène Declementi and Laurent Rabier (Musée de l’Air et de l’Espace, Le Bourget) “Functionality of museum airplanes as a measure of their historical importance for the institution”

Many aircraft in the MAE’s collection have been acquired as fragments: fuselage, engine, radiators, etc. These sub-elements have their own functionality. The way some of them were treated is highly dependent on how they were perceived in relationship with the “official aviation history”. We offer to compare the fate of two fuselages. The first one, the front section of an Antoinette, was considered a milestone. As such, it was completed after WWII to be exhibited as a functional object. The second one, the unique but unsuccessful Blériot IX, was kept as an incomplete artifact. This will lead us to look at various types of functional objects. The new permanent exhibitions focused on the early times of aeronautics will be our guideline to illustrate how some of them are currently looked at.

17h20 – Marco Galloni and Mara Fausone (ASTUT - Archivio Scientifico e Tecnologico dell’Università di Torino, Turin) “The instruments for the selection of airplane pilots during WW1 in Italy”

In 1994 a number of unusual and peculiar instruments were found in a cellar of the Institute of Human Physiology, University of Turin. As Scientific and Technologic Archives we collected all of them and understood that they bore witness of the birth of the aviation medicine in Italy, in fact they had been made for the laboratory of psycho-physiological selection of airplane pilots during WW1. All the old artifacts we found were restored and we decided to make them work again only once, so to realize a video that may help our visitors to understand how they actually worked. In addition to showing the technical functioning of very special devices, the video was emotionally engaging thanks to the reconstruction of the locations and the uniforms worn by the actors.

17h30 – Discussion

18h – Conclusions

Biographies

FRANK P. BÄR

Frank P. Bär has been curator of the musical instrument collection since 1997 and is head of the research services (2006) and photo departments (2014) in Germanisches Nationalmuseum in Nuremberg. 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. From 2014 to 2017 he represented Germany in the COST action FP 1302 WoodMuslCK's management committee. At Germanisches Nationalmuseum he lead the DFG-funded research projects MUSICES (2014–2017, together with Fraunhofer EZRT) and "Collecting musical instruments – the Rück example" (2015–2018). In summer 2019 he has been elected President of ICOM-CIMCIM.

JEAN-CLAUDE BATAULT

Conservator in the Musée de la musique. Since 1990, as part of the museum's missions, he has been studying and documenting keyboard instruments in French and foreign collections. He is also in charge of the organology of keyboard instruments course at the Institut Technologique Européen des Métiers de la Musique (ITEMM,

Le Mans). He is regularly invited to give lectures at international symposia and is the author or co-author of articles devoted to harpsichords and pianofortes.

HENRI BOUTIN

Henri Boutin is a researcher in the S3AM team (Sound Systems and Signals: Audio/Acoustics, InstruMents) in the Laboratory of Sciences and Technologies of Music and Sound (IRCAM, Sorbonne Université, CNRS). In his PhD (Université Paris 6, 2011), he developed pioneer methods of active control, for musical instruments. His research focuses on the study and control of musical instruments, at the intersection between acoustics, vibration, signal processing, material science and conservation.

LOUISA BURDEN

Louisa Burden has been Group Head of Conservation and Collections Care for the Science Museum Group for just over 10 years. She leads the development of strategy, policy and procedures for all activities relating to the conservation of the collection of 7.5 million items. As well as leading the practical conservation work of the conservation team, Louisa has a particular interest in sustainable storage and display for museum collections.

GIOVANNI CELLA

He is working at the National Museum of Science and Technology Leonardo da Vinci of Milan as a Project Manager for the Collection Department since 2009. Main projects managed: - "Voci della Scienza" (valorisation of the Museum archives); - CIMUSET ICOMilano2016 Conference organizing committee; - Photo archives management system supervisor; - "Archivi della Scienza" (web platform for Italian scientific archives). Previously he worked as project assistant with the Scientific Director for 4 years and before that in the educational department in charge of the interactive lab on the physics of light for 5 years.

EMILY COLLINS

Emily Collins trained in Ethnomusicology at the Indonesian Institute of Arts in Yogyakarta, Central Java (Indonesia) and has a Master degree in Museums and Collections from the Australian National University in Canberra (Australian Capital Territory). Based in Adelaide, South Australia, she teaches Indonesian Musical Cultures at Flinders University and is a multidisciplinary researcher. An advocate for music in museums and music access for all, she curates exhibitions that interpret objects and spaces with music sound, and explores the intersection between art and artefact. Since 2015 she has also managed a historical collection and curated exhibitions for the Yellow Heart Gallery at the Adelaide Women's and Children's Hospital under its Arts in Health Program.

ECH-CHERKI DAHMALI

Museologist, Museum Director since 2001, Rabat, Morocco. President of the ICOM- International Committee for Museums and Collections of Science and Technology (<http://network.icom.museum/cimuset>). Vice-President of the International Council of African Museums (www.africom.museum). Member of Ethics Committee of the International Council of Museums (ETHCOM), Paris. Vice-President of ICOM-Arab, Arabic Alliance of the International Council of Museums (www.icom.museum). Vice-President of the National Moroccan Committee of International Council of Museums (ICOM- Maroc). Member of the Council Board of the National Institute of Archaeological Sciences and Heritage, Ministry of Culture, Rabat, Morocco (www.minculture.gov.ma). UNESCO consultant and heritage expert for the Maghreb-Arab Region. (www.rabat.unesco.org). ISESCO Islamic Educational, Scientific and Cultural Organization heritage expert (www.isesco.org.ma). Member of the ICOM- International Museum Day Scientific Committee (2017) (<http://network.icom.museum/international-museum-day/>). Member of the Council Board of the National Institute of Archaeological Sciences and Heritage, Ministry of Culture, (INSAP): www.minculture.gov.ma

ROSENE DECLEMENTI

Rosène Declementi has been the curator and head of the department of technical collections in the Musée de l'Air et de l'Espace in Le Bourget since 2019. She has 20 years of experience working in

museums, and she has had the opportunity to work on very diverse collections : Archaeology, history and fine arts in the museum of Soissons, Islamic art in the Louvre, ethnography and science in the Horse museum in Chantilly, technical equipment in the musée de la Parfumerie in Grasse.

JEAN-PHILIPPE ECHARD

Jean-Philippe Echard joined the Laboratoire of the Musée de la musique in 1999, after a Master's degree in Chemistry. He focused his Ph.D. (2010) on the materials and techniques used to varnish musical instruments (15th-18th centuries). He was appointed Curator in 2014, in charge of the collection of stringed instruments at the Musée de la musique and is part of the research team (Centre de Recherche sur la Conservation, USR 3224, CNRS-MC-MNHN). His current research interests are the material, cultural, technical and economic history of musical instruments.

STEPHANIE ELARBI

Stéphanie Elarbi is head conservator in the musée du quai Branly - Jacques Chirac since 2008. She is in charge of the organization and specification of the conservation treatments for the whole collection, for exhibitions, loans and permanent presentation. She's a conservator specialized in ethnographic objects and contemporary art, and teaches in both fields in various conservation cursus (Institut National du Patrimoine, Ecole du Louvre, Ecole supérieure d'art d'Avignon)

TOM EVERRETT

Dr Tom Everett is Curator of Communications at Ingenium: Canada's Museums of Science and Innovation. He also holds an Adjunct Professorship in Curatorial Studies at Carleton University, Ottawa. His recent exhibitions include *Sound by Design* (2017), *Wearable Tech* (2017), and *The Wearable Past* (2018). His recent publications include 'A Curatorial Guide to Museum Sound Design' (Curator, 2019) and 'Writing Sound with a Human Ear: Reconstructing Bell and Blake's 1874 Ear Phonautograph' (SMGJ, 2019).

MARA FAUSONE

Mara Fausone was the curator of the Scientific and Technologic Archives, University of Turin since 2009. She graduated in biological sciences. She is active in the field of scientific museology and her main research topic is chemistry, in its historical aspects.

MARCO FIORAVANTI

Professor of Wood Science, the preservation of wooden cultural heritage has been one of his main subjects of interest since the end of 80's. Researches have been carried out on the physical and mechanical behaviour of wooden panel paintings and wooden sculptures, on conservation of historical wooden musical instruments and waterlogged archaeological wood.

JOST LEONHARDT FISCHER

Jost Leonhardt Fischer has been a postdoctoral researcher at the Institute of Systematic Musicology at University of Hamburg, since 2014. His current research focuses on applications of nonlinear dynamics and oscillation theory in musical acoustics. Topics include, *inter alia*, synchronization phenomena in acoustical waveguides, nonlinearities in sound generation and sound radiation, investigations of the interplay of flows, turbulent layers and field as well as numerical simulations of the compressible Navier-Stokes equations.

EMMANUEL FLETY

Emmanuel Flety is an electronic engineer specialized in embedded electronics and wireless wearable sensors for live performance such as the AtoMIC Pro, the WiSe Box and more recently, the R-IoT wifi platform. Formerly heading the Performing Arts Technology Group at IRCAM and member of the Sound / Gesture interaction research team (ISMM), he now in charge of the Engineering & Prototypes team, providing transversal R&D and rapid prototyping to IRCAM researchers.

CLAUDIA FRITZ

Claudia Fritz is a CNRS-researcher, in the Lutherie-Acoustics-Music team of the Institut Jean Le Rond d'Alembert, at Sorbonne Université. In collaboration with instrument makers and players, her research aims at investigating the correlations between player/listener perceptions and measured acoustical properties on musical instruments. Her work with double-blind studies involving new

and old violins has gained widespread international attention. She was awarded the CNRS bronze medal in 2016.

MARCO R. GALLONI

Marco R. Galloni is the director of Scientific and Technologic Archives, University of Turin. He graduated in biological sciences and is a lecturer in comparative anatomy at the University of Turin. He has been active in the field of scientific museology for about thirty years and his main research topics are the history of medicine, the evolution of scientific and medical instruments and the scientific applications of photography and cinematography.

ISABEL GARCIA GOMEZ

Isabel Garcia Gomez studied History of Art at the University of Nanterre (France), and conservation at the ENSAV La Cambre (Brussels, Belgium), where she was awarded a Master in sculpture conservation in 2005. From 2006 to 2010, she worked at the Royal Museum for Central Africa (Tervuren, Belgium), where she developed a particular interest in functional values of the museum objects. She is Head of conservation at the Ethnographic Museum of Geneva since 2010.

ALEXANDRE GIRARD-MUSCAGORRY

Graduated from École du Louvre, ESSEC Business School and Institut national du patrimoine, Alexandre Girard-Muscagorry is Curator of non-Western collections at the Musée de la musique (Philharmonie de Paris) since 2019. As an African art historian, he worked for several

ethnographic and world culture museums in France (Musée de l'Homme, Paris; Musée du quai Branly - Jacques Chirac, Paris; Musée des Confluences, Lyon), Cameroon (Musée des Civilisations, Dschang) and the United States (Metropolitan Museum of Art, New York).

HANNAH GRANTHAM

Hannah Grantham is a music curator working to make connections between music and social history. She currently works as a Curatorial Assistant at the Smithsonian Institution. She has degrees in music from the Universities of South Dakota and North Texas, where she worked at the National Music Museum and Music Library. Her research interests lie in relating music ephemera to social histories, uncovering the stories of women jazz musicians, and exploring multiculturalism in museum collections. She has also been awarded the Rutgers University Berger-Carter-Berger Jazz Research Award to conduct research on pianist Mary Lou Williams' role in creating bebop.

EKATERINA GRECHIKHINA

Graduated from the Russia State Humanitarian University (Moscow). Hold a degree – a master of museology (Honors degree). Graduation thesis topic - «The acquisition of Collection of the Russian National Museum of Music». Recently is a head of the Department of Musical Instruments of the Museum of music.

MARIE GRIMA

Marie Grima is a student at the Institut National du Patrimoine (National Heritage Institute), conservation school from which she will graduate next September. In the past few years she has learned conservation techniques and metal work. Last year, she had the opportunity to do an internship at the National Museums Scotland in the engineering conservation section and to work with the Atelier Anne-Cécile Viseux in Paris. She has chosen to specialize in the industrial and technical heritage.

MARTIN GRÜNFELD

Martin Grünfeld is an Assistant Professor at Medical Museion and the Centre for Basic Metabolic Research at the University of Copenhagen. He has a background in continental philosophy of aesthetics and science. He is the author of 'Writing and Thinking in Contemporary Academia: The Poetics of Clarity' (Routledge, 2019). Currently, he is developing a project on metabolic objects and collections. It consists of two main parts: first, an exploration of the possibilities of hosting living collections at the museum, and second, a collection of contemporary biomedical research. The project combines ontological, aesthetic, and museological perspectives to explore metabolism in a broad sense.

LAURA HAENDEL

Laura Haendel, M.A. (born 1987 in Bremen) is curator of the Deutsches Panzermuseum Munster (German Tank Museum/DPM) since 2016. She studied art, media studies and military studies

(military history and sociology) in Oldenburg and Potsdam. She currently works on the re-conceptualization of the permanent exhibition of the DPM. Her research focuses on the practices of depicting suffering and death in military museums as well as exhibiting the holocaust and forced labour.

TAMAR HESTRIN-GRADER

Tamar Hestrin-Grader is a PhD candidate at the Academy of Creative and Performing Arts (ACPA) of Leiden University, and a Guest Researcher at the Rijksmuseum Amsterdam, where she is part of the 1640IR Muselaar Project. She received her rMA in Art Studies from the University of Amsterdam in 2016, and her AB in Music and Historical Performance Practice from Harvard College in 2011. As a musician, she plays mostly historical keyboards, with a focus on the harpsichord.

EMMANUEL HONDRÉ

Emmanuel Hondré studied at the Conservatoire National de Musique et de Danse in Paris, winning first prizes in history of music (1992), aesthetics (1994) and musicology (2000). He taught history of music and is currently director of the Concerts department at the Cité de la musique-Philharmonie de Paris, programming 500 concerts each season. He has also been on the jury of the Galina Vishnevskaya International Opera Singers Competition (Moscow 2012), the International competition of Opera Singers (Saint-Petersbourg 2015) and the Shanghai Isaac Stern International Violin Competition (2016).

MINA JANG

Cumque pertinacius ut legum gnarus accusatorem flagitaret atque sollemnia, doctus id Caesar libertatemque superbiam ratus tamquam obtrectatorem audacem excarnificari praecepit, qui ita evisceratus ut cruciatibus membra deessent, inplorans caelo iustitiam, torvum renidens fundato pectore mansit immobilis nec se incusare nec quemquam alium passus et tandem nec confessus nec confutatus cum abiecto consorte poenali est morte multatus. et ducebatur intrepidus.

ESTHER KABALANYANA BANDA

Esther Kabalanyana Banda is Assistant Keeper of Ethnography at the Research Department of the Lusaka National Museum since 2016. She graduated in Transformative Community Development. She gave several lectures at ICOM or CIDOC annual conferences.

MASAHIKO KAKO

Engaged in general intellectual property operations in the field of such as textile machinery, material handlings, and parts of automobile at Toyota Industries Corporation, which is one of Toyota Group companies. Experienced patent applications and settlement of patent disputes including lawsuits in the US, Europe and Asia. Experienced technology contracts related intellectual property. Engaged also in the Business Planning Department in the electronics division and the Human Resources Department at the head office. After the above experiences, joined Toyota Commemorative Museum of Industry and

Technology in 2016. Present is the deputy director of the museum, responsible for the curator activity and both of Textile Machinery pavilion and Automobile pavilion.

HEBA KHAIRY

Heba Khairy is a curator at the Grand Egyptian Museum, MA holder specialized in the Intangible Cultural Heritage. Since 2008, she participated in many field projects and field studies that focus on the intangible culture heritage safeguarding and preservation projects and workshops that focus on the local community engagement and community development.

SEBASTIAN KIRSCH

Sebastian Kirsch is a research associate at the Musical Instrument Museum of the University of Leipzig. He graduated with a diploma in conservation of musical instruments at the Academy of Fine Arts Vienna. Currently, he is working on his dissertation in musicology concerning the transformation of lute instruments and will be working in the lab of the Musée de la musique, Cité de la musique - Philharmonie de Paris. With his colleague Niko Plath he runs a small agency on 3D imaging of cultural heritage after supervising more than 100 high resolution CT-scans of musical instruments at the Germanisches Nationalmuseum, Nuremberg (project « MUSICES »).

THOMAS LEBEE

Having studied egyptology and museology in the École du Louvre (2009-2014) he has been working on the history of egyptology, especially on the first museums of Egyptian antiquities in Egypt and abroad. He is currently working for the Archives nationales de France as a responsable de fonds ("fonds manager") and teaching egyptology for the École du Louvre.

MADELEINE LECLAIR

Madeleine Leclair has been working for more than twenty years on the enhancement of musical and sound heritage in ethnographic museums (musée de l'Homme in Paris, musée du Quai Branly-Jacques Chirac and Musée d'ethnographie de Genève), where she has curated different exhibition projects on music. Since 2012, she has been curator of MEG's collections of musical instruments and sound archives, and editor of labels. Since 2015, she has been attached to the University of Geneva, where she teaches as part of the Master of Ethnomusicology.

LINGMAN LI

Lingman Li, a member of the Chinese Museum Association, graduated from the University of Leicester, UK, majored in Art Museum and Gallery Studies, serving as an assistant at the Music Museum of Xinghai Conservatory, China.

MARIE-ANNE LOEPER-ATTIA

Holds a Master's degree in Restoration and pre-preservation of works of art and a post-graduate diploma in Archaeology of historic periods. Since 2002: assistant manager of the Metal Workshop within the Department of Ceramics and Metals, at Inp (Institut National du Patrimoine). Since 2005: in charge of preservation and restoration at the Laboratory of Conservation and Research at the Musée de la musique. Also a consultant in preventive preservation and restoration for various museums in France.

THIERRY MANIGUET

After studies of sciences, musicology and acoustics, Thierry Maniguet teaches in academy during ten years. Specialised in organology, he is then a representative for the French musical instrumental heritage. Curator at the Musée de la musique since 2000, he conceived the exhibition of the 19th and 20th rooms and has curated in 2019 a new room dedicated to electronic music. He is Professor of organology at the Conservatoire de Paris and is a lecturer in several French academic institutions.

EMANUELE MARCONI

Organologist, conservator, curator and museum director working to connect musical instrument and social history. After museum experiences in Italy, France and Switzerland, he has worked at the National Music Museum, USA, and taught musical-instrument conservation at the University of South Dakota. He serves as Director of the Le Musée des instruments à vent, and as webmaster and advisory board member for the Cimcim.

Research interests include the history of restoration, substitute materials in contemporary making, and analyzing myths and symbolism related to musical instruments.

MARIE-PAULINE MARTIN

Graduated in Art history (PhD, Sorbonne University), musicology and philosophy, Marie-Pauline Martin is a specialist in the artistic history of the Enlightenment and the relationship between music and the visual arts. Lecturer in Art History at Aix-Marseille University, she has been Director of the Musée de la musique-Philharmonie de Paris since 2017.

KATARIINA MAURANEN

Dr Katariina Mauranen works as a Curator of Vehicles and Engineering at London Transport Museum. She joined the Museum as Project Curator for the Battle Bus project in 2014 and was Project Manager for the Q stock restoration project from 2016 to 2018. In both these roles she has gained valuable experience on caring for and interpreting operational museum vehicles. Her previous experience of operational artefacts comes from historic sailing ships.

MARIANNE ODLYHA

Dr. Odlyha is director of research centre "Scientific Analysis for the Preservation of Cultural Heritage" at Birkbeck, University of London. Projects involve damage assessment of collagen in parchment and vegetable tanned leathers (from macro to nanoscale), development of dosimeters for

monitoring microclimates, characterisation of varnished wooden surfaces by atomic force microscopy (AFM), and evaluation of novel nanocellulose based conservation treatment of canvas supported paintings.

BYRON PILLOW

Byron Pillow is an organologist, musician, and digital media specialist. He holds a master's degree from The University of South Dakota in the History of Musical Instruments, and he currently serves as a curator and studio photographer at the National Music Museum, where his research interests include the trombone in the early 1900s, keyboards from ancient to modern, material culture in American Aesthetics of the Gilded Age, and technical and fine-art imaging of musical instruments.

NIKO PLATH

A novel approach is presented for the reconstruction of geometry and sound of an unplayable historic wind instrument, combining X-ray computed tomography, computer-aided design, fluid dynamic simulation, and additive manufacturing. The object under consideration, a bone flute fragment dating from the 15th century, is in unplayable condition since the block has not been preserved. Under the assumption that the instrument had been playable in its original condition, the flute and its sound are virtually reconstructed. The 3D printed replicas are playable and can be used in museum-didactics or being further investigated. Although being purely virtual, the process of restoring the instrument leads to a fruitful

engagement with issues related to the instrument building process.

PANAGIOTIS POULOPOULOS

Panagiotis Pouloupoulos is an organologist with a BA in Conservation of Antiquities and Works of Art (TEI Athens), a MMus in Musical Instrument Research and a PhD in Organology (both University of Edinburgh). Since 2002 he has worked in various museums and academic institutions in Greece, Great Britain and Germany. His latest projects and publications have focused on the documentation, preservation, and exhibition of historical musical instruments, as well as on aspects of musical instrument design, manufacture and trade from the 18th to the 21st centuries. He is currently post-doctoral fellow of the Volkswagen Foundation investigating the development of the early pedal harp at the Research Institute for the History of Science and Technology in the Deutsches Museum, Munich. He is also a member of ICOM Germany and of CIMCIM, for which he served as Advisory Board Member from 2016 to 2019.

LAURENT RABIER

Laurent Rabier is responsible for the aircraft collection at the Paris-Le Bourget musée de l'Air et de l'Espace since 2011. As such, he is involved in all conservation and restoration project regarding his department. A self-taught Museum professional, he curated in 2016 a temporary exhibition titled *Restaurer les avions de musée* (Conserving Museum aircraft) and in 2019 co-curated two renewed permanent exhibitions focused of the earliest times of aviation.

JULIETTE RAOUL-DUVAL

Juliette Raoul-Duval is an economist by training. She has been responsible in French museums for 23 years. She was Head of the museum office at the Ministry of National Education, General Secretary of the Palais de la Découverte, Deputy Director of the Museum of Arts and Crafts. She has been a member of ICOM and CIMUSET since 2000. She was elected vice-president of CIMUSET in July 2016 and renewed in September 2019. She has been President of the French National Committee of ICOM since June 2016. She is a member of the board of the French Association of Museums and Centers of Scientific and Technical Culture (AMCSTI).

NINA ROBBINS

She currently works as a university lecturer at the Helsinki University, responsible for the museum studies program, but she holds an MA degree in art conservation as well. During her career as a curator of various collections, conservator and university lecturer she has developed a wide perspective in the field of cultural heritage. She places great importance in passing on to her university students not only theoretical knowledge, but also its corresponding practical knowledge. She feels that the field of museology offers an enduring bridge between the various fields of heritage management.

JOSE CARLOS RODRIGUES DE OLIVEIRA

Director of the Engineering Memory Center / UFMG, Brazil. Born in Belo Horizonte, Brazil,

April 19, 1951. Electrical Engineer - UFMG, Brazil, 1974. MSc in Electrical Engineering - UFMG, 1980. Doctor in Electrical Engineering - INPT, France, 1991. Professor and researcher in Electrical Engineering, UFMG, 1975 to 2013. Fields of interest: Engineering, Electronics, Education, History of Science, Museal Education, Interactive Museum. Present work: Development of prototypes of historical discoveries and inventions, planning on museal education, implementation of technical reserve, organization of museum scheduled visits, research on history of Electrical Engineering.

GABRIELE ROSSI-ROGNONI

Gabriele Rossi Rognoni is Curator of the Royal College of Music Museum in London and holds a personal chair in Music and Material Culture at the same institution. He has been President of the International Committee of Music Museums of ICOM, Curator of the Medici Collection at the Galleria dell'Accademia in Florence, Fellow in Curation and in Conservation at the Metropolitan Museum of Art in New York, and Wissenschaftlicher Mitarbeiter at the Institut für Musikforschung Preussischer Kulturbesitz in Berlin.

NORHAN SALEM

Norhan Salem is a Museum Curator at The Egyptian Museum in Cairo - Ministry of Antiquities, Egypt since 2012. She works as Registrar, Museum Educator & Cultural Events Coordinator. Norhan has Bachelor in Egyptology and Diploma in History of Art from Faculty of Archaeology, Cairo University. Currently, she is preparing her Master's

thesis in Greco-Roman Art and Anthropology. She is the Lead Registrar with Rijksmuseum-Leiden in: the Egyptian-European Project of Transforming the Egyptian Museum.

ISABEL TISSOT

Isabel Tissot holds a PhD in Physics Engineering (2017) and an MSc degree in applied electrochemistry (2007) from the University of Lisbon. She previously graduated in conservation and restoration from the NOVA University of Lisbon (2001). Since 1998 she works in metal conservation-restoration in the public and private sectors and since 2019 she holds a researcher grant at the LIBPhys-NOVA in the framework of IH4Future project, Material Cultural, Material Science: Industrial Heritage for future.

JOHANNA VÄHÄPESOLA

Johanna Vähäpesola holds a M.A. degree in History and is Head of Exhibitions and Learning at the Finnish Museum of Technology. Her background is in the history of technology and she has over ten years of experience in making technology meaningful to different audiences through exhibitions and learning programs. Johanna Vähäpesola is secretary of CIMUSET since 2016.

STEPHANE VAIEDELICH

Head of the Research and Restoration Laboratory of the Musée de la musique, Stéphane Vaiedelich began his career as a violin maker and won several awards in various international competitions. At the same time, he studied musical acoustics

at the Pierre and Marie Curie University. Holder of a postgraduate degree in materials science (University of Toulon and the Var), he also holds a master's degree in conservation and restoration of cultural property from the University of Paris 1. His research focuses on the material identity of musical instruments in relation to their functionality and their conservation-restoration from both a methodological and historical point of view.

ADRIAN V. STEIGER

Dr. Adrian v. Steiger is a Swiss musicologist. He has completed his PhD in 2013 on the 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.

GEERTEN VERBERKMOES

Geerten Verberkmoes holds degrees in chemistry, music and musical instrument making. He is currently an instrument maker and teacher of instrument making, chemistry and acoustics at the School of Arts in Ghent, Belgium. He is finishing a PhD study (2015-2020, Ghent University) on the life and instruments of the 18th c. violin maker B.J. Boussu. His research appeared in Early Music, The Galpin Society Journal and The Strad, as well as in book chapters for Brepols publishers and WoodMusICK.

ERIC DE VISSCHER

Eric de Visscher has been Artistic Director of IRCAM/Centre Pompidou in Paris, and from 2006 to 2016, Director of the Musée de la musique (Philharmonie de Paris), where he led a major revision of the museum's permanent collection. Currently "Andrew W. Mellon Visiting Professor" at the V&A Research Institute (VARI), his research focuses on the impact of sound in museums. He recently co-edited a special issue of "Curator: The Museum Journal" on this topic. (CIMCIM board member from 2010 to 2019).

DOROTHEA ZIMMERMANN

Dorothea Zimmermann (1982*) is a historian. She was curator of the medical collection of the University of Bern and the university hospital Inselspital Bern. Since August 2019 she has been curator of the newly founded collection of scientific instruments and teaching aids at ETH Zurich. In her doctoral thesis she researched on anti-communism and state security in the 1930s and 1940s in Switzerland.

An audio recording of the conference will be available on the website of the Philharmonie de Paris.

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CONCERTS SUR INSTRUMENTS DU MUSÉE

AMPHITHÉÂTRE – CITÉ DE LA MUSIQUE

VENDREDI 15 NOVEMBRE 2019 ————— 20H30

SALON DES MIROIRS

THÉOTIME LANGLOIS DE SWARTE,
VIOLON MONTAGE BAROQUE JACOB STAINER 1665,
VIOLON STRADIVARIUS « DAVIDOFF » 1708,
JUSTIN TAYLOR, CLAVECIN COUCHET 1652,
CLAVECIN PLEYEL 1959

Œuvres de **François Couperin, Jean-Philippe Rameau,
François Francœur et Jean-Marie Leclair**

MERCREDI 20 NOVEMBRE 2019 ————— 20H30

SALON BERLIOZ

STÉPHANIE D'OUSTRAC, MEZZO-SOPRANO
TANGUY DE WILLIENCOURT, PIANO PLEYEL 1842
THIBAUT ROUSSEL, GUITARE GROBERT VERS 1830
CAROLINE LIEBY, HARPE BLAICHER 1830
LIONEL RENOUX, COR NATUREL COURTOIS NEVEU AÎNÉ, PARIS,
1816-1837

CHRISTIAN-PIERRE LA MARCA, VIOLONCELLE
Œuvres d'**Hector Berlioz, Johann Paul Aegidius Martini, Lélu,
François Devienne, Nicolas Dalayrac, Dominique Della Maria,
Franz Liszt, Jean-Antoine Meissonnier, Charles-Henri Plantade,
Eugène Vivier**

JEUDI 28 NOVEMBRE 2019 ————— 20H30

LE COR ENCHANTÉ

JEAN-CHRISTOPHE VEROVITTE, COR NATUREL, COR MODERNE
SÉBASTIEN VICHARD, PIANO BRODMANN 1814,
PIANO BÖSENDORFER 1850-1860

Œuvres de **Ludwig van Beethoven, Frédéric Chopin,
Robert Schumann, Henri Dutilleul et Michael Jarrell**

MARDI 17 DÉCEMBRE 2019 ————— 20H30

MATHIAS LEVY / UNIS VERS

MATHIAS LEVY, VIOLON HEL « GRAPPELLI » 1924
JEAN-PHILIPPE VIRET, CONTREBASSE
SÉBASTIEN GINIAUX, GUITARE, VIOLONCELLE
VINCENT SÉGAL, VIOLONCELLE
VINCENT PEIRANI, ACCORDÉON

MARDI 4 FÉVRIER 2020 ————— 20H30

SALON DE LA DUCHESSE DU MAINE

MUSICIENS DES ARTS FLORISSANTS
WILLIAM CHRISTIE, CLAVECIN RUCKERS/TASKIN 1646/1780
Œuvres de **Nicolas Bernier, Louis-Nicolas Clérambault
et Jean-Joseph Mouret**

DIMANCHE 15 MARS 2020 ————— 15H00

SALON VIS-À-VIS

LUDMILA BERLINSKAYA, ARTHUR ANCELLE,
PIANO VIS-À-VIS PLEYEL 1928
Œuvres d'**Anton Arensky, Serge Rachmaninoff et Sergueï Prokofiev**

DIMANCHE 5 AVRIL 2020 ————— 15H00

LE SALON DU PEINTRE

MARC MAUILLON, BARYTON
ALAIN PLANÈS, PIANO GAVEAU 1929
Œuvres de **Francis Poulenc, Erik Satie, Darius Milhaud
et Igor Stravinski**

JEUDI 9 AVRIL 2020 ————— 19H00

SALON MYSTIQUE

JAY GOTTLIEB, PIANO GAVEAU 1929
Œuvres de **Maurice Ohana, Olivier Messiaen,
Nikolai Obouhov, Erik Satie et Giacinto Scelsi**



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GRANDS TÉMOINS

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du monde artistique ou du monde des idées
qui portent un regard sur la musique.

MARDI 1^{ER} OCTOBRE ————— 19H00

SABURO TESHIGAWARA ET RIHOKO SATO, DANSEURS,
CHORÉGRAPHES
LE CORPS MUSIQUE

JEUDI 21 NOVEMBRE ————— 19H00

JEAN-LUC NANCY, PHILOSOPHE
DU SENS MUSICAL

MARDI 3 DÉCEMBRE ————— 19H00

PATRICK BOUCHERON, HISTORIEN, ET LA COMPAGNIE
RASSEGNA
UNE POÉSIE [QUI NOUS VIENT] DU MOYEN ÂGE

DIMANCHE 19 JANVIER ————— 19H00 *

DANIEL BARENBOIM, PIANISTE, CHEF D'ORCHESTRE
LA MUSIQUE DANS ET EN DEHORS DU MONDE

MARDI 21 JANVIER ————— 19H00

NATHALIE HEINICH, SOCIOLOGUE
LES VALEURS DU GÉNIE

VENDREDI 31 JANVIER ————— 19H00

GEORGES DIDI-HUBERMAN, PHILOSOPHE, HISTORIEN DE L'ART
**LA POLITIQUE DU RÉVEUR ÉVEILLÉ. ART VISIONNAIRE
ET PRINCIPE ESPÉRANCE**

SAMEDI 7 MARS ————— 19H00 *

STEVE REICH, COMPOSITEUR
LA MUSIQUE ET LES AUTRES ARTS

LUNDI 23 MARS ————— 19H00

JACQUES RANCIÈRE, PHILOSOPHE
CE QUE DIT LE MOT MUSIQUE

MARDI 21 AVRIL ————— 19H00

JEAN-JACQUES NATTIEZ, MUSICOLOGUE
COMPOSITEUR, INTERPRÈTE, METTEUR EN SCÈNE :
Y A-T-IL UNE VÉRITÉ DE L'ŒUVRE ?

DIMANCHE 10 MAI ————— 14H30

MAX RICHTER, MUSICIEN, COMPOSITEUR,
ET YULIA MAHR, PLASTICIENNE
SOUNDS AND VISIONS

MARDI 26 MAI ————— 19H00

ROBYN ORLIN, CHORÉGRAPHE
L'AGITATION PERMANENTE

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pour le concert en lien avec la conférence.

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19 ET 20 MARS 2020 – 9H30-18H

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Entrée libre sur réservation

26 ET 27 MAI 2020 – 9H30-18H

Picasso, musique et poésie

SALLE DE CONFÉRENCE – PHILHARMONIE

Entrée libre sur réservation

22 ET 23 JUIN 2020 – 9H30-18H

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