

Music Museums and Education

Proceedings of the 2019 General Meeting of ICOM-CIMCIM as part of the 25th ICOM General Conference, 1-7 September 2019, Kyoto, Japan

Edited by Christina Linsenmeyer, Marie Martens, Gabriele Rossi Rognoni, Jennifer Schnitker, and





Music Museums and Education

Proceedings of the 2019 General Meeting of ICOM-CIMCIM as part of the 25th ICOM General Conference, 1-7 September 2019, Kyoto, Japan

Edited by Christina Linsenmeyer, Marie Martens, Gabriele Rossi Rognoni, Jennifer Schnitker, and Kazuhiko Shima



CIMCIM Proceedings

Music Museums and Education. Proceedings of the 2019 General Meeting of ICOM-CIMCIM as part of the 25th ICOM General Conference "Museums as Cultural Hubs: The Future of Tradition", 1–7 September 2019, Kyoto, Japan

Edited by Christina Linsenmeyer, Marie Martens, Gabriele Rossi Rognoni, Jennifer Schnitker, and Kazuhiko Shima

Series Editor: Christina Linsenmeyer, CIMCIM Secretary (2016–2019)

CIMCIM Kyoto 2019 Conference Organising Committee
Christina Linsenmeyer (Collection of Musical Instruments, Yale University, New Haven, USA)
Gabriele Rossi Rognoni (Royal College of Music, London, UK)
Jennifer Schnitker (The Metropolitan Museum of Art, New York, USA)
Kazuhiko Shima (Hamamatsu Musical Instrument Museum, Hamamatsu, Japan)

Chair of CIMCIM (2016–2019): Gabriele Rossi Rognoni

Published by ICOM-CIMCIM 2023 International Committee for Museums and Collections of Instruments and Music (CIMCIM) of the International Council of Museums (ICOM)

CIMCIM ICOM General Secretariat 15 rue Lasson 75012 Paris France https://cimcim.mini.icom.museum

Design and layout: Aleksi Salokannel \cdot S $^{\text{IsIN}}$ \cdot Helsinki, Finland \cdot sisin.fi

ISSN: 2959-8834 ISBN: 978-2-491997-76-2 DOI: 10.46477/EWWD3627

ICOM Kyoto 2019 graphics. Copyright © 2019 by International Council of Museums (ICOM) and ICOM Kyoto 2019 Organising Committee

Contents

- 7 About CIMCIM
- 8 Foreword

Gabriele Rossi Rognoni, CIMCIM Chair (2016–2019)

Papers

- 15 Ten Years of MIMO A critical review of a worldwide musical instrument resource for research, promotion, and education Frank P. Bär and Rodolphe Bailly
- 24 Exhibiting Sámi Music Tradition
 Verena Barth
- 30 The Role of Education in the Development of Musical Culture in Azerbaijan, and Music Museum's Contribution to Education

 Alla Bayramova
- 34 Education through Engagement: Sounding the world at the Horniman Museum Margaret Birley
- 37 Material or Immaterial? A questionnaire to help decisions about the preservation of musical instruments

 Vera de Bruyn-Ouboter
- 41 Small Musical Instrument Museums in The Netherlands: Collaboration, a must for future survival

 Jurn Buisman
- 49 Interpreting the Music of the Early Shu Kingdoms Based on Artefacts in Two Chengdu Museums Stewart Carter

- 9 PrefaceKazuhiko Shima,CIMCIM local arrangements coordinator
- 11 Conference overview
- 12 **CIMCIM Call for Papers**
- 54 Music Socials: Creating meaningful experiences for people with dementia Sarah Deters
- 59 Sound as a Catalyst for a New Breed of Exhibition Jascha Dormann
- 64 Musical Instruments as Educators

 Manu Frederickx
- 69 Piano Rolls as Sources for Interpretation Research Heike Fricke
- 83 Academic Education in Museums The Leipzig Collection as a hub for organology Sebastian Kirsch
- 90 Education at The Bate Collection, University of Oxford: Past, present and future

 Alice Little
- 93 Russian National Museum of Music and the Russian National Education System. Collaboration experience

 Daria Melnichenko
- 96 Georges Ouedraogo Music Museum: Showcase of the aspirations of a people Moctar Sanfo

- 101 Joint Educational Programs with Other Organisations for Children through Music and Musical Instruments

 Kazuhiko Shima
- 109 "Ongoma Ohayi Hokelwa Pondjila":

 Making the Museum of Namibian Music

 Jeremy Silvester
- 115 Documenting The Rijksmuseum's

 Musical Instrument Collection

 Giovanni Paolo di Stefano and Maarten Heerlin
- 123 The V&A's Musical Instruments Collection:
 New challenges in a multi-sensory museum
 Eric de Visscher
- 128 The Significance of Traditional Japanese Music Education at a Musical Instruments Museum Mayumi Wakiya

Poster

- 133 Traditional Japanese Hand Drums
 "Tsuzumi" Collection Stored in The
 National Museum of Japanese History:
 Wood identification of Tsuzumi bodies
 Misao Yokoyama and Minoru Sakamoto
- 155 Kyoto International Conference Center (room locations)
- 156 Photo gallery

- 139 Abstracts
- 151 **Programme**
- 154 Map to Inamori Memorial Hall

About CIMCIM

CIMCIM is the acronym for Comité international pour les Musées et Collections d'Instruments et de Musique (International Committee for Museums and Collections of Instruments and Music; Comité internacional para museos y colecciones de instrumentos y de música). It is one of the 31 international committees of ICOM, the International Council of Museums, and was established in 1960.

CIMCIM aims to promote high professional standards in the use and conservation of musical instruments in museums and collections.

As an international committee, CIMCIM works within the framework of ICOM in fostering connections amongst, advocating for and advising museums and collections of musical instruments and music of all kinds.

As an organization that promotes high professional standards, CIMCIM supports ICOM's Code of Ethics in providing a global platform to discuss state-of-the-art, best-practice solutions related to tangible and intangible musical heritage, particularly in the context of museums.

As a worldwide and inclusive committee, CIMCIM aims at a mutual understanding of different cultural practices and viewpoints with respect to musical instruments and music in supporting active dialogue and exchange between all stakeholders.

CIMCIM meets normally every three years during the ICOM General Conferences and in each of the other two years organizes a special meeting, usually including symposium papers and museum visits. Meetings are held in different countries of the world aiming to represent the diversity and worldwide distribution of its membership.

Professional matters where international cooperation is advantageous are discussed in detail in CIMCIM's Working Groups, which are set up as needs arise. The deliberations of Working Groups are usually published as CIMCIM Publications.

Membership of CIMCIM is personal and is open to personal and institutional members of ICOM. Under special circumstances, non-members of ICOM can be co-opted. Benefits of membership include invitation to annual meetings, the CIM-CIM *Bulletin*, voting rights at business meetings (held during the annual meetings), and the opportunity to participate in Working Groups.

Services offered by CIMCIM to members and non-members alike include a series of publications and CIMCIM-L, an e-mail discussion forum devoted to topics of relevance to the use and care of musical instruments in museums.

Foreword

As Chair of CIMCIM, I am particularly happy and proud to see the production of this volume of proceedings of the memorable conference organised as part of the 25th General Conference of ICOM, with the support of our colleague and friend Kazuhiko Shima and the Hamamatsu Musical Instrument Museum.

CIMCIM has been active in promoting international collaboration in the field of music museums and collections since 1960 and since then annual conferences have become its most recognisable activity, attracting delegates from institutions from all over the world to discuss pressing issues in the interpretation, care, dissemination, and sustainability of musical heritage in museums.

Over these years, CIMCIM members have met in over 25 countries to discuss the changing world of music museums and to gain a better understanding of how each of these countries interpret, preserve, and display their musical heritage through museums. Each year the CIMCIM conference is an occasion to visit institutions and workshops, share ideas with an energetic professional community, and meet new people in a friendly and enjoyable atmosphere that has encouraged the development of some of the most relevant projects undertaken in our field. It is this sense of continuous growth that has supported the development of CIMCIM from its original 31 members to including today circa 250 colleagues, many of whom representing the main music-museums in 55 countries.

Every year colleagues from a multitude of museums – large and small – introduce a variety of perspectives that photograph, propel, and inspire conversation on the state of the preservation, display, and interpretation of music collections in the world. However, it has often been regretted that, in the absence of a specialised journal that focuses on this topic, these conversations are either dispersed or lost, if not for a conference overview published in the CIMCIM *Bulletin*. This motivated the Board to the decision to begin the publication of annual proceedings – a brave resolution for an association that is run entirely on a voluntary basis – in order to consolidate and further develop the awareness of our field and of the specific challenges and opportunities offered by music collections. We hope that this will serve as a useful tool for members of our community and as a way to connect with colleagues from other branches of the museum community.

This volume is the first outcome of this collaboration and I am particularly grateful to Christina Linsenmeyer and all the members of the Editorial Board for having guided this initiative with determination. Leaving a trace of the papers and discussions presented at annual conferences is a vital contribution to make sure that the conversation on our musical heritage continues and evolves in a clear direction.

Gabriele Rossi Rognoni Royal College of Music – CIMCIM Chair 2016–2019

Preface

First of all, both officially and personally, from the bottom of my heart I thank you very much for coming to Japan, far from your countries.

I am sure that all of you who participated in the ICOM Kyoto Conference experienced wonderful days, though it was the hottest season in Kyoto, and brought back beautiful memories. The ICOM Kyoto Conference with its theme of 'Museums as Cultural Hubs: The Future of Tradition' was successful with the largest number of participants in ICOM's history. The CIMCIM annual meeting during ICOM Kyoto, I believe, also got a new wind of presentations from Asian and African members and from new points of view on the theme of 'Music Museums and Education'. Although voting for the new "museum definition" was postponed, I think it shows the conscience of museum staffs of the world.

I am very honoured, happy, and proud of my mission to plan the event programs of the CIMCIM Kyoto meeting as a member of the steering committee of the ICOM Kyoto Conference and as the local organizer for CIMCIM.

In making the plan for the CIMCIM meeting events in Japan and from the perspective of music and musical instruments, I kept in mind the following four activities:

- 1. Showing Japanese traditional music uninfluenced by western music.
- 2. Showing Japanese traditional techniques related to Japanese traditional musical instruments, and challenging problems in the transmission of Japanese musical instrument culture.
- 3. Showing the newest, current situation of the western musical instrument industry in Japan.
- 4. Holding joint sessions with other international committees and visiting the National Museum of Ethnology in Osaka for the purpose of developing new perspectives outside of musicology and organology.

It was my pleasure that you could hear and watch *yanagawa-shamisen* living only in Kyoto, *jinashi-shakuhachi* and *koto* of the Yatsuhashi-school without the influence of western music. Also, that we all visited a long-established silk-string factory in Kyoto, a wind instrument factory, and a piano factory of the world's largest company of western musical instruments in Hamamatsu and its company museum of musical instruments. I hope you experienced the music scenes in present-day Japan, including the current challenges facing Japanese traditional music. I only wish there had been more time to enjoy together, including opportunities to personally show you around the city of Kyoto.

I am pleased that the joint sessions – with CIDOC in Kyoto, and ICME during the off-site meeting held at the National Museum of Ethnology in Osaka on the theme of Diversity and Universality – were realized. I am sure that the ICOM conference and CIMCIM meeting provided us with a wider perspective for our aims. Also, I am

deeply grateful that you, CIMCIM members, visited the Hamamatsu Museum of Musical Instruments. It has been my dream since it was opened.

Looking back, I had discussed step by step with the CIMCIM Chair Gabriele Rossi Rognoni about the 2019 Kyoto meeting. During the Basel meeting in 2017, we discussed the theme of "education" and including joint sessions. After that, ICOM decided the theme of the Kyoto 2019 meeting would be 'Museums as Cultural Hubs: The Future of Tradition'. What a nice theme it was! Because education and joint sessions indeed have strong connections with this theme. It is my hope that our presentations and the topics discussed in Kyoto will surely strengthen the power of museums for future meetings and initiatives.

In closing, I would like to reiterate my deepest gratitude to former chair Gabriele Rossi Rognoni and all the members of the CIMCIM community who contributed to the Kyoto meeting, all the attendees who participated, the *Proceedings* committee members who edited such wonderful reports, and all the players, musicians, companies, and the staff members of the Hamamatsu Museum of Musical Instruments, who supported us and worked together.

I hope you can also come back to Kyoto someday in cool, beautiful seasons. With greatest thanks,

Kazuhiko Shima
Former Director,
Hamamatsu Musical Instrument Museum, Hamamatsu Japan
Local arrangements coordinator, CIMCIM Kyoto 2019
Member of the steering committee of ICOM Kyoto 2019

CIMCIM Summary of the 2019 conference – Kyoto, 1–7 September 2019

CIMCIM held a very successful meeting in Kyoto as part of the 25th ICOM General Conference with an intense programme that included ten paper sessions, music performances, visits to makers' workshops and to museums in Kyoto and Osaka and a post-conference trip to Hamamatsu. The programme was organised and coordinated by Kazuhiko Shima, of the Hamamatsu Museum of Musical Instruments, and the paper committee also included Gabriele Rossi Rognoni, Christina Linsenmeyer, and Jen Schnitker.

Thirty-three papers were presented by delegates from 19 countries focused on the theme 'Music Museums and Education'. Two joint sessions were organised in collaboration with CIDOC – on the documentation of music collections – and ICME – on the role of music in ethnologic museums. The latter was hosted by MINPAKU – the National Museum of Ethnology situated in Osaka, as included a fascinating program of behind-the-scene visits to the museum storages and permanent and temporary displays.

The current reality of traditional musical instrument making in Japan was explored through a series of visits which included the Tobaya Silk String factory in Kyoto – active in the production of musical instrument strings since the 17th century – and a post-conference trip to Hamamatsu, which included special visits to Yamaha and Kawai musical instrument factories.

The conference also offered the opportunity to appreciate some private performances of traditional Japanese music, which the delegates greatly appreciated, both in Kyoto and in Hamamatsu.

To encourage participation of young colleagues and those coming from the wider possible number of countries, CIMCIM made available over EUR10,000 in travel grants, which resulted in a particularly diverse and rich programme and in the attendance of several members who had not been able to participate in the annual conferences before. These were added to some of the grants provided by ICOM which were awarded to CIMCIM delegates.

Overall, the 2019 Kyoto conference was a memorable and enriching experience, which provided the opportunity to create new and intense professional connections and that will hopefully result in stronger ties and collaborations with some Asian institutions that are emerging at the forefront of the world of music museums.

CIMCIM Call for Papers

CIMCIM General Meeting 2019 as part of the 25th ICOM General Conference: 'Museums as Cultural Hubs: The Future of Tradition' ICOM Kyoto 2019

'Music Museums and Education'

The role of education in museums has transformed significantly over the past decades. In contrast to more traditional methods of imparting knowledge, museums are now actively encouraging learners to utilise collections as springboards for collaborative, innovative ideas. This transformation was encouraged by social, theoretical, and technological changes. These include a demand for a more active museum experience, the advent of digital resources, social media, the development of 'object-based learning' and the articulation of 'new museology' with its increased focus on how collections impact society.

The relationship between museum collections and educational activities continues to evolve, from a close dependence of the latter on the former, to an increasing level of independence. The purpose of activities has often expanded from a presentation of the collections themselves, to address issues of social and environmental importance, or the relationship with intangible culture, aiming at reaching new audiences and increasing the impact of museums beyond their walls.

These changes are shared by museums of all types but can develop in very specific ways in museums of music and musical instruments. The emphasis on the intangible element of music heritage, the social potential of music to create emotional bonds with users and the participatory experience triggered by functional objects and performing experiences are only few of the many levers that museums can use to reach a deeper level of connection with their audiences.

Standard (20 min+10 Q&A) and short (10 min+5 Q&A) paper proposals are invited to address the role that museums can have in music education, as well as the ways music can enhance the educational potential of museums in addressing broader issues. Discussions of the ways this can be delivered through informal and formal learning programmes, innovative ways of meeting State curricula, as well as the impact that education has on all museum-related professions and roles will be welcome, as well as case studies that show how music can play a leading role in delivering the educational potential of museums

Abstracts (max. 300 words) should be sent to cimcim2019@gmail.com by the 31st January and should include the author's name, institutional affiliation, email address and a short (150 word) biography. Confirmation of acceptance will be sent by the 15th February. Authors of accepted papers will be requested to send a longer version of the texts (2,500-3,000 words) soon after the conference, to be published in the digital proceedings.

A separate call for grant applications will be released next week.

CIMCIM Kyoto 2019 Conference Organising Committee
Christina Linsenmeyer (University of the Arts, Sibelius Academy, Helsinki, Finland)
Gabriele Rossi Rognoni (Royal College of Music, London, UK)

Jennifer Schnitker (The Metropolitan Museum of Art, New York, USA)

Kazuhiko Shima (Hamamatsu Musical Instrument Museum, Hamamatsu, Japan)

Papers



Ten Years of MIMO

A critical review of a worldwide musical instrument resource for research, promotion, and education

Frank P. Bär

Germanisches Nationalmuseum, Germany

Rodolphe Bailly

Cité de la Musique - Philharmonie de Paris, France

Introduction

At the time of the presentation of this paper, it had been exactly ten years and three days since the European community funded project MIMO – Musical Instrument Museums Online – which is now the world's largest resource about musical instruments in public collections, officially took off. As the name suggests, it has much to do with musical instruments, but also at least as much with their documentation. This paper outlines the history of MIMO and undertakes a critical review of what has been achieved and what is still left to do.

Methods

In preparation of this paper, members of MIMO's core management group have drawn together a timeline of events, mainly based on meeting minutes and agendas, backed up by some statistical analysis of key data and an online survey conducted amongst MIMO users in 2019.

MIMO as a European Community funded project

Actually, MIMO owes its existence to the Scottish Enlightenment. It turned out that an exciting project at the University of Edinburgh about how European books may have influenced the Enlightenment would not fit well into an upcoming European Community project call. The idea of instead taking musical instruments in account finally led to a first meeting of representatives, held on 6 March 2008 in Paris, with almost all of the later MIMO consortium members already being present. The schedule, only three months ahead of the proposal submission deadline, was tight for a European funded project, but the future consortium members decided to give it a try.

What they wanted to achieve was a desideratum that musical instruments share with most other types of collections in museums, as the project proposal states: "The aim of the MIMO project is, through the portal Europeana (https://www.europeana.eu/en), to create a single access point to information and digital content on the collections of musical instruments held in European museums." (MIMO 2009, 3). At that time and due to rules for funding, MIMO had to be considered as, first, a purely European Community initiative and, second and less obviously, as a "dark provider" for Europeana without its proper web access.

In 2008, proposals had still to be handed over in paper form, and Ignace de Keyser did this in person just half an hour before the counter closed in Luxembourg on 12 July 2008, 5 p.m. After some time of waiting and after the European Community project negotiation process, MIMO took off as a 50%-EC funded project with a 1.3 million Euro budget for 24 months on 1st September 2009.

MIMO's kick-off meeting in Florence on 5th and 6th September 2009 preceded directly the joint annual conferences of ICOM—CIMCIM, the American Musical Instrument Society AMIS, the UK-based Galpin Society and the Historic Brass Society. Under these circumstances, the MIMO team had a good opportunity to raise awareness within the community and lay the groundwork for further collaboration.

The results the project should achieve were:

- a public MIMO website (for promotion, not as a data provider)
- a common data model based on existing standards
- the MIMO database (to feed Europeana)
- a simplified musical instrument classification
- a dictionary of musical instrument names and synonyms in English, French, German, Italian, Dutch and Swedish
- a list of makers' names
- content delivery to Europeana
- online entries for 45,000 musical instruments in public collections
- 1,250 sound files online
- 300 video files online
- a digitisation standard for musical instruments

The project partners (current naming) were:

- University of Edinburgh (UK)
- Philharmonie de Paris Musée de la musique (F)
- Germanisches Nationalmuseum, Nuremberg (D)
- Musical Instruments Museum Brussels (B)
- Royal Museum for Central Africa, Tervuren (B)
- Horniman Museum and Gardens, London (UK)
- Swedish Museum of Performing Arts, Stockholm (S)
- Galleria dell'Accademia, Florence (IT)
- Amici del Museo degli Strumenti Musicali, Florence (IT)
- SPK Ethnological Museum, Berlin (D)
- University of Leipzig, Musical Instrument Museum (D)

At the end of the funding phase on 30 August 2011, all the goals had been achieved except the announced number of video files. In turn, there were two supplementary results, namely a revised Hornbostel-Sachs classification, which has been devised in close cooperation with CIMCIM, and the referencing of place names via GeoNames (www.geonames.org). These results were much welcomed during the final project review in Luxembourg on 15 November 2011. However, in only two years' time, not all could have been done as precisely and thoroughly as necessary. Moreover, in working on the instruments and the MIMO infrastructure, new wishes from inside and outside the consortium had been expressed.

Critical review of the results

A promotional project website had been set up according to EC project rules but had been abandoned soon after the end of the funding phase. Instead, the back-office site had been put forward as a direct access to the MIMO database. This site still exists and is accessible, but barely attractive for a larger public and awkward to navigate (www. mimo-db.eu). It provides controlled access, especially for continued collaborative work on the different thesauruses and word lists. Responding to the growing demand by the international community, the four members of the core management group (University of Edinburgh, Cité de la musique – Philharmonie de Paris, Musical instrument museum Brussels, and the Germanisches Nationalmuseum) financed what is known today as the MIMO website, launched in March 2014 (www.mimo-international.com).

Maintaining thesauruses and word lists is an ongoing, time-consuming challenge for all data repositories. For MIMO, more resources would be needed to add information to the makers' list, currently 3,744 entries, and to the multilingual thesaurus of object names, currently 2,374 entries, especially for disambiguation, but also for more reliable data retrieval and a comfortable search function.

The data transfer to Europeana was achieved in 2011 and more recently in 2019. The update of the MIMO data in Europeana is another time-consuming challenge mainly because of the evolution of the exchange data standards.

One of the best-known results in the world of musical instrument collections is arguably the MIMO digitisation standard (Bär & Pfefferkorn 2011), recently completed by the MUSICES recommendations for the 3D computed tomography of musical instruments and other artefacts (Bär et al. 2018). In 2017, the Rijksmuseum in Amsterdam published guidelines for photographing three-dimensional objects (van Wijk et al. 2017), but until then, the MIMO standard was the only one to prescribe how three-dimensional objects should be photographed. The outlines and the core of the standard were agreed upon on 28 October 2009 when the working group on digitisation met. While the recommendations as to how instruments should be positioned are still useful, the technical part is outdated, and resources would be needed to provide an update.

MIMO in service mode

As for all projects, MIMO's main challenges are the financial and personnel resources needed to fix issues and to enhance functionality and membership, while maintaining a functioning service. At the end of the project, in autumn 2011, most of the partners had given a lump sum to keep the service running for the next five years.

During this time, two targeted supports were of immense help, one of them being the new stand-alone website mentioned above. The second substantial support came from ICOM—CIMCIM in two parts. The first, in 2013, helped to enhance the functionality of the website by allowing users to search for collections (on a map) and to search by instrument makers' names. The second part of the CIMCIM contribution aimed to help collections in countries of lesser economic development go through the then rather complex joining process. Despite all misunderstandings and obstacles along the way, today all problems have been resolved. This grant helped greatly to enhance multilingualism on MIMO and to welcome the first collection from Asia, from the Shanghai Conservatory of Music.

During the annual general meeting of MIMO in Museu de la Música in Barcelona on 15 July 2015, all ten museum representatives committed to contribute for the next five years and decided to work towards a sustainable financial solution for the future.

Ten years of MIMO 17

After discussion in all regular MIMO meetings, this solution was adopted on 10 October 2016 during the Annual General meeting at the Edinburgh University Library. It offers a three-level contribution model:

Level 3 membership is free, with the uploaded content remaining static. To update data sets and add instruments, a switch to one of the other levels is required.

Level 2: Content is dynamic and can be enhanced or changed. The fee currently is 500 Euros for the running 5 years period.

Level 1: Members who contribute 2,000 Euros for a five-year period have their content dynamic (able to be updated), and voting rights for the further development of MIMO. The logos of level 1 members are displayed at the bottom of the MIMO website.

The technical infrastructure and its changes

The core modules of technical infrastructure of MIMO haven't changed much for the last ten years. The entries are described using the LIDO exchange format (i.e., Lightweight Information Describing Objects, an XML harvesting schema), created by ICOM-CIDOC during the running time of the MIMO project.

To become a part of MIMO, museums have to deliver their data in LIDO, with a very small number of additional constraints, such as choosing one of the LIDO Thesaurus terms for each of their artefacts.

During the project phase, Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) was mandatory. However, OAI-PMH repositories are not easy to maintain when internal systems are evolving, even for larger museums. Another difficulty, especially for small museums, is building the required repository. Now, they can provide their data as a LIDO Bulk, or even as a Microsoft Excel spreadsheet, lowering the access barrier for smaller collections with less technical expertise. However, the spreadsheet, processed by a LIDO converter, doesn't contain all the LIDO fields. This method has been recently adopted for the GUGAK Center of Seoul, South Korea.

The MIMO Thesaurus of musical instruments, which allows for multilingual searches, as well as facets to filter search results, has become more and more important. It is currently available in 12 languages. Each joining museum with a new language is asked to translate the MIMO Thesaurus. Although this usually takes around two years, the new members' engagement is great and provides the possibility for enrichment by adding new terms. For instance, the South Korean GUGAK Center Museum provided 114 new instrument names. They were validated by Saskia Willaert (MIM Brussels), often after intense consultations amongst experts.

The MIMO Thesaurus is available online in many formats, including SKOS, and a SPARQL endpoint provides a companion API. Many projects and information systems use it, e.g.: MUSICES (3D-CT for musical instruments); CrowdHeritage (Crowdsourcing campaigns for Europeana; INSIGHT (AI for cultural heritage, Belgium); Doremus (Research project on Musical metadata by Bibliothèque nationale de France, Radio France, and the Philharmonie de Paris). Doremus uses FRBRoo in order to create a model to represent all relevant entities of the musical world (works, performances, scores, recordings, etc.) and the MIMO list of instruments as *Medium of Performance* (MOP).

The quantitative development of MIMO

To know how MIMO developed in terms of growth, the parameters of object entries, numbers of collections and international contributors are used.

Fig. 1 shows the considerable increase in languages for MIMO's musical instrument thesaurus and that the number of countries has more than doubled. Starting from a European project, MIMO has member collections on three continents.

The number of musical instrument entries in MIMO developed from 45,000 at the end of the project to 64,000 in February 2019, representing an increase of 42% (Fig. 2).

The initial data, nine collections in 2011, increased to 248 by February 2019 (Fig. 3). In both figs. 2 and 3, a sharp bend upwards in numbers is visible in 2018, when two important national aggregators joined MIMO:

The MINIM-UK project, led by Gabriele Rossi Rognoni and supported through an award of the Higher Education Funding Council for England (HEFCE's) Catalyst Fund (http://minim.ac.uk/) has gathered thousands of records and photos in sometimes remote corners of the United Kingdom and brought them together with the country's larger collections.

The French national database of musical instruments, managed by Rodolphe Bailly, is extracted from the national French database of cultural heritage, and run by Cité de la Musique – Philharmonie de Paris, which is also the technical centre of MIMO.

National or regional aggregators have turned out to be an excellent infrastructure for enriching MIMO, as their implementation saves time and money for all stakeholders.

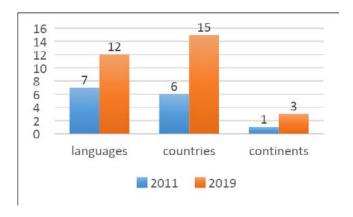


Figure 1: International development of MIMO 2011–2019

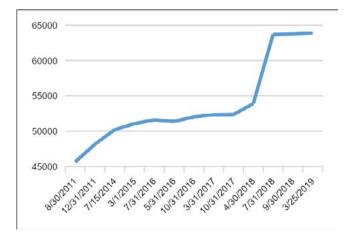


Figure 2: Number of musical instrument entries in MIMO 2011–2019

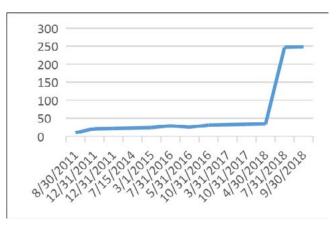


Figure 3: Number of collections represented in MIMO 2011–2019

MIMO - the users

In order to help decide further development strategy, a better understanding of the MIMO website users was needed.

For this, two studies were used. The first one is based on global figures acquired from Google Analytics, the second one with more qualitative aspects includes the results of an online survey accessible via the MIMO website from April to July 2019 with a participation of 156 users.

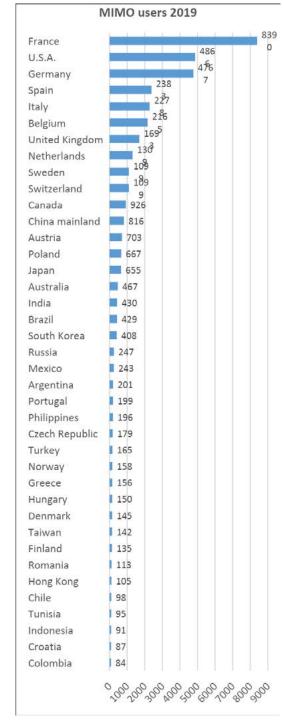
Figure 4 shows a linear increase of the users, except for 2017, when an interruption of Google Analytics occurred for a two-month period. Considering that MIMO

disposes of no resources for marketing, the figures can be valued as encouraging results.

Figure 5 shows the total users by country. Greater than the MIMO membership distribution in 2019, users came from all continents.

The following figures present key results of the online survey: Fig. 6 shows that almost half of the MIMO users are at an age that is typical for the most active and settled work period, followed by two very close sums that point to an interest during retirement and studies / early career respectively. This matches quite well the numbers in fig. 7 where all professional actions taken together yield much more than 75% of the answers, followed by a small, but clearly distinguished part of education. MIMO can thus be considered first and foremost a professional tool.

The word cloud in fig. 8 provides some more indications, confirming the professional usage, and suggesting, beyond scientific use, an artistic value as may be expressed by the word "performance".



Web site audience (Jan to July) Unique Users Sessions

Figure 5: Origin of MIMO website users per country. Source: Google Analytics

Figure 4: MIMO Website audience. Source: Google analytics

Figs. 9 and 10 seem to suggest quite high frequencies of usage and relatively long visiting times on the MIMO site. Although experience tells those estimations may lack measurable exactitude, they nevertheless express the subjective value and importance visitors are according to MIMO.

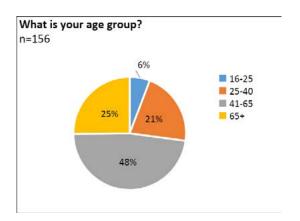


Figure 6: Age of the users. Source: MIMO Online Survey



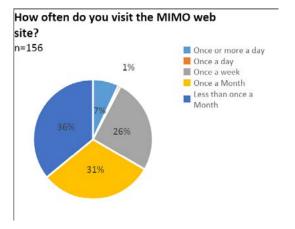


Figure 9: Frequency of use of the MIMO web site. Source: MIMO Online survey

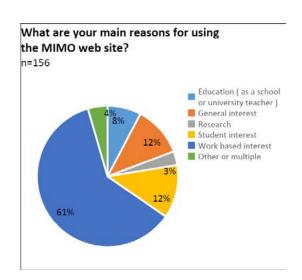


Figure 7: Main reasons to use the MIMO website. Source: MIMO Online Survey

Figure 8: Word cloud made of the responses of the open question: "What is your area of expertise?" Source: MIMO online survey

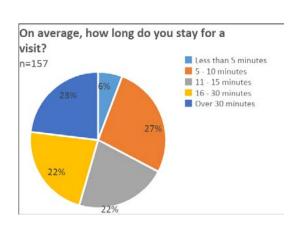


Figure 10: Duration of the visits. Source: MIMO Online survey

As for the area of expertise, another open question was asked: "Please tell us more about how you are using MIMO, especially for education". For the sake of brevity, the following selected answers have been either cited originally, slightly paraphrased or translated into English:

- mainly to locate an instrument or a type of instrument
- as a part of my research for the university
- as a tool for organology
- as an instrument maker and scholar to look up particular instruments especially for the photographs and some measurements
- as an expert, for research of similar instruments from specific makers
- exclusively for searches motivated by acquisitions and for comparisons
- as the best resource of organology info (that is used for crossing information with other social sciences). Very useful for obtaining contacts of current builders as well.
- as a collector of prints with musical instruments depicted (iconography)
- for comparative research
- [as a collector], for comparing and contrasting [MIMO objects] with instruments in my collection
- [as a museum professional], for comparing instruments in our collection to those in other collections
- for curation in museums
- for descriptive information and pictures
- · for discovering new instruments
- · for Early Music instruments research
- for examples of the Sachs-Hornbostel Classification
- for musical instrument related research
- for reference, to track down instruments for comparisons, to answer enquiries from other people
- for information about lute-mandolin makers and searching images of baroque mandolins for my study and work
- · for teaching at the University, for my research project on musical instruments
- mostly for my private research, influencing my teaching as a historical flute Professor
- as a musician, composer, and music teacher in South America
- as a professional conservator of instruments
- to look for images of musical instruments to use in a publication
- for research-related inquiries to find instruments and their location
- to look up specific makers or models and trying to locate best examples
- not directly for education, but e.g., for guided tours for schools and students, pointing to MIMO as a valuable resource. Virtually all groups know MIMO, especially those from universities

Here again, research purposes seem to prevail, but also collectors and dealers are using MIMO as a valuable resource for their hobby or their business.

Conclusion

In its 10 years of lifetime, MIMO has become the central access point to musical instrument collections almost all over the world. Milestones have been the creation of the current website through funding of members of the core management group, the possibility of integrating collection data other than through an OAI-PMH repository, the development of a three-level membership model for a better sustainability, the amelioration of the makers' repository, a map search, and augmentation of languages through a CIMCIM grant, and the joining of two large aggregators. Two structural achievements are of great use in different fields: the digitisation standard and the multilingual MIMO Thesaurus, the latter used by many institutions as a reference. The results of the user survey in 2019 shows MIMO as being a professional tool for research and performance.

Despite a slow, but steady growth through collections joining every year, MIMO still struggles with issues that can be traced back to the comparatively short funding phase of the first two years, when the European project had to be finished within a tight schedule: The data provided by the collections need ongoing review and corrections. The same is true for the maintenance of the multilingual thesaurus. For both tasks, human resources are needed, centrally for the MIMO infrastructure, and locally for the many collections represented.

Acknowledgements

The authors want to thank Norman Rodger, Saskia Willaert, and Jacky MacBeath for their help in compiling information and advising for this text.

References

- Bär, Frank P.; Pfefferkorn, Franziska. 2011. The MIMO Digitisation Standard. Definition of Scanning Properties and Recommendations for Photographing Musical Instruments. https://mimo-international.com/MIMO/how-to-ioin.aspx
- Bär, Frank P.; Fuchs, Theobald; Wagner, Rebecca; Kirsch, Sebastian; Wolters, Meike; Fischeidl, Kathrin; Scholz, Gabriele; Kretzer, Christian; Raquet, Markus; Fichtner, Mark; Firsching, Markus; Wagner, Sarah; Zepf, Markus; Schielein, Richard; Böhnel, Michael; Reims, Nils; Brennhäußer, Guido; Weizel, Vitali. 2018. Recommendations for the Three-Dimensional Computed Tomography of Musical Instruments and Other Cultural Artefacts. Nürnberg. https://mimo-international.com/MIMO/how-to-join.aspx
- MIMO. 2009. Annex 1. Description of Work (Targeted Projects). [ECP 2008 DILI 538013 MIMO]. MIMO. Musical Instrument Museums Online. Edinburgh. (unpublished)
- van Wijk, Carola; van der Meulen, Froukje; Huigen, Susanna; Dijkema, Abertine; Labeur, Iris; Rebers, Staeske; Pegt, Frans; den Engelsman, René; Klein Gotink, Rik; Pawirodikromo, Vivian; Smit, Maria. 2017. Rijksmuse-um Manual for the Photography of 3D Objects. Amsterdam.

Biographies

- Frank P. Bär has been curator of the musical instrument collection in Germanisches Nationalmuseum since 1997.

 Since 2006, he has been head of the museum's research services department. Within the project MIMO Musical Instrument Museums online he was responsible for coordinating the digitisation of 45,000+ musical instruments in public collections and is member of the MIMO Core Management Group. He served as Vice President of CIMCIM 2016–2019 and was elected President in Kyoto in 2019.
- Rodolphe Bailly works in IT development and project management in the digital cultural heritage domain since 1998. During 6 years at IRCAM he was a system administrator and developer. As the IT Director of Adforum. com in New York, USA, he spent three years building a large multimedia database modelling the advertising business, including a web access to tens of thousands of ads. In 2003 he joined the Cité de la musique in Paris where he successively built all current online services of the Philharmonie de Paris (digital library, web TV, educational resources and tools, Museum collection, etc.). Since 2009 he is the IT director of MIMO.

Ten years of MIMO 23

Exhibiting Sámi Music Tradition

Verena Barth

Ringve Music Museum, Norway

Celebrating "Tråante"

February 2017 marked the 100th anniversary of the Sámi people's first general meeting in Trondheim (Tråante), the city where Ringve Music Museum is situated. Ringve Musikkmuseum is the national music museum of Norway.

As a museum with a national responsibility, it was particularly important for us to join the celebrations of this anniversary. In addition, Trondheim is situated in the core Sámi area (although in the southernmost part). Our contribution to the anniversary celebrations was an exhibition called "Juoigat – a journey in Sámi music."



Figure 1: Exhibition logo. Design: Hilde Skancke-Pedersen, 2017

en vandring i samisk musikk
akte vaanterdimmie saemien musihkesne
a journey through Sami music

Sámi, the indigenous people

The Sámi are the indigenous people of Norway, Sweden, Finland, and the Russian Kola peninsula, and have populated the Arctic region in Europe since prehistoric times. The majority of the Sámi are living in Norway, around 40,000 people out of a population of 50-80,000 in total. Traditionally, the Sámi made their livelihood mainly as nomads with reindeer herding. These days most of the Sámi have moved to the cities. As a consequence, many Sámi have lost their native language and to some extent their cultural roots.

Reaching out

Our intention with the exhibition was to enhance awareness and spread knowledge about Sámi music, culture, and tradition in the majority population. We wanted to provide a platform where Sámi people could get an opportunity to connect with their cultural heritage. We also wanted the exhibition to raise questions about identity.

The exhibition addressed both a Sámi audience as well as the majority population. Our intention was for the exhibition to have a social impact that would reach beyond pure musical knowledge. Our aim was to reach out to a wider social spectrum than the traditional music museum visitor, whom we already assumed to take an interest in the topic.

In order for the exhibition to leave a personal imprint on the visitor and speak in the most direct way possible, we wanted to invite visitors to physically participate in music making.

Intangible heritage

This idea was supported by the fact that Sámi music historically is a vocal tradition, with yoiking as the main expression. Yoik is one of the oldest living musical traditions in Europe. It is a way of communicating, and conveying emotions, moods, and ideas. It has been an integrated part of Sámi daily life for centuries.

Dealing with intangible heritage meant that we needed an approach that was not primarily object-based but would rather build on experiences.

Cooperations

Dealing with Sámi music required a sensitive approach, in light of the historical conflicts and the still tense relations between the Sámi people and the majority population.

It was imperative for us to invite people from within the Sámi culture into our project to include indigenous voices and knowledge. Consequently, we initiated a cooperation with two Sámi artists, Hilde Skancke-Pedersen, who designed the exhibition, and Frode Fjellheim, a musician and composer of Sámi descent, who joined our team as a consultant. Educated in the classical music tradition, Frode Fjellheim focuses on contemporary interpretation of Sámi music. He composed and recorded music to be used in "Juoigat". In addition, Sámi musician Berit Alette Mienna recorded a short film about yoiking, integrating personal experiences.

All information in and about the exhibition was provided in Norwegian, English, and South-Sámi, which is the native Sámi language of the Trondheim region (one language out of several Sámi languages sometimes referred to as dialects). This choice seemed imperative, even though no more than approximately 150 people are still speaking South-Sámi. It was significant partly because it would give an important signal, and partly because it would mean a small contribution towards keeping the language alive.

Inspired by nature

Together with Hilde Skancke-Pedersen, we chose an exhibition design that would give associations to the open and wide landscapes of the highlands of Sápmi (historically

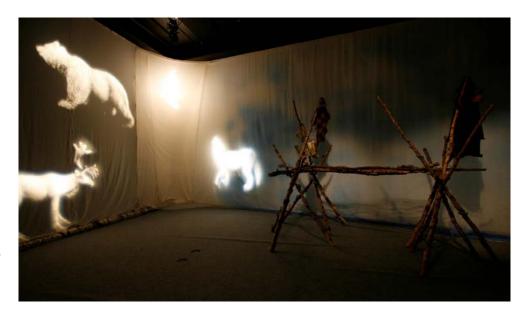


Figure 2: Impression from the nature-based design of the exhibition. Detail from section 2.



Figure 3: Detail from sections 3 and 4 of the exhibition, inspired by the wide landscapes of Sápmi.



Figure 4: Detail of the exhibition design, section 2.

referred to as Lapland). As we didn't have many artefacts, we focused on experiences and impressions, triggered through images of nature.

Two Sámi drums, traditionally used within shaman rituals, were some of the few objects shown.

One aspect of the connection to the nature-based life environment of the Sámi people was represented by the pathway through the exhibition, going with the sun, from left to right.

Furthermore, we had organised the exhibition into five focus areas. We first dealt with traditional yoiking, and subsequently with yoik meeting western music.

Within the first sections we tried to show how the close relationship with nature had inspired yoiking. In figure 4, this relationship is demonstrated by the line of the yoik melody following the profile of the mountain described in song.

In addition to this more intuitive approach, we used conventional tools to disseminate knowledge with charts on the walls, and iPads for further information and music examples.

Yoiking boxes

Through Frode Fjellheim we had become aware that yoik is a very physical expression, giving the person performing it a basic physical experience that connects to an equally basic human expression, regardless of cultural heritage. This is the reason we wanted to engage visitors in an active way in music making, to allow them to experience the physical impact yoiking has on the body.

To achieve this, we placed two yoiking boxes and a Sámi tent in the exhibition as locations for active participation. The yoiking boxes were designed resembling traditional Sámi huts. Entering the box, the visitor was met by a screen and a board with a few easy features to manipulate for playing and recording, as well as a microphone. On the screen, Frode Fjellheim explained how to yoik, inviting the visitor to join. The visitor could choose a play-along example with either a male or a female voice. The experience was organised so that the visitor was first invited to listen, then imitate, and then sing together with accompaniment. For this, Frode Fjellheim composed a

Figure 5: The two yoiking boxes, section 3.





Figure 6: Outside view of the *lavvo*.

yoik, called the "Ringve yoik", describing Ringve Music Museum through yoiking in a traditional Sámi manner.

The idea behind the yoiking boxes was to keep the threshold for trying to yoik as low as possible, as the door could be shut, to exclude others from listening.

The *lavvo*, or large tent, was mainly used for groups. We had many kindergarten groups and school classes coming for guided tours. In the *lavvo* we told them traditional Sámi fairy tales and offered short yoiking lessons, basically using the same approach as in the yoiking boxes.

New experiences - new audiences?

Working with "Juoigat" demanded a rather unconventional approach, because of the mainly vocal music tradition of the Sámi people. Thus, the emphasis was on the intangible element of musical heritage. We had to find an innovative, non-objectbased approach, imparting knowledge of intangible heritage in a multi-sensory way.

The outcome of our intention to capture some aspects of Sámi culture and spirit of life in our exhibition is hard to assess. Whether our attempt at recreating the atmosphere of the highlands of Sápmi was perceived by the visitors, is difficult to measure by mere visitor counts. The feedback given was, however, entirely positive. The question still remains what those visitors experienced who did not give a feedback input but chose to keep their experiences for themselves.

It was easier to understand how the yoiking boxes were accepted, as we could see that they were used frequently, even though technical difficulties turned out to be a challenge. Still, the threshold seemed even lower to join in yoiking when visitors were part of a group, as we could see in the lavvo.

The impact of the yoiking lessons given in the *lavvo* was obvious. We found that both kindergarten and school children loved to join in and often wanted to do it over and over again. From what we could see, the experience of the exhibition seemed to make quite an impact, especially on children, as many of them continued to yoik the Ringve yoik for a long time after having been on the guided tour.

In accordance with our intention to reach out and raise awareness of Sámi culture to a diverse audience, we had a series of events, focusing on Sámi music and integrating elements of audience participation.

In addition to our regular visitors, we found that we did reach new audiences. These included people with different kinds of Sámi origins wanting to connect to their cultural heritage, as well as people from the majority population aiming for enhanced knowledge about their country's indigenous culture. Since the exhibition was shown during winter, visitors coming from abroad were the minority.

Left a mark

As a societal stakeholder, our impact was on several levels: offering Sámi music an arena; spreading awareness and knowledge about Sámi music, both in a cognitive and sensory way; and contributing to its legitimacy.

We believe we left a mark with our exhibition, going beyond the museum walls and leading to an enhanced awareness and curiosity about Sámi culture. This is demonstrated by the fact that we are still being consulted for advice, contact-sharing, and to give talks on Sámi music.

References

"Juoigat – en vandring i samisk musikk" [Exhibition website]. www.ringve.no/juoigat
Frode Fjellheim [Artist webpage]. www.vuelie.no
Hilde Skancke-Pedersen [Artist webpage]. https://hildeskanckepedersen.no
Juoigat – en vandring i samisk musikk: 07.10.2017–06.02.2018. [Exhibition catalogue]. 2017. Trondheim. ISBN 978-82-92588-12-3.

Biography

Verena Barth holds a PhD from the University of Gothenburg, with a thesis on the trumpet as a solo instrument. Her postdoctoral research at the Royal Conservatoire of Scotland in Glasgow focused on gender representations in the context of the trumpet. Verena Barth is senior curator at the Ringve Music Museum in Trondheim, Norway.

Exhibiting Sámi Music Tradition 29

The Role of Education in the Development of Musical Culture in Azerbaijan, and Music **Museum's Contribution to Education**

Alla Bayramova

The State Museum of Musical Culture of Azerbaijan, The Republic of Azerbaijan

Introduction

Figure 1: Uzeyir Hajibeyli. 1910s.



There is no evidence that there were music classes in Azerbaijan until the beginning of the 20th century. Azerbaijani music was featured only with folk music which was transferred orally. The first work written by a composer was the opera Leyli and Majnun in 1908 – it was also the first written music work in the Muslim world. Its author Uzeyir Hajibeyli (1885–1948) studied music in the Transcaucasian Teachers Seminary in Gory, Georgia, The Russian Empire (both neighbouring lands - Georgia and Azerbaijan – were then parts of the Russian Empire), and later in the conservatories of Moscow and Saint-Petersburg. In Leyli and Majnun, when mugham (a genre of Azerbaijani traditional music) was performed, Hajibeyli combined fragments composed by himself with non-recorded fragments.

The Beginning of Music Education in Azerbaijan

The first steps of music education were undertaken in the beginning of the 20th century when music classes were organised under the Emperor's Russian Musical Society by the Russian woman musician Yermolayeva. Music was included in the curriculum of the first school for Muslim girls established by the oil millionaire and philanthropist Zeynalabdin Taghiyev. The State Conservatory was established in Baku in 1921. There were two main departments: the traditional music department and the classical music

> department. For the latter, professors from Russia were invited to teach, including pianist Georgy Sharoyev (1890-1969), alumnus of Saint-Petersburg Conservatoire and grandson of its founder, Anton Rubinstein (1829–1894), the famous Russian composer. One of the professors, who came to Baku from Russia, was cellist Leopold Rostropovich (1892–1942). His son was born in Baku in 1927 and spent his first years there. It was Mstislav Rostropovich (1927-2007), the worldwide famous cellist and conductor, also known as Slava Rostropovich, who was music director of the US National Symphony Orchestra (Washington D.C.) during the period 1977-1994.

> Many tuition-free music schools (with five-, seven-, and eleven-yearlong studies) and colleges were opened during the next Soviet decades. Among them the Bulbul Specialised Secondary Music School for especially



Figure 2: Professor of the Azerbaijan State Conservatory Leopold Rostropovich and his son Mstislav (Slava). Baku, 1927.





Figure 3: Keykab Safaraliyeva, founder of the Special Music School named after Bulbul (1937) and its first director (until 1952) with her pupils.

Figure 4: Prof. Georgy Burshtain with his students. Azerbaijan State Conservatory, Baku, 1939

gifted children (many of them revealed throughout Azerbaijan) has played an important role in preparing future professionals in the musical sphere.

At the end of 1930s, a group of Azerbaijani student-composers was sent to Moscow to continue their education at the Moscow State Tchaikovsky Conservatory. Two of them — Gara Garayev (1918—1982) and Jovdet Hajiyev (1917—2002) — became students of the outstanding Russian Soviet composer Dmitry Shostakovich. This rapidly brought Azerbaijani professional art music to a high level within less than a century. Historical documents that witness the history of music education, growth of professionalism, and achievements of Azerbaijani pianists, violinists, singers, composers, performers of traditional music, musicologists, etc., occupy a special niche in the collections of the State Museum of Musical Culture of Azerbaijan.

The Contribution of The State Museum of Musical Culture of Azerbaijan to Education

The State Museum of Musical Culture of Azerbaijan organises activities for school children and students of diverse backgrounds to educate them by enriching their musical awareness and involving them in a variety of musical practices.

The following are examples of the Museum's contribution to education. In the Museum's collections there are twenty-four musical instruments that are replicas of no-longer-extant instruments that had spread in the medieval Muslim world. These obsolete musical instruments were revived by Dr Prof Mejnun Kerimov (1945–2013) and acquired by the Museum, first, to be displayed, and second, for the Old Musical Instruments Ensemble, established under the Museum in 1996. These instruments, exhibited in the Museum and played by the museum ensemble, including the *chang*, the *barbad*, the *rud*, the *chogur*, the *rubab*, the gopuz, etc., have always attracted a lot of attention.

The Museum did a lot for their adequate presentation and wide illumination. Their maker's and the Museum's activities paved the way for further achievements done by other makers in attempts to recreate forgotten instruments and improve



Figure 5: Old Musical Instruments Ensemble of the Museum of Musical Culture of Azerbaijan.

them. And now we can see the replicas and modified versions of the medieval instruments used by the student orchestra of The Azerbaijan National Conservatory – the highest educational institution for the study of folk music.

We also have a project with schoolteachers in which they study information about the museum exhibits and then bring their schoolchildren and provide comments themselves. This has a long-lasting effect, as they can use the acquired knowledge in their future teaching practice.

The Discovery and Publication of the Unknown Works of Prominent Azerbaijani Composers

Since 2005, the State Museum of Musical Culture of Azerbaijan has published unknown works of the most prominent Azerbaijani composers of the mid-20th century; these manuscripts have been revealed among the vast Museum collections and external archives in Baku, Moscow, and Saint-Petersburg. Some of these manuscripts were completed piano pieces and some were drafts and incomplete works which needed editorial work. This work was partly done by the author and partly by a professional composer who responded to the Museum's request. Neither of these works had been performed before. We invited a recognised pianist to perform them in the Museum. It was a discovery for the public and a success. Musicians wanted to play this music and asked us about acquiring the scores. Therefore, the museum decided to publish them and, as a result, two volumes of collected pieces for piano were published – Niyazi's works (Niyazi 2005) and works by five other Azerbaijani composers (Bayramova 2005). CDs of the piano pieces from the above-mentioned two volumes were produced as well.

Additionally, the Museum collections include a manuscript of the founder of Azerbaijani composed music Uzeyir Hajibeyli. His music written for Azerbaijani traditional musical-instrument quartet in 1934 was published by the Museum (Hajibeyli 2010).

Also, music manuscripts written by Gara Garayev (1918–1982) for drama theatre were discovered in the Museum's collections and found also in archives, museums, and drama theatres in Baku, Saint-Petersburg, and Moscow. In 2018, fragments of

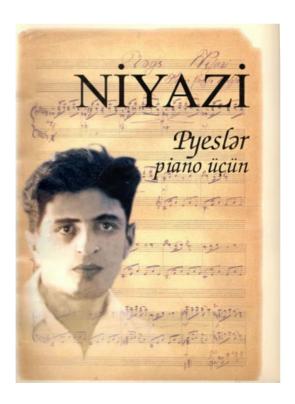


Figure 6: Niyazi's piano pieces were composed during 1929–1960 and were first announced and published by the Museum of Musical Culture of Azerbaijan in 2005.

Gara Garayev's music for drama were published for the first time (Garayev 2018) on the occasion of the 100th birthday of the composer.

Accompanied by introductions and commentary, these publications have become educational material for musicology students and for both young and mature musicians who have willingly included them into their repertoire.

The above-mentioned examples demonstrate that the educational activities are among the Museum's chief priorities.

References

Bayramova, Alla, ed. 2005. Collected Piano Works of Azerbaijani Composers. Baku: Oka.

Gara Garayev. 2018. Fragments from Music for Drama Theatre, Alla Bayramova, ed. Baku: Orxan NPM. ISBN 978-9952-37-023-2

Hajibeyli, Uzeyir. 2010. The Lezghi Dance, for the folk musical instruments quartet, Alla Bayramova, ed. Baku: F I

Niyazi. 2005. Pieces for piano, Alla Bayramova, ed. Baku: Oka.

Biography

Alla Bayramova was born in Baku, Azerbaijan. She graduated from Azerbaijan State Conservatoire as musicologist and has been director of the Museum of Musical Culture of Azerbaijan since 1988. She has been Associate Professor at Western Caspian University (Baku), from where she holds a Ph.D. in musicology. Her many achievements and awards include: Honoured Culture Worker of Azerbaijan; member of ICOM (since 1994), member of the advisory board of CIMCIM (2013–2019), member of the board of ICLCM (2016–2019); and established three memorial museums of prominent Azerbaijani musicians – branches of the Museum of Musical Culture of Azerbaijan: The Niyazi Museum, The Vagif Mustafazade Museum, and The Gara Garayev Museum. She is author and editor of more than 130 publications on the history of Azerbaijani music and musical instruments, intermediality, interrelations of music and literature, such as the monograph *Poems of Nizami Ganjavi in the Context of Interrelations of Arts* (2014), *Women in Azerbaijani Music* (2004), *Gara Garayev: Life and Works in the Materials of the State Museum of Musical Culture of Azerbaijan* (2011), among others.

Education Through Engagement: Sounding the world at the Horniman Museum

Margaret Birley

Horniman Museum and Gardens, United Kingdom

In 1901, Frederick Horniman gave his purpose-built museum as a gift to the people of London. It housed his collection of ethnographic objects, musical instruments, and natural history specimens. Enrichment through education has always been central to the organisation's mission, which is currently manifest as follows: "The Horniman connects us all with global cultures and the natural environment, encouraging us to shape a positive future for the world we all share'.

While the Horniman's permanent collection of over 9,500 musical instruments is developed and interpreted by curators in the Museum's Musical Instrument department, formal and informal education for schools, families, and communities including people with disabilities, is delivered by the Horniman's Learning department, in sessions with facilitators. At the core of that department's musical-instrument-related learning programmes is the Horniman's handling collection of over 330 instruments from many different countries, reflecting the international nature of the permanent collection. The Call for Papers for the 2019 CIMCIM conference on Music Museums and Education describes 'the social potential of music to create emotional bonds'. This process is key to the Horniman's informal learning sessions for communities and families, outlined on the Museum's website, where handling objects are considered to provide opportunities for group members to have fun, get to know each other better and to reminisce, as well as letting users experiment with the instruments' sounds.

The Horniman Museum's Music Gallery shows around 1,300 instruments in a series of five thematic displays. It includes a room called the Hands on Space, which is full of instruments that visitors can play for themselves unsupervised. Beside each instrument is a simple graphic panel giving instructions as to how the instruments are played.

The instruments in the Hands on Space and the Handling Collection form the Horniman's core collection for visitors to handle and play. The visitors' interaction with these instruments promotes the delivery of what is essentially 'experiential learning' (Hooper-Greenhill 2007, 36). Here, handling and learning something of the rudiments of playing unfamiliar musical instruments are part of the processes of experiential learning, resulting in new knowledge and skills.

The South London Music Project is part of the Horniman's ongoing four-year Music in the Making programme to improve understanding of the Museum's musical instrument collection and to maximise its potential through creative programming. The project will focus on contemporary popular music in South London



created primarily by black artists, and consisting of grime music and related genres such as Afrobeat, jungle, drum'n'bass, garage and jazz, for the purpose of bringing new meanings to the museum's historic collections. It is anticipated that the musicians will use the sounds of the instruments sampled from the handling collections as inspiration for their own music. Outputs from the project will include an exhibition and a festival. The project is likely to lead to the acquisition of a new collection of electronic instruments and equipment for the Horniman's handling collection.

The musicians participating in the South London Music project will be able to access the sounds of those instruments in the permanent collection that are in playing condition, such as the 17th century Neapolitan virginals by Onofrio Guarracino recently purchased by the Horniman and restored with a generous grant from the UK's National Lottery Heritage Fund. The musicians could also potentially be inspired by the histories of individual instruments in the permanent collection.

The process of re-contextualising such instruments for a contemporary music audience will draw on aspects of reflexive learning that are manifest in behaviours 'when learners think about, think on and engage with their (...) worlds in new ways' (Afolyan 2006, 2). For the Horniman's South London Music project, the learners will be both the resident musicians and listeners including Horniman staff, who will all be experiencing the sounds of musical instruments outside their usual modes of production and contexts.

The Horniman's Youth Engagement Programme which is run by the Museum's Learning department will be seen to benefit and to benefit from the South London Music Project. Central to the Youth Engagement Programme is the music-focused Youth Panel, consisting of around thirty local young people aged 14-19, who meet at the Horniman on a weekly basis and produce a late-night event showcasing various music performances at the Museum each year. The Youth Panel will programme some of the events at the Music Festival that will be held in association with the South London Music Project in 2021.

Figure 1: Virginals by Onofrio Guarracino, Naples, Italy, 1668

The South London Music project is considered in the broad context of the current initiatives by the Horniman to incorporate aspects of decolonisation into its museum practice, including learning and partnerships, audience and staff diversification, as well as scrutiny of the collections' histories which may lead to the repatriation of some objects. The resident musicians' use of the Horniman's collections in the creation of their own music will invest them with a sense of ownership in them, as stakeholders in the Museum.

A recent informal review of the demographics of artists commissioned by the Horniman found that they reflected the museum sector in the UK, which is still predominantly white, rather than the diversity of the Museum's south London audiences. The South London Music project aims to redress this balance in its recruitment of resident artists and engagement with new audiences and urban genres.

My colleagues and I look forward to welcoming CIMCIM members to the Horniman Museum during the CIMCIM conference in London in September 2021, when we shall be able to update you on the results of the South London Music Project, and other aspects of the Music in the Making programme.

References

Afolayan, Gbenga Emmanuel. 2016. "Reflexive Learning". In *The Sage Encyclopedia of Online* Learning, Steven L. Danver (ed.), 1-5. Thousand Oaks: SAGE. DOI:10.4135/9781483318332.n303
 Hooper-Greenhill, Eilean. 2007. *Museums and Education: Purpose, Pedagogy, Performance*. Abingdon: Routledge.

Biography

As Keeper of Musical Instruments, **Margaret Birley** has overall responsibility for the interpretation and development of the Horniman Museum's musical instrument collections, which now number over 9,500 objects. She has curated a number of exhibitions at the Horniman Museum, and was the lead curator for Music Gallery, the Horniman's display of around 1,300 instruments in its permanent collection. She trained in ethnomusicology, and has undertaken fieldwork augmenting the Museum's collection with modern examples of traditional instruments from Uzbekistan, Belarus, India and most recently Brazil, filming them in performance. She chaired a consortium of European musical instrument museums in their work to update the Hornbostel Sachs classification of musical instruments, which was part of the programme of the MIMO project that was funded by the European Union. She now chairs CIMCIM's Working Group for the classification of musical instruments.

Material or Immaterial?

A questionnaire to help decisions about the preservation of musical instruments

Vera de Bruyn-Ouboter Ringve Music Museum, Norway

To transmit knowledge about musical instruments to future generations, there are two major aspects important to focus on: the instruments' material values and their immaterial values. Both have to be preserved to prevent loss of memory about earlier musical instruments and their sound in the long term. Their preservation is the basis for all information to be taught in future and for all education around the musical instrument.

Support in Daily Decisions about Playability

To preserve both the material and the immaterial aspects of an instrument is in most cases contradictory and presents a dilemma.

The questionnaire is intended to help assess the risk of losing material when the instrument is played against the loss of immaterial aspects when the instrument is not played. It is a tool for assessing whether an individual musical instrument belonging to the museum's collection may be played – for the purposes of educating and keeping the knowledge of its sound alive.

Loss of physical material results from damage and alteration of material parts that is often caused by mechanical stress and forces incurred through long-term playing. The result is a degradation in condition in the form of deformation and cracks as well as changes to the sound producing technology.

Loss of the immaterial includes the loss of the sound produced by the instrument as passed down through the generations. This sound vanishes and is no longer available in the hearing of today or in the memories of yesterday. The immaterial values also include the playing function, the historical context, the sensory experience for a musician, experience for living traditions of instrument makers, and the listening experience for the listener.

In the museum's daily work several aspects should be taken into consideration when making decisions about playing. These aspects form the basis of the question-naire and are translated into a form with a points-based assessment. The resulting outcome of the sum of these points is intended to help decide whether to play or not to play an instrument. At the same time, the completion of the questionnaire should raise awareness of the various aspects involved in the dilemma and decision-making. The process of answering the questions leads to good communication in the working team.

The questionnaire is a step towards the opening up of the restorers and the educator's approach, to focus on preserving both the material and the immaterial values of a musical instrument.

Background

The first version of the *Material Immaterial Questionnaire* was called *Risk - Gain Analysis* and was developed in 2010 for a specific project that aimed to make sound recordings of mechanical musical instruments from the collections of the Ringve Music Museum in Trondheim, Norway. In order to apply the questionnaire to all types of instruments, questions were added. The *Risk - Gain Analysis* was in a test phase for several years and was tested with different musical instruments in different situations and by different users.

This newest version is called *Material Immaterial Questionnaire*. The earlier title *Risk* (material section) – *Gain* (immaterial section) *Analysis* gave a preferential value to the material (risky to lose) and less value to the immaterial (gain to preserve). The change to the new title respects the material and the immaterial on equal terms. It is a risk to lose either and a gain to preserve both.

Checklist and Questionnaire

In each case, a number of things, presented in a checklist, may first be clarified before starting the questionnaire. Going through 10 aspects of the checklist first should prevent any unreflected activity.

Examples for aspects of the checklist are:

- The museum's standards concerning climate control, transport, security and handling will be met at all times,
- The existence of both earlier or similar recordings and similar playable instruments or copies is investigated, and it is considered whether these recordings or copies can be used instead of the museum's instruments,
- A condition report is prepared and a proposal for treatment for both making the instrument playable and maintaining playing condition is made,
- The budget is declared with the museum's management.

Going through the checklist allows the questionnaire to be completed in a straight-forward, directed manner. The cover sheet, which will lead you through the whole process, is filled in.

Then, altogether 20 questions in the two sections "material" and "immaterial" are answered. The answers "true" or "false" are ticked in a ranking scale. At the end, the points of the ticked answers are added together, and the two sections are compared with each other to read the result: Most points in the material section, when ticked true, indicate a high risk for loss of material. In this case the instrument should not be played. Most points in the immaterial section indicate a risk of immaterial loss and a high gain when played. In this case playing may be approved.

In short:

No playing — when highest number of points in the "material" section.

Playing — when highest number of points in the "immaterial" section.

Please find the full checklist and questionnaire in the publication from 2018 of WoodmusICK, COST (de Bruyn-Ouboter 2018, 35–52).

	Cover sheet
	Material Immaterial Questionnaire
Object	
Catalog number	
Date, place	
Conservator	
Historian	
Musician	
Others	
CHECKLIST	
Appendix	□ Documentation and Condition report
	□ Proposal for conservation/restoration
	□ Values □ List of usable copies or recordings
	□ Budget signed of management
Notes	- Charling falls and anish VEC 4- OUESTIONNAIDE
	□ Checklist fully answered with YES – go to QUESTIONNAIRE □ Checklist partly answered with NO – stop the process
QUESTIONNAIRE	
Material	
sum of points	
Immaterial	
sum of points	
Notes	
	☐ The objects will be made playable and played
	☐ The objects will not be made playable and not played
Spesifications of	
playing	
how, what, who, how	
often, where, when is the object played.	
Details of maintenance.	
Outcome	□ concert/public project
	□ Sound-/film recording
	□ New experience of the musician is documented □ 3D CT, technical drawing or similar
	□ copy of the instrument
Evaluation	□ More

Figure 1: Cover sheet of the Material Immaterial Questionnaire (unpublished version from 2020)

Reflections

When creating the questionnaire, it was assumed that the material and immaterial values are equally important. The material value is comprised of the material, the form and the technology. The immaterial or intangible value is the sound, playing function, the historical context (important persons or events connected with the instrument), the sensory experience for a musician, experience for living traditions of instrument makers and the listening experience for the listener. The questionnaire shows the risk of loss of material value against the risk of loss of the immaterial value. Both need preservation in order to help future generations understand and experience the musical part of their cultural heritage.

The material and immaterial values may be closely intertwined. Not to be forgotten is the fact that changes in material, form, and technology cause alterations in the quality of the sound. It is the material that creates and carries the sound. If the material is changed, the sound and its quality may also change. The material can be experienced by the player, and the material is thus the basis for making the music audible to the listener. And with musical instruments, it can be that the smallest

changes in the material – in size, shape, stability, texture – can have a great effect on the sound quality.

Despite the easy-looking questionnaire, the answers to some questions are challenging because they require a rating of the object or its parts. It is necessary to define these when considering playability. Is it possible to value objects or parts of objects that are more or less worth preserving? How do we know that our perspective today also would be valid in the future? To avoid mistakes in this point, an ethical principle of conservators and restorers is stated in the maxim that objects should not be valued but that all parts should be considered equally worth preserving. This very principle is questioned when instruments are aimed to be kept playable.

The matter is further complicated by the decision of valuing the material or the immaterial as more or less important. A good dialogue during the whole process of all involved is therefore essential if success is to be achieved. Practice in changing the role from being a defender of material preservation to a defender of immaterial preservation (in mind or in reality if wished) and vice versa, helps to maintain flexibility and objectivity in dialogue. It is a step towards the opening up of the conservator-restorers and educator's approach, to focus on preserving both the immaterial and the material values of a musical instrument.

The sentences in the questionnaire are expressed as objectively as possible. It is accepted that the formulation remains vulnerable and debatable. The need to discuss the relevant issues, contradictory or not, is not removed by this questionnaire. The questionnaire may be criticised as superficial and a simplification of a complex topic that should not be subjected to being fixed in a framework. Nevertheless – the questionnaire should help to make people more aware of some of the important issues involved. The answers we cannot know for sure, we must do our best in trying to understand and answer as best as possible.

In a world in which communication is so much part of everyday life, it is to be hoped that the questionnaire will involve a wide range of people. It hopefully reaches not only those who work in museums but also those not used to dealing with the topic on an equal footing.

References

de Bruyn-Ouboter, Vera. 2018. "Material or Immaterial? A Questionnaire to Help Decisions About the Preservation of Musical Instruments" In Wooden Musical Instruments. Different Forms of Knowledge. Book of End of WoodmusICK Cost Action FP1302. edited by Marco A. Perez and Emanuele Marconi, 35–52. Paris: Cité de la Musique. https://hal.archives-ouvertes.fr/hal-02086598

Biography

Vera de Bruyn-Ouboter studied at the Cologne Institute of Conservation Sciences (CICS) at the University of Applied Sciences Cologne, Germany. Since 2005, she has worked in a permanent position as conservator at Ringve Music Museum, Trondheim. She deals daily with the conservation of and research on musical instruments as well as with preventive conservation and collection management.

Small Musical Instrument Museums in the Netherlands: Collaboration, a must for future survival

Jurn A.W. Buisman
Museum Geelvinck, Netherlands

Introduction

In 2018, Museum Geelvinck received support from the Mondriaan Fonds (Dutch state-related fund for museums a.o.) and the Stichting Nederlands Muziek Museum (Foundation Dutch Music Museum) for researching the state of the art of the small musical instrument museums in the Netherlands. The goal of this research project was to explore the possibilities for creating a platform for cooperation.

Research framework

The research concentrated on the long-term sustainability of the collections of small musical instrument museums. The research focused on:

- small museums
- listed in the Dutch Museum Register¹
- dedicated to playable musical instruments²
- Western art music

It should be noted that the majority of museum collections of non-western music are included in the collections of the Association of Ethnological Museums.

Small musical instrument museums

The Netherlands have a large number of museums (both listed in the Museum Register and not-listed, privately owned museums), which have musical instruments in their collections. This ranges from one or a few historical musical instruments, up to specialised collections of musical instruments. The largest collections concern

- 1 Included were also museums, which were previously registered but had lost their registration (temporarily?), as well as museums, which, at the time, were still in the process of registration.
- 2 Excluded were museums that have a collection of musical instruments as part of a much larger museum collection of objects, which have no relation to music. Also, museums of purely self-playing instruments (e.g., gramophones, orchestrions, jukeboxes and street organs) were excluded.

the Rijksmuseum Amsterdam, the Municipal Art Museum The Hague and Museum Speelklok in Utrecht (the latter being specialised in self-playing musical instruments). Other museums are for instance Museum Klok & Peel (Asten), which includes a collection of church bells and carillons, the University Museum of Utrecht, which includes a general musical instrument collection, the Association of Ethnological Museums (non-Western instruments) and the National Military Museum (musical instruments of military bands). Smaller music museums are for instance the accordion museums (Gasselternijveenschermond and Malden), street organ museums (Haarlem and Amsterdam), reed organ museums (Paasloo and Barger-Compascuum), museums of 'sound and vision' (Hilversum and Bennekom), gramophone and jukebox museums (Nieuwleusen and Sint-Oedenrode), and museums dedicated to famous bands and singers (e.g. The Beatles, 'Paling Sound', Rock Art, Pop Music, Elvis Presley, Willy Alberti etc.), most of which are small, private initiatives, which are often not listed in the Museum Register.

As it turned-out, the small museums, which concurred with our focus and all showed interest in the intended cooperation, were the following six:

- Museum Vosbergen (Eelde), general musical instrument museum
- National Harmonium Museum (Barger-Compascuum), reed organ museum
- · Pianola Museum (Amsterdam), player piano museum
- National Organ Museum (Elburg), church and house organ museum
- Museum Kessels (Tilburg), museum for the musical instrument industry of 'Kessels'
- Museum Geelvinck (Amsterdam & Zutphen³), museum for 18th- and 19thcentury pianos

Although the Museum Vosbergen and Museum Kessels also feature large collections of other musical instruments, the actual binding element is that these collections concern (at least in part) semi-mobile instruments.

In addition, the project was well received by the department of musical instruments of the Rijksmuseum Amsterdam and Museum Speelklok. Other institutions too, such as the University Museum of Utrecht, the Allard Pierson Museum of the University of Amsterdam and the Netherlands Music Institute (The Hague) are supportive.

Immovable and semi-mobile instruments

In our research, we distinguished between:

- mobile instruments: instruments, which musicians usually carry along with them
- immovable instruments: instruments, which are attached to buildings
- semi-mobile instruments

Examples of immovable instruments are church organs, carillons, church and house bells. The characteristic of these instruments is that they are considered to be integral elements of the building to which these are attached. Often, these buildings are listed as monuments. In case of state-listed monuments, these instruments are not only well protected by law, but, in addition, State Cultural Heritage Service

3 In November 2019, the museum venue in Zutphen had to close down; negotiations are on-going concerning a potential new venue in Kampen.

advises and financially supports the preservation and restoration to an (often excellent) playable condition. Also the Cultural Heritage Service promotes that the instruments are being performed on.

As a bycatch, this resulted in a well-developed and rather flourishing industry of church organ building and restoration companies. Therefore, the crafts related to this industry can be considered sustainable. This is a good example of how the subsidy system positively influenced both the tangible and the intangible, living, heritage.

However, issues to be addressed for this category are the decreasing numbers of organists and carillonneurs, due to the lack of funding for these musicians, and, related to that topic, the fact that church buildings increasingly lose their original religious function. It should be noted, that church organs, which became defunct, often are sold abroad, where again the Dutch organ industry materialises the placement and re-building of these defunct church organs in foreign churches.

It was intended that 2020 should have become the national Year for the Sounding Heritage, i.e. for church organs and carillons, but, unfortunately, COVID-19 intervened.

Contrary to immobile musical instruments, mobile musical instruments are typically carried along by the musician, who performs on it. Usually, such instruments can be relatively easily stored away too. Except for those instruments, which have become targets for investors, typically a mobile instrument will be owned by the musician.

However, there is a category in between mobile and immobile musical instruments: this category we have termed 'semi-mobile' (although it could be termed as well: 'semi-immobile'). Although they can be carried around, typically these instruments are preferred to be kept in one place, because of their size. Often the owner of the instrument is not the sole player, but, unlike most musician-owned mobile instruments, it is not unusual that also musicians, other than the owner, are allowed to play on it. It does not mean that these instruments are attached to a specific place: for instance, in the 18th and early 19th centuries, square pianos would be moved in spring to the summer abode of the family and in autumn these would be moved back to the city mansion. Some pianists take along their concert grand from one concert hall to the next. In general, however, historically it was and still is usual that a semi-mobile instrument would remain in its owner's house, concert hall, music school, or other place.

Typically, a semi-mobile instrument is a keyboard instrument (although there are exceptions), usually with an intricate mechanism inside, such as pianos, pianolas, reed organs, cabinet organs, and harpsichords. Due to the fact that semi-mobile instruments usually are mechanically complex, these, if played, need regular revision by craftsmen with technical expertise for this particular instrument. In addition, they instruments are of a considerable size: if not in use, these instruments demand a lot of storage space. These two characteristics for their maintenance and storage result in a relatively high cost for the owner compared to mobile musical instruments. In this respect, these instruments have their parallel in immobile musical instruments.

Issues with semi-mobile musical instruments

Unfortunately, due to the fact that – instead to the aforementioned situation for the immobile musical instruments, especially when attached to state-listed monuments – there is no protective law and there are hardly any government subsidies or other targeted funding available for the upkeep of semi-mobile musical instruments, and the numbers of professional craftsmen with technical expertise for particular instruments are decreasing. There is hardly any interest from younger generations for specialising

in these crafts, such as tuning and restoration, or for taking-over existing restoration ateliers, because these professions and businesses have to depend on an unstable flow of paid assignments and rarely generate an adequate income for making a living. Today, most technicians with expertise in these instruments have built their businesses on the wave of revival interest in historically informed performances around the 1970s. However, this generation is now turning grey and, if no apprentices are being trained, in a way that knowledge and experience of these crafts will be shared and transmitted to a next generation, in about a decade the know-how and craft experience will have evaporated. If this negative scenario were to happen, it would not only mean a loss in existing craftsmanship, but, in addition, it would become very difficult to find qualified technicians to keep these instruments playable. Also, the cost for preserving the playability of musical instruments would increase considerably. All in all, it would result in a gradual, though significant decrease in these musical instruments being used for performances, which in its turn would most probably influence the capability and subsequently the actual interest of musicians, composers, and other creative makers of performances to include these instruments in their performances. In Dutch, the saying is "far from the eye, far from the heart" and you may say that if the real sound of these historic instruments is no longer heard, the interest in keeping these instruments playable and in performing on them will fade too. Hence, one may fear that part of our living musical heritage will thus gradually vanish.

Another issue to be addressed, is that due to the size of these instruments combined with the global trend of ever-decreasing museum budgets for storage, museums are actually encouraged to de-collect and dispose of, c.q., to reject new acquisitions of these instruments. This may result in a decrease – at least not in an increase - of these instruments being kept in museum-regulated conditions. It is the task of the museum to find a balance between preservation of the tangible and the intangible musical heritage. Hence, it is of significant importance to keep a sufficient number of these instruments in a playable condition, preserved under museum conditions for future generations to research and appreciate our musical past as living heritage. Musicians follow different standards for preservation and restoration of musical instruments than museums do. The condition and preservation of a musical instrument in private hands fully depends on the owner's understanding of its proper care. In the Netherlands, the conservation of historical instruments in private hands is not in any way regulated with the two potential exceptions of being listed as a national treasure, or being as part of a state-listed historic interior (Heritage Law). Because both options are very rarely, if at all, being confined to historical instruments, the proper conservation of historical musical instruments, in reality, predominantly depends on museums. The collections of the six small museums mentioned above contribute significantly to the preservation of our tangible musical heritage, even with hardly any structural government support.

Issues for small museums of semi-mobile musical instruments in the Netherlands

The main issues concern sustainability and, in general, can be formulated as:

- making ends meet
- aging volunteer staff
- museum venue related (both public and storage space)
- · decreasing numbers of professional technical craftsmanship and/or performers

None of these museums receive structural government or regional support and often even lack municipal support or the latter is decreasing and without guarantees for the future. Income from visitor tickets is insufficient for a sustainable revenue model. In one case, there is an endowment and in some of the other museums, there is a form of philanthropy and/or strong altruistic engagement of the initiator, which keeps the museum going. Restoration projects are sometimes funded by project subsidies and contributions by private cultural foundations. However, on the basis of their current income flows, none of these museums will be sustainable in the long term.

All of these museums fully depend on volunteer staff, which is mostly already in retirement age. In two cases, the average age of the volunteer staff is around eighty. Most museums have difficulty with acquiring new volunteers, which results in a gradually decreasing number of volunteers and subsequent difficulty in maintaining the organisation to be fully operative in accordance with museum standards.

Most of these museums have issues with their venues, causing uncertainty for their future existence. For instance: the housing is dependent on municipal support, or dependent on a third party that can withhold its support annually. All have storages which are chock full. Therefore, most of these museums usually refrain from accepting new historical instruments as gifts, let alone are they looking for new acquisitions to enhance their collections.

As already mentioned above, preservation of working heritage objects is dependent on specialised technical craftsmanship. In most cases, the number of professionals, who master the required skills, is decreasing. For instance, the numbers of both technicians and musicians specialised in reed organs are rapidly decreasing.

Strengths and challenges

As the above would suggest – the future of these museums, their collections, and the attached living heritage, looks rather gloomy.

To end with some positive notes, all six museums live-up to regular museum standards: their volunteer staff does its utmost for the museum organisation to survive, even under difficult circumstances. The engagement with the collection, with the mechanical side of the instruments and with the music, the musicians, and their performances, remains very high. There is an overall awareness that something has to be done soon to ensure future sustainability. The willingness to cooperate and stand together for the common interest is certainly there, although the fight for survival of the individual organisations takes so much time and energy, that it is hard to make time available for taking up this task.

The six museums are well rooted in their specific communities. Not only are these local communities, but, in addition, often these museums are embedded in much wider supporting communities of connoisseurs and lovers of these instruments and their music. In the case of the reed organ museum, it is strongly related to a specific Protestant denomination. These communities carry the museum in case of calamities, such as we experienced when the Municipality of Amsterdam threatened to sell-off the building that houses the Pianola Museum (as a result of this public outcry the municipality gave in), and the same happened for the venue of Museum Geelvinck in Zutphen (unfortunately, this worldwide effort did not result in a change in the stance of the municipality; however, it did result in an opportunity, provided by a patron of music, for a new venue in another city). Also, Museum Kessels, which a few years ago (at the time known as Muzima) encountered hard times, survived through support from its local community. It was during the same period that the National Organ Museum emerged from a successful merger of the local church organ museum with a

private foundation, which brought in, next to an important contemporary residence organ, a significant endowment, enabling the museum to establish a new venue.

To prevent the living heritage, attached to its collections, from gradually evaporating, all these museums are in one way or another supporting both amateur and professional skill development. For instance, Museum Kessels has engaged the only still-surviving professional technician of the former musical instrument production industry 'Mathieu Kessels & Sons' to educate pensioner volunteers in the production of mechanical parts for musical instruments. All museums engage professionals in restoration, updating, and tuning of their instruments, thus supporting the few remaining skilled technicians. And all also give opportunities to researchers, as well as musicians, to use and to give performances on instruments from their collections. Another example is Museum Geelvinck, which collaborates closely with the Conservatory of Amsterdam and, in addition, cooperates with the vocational school for piano technicians, as well as with conservatories, universities, and other music institutions, for educational programs. This museum also installed an apprenticeship place for a post-master piano technician to be educated in the skills for restoration, revision and tuning of 18th- and 19th-century pianos. In addition, Museum Geelvinck organises an annual, internationally acclaimed festival for early piano, which programs performances by established, as well as young and up-and-coming, musicians and ensembles of both historically informed music and new compositions, next to master classes, competitions, and an international scientific symposium. This festival also engages the Pianola Museum, with which Museum Geelvinck has developed a lasting partnership.

Best practices and recommendations

Probably the best example for developing a sustainable future is how, over the last decades, the State Cultural Heritage Service has supported the preservation of immovable musical instruments. Not only has this support gradually saved many important church organs and carillons – some often restored to an excellent level from the point of view of the musician, as well as the heritage preservation professional, but also The State Cultural Heritage Service supported Dutch church organ building and restoration industries, as well as those for clocks and carillons that are sustainable and even flourishing. Such support also stimulates public performances on these (restored) instruments, which in its turn stimulates the interest of musicians, as well as composers for these instruments.

Museum Speelklok, the largest museum in the Netherlands which is solely dedicated to musical instruments, successfully developed a wide and all-age museum audience by materialising exhibitions on contemporary relevant themes relating self-playing musical instruments (including musical clocks) of the past with electronic music, musical robots, and artificial intelligence to compose music. This could serve well as an example on how to develop a much wider interest beyond the specific community of connoisseurs and lovers of instruments of the past and their music. You see the same development in the very successful Utrecht Festival for Early Music, which, next to top-level historically informed ancient music performances, programs front-line and pioneering performances based on experimental and renewing interpretations of music and musical instruments from the past. Obviously, such productions need a significant and structural investment, which small museums will not be able to afford. However, possibly in a partnership format and with enough financial funding from government-related and private cultural funds this might be made feasible in future.

After decades of gradually diminishing interest in the national collection of the Municipal Museum (today the Art Museum) in The Hague, finally the Rijksmuseum

Amsterdam took the national lead for musical instrument preservation, as it established its own department for musical instruments, which in the last few years has been successfully developed by Giovanni Paolo di Stefano. Not only this re-emerged public interest in historical instruments, but also one of the Dutch lottery funds provided significant financial support for the development of related activities. The important state and municipally owned collections of musical instruments now have been digitally unlocked in MIMO (Musical Instrument Museums Online, https://mimo-international.com/MIMO/) and even small museums are encouraged to follow suit. The partnership of the Museum Geelvinck and the Pianola Museum are working on this initiative with financial support of the Mondriaan Fonds and the Prins Bernhard Cultuur Fonds. Renewed interest in the preservation of our musical heritage already led to the rescue of important private collections by the Rijksmuseum. Further, some government funding has become available for the preservation and digitization of sheet-music and composer archives. Hopefully, this serves as a first government step towards political recognition of the need for structural financial support for the preservation of our living musical heritage, both tangible and intangible. Collaboration of small museums together with the larger institutions is indeed essential to make the plea for this need heard at a strategically influential government level.

The keyword in the above best practices is "collaboration", both between small museums and together with the larger museums and music-related institutions. If this is not realised successfully in the middle to long term, all small museums within this research project risk being confronted with an essential subsistence challenge. For some of the small museums, the continual organisational pressures of an ever-ageing volunteer staff: challenges concerning their housing: and, last but not least, surviving on an unsustainable, structural shoe-string financial situation, may lead already on a shorter term to closure and the subsequent unavoidable dispersion of collections. We may conclude that, if we do not act soon, in a few years, part of our tangible musical heritage may vanish from the museum community and possibly will disappear completely as these instruments quite often hardly have any market value. Together with the collections, the attached living musical heritage and linked craftsmanship also may gradually disappear, as well as our knowledge of and potential to research our musical past.

Similarities abroad

In our view, although each country has its own specific national situation, the above challenges are not confined to the Netherlands alone. Today, musical instrument museums in many countries are under financial and/or political pressure. We would much appreciate being able to welcome colleagues worldwide to exchange ideas and strengthen international cooperation.

Especially, we would target developing the following topics:

- building an international expertise network or platform for museums with functional semi-mobile instruments.
- sharing knowhow and expertise, especially in relation to digitally unlocking collection objects in MIMO and other public websites, as well as in the decision-making process for acquiring, restoring, and deaccessioning of musical instruments.
- developing partnerships outside the museum world with educational and knowledge institutions, festival organisations, and qualified restorers, as well as connecting to relevant regional and global music organisations (including umbrella organisations), and sharing best practices from all over the world.

Acknowledgements

We are most thankful for the financial support by the Mondriaan Fonds and the Stichting Nederlands Muziek Museum.

Biography

Dr.h.c.Drs. Jurn A.W. Buisman (1960), Director of Museum Geelvinck in Amsterdam (Netherlands); Economist (Rijksuniversiteit Groningen, 1986). Since 1987, he has been active in the field of cultural heritage: Museum Geelvinck Hinlopen Huis (1991–2015); Geelvinck Music Museum Zutphen (2017–2019); Geelvinck Early Piano Museum Amsterdam (2013–current); Geelvinck Fortepiano Festival 'Early Piano', including competitions, symposia, and concerts series; steward of Kolthoorn House & Gardens. Buisman is Secretary General of ICOMOS Netherlands; ice-President (Europe) of ICOMOS-IFLA ISC Cultural Landscapes; Treasurer of Manus Brinkman Fund; Board member of several foundations in the field of cultural heritage; former member of the World Economic Forum and initiated efforts with the United Nations. He is initiator and former Chairman of the Chopin Foundation Netherlands. At the Museum Geelvinck (est. 1991) Buisman is keeper of a collection of over 300 historic stringed keyboard instruments from the 18th and 19th centuries. He is lead partner of Geelvinck Music Museums (2016–current), and institutional member of ICOM, CIMCIM, DemHist, ICLCM, Europa Nostra, REMA-EEMN, and others.



Interpreting The Music of The Early Shu Kingdoms Based on Artefacts in Two Chengdu Museums

Stewart Carter
Wake Forest University, USA

Introduction

The era of Five Dynasties and Ten Kingdoms followed the collapse of China's Tang Dynasty (618–907 C.E.). One of these kingdoms was Shu, roughly coterminous with modern Sichuan province. Historians generally identify two brief periods of relative stability in China's southwest, Former Shu (907–25) and Later Shu (934–65), during the turbulent times preceding the founding of the Song Dynasty (960–1279). My essay identifies representations of musicians and dancers from both Former Shu and later Shu, relates these musicians, instruments, and ensembles to court practices of the Tang, and shows how these practices were conveyed to the Song.

Methods

This essay examines images of musicians and dancers of the Shu kingdoms in two museums in Chengdu, the Yongling Mausoleum and the Chengdu Museum. It compares them to earlier images of musicians and dancers from the Tang Dynasty, particularly those in the Magao Grottoes near Dunhuang, and to images of musicians in the early Song.

Results

Two Chengdu museums, the Yongling Mausoleum and the Chengdu Museum, provide the most significant visual records of music in Shu court circles in the tenth century C.E. In spite of the weakness of the Tang in its waning years, the Tang era was still regarded as something of a "golden age," particularly in the Former and Later Shu kingdoms. It is not surprising, then, that the instruments displayed in the burial site of Wang Jian, first "emperor" of Former Shu, and Zhao Tingyin, a general in Later Shu, reflect Tang practices. The *pipa* (Chinese lute), *konghou* (harp), *bili* (short double-reed pipe), and *jiegu* (cylindrical drum), all of which are prominent in the stone carvings in Wang Jian's mausoleum and the terracotta figures from the tomb of Zhao Tingyin, may be seen as emulating the Tang court's love of music and also of instruments from the western regions, particularly the kingdom of Kucha (today part of Xinjiang Province). In the case of Wang Jian, who had been a general in the Tang army, there is ample reason to believe that he wanted his court to emulate Tang practices. The fact that he was originally from Henan province, not Shu (modern

Sichuan Province), may have heightened his need to establish his legitimacy, ruling over a kingdom in which he was essentially an interloper. It is clear that both Wang Jian and Zhao Tingyin sought to emulate the Tang in many respects, not just in music. For both Wang and Zhao, this was not merely a nostalgic look back at the greatness of Tang; each of these powerful men sought to promote his own political agenda and solidify his power, or, in the case of Zhao, the power of his emperor. The musical practices reflected in their tombs eventually were transmitted to the Song Dynasty, as many of the musicians captured when these two kingdoms fell were taken to courts in China's central plain.

Discussion

Very few images survive that specifically depict musicians performing at the Tang court. One that possibly does so can be found in a mural in the tomb of Li Shou, now in the Beilin Stone Museum in Xi'an, which shows nine women, five of them seated, four standing. The five seated ladies play, from the foreground to the rear, *sheng* (mouth organ), five-string *pipa*, four-string *pipa*, and *konghou*. If the fifth woman has an instrument, it is not visible. The four standing women may be singers or servants. In any case, the seated women (*zuobuji*) are higher in status than the standing women (*libuji*), as was the practice at the Tang court. Li Shou (577–630), a Tang courtier, was a cousin of Gaozu, founding emperor of the Tang Dynasty. Li Shou's father, Li Liang, had been a courtier in the Sui Dynasty (581–618), so this image may represent Sui as much as Tang practices. The identically styled long flowing robes may be the "uniforms" of female court musicians. Their hairstyles are also similar, though the coiffures of the standing women appear to be higher.

Li Shou's musicians can be compared with the most plentiful visual representations of musicians of the Tang era, those in the Mogao Grottoes near Dunhuang. As an important oasis town on the ancient Silk Road, Dunhuang attracted travellers from central Asia as well as eastern China. Between ca. 386 and 1300 C.E. Buddhist monks dug some 1,000 caves in a cliff above the Daquan River, nearly half of which are decorated with Buddhist paintings and sculptures. Collectively the Mogao murals contain at least 4,000 images of musical instruments, some of them accompanying dancers. Many of the representations of musicians with dancers are from the Tang Dynasty.

A few scholars have suggested that representations of Tang-era musicians at Mogao reflect court practices, albeit indirectly, since Dunhuang is more than 1700 kilometres west of the Tang capital of Chang'an (modern Xi'an). Isolated images of instruments are common at Mogao, as are instruments played by flying *apsaras*, but the most compelling images of instruments are those in the hands of female musicians grouped in ensembles, accompanying dancers. If these musical ensembles and dancers do indeed reflect Tang court practices, they also embody the concept of the "Western Paradise," a prominent theme of Mahayana Buddhism.

At Mogao there are at least fifty murals that depict ensembles of musicians accompanying dancers. One of these can be found on the left side of the north wall of Cave 112 (https://www.e-dunhuang.com/cave/10.0001/0001.0001.01012; select "Browse Murals" to enable zooming) from the Mid-Tang (ca. 762–827 C.E.), where eight musicians, arranged symmetrically, flank a dancer. Historian Susan Whitfield calls this dance the "Sogdian Whirl," a name that reflects both its probable origins in central Asia and the dancer's movements. Also characteristic of this dance are the streamers attached to the dancer's body and the braided rug under her feet. The musicians in this mural play, on the left, *guzheng* (zither with moveable bridges), *pipa*, *paiban* (wooden clappers), and *sheng*. On the right we see a *yaogu* (hourglass-shaped

drum), *jilogu* (small barrel-shaped drum held under the arm) and *taogu* (pellet drum, held on a stick), *paiban*, and *hengdi* (transverse flute lacking the vibrating membrane of the modern *dizi*). The *jilougu* and *taogu* are played by one musician. The instrumentalists in this mural are beautifully attired, dressed in flowing robes, similar neckpieces, and similar hairstyles. The ensemble is heavy on percussion, a typical feature of ensembles of the Tang era.

The *pipa* and the *jiegu* may have originated in Kucha. The latter instrument is not depicted in Cave 112, though it appears quite frequently in the Mogao murals. "Best liked of all the Kuchean instruments was the little lacquered 'wether drum' [i.e., *jiegu*] with its exciting music and the exotic songs in mispronounced Sanskrit which were sung to it. The great Hsüan Tsung [i.e., Emperor Xuanzong (r. 713–756)] himself, like many other noble persons, was a trained performer on the wether drum" (Schaefer 1963, 52). The *bili* and the *hengdi* were also popular in Kucha, though the latter instrument almost certainly did not originate there.

Court music in the Tang was organised in nine or at times ten different types, only one of which was Han Chinese. The others were from foreign regions, including the western domains of Kucha, Kashgar, Turfan, Samarkand, Bukhara, and Tashkent, as well as Korea and India. Many of the court musicians were slaves, brought as tribute to the Tang court from other countries. Despite the Han Chinese prejudice against foreign "barbarians", western music and dancing—particularly from Kucha, as mentioned above—became the rage, not only in the Tang court but also in the taverns of the capital, Chang'an (modern Xi'an), and in the homes of the wealthy throughout China (Schaefer 1963, 49–52).

As I mentioned earlier, the era of Five Dynasties and Ten Kingdoms followed the demise of the Tang, in the interval between the Tang and the Song. One of the ten kingdoms was Shu, with its capital at Chengdu. Wang Jian (r. 907-918) styled himself the first "emperor" of Former Shu. A ruthless military leader, Wang Jian had served as a general in the Tang army before that dynasty's collapse. In part because he was originally from Henan Province in China's central plain and had taken over Shu by military conquest, he was something of an interloper, eager to establish the legitimacy of his regime by emulating Tang court practices. Chengdu had in fact previously served as the temporary home for two exiled Tang rulers. Music-loving Emperor Xuanzong took refuge there from 756 through early 758 in the wake of the An Lushan rebellion, and as the Tang grew ever weaker, Emperor Xizong (r. 873-888) was exiled there from 881 through 885. Almost certainly these two emperors brought many of the trappings of their courts with them to Chengdu, including their musicians. Not surprisingly, then, Wang established a court entertainment bureau (nei jiaofang), modelled on Tang practices, thereby distinguishing popular or banquet music from ritual music (taifeng si) (Bossler 2012, 76).

Unlike most early Chinese burial sites, Wang Jian's place of interment is not an underground tomb, but the above-ground Yongling Mausoleum, today a Chengdu tourist attraction. Around the base of Wang's coffin platform are stone carvings of two dancers and twenty-two musicians, four of whom (one dancer and three musicians) can be seen, along with a stone statue of Wang Jian himself, at http://www.china.org.cn/english/features/atam/115263.htm. The four musicians shown on the website play *jiegu*, *pipa*, *konghou*, and *guzheng*. All the musicians and dancers are women, and all are seated (*zuobuji*). Moreover, as in Li Shou's tomb and the Mogao Grottoes, all the musicians have similar garments and hairstyles.

As in the Mogao Grottoes, percussion instruments are prominently featured in Wang Jian's mausoleum, thereby suggesting that the music of his court emphasised rhythm over melody. The twenty-two musicians in the Yongling stone carvings play twenty-three instruments in all, but as the *bili*, *hengdi*, *paiban*, and *jiegu* are

duplicated in separate carvings, there are actually only nineteen different instruments. There are three plucked string instruments, eight wind instruments, and twelve percussion instruments. In support of my contention that this music was more rhythmic than melodic, I note that some of the wind instruments depicted here are essentially incapable of producing true "melodies." The conch-shell trumpet (*bei*), which appears several times in the Mogao murals, typically played one note of unfixed pitch. The *yezi*, or blown leaf, has a range of up to an octave and a half, but its pitch is difficult to control (Thrasher 1990, 55–59). The leaf, incidentally, is not found in the murals at Mogao, though it is still used today in Yunnan province, which is adjacent to Sichuan.

Percussion instruments probably were the leaders of these ensembles. Zheng Ruzhong notes that in the ensembles at Mogao that accompany dancing, a *paiban* player is often seated at the left end of a v-shaped formation of musicians, perhaps to facilitate this leadership role. Some of the Mogao ensembles include more than one *paiban*, and there are two of these instruments in Wang Jian's tomb. The *jiegu*—as noted above, a Kuchean instrument favoured by Emperor Xuanzong—often assumed a leadership role as well (Zheng 1993, 50).

The prominence of the stone carvings in Wang Jian's mausoleum offers an indication of how important music was at his court. Wang Yan, his son and successor, is often characterized as an incompetent ruler, but he too was a lover of music and poetry. He composed lyrics for songs and apparently was a musician in his own right. When the forces of the Later Tang empire (923–927) conquered Former Shu in 925, they took more than 200 musicians from the Shu court with them to their capital, Luoyang, in China's central plain (Wang 2011, 316).

The Chengdu Museum, which opened to the public only in 2016, holds some twenty terracotta figurines of instrumentalists, singers, and dancers, each approximately 0.6 metres high. These figurines are among the artefacts recently unearthed from the tomb of Zhao Tingyin (883–949), a general in the service of the Later Shu, in the Longquanyi district of Chengdu; excavation report, with some of the figurines *in situ*: https://news.ji-qi.com/discovery/civilization/201803/66-1001013.html. All the figurines are painted, and some are tinged with gold. Instruments are missing from approximately half of the terracotta instrumentalists. Still in place, however, are examples of *sheng*, *pipa*, *fangxiang* (set of stone chimes), *paixiao* (panpipes), *bili*, *hengdi*, *taogu*, *jilougu*, and various other drums. The website cited above shows a *pipa* player, a dancer, and a musician with a *taogu* (pellet drum). The *taogu* player also holds a second drum, probably a *jilougu*, though part of this drum appears to be missing, as is its beater. The dancer is performing the sleeve dance, which is older than the Sogdian Whirl.

Zhao Tingyin's female musicians, like Wang Jian's musicians and those at Magao, are well appointed, with similar hairstyles and tunics — essentially, they are "in uniform." All the musicians are standing (*libuji*), which may mean that they are lower in status than those in the Yongling Mausoleum and the seated musicians at Mogao. One might speculate that as a general, Zhao Tingyin did not have a group of seated musicians accompany him to the grave because that honour was reserved for the musicians of his "emperor," Meng Chang, though it is difficult to confirm this supposition.

The court of Meng Chang, son of the founder of Later Shu, Meng Zhixiang, was a vibrant cultural centre. Zhao Tingyin's son Zhao Chongzuo, who held the title of "vice minister for the Court of the Imperial Regalia," is best known as the compiler of the *Huajian ji* ("Collection from Among the Flowers," completed in 940), the earliest Chinese anthology of song verse by literati. Comprising 500 poems by eighteen different writers, its verses in *ci* form were intended to be sung to existing Chinese tunes and were heard frequently at the court of Meng Chang, Zhao Chongzuo's sovereign and patron, often with instrumental accompaniment. A *ci* poem by Madame Huarui, Meng Chang's favourite concubine, mentions the singing ladies of the palace

setting the tune of her *ci* poem in tablature for the *bili* after hearing Meng himself play it on the flute (Shields 2006, 104–5).

The demise of both of these polities, Former Shu and Later Shu, resulted in their musicians being captured and taken back to courts in China's central plain-to Luoyang, capital of the Later Tang Dynasty, in the case of Former Shu; to Kaifeng, capital of the Song Dynasty, for Later Shu. When Meng Chang was captured by the Song armies in 965, he took with him to Kaifeng his "treasury, servants, concubines, musicians, dancers, and fine musical instruments" (Qin and Zhou 1994, 277-80). According to the Song shi ("History of Song"), 139 of Later Shu's musicians were transferred to the Song court (Shields 2006, 104). Thus, the two Shu kingdoms played important roles in conveying Tang musical practices back to the central plain, where they enriched the culture of the empires of the Later Tang and the Song. That the "Song founding emperor established a Court Entertainment Bureau on the Tang model" (Bossler 2012, 98) is surely due in part to the influence of the musical practices of the two Shu kingdoms. In particular, evidence of the influence of Former Shu can be seen in the stone carvings of instrumentalists in the Po Ta (Fan Tower, erected 974) in Kaifeng (Qin and Zhou 1994, 277-80). Five of the instrumentalists depicted in the Po Ta can be seen at https://kknews.cc/culture/pe4vg6j.html

Acknowledgments

Yaohua Shi, Ying-chieh Wang, Keqin Zhou, Alan Thrasher

References

- Bossler, Beverly. 2012. "Vocabularies of Pleasure: Categorizing Female Entertainers in the Late Tang Dynasty." Harvard Journal of Asiatic Studies 72 (2011): 71–99.
- Li, Xueyan. 2019. "Chengdu zhe zuo haohua wujiang mu, weihe ancang zheme duo yinyuè mima" ("Why are there so many secrets of music hidden in this luxurious tomb of a general in Chengdu?") Chengdu Daily Jinguan News. 28 November 2019.
- Qin, Fangyu and Zhou Zhu. 1994. "Shi lun Wangjian mu yuewu shike de shixue jiazhi hua" ("Discussion of the Historical Value of Music and Dance in the Stone Carvings of Wang Jian's Tomb). In *Qianhou shu de lishi yu wenhua* ("History and Culture of Former and Later Shu"), 276–81. Chengdu: Banshu shushe.
- Schaefer, Edward H. 1963. *The Golden Peaches of Samarkand: A Study in Tang Exotics*. Berkeley: University of California Press.
- Shields, Anna M. 2006. Crafting a Collection: The Cultural Context and Poetic Practice of the Huajian ji (Collection from Among the Flowers). Cambridge, MA and London: Harvard University Press.
- Thrasher, Alan R. 1990. *La-li-luo Dance-Songs of the Chuxiong Yi, Yunnan Province, China*. Danbury, CT: World Music Press.
- Wang, Hongjie. 2011. Power and Politics in Tenth-Century China: The Former Shu Regime. Amherst, NY: Cambria. Zheng, Ruzhong. 1993. "Musical Instruments in the Wall Paintings at Dunhuang." CHIME: The Newsletter of the European Foundation for Chinese Music Research 7: 4–55.

Biography

Stewart Carter's publications include The Trombone in the Renaissance (Pendragon, 2012) as well as articles in The Cambridge Encyclopedia of Brass Instruments, The Cambridge Encyclopedia of Historical Performance in Music, Journal of the American Musical Instrument Society, The Grove Dictionary of Musical Instruments, The New Grove Dictionary of Music and Musicians, and the Historic Brass Society Journal. He serves as Editor of the Historic Brass Society Journal. Further editorial projects include, with Jeffery Kite-Powell, A Performer's Guide to Seventeenth-Century Music, 2nd edition (Indiana, 2012), and with Timothy J. McGee, Instruments, Ensembles, and Repertory, 1300–1600: Essays in Honour of Keith Polk. In 2017 the Galpin Society honoured him with the Anthony Baines Prize for outstanding service to the field of organology Carter holds an endowed professorship at Wake Forest University, where he teaches music history and theory and directs the Collegium Musicum.

Music Socials: Creating meaningful experiences for people with dementia

Sarah Deters

St Cecilia's Hall, The University of Edinburgh, United Kingdom

The role of a museum, particularly within the context of its local community, is in constant development. These places of reflection, learning, beauty, and enjoyment are increasingly taking on a more active role when it comes to the health and wellbeing of its audience. In Scotland, the national development body, Museums Galleries Scotland, has made making connections between collections and communities one of its key goals in its *National Strategy for Scotland's Museums and Galleries* (Museums Galleries Scotland 2012, 22). This community-centred mindset has influenced the approach many museums are taking in regard to engagement and has encouraged museums, St Cecilia's Hall included, to look beyond our traditional museum audience.

In reviewing the needs of the local community of Edinburgh, it was noted that people who suffer from dementia were being excluded from visiting museums and museum activities. Sadly, this is not uncommon. As the understanding of dementia and Alzheimer's increases, research has shown that many of the people affected by dementia, including both the individual with dementia and their caregivers, can become isolated; this in turn can exacerbate the symptoms of the syndrome and disease (Wortmann 2012, 40). To respond to the lack of dementia programmes in museums and in order to help to mitigate the marginalisation caused by dementia, St Cecilia's Hall began a programme tailored to the needs of people with dementia. This article will give an overview of our programme with the hope that our experience will inspire other museums, in particular musical instrument museums, to consider creating their own dementia-friendly programmes within their own museum spaces.

In 2017, St Cecilia's Hall joined in a partnership called "Social." The programme was inspired by the successful "Meet Me at MoMA" series which ran at The Museum of Modern Art, New York (MoMA) from 2007–2014. The Social programme is designed to provide stimulating activities in a friendly environment for people living with dementia and includes events for the individual along with their family, friends, and caregivers. Whereas the MoMA programmed focused solely on using art as a way to engage with people with dementia, the Scottish Social programme wanted to branch out, supplementing art from the National Galleries of Scotland with historical artefacts from the National Museum of Scotland, books and archives from the National Library of Scotland, animal and ecological specimens from the Royal Zoological Society Scotland Edinburgh Zoo, as well as music and musical instruments from St Cecilia's Hall, The University of Edinburgh. The various partners named their programmes Gallery Social, Museum Social, Library Social, Zoo Social

and Music Social. For over two years our partnership has run weekly programmes for people affected by dementia, providing this service to more than 1,500 individuals each year. The programme has demonstrated how museums and cultural institutions can have a positive impact on the lives of people affected by dementia and that music museums have a particularly profound role to play in engaging with this community.

In creating the Social partnership, the members decided early on that music should be one of the types of activities included in the programme. This was due to a growing body of research which shows the benefits of musical activities for people with dementia. Research has shown that musical memory is one of the last types of memories people lose, and music has been shown to help to delay the onset of memory decline, as well as improve memory function. Listening to music has been shown to have a calming effect on people with dementia. Music therapists and specialists in dementia care suggest that listening to unfamiliar music (particularly classical music) can be very beneficial because it can bypass any negative memories or emotions and may help to stimulate a new response such as relaxation to help with stress (Balakrishnan et al. 2013, 47–51). In summary, music has tangible, evidence-based benefits for people with dementia, such as helping to minimise the behavioural and psychological symptoms of dementia, tackling depression and anxiety, and, importantly, helping to improve quality of life.

So, how does our programme work and how are we incorporating music into dementia care?

On the first Friday of every month, we welcome around thirty people to St Cecilia's Hall. The morning starts with a time for socialising, and we provide tea, coffee, and cake. The programme is scheduled to begin at 10:30 am, but the participants often arrive early so we have everything ready by 10:00 am. This relaxed start of the programme is designed so that participants can become comfortable, build a sense of camaraderie, and is a good opportunity for the carers of people living with dementia to talk to others who have shared experiences.



Figure 1: Participants enjoying teas and cakes.

Around 11:00 am we transition to a gallery talk. The theme of the talk changes monthly and we have covered topics ranging from the history of the guitar, music in Georgian Edinburgh, the development of brass instruments, swing dancing in Edinburgh in the 1940s, Scottish traditional instruments, to the development of jazz. All of the talks involve elements of our collection, showcasing particular instruments or focusing on the history of our historic building. The talks are given in an accessible way, but the information is in no way "dumbed down". The talks often include passing around items from our handling collection, short video or audio clips of instrument performances, or demonstrations on the instruments.

Figure 2: Lost Sounds: Exploring the Instruments of the Past, April 2018.

After the gallery talk, the group moves on to what is the favourite part of the morning: the thirty-minute musical performance or activity. The musical performance matches the theme of the day and often features instruments from our collection when appropriate. Local musicians or music students from the University of Edinburgh or the Royal Conservatoire of Scotland in Glasgow, perform at each Social



Figure 3: Music in Georgian Edinburgh, May 2019.



Figure 4: Example of the Social brochure.





programme. The programme has been very fortunate as many professional musicians in our area are very happy to become involved in our programme and do so at a discounted rate for the performance. After the performance is over, the participants are welcome to spend more time in the museum, speak with the museum staff and musicians, or to continue to visit with each other.

We advertise our Social programme through word of mouth, on our website, and through a printed brochure, which is available at museums, libraries, galleries, cultural centres, hospitals, and care homes throughout Edinburgh. The partner organisations programme the events six months in advance and print two brochures a year. The programme is completely free for the participants and its popularity has been growing continuously.

People who come to our Socials Programme are usually husband and wife pairs, but we also have children who bring a parent, friends who come together, and small groups from local care homes and assisted living centres. We have a core group of around twenty regular attendees, but each month we will also have around ten new people who have not come to St Cecilia's Hall before. The largest group we welcomed was during our 'All That Jazz' theme, in which we had thirty-six participants.

The Social events are individually funded by the partner institutions. We fund the St Cecilia's Hall programme with income raised through the hiring of our building for events. This way, when someone pays to use St Cecilia's Hall, the funds go back to the community. On average, each Social costs between £150-225. The majority of the expenditure goes to musician fees and to pay for catering. The biggest time commitment when planning the Socials is finding and scheduling musicians.

The feedback from our participants has been overwhelmingly positive. People comment that they love the opportunity to hear our instruments being played, dance in our hall, and learn about our building and collection. More importantly, our feedback demonstrates how this type of programming can have a positive impact on the lives of people with dementia. Feedback includes:

"It's a welcoming atmosphere"

"Margaret loves coming to St Cecilia's Hall for the music events. It is amazing because she is now mostly uncommunicative, but when she comes to your programmes she will sing right along, and she remembers all of the words."

"The Social events allow my mother and I to feel normal. We are in a place where no one is judging, everyone understands my struggles, and we can all approach the day knowing we have support from each other."

One of the most touching moments was during our 1940s swing dance themed programme *A swinging morning at the Excelsior*. The morning focused on the history of our building, which was a swing dance ballroom in the 1930s and 1940s and during this event we brought in a jazz band and a local swing dance society to teach swing dancing and then dance with the participants. The feedback came from a woman named Anne, whose husband Bob has dementia. During the morning, Bob asked his wife to dance and the two of them spent the time slow dancing in the Concert Room. Anne later told me that she and Bob would go dancing every week, but because of dementia they had not been able to go dancing in years. She thanked me for allowing her the chance to have her husband back, if only it was for such a short time.

On a personal level having the opportunity to organise this programme has been an incredible experience. Seeing how dementia affects people and their families is humbling and frightening, but it has also been an opportunity to see that there is humour and joy and life for people living with dementia and that museums have a lot to offer to add to their quality of life.

I am very proud of the Social programme and its success. The programme will continue to run each first Friday of the month at St Cecilia's Hall and every Friday throughout the year at our partner institutions. If you are interested in learning more about our programme or have further questions on how you can set up your own dementia friendly activities, please get in touch.

Author's note: During the COVID-19 pandemic, the Social programme is being run digitally. The format has been condensed to a one-hour programme but still includes the three main elements: socialisation time, themed talk, and live performance.

References

Balakrishnan, R Nair, William Browne, John Marley, and Christian Heim. "Music and Dementia" *Degener Neurol Neuromuscul Dis.* 2013; 3: 47–51.

Museums Galleries Scotland. 2012. "The National Strategy for Scotland's Museums and Galleries." https://www.museumsgalleriesscotland.org.uk/media/1094/going-further-the-national-strategy-for-museums-and-galleries-in-scotland.pdf.

Wortmann, M. 2012. "Dementia: a global health priority - highlights from an ADI and World Health Organization report." *Alzheimer's Research Therapy* 4: 40.

Biography

Dr Sarah Deters is the St Cecilia's Hall curator where she is responsible for museum interpretation, display, and visitor engagement at The University of Edinburgh's musical instrument museum.

In 2017 Sarah completed a PhD in organology from The University of Edinburgh, writing her dissertation on the impact of the Second World War on the British piano industry. As a researcher, Sarah has a particular interest in examining the history of musical instrument collecting and the display of musical instruments and their interpretation. Additionally, she researches 20th-century musical instrument manufacturing and how so-cio-economic issues, such as war and labour movements, affect musical instrument making.

Prior to moving to Scotland in 2011, Sarah was curator of musical instruments at the National Music Museum at The University of South Dakota, Vermillion, and she has worked as a classroom music teacher in her home state of West Virginia.

Sound as a Catalyst for a New Breed of Exhibition

Jascha Dormann
Idee und Klang Audio Design, Switzerland

Introduction

In the 21st century, design is one of the most important aspects when it comes to the planning and construction of museums, exhibitions, and pavilions. Content and information are increasingly being transported via architecture, light, graphics, and media applications, which are all part of an overall dramaturgy.

In many cases, the medium of sound only appears as a footnote in this context: its role is often reduced to conveying content that isn't suitable to be transported visually or even to serving merely decorative purposes.

The main reason for this neglect is the dramatic underestimation of the impact of sound on us humans. Even though some of us are aware of the enormous importance of sound in film – famous filmmakers such as George Lucas (Fantel, 1992) and David Lynch (Halsall, 2002) have vouched for sound to constitute at least half of the movie experience, if not more – sound as a design medium still seems to be flying under the radar in most fields, including scenography and exhibition design. The fact that many people, on a conscious level, seem to have a rather abstract relation to sound in general, is especially surprising considering the strong, emotional way in which most of us connect with music. But while its bodiless nature might render the medium of sound somewhat of a mystery, it has various unique qualities that can be harnessed, especially in the context of exhibition design.

The Many Strengths of Sound

When human life grows in the maternal womb, our hearing is the very first of the senses that develops. By the twentieth week of pregnancy our aural sense is fully formed. During the course of our lives, our hearing keeps assisting and influencing us in a multitude of ways, most of which we are not consciously aware of. In the following, I will try to outline four of those ways; please note that this is merely an incomplete rundown.

Guidance of Attention

In an increasingly visually overwhelming world, there is no way in which we can consciously deal with all the input that is being thrown at us on a daily basis. This is especially true since our eyes can only ever focus on one particular spot of very limited

size at any given time – the rest of our field of vision is blurry and everything outside of it remains invisible to us. Our sense of hearing, on the other hand, is spherical, meaning that it picks up sound 360 degrees around our head as well as from above and below. If someone yells your name, even if they are standing 20 metres behind you, you will immediately know what direction the sound is coming from and turn accordingly without even pausing to think for one second. In this manner, sound is playing the lead role when it comes to directing our attention and helping us to hone in on the things that are the most relevant for us at any given point in time and filter out the rest. While this process takes place many times each day and in any environment, we encounter in our daily lives, the closed, consciously designed environment of an exhibition presents the opportunity to take charge of it and effectively use sound to direct the attention of visitors in a way that best serves the exhibition dramaturgy. In exhibitions that increasingly aim to "immerse" visitors in a 360-degree experience, sound can fill this crucial role of guidance, to name one concrete example.

Association

The sound of the beating heart is probably the oldest auditive memory most of us have, as we have already listened to it before we were born. It is no coincidence that this sound is used in sound design applications very often, as it has a strong emotional impact on most of us. This strong connection between sounds and memories is apparent on many other occasions as well, be it the sound of a specific bird species that will immediately take you back to the house you grew up in or the first double bass note of the soundtrack of Spielberg's movie *Jaws* that will, within a split second, bring back the horror and excitement you experienced when you were first watching the film. In other words: sounds can mentally teleport us into all sorts of environments by triggering associations and memories. In the exhibition context, this can be utilised in many ways. Deliberately playing with sounds that trigger certain associations, even in a very subtle way that might not even operate on a conscious level, can put a powerful spin on any exhibition space.



Figure 1: "The Head" – a four-channel 3D-audio microphone rig.

Control of Time and Space

Sound gives humans a pretty clear picture of what their environment looks like – this doesn't just go for visually impaired people. If you close your eyes, regardless of what environment you are in, you'll be able to tell a whole lot about its characteristics, including its dimensions and the materials present in it, for example. Making use of this fact, clever spatial sound design can make spaces seem larger, smaller or otherwise different from the way they actually are. Furthermore, sound influences our perception of time. While our favourite song might always seem to be over way too soon, fifteen minutes spent in an anechoic chamber can seem like an eternity. Sound therefore gives designers control over time and space, so to speak, which enables us to greatly influence the perceived characteristics of spaces. This also means being able to overcome physical limitations of spaces to some degree.

Emotionalization and Context

Sound – be it music or sound design or everything in between – is a direct gateway to our emotions. However, the immediate impact sound has on us manifests itself in a completely subversive way. Because of our focus on and our impressionability by the visual domain, we tend to give it too much credit. This is easier to comprehend by conducting a little experiment: if a film scene is played back multiple times, however, each time featuring a different soundtrack with a different mood (happy, eerie, ambivalent etc.), this very same film scene will have an immensely different emotional impact on viewers. In a way, it is the sound that gives meaning to the imagery and tells viewers how to interpret and feel about it. Had the viewers in this experiment only seen the scene with one version of the soundtracks, they probably wouldn't have paid much attention to the sound, let alone attributed much of the emotional impact of the scene to it. The same concept applies to spaces pretty much 1:1. The mood that a soundscape conveys inside a space will always have an immense impact on how visitors emotionally react to the space as a whole, from the very moment they set foot in it.

Sound as a Design Medium for Exhibitions

As suggested above, exhibitions can profit from these strengths in many ways. Making good use of sound requires considering its potential for a respective project from the very beginning of an exhibition design concept. Unfortunately, more times than not, sound is only thought of at a point at which the project is already well underway – and if there happens to be any budget left. Even if sound doesn't play a huge role in a specific exhibition, being aware of its benefits enables exhibition designers to utilise them smartly. Another (quite crucial) factor that makes sound attractive in the exhibition design context is budget. If you give credence to Mr. Lynch and Mr. Lucas regarding the notion that sound is responsible for at least half the audio-visual experience and take into account that sound budgets, even in projects with an elaborate sound production, usually make up a fraction of what is spent on visuals, it becomes pretty clear that sound presents an effective way to get 'more bang for the buck', regardless of the overall extent of the project budget.

When Sound becomes the Main Actor

Given the way sound tends to fly under the radar, fully harnessing its perks requires two things: a client that is aware of the potential of sound and a bold concept. In the case of the *Sounds of Silence* exhibition at Museum of Communication in Bern (Switzerland), for which I led the sound creation, we were lucky enough to have both. A tender process, in which we were handpicked to directly compete against exhibition designers, provided the basis for this. Winning the tender enabled us to come up with a basic concept, which was incorporating the full potential of sound, before bringing in an exhibition designer and a graphic designer in a next step. This role reversal allowed us to turn the visuals-first approach evident in most exhibition concepts on its head.

Sounds of Silence was, as the name suggests, a temporary exhibition about silence and its concept was built entirely upon interactive 3D sound (see below) both in terms of dramaturgy and design. Written text was completely done without, and also exhibits, photographs and videos were but sporadically represented. Abstract spatial graphics merely functioned as a guideline and starting point for associations.

Nonetheless, the exhibition provided a broad variety of knowledge, which could be accessed by visitors in a playful, explorative way. By means of the so-called Binaural Sound Technology together with interactive programming, a three-dimensional soundscape was being built in the room. A tracking system was evaluating the positioning and head rotation of all visitors in real-time. With the aid of this data, the listening perspective of each visitor, in relation to the soundscape surrounding her/him, could continuously be calculated, enabling some individual interaction and immersion therein. Accompanied by an invisible voice that was daring for a start, thereupon encouraging and sometimes even provoking, the visitor was sent on a journey whose exact route she/he may determine herself/himself.

While we were working on this exhibition, it felt like we were taking a substantial risk. We simply had no way of telling how visitors were going to react to an open 600-square-metre exhibition space, which was mostly empty apart from some abstract graphic patterns on the floor and on the walls. We were asking visitors to do something that was well outside of their individual comfort zone for most: to completely rely on their ears for a change.



Figure 2: The main exhibition space of the Sounds of Silence exhibition.

When we opened the doors for the first test audiences, we were stunned. After about a minute of settling in, visitors adopted an attentive, exploratory, slow-paced movement pattern while they ventured into the exhibition space. Furthermore, visitors who arrived later seemed to observe this behaviour in the visitors that were already present and adopted it even quicker. It was as if they had all agreed on a silent choreography of sorts.

And they seemed to enjoy it: surveys carried out by the museum revealed that 97% of visitors reacted positively to the exhibition.

Later on, the positive feedback found a continuation in the form of critical acclaim and various international awards, such as the International Sound Award or the iF Design Award.

Conclusion

Does this mean that the design concepts of all exhibitions should revolve around sound as the main design medium? Of course not. But even though the approach of *Sounds of Silence* was somewhat radical, it serves as a great example of what sound can do to help create a new breed of exhibition that is in touch with the way visitors absorb and process information in the 21st century. Our aim was to challenge visitors by conveying information in an unusual, yet highly interactive way and we are convinced that visitors are more than willing to accept this challenge if it means that they can explore an exhibition that is engaging, intuitive and sensual.

Acknowledgements

Photo in Figure 2 by Digitale Massarbeit, courtesy of Museum of Communication Bern, Switzerland

References

Fantel, Hans. 1992. "In The Action With 'Star Wars' Sound". *New York Times*. May 3, Section 2, Page 35. Halsall, Philip. 2002. *The Films of David Lynch: 50 Percent Sound*, The British Film Resource. https://www.britishfilm.org.uk/lynch/Sintro.html

Biography

Jascha Dormann (b. 1986) is a Swiss-born sound artist, spatial audio specialist, and music producer of Russian descent. He finished his Master's degree in Audio Design at Elektronisches Studio Basel, Switzerland. During his studies, he started working as a music producer and sound designer for feature and documentary film. In the following years, he took a deep dive into spatial audio and sound installations and has accomplished a large number of works in this field until today. Besides working as a sound designer for renowned theatre collective Rimini Protokoll, he led the sound production for the exhibition 'Sounds of Silence' at Museum of Communication (Bern, CH), which won various international awards. He is currently leading the sound production for the new Holocaust Galleries at the Imperial War Museum (London, UK), due to open in 2021.

Musical Instruments as Educators

Manu Frederickx

Metropolitan Museum of Art, USA;
University College Ghent, Belgium

Introduction

As museums and collections of musical instruments are confronted with the dilemma of "playing or not playing", an often-suggested alternative is the making of replicas to recreate the sound and playability of historic instruments. The benefit of this approach lies in the fact that the integrity of the original object is preserved while at the same time enabling us to appreciate the sound and playability of the instrument as it might have been when it was originally made. But how can we extract the knowledge that is inherently stored within these historic objects? How do we establish a holistic approach in collaboration between instrument makers, museum curators and conservators, scientists, musicologists, and musicians? How can we train young people to be able to interpret the complexity of a historic instrument?

In recent years students and researchers of the Musical Instrument Making Department of the School of Arts of the University College Ghent in Belgium have created several projects focusing on the study and reconstruction of historic musical instruments in various museum collections. Using the principles of reverse engineering and experimental archaeology they aim to understand and recreate the methods and techniques used by instrument makers of the past.

Musical instruments as educators

In the 1950s and 60s, instrument makers such as Frank Hubbard, John Dowd, and Martin Skowroneck revolutionised the early music movement by studying and copying extant original instruments as meticulously as possible. By the mid-60s, the principle of exact replication of instruments, their pitches and musical notation in the performance of early music became commonly known as Historically Informed Performance (HIP). The study of original instruments was critical for the advent of Historical Informed Practice, and many musical instrument collections in museums in Europe and the United States played a pivotal role in its development as, in the words of oboist and early music scholar Bruce Haynes, 'musicians found themselves willy-nilly becoming scholars and readers in libraries, as well as craftsmen making instruments' (Haynes 2007, 45).

The increased interest in historical instruments also meant an increased risk for damage to these instruments as many of these musician/scholar- instrument makers without formal training in the care and handling of historical objects started to explore museum collections. This eventually led to the 1985 publication of

Recommendations for Regulating the Access to Musical Instruments in Public Collections, by the International Committee of Museums and Collections of Instruments and Music (CIMCIM). While this document acknowledges the responsibility of museums to open their collections for research, it addresses some of the risks involved in doing so and sets out guidelines to minimise them.

In response, many museums have issued technical drawings of instruments in their collection, often based on x-ray radiography and manual measurement, enabling makers to make copies of historic instruments without the need to study the original themselves. These technical drawings are important documents in the study and documentation of original instruments but lack important information to inform a maker about the construction process, materials, and aesthetics of the original instrument, often leading to generalisations in their interpretation. For a maker to get insight into the methods and techniques of the past, exposure to original instruments therefore remains important and much is still to be gained from studying them. In his book *The End of Early Music* Bruce Haynes (2007) wrote:

'There are compelling reasons for continuing to refer to original(s) [instruments] for guidance. For a start, although copies can sometimes play as well as originals, they usually don't. Original instruments, string, keyboard, and woodwind, play better as a rule, than modern copies. Many HIP players are not even aware of the difference in quality, because they have never played an original instrument – or even, in some cases, a faithful copy of them. In short, our generation of makers need to get better [...], and the original instruments are the only teachers they have.' (Haynes 2007, 161)

In recent times, technologies like x-ray radiography, computed tomography (CT), 3-D digital imaging, digital endoscopy and various other scientific methods have enabled conservators and museum scientists to perform more in-depth research about materials and techniques used in the creation of historic instruments (Marconi 2016). But a specialist maker's practical experience with and knowledge of historical techniques is often essential in order to correctly interpret and contextualise the information scientists and conservators extract from a musical instrument. Makers can use this information to help form hypotheses about original construction methods, which through experimentation can be verified and used to create more accurate reconstructions of the originals.

Over the past fifteen years, I have had the privilege of working with students in the Musical Instrument Making program of the University College Ghent. For many of those years I was also working as a conservator at the Musical Instrument Museum (MIM) in Brussels and later The Metropolitan Museum of Art in New York. Much of these students' work has been based on their study of original instruments in various collections. Over the years the program has developed good relationships with curators and conservators of numerous renowned museums, allowing students to spend considerable time studying and documenting original instruments with the specific goal of making a copy or reconstruction. Based on their observations of original instruments, students would experiment with various woodworking and other construction techniques. In doing so they develop an eye for tool marks and other indicators to help them to reverse-engineer how a specific instrument might have been made and to distinguish alterations and later additions from original material. Besides instrument making praxis, the curriculum consists of organology, music history, art history, material science, acoustics, music performance, natural science, and conservation science. Additionally, students learn how to safely handle and study museum objects. Occasionally, makers from non-western cultures are invited to teach about traditional techniques and materials.

The students obtain a highly specialised and multi-faceted skill set, combining practical and theoretical knowledge, which can offer new and valuable insights into

Musical Instruments as Educators 65

the technical study of musical instruments. This combination offers great value for the museums or collections with whom they collaborate. For me personally, working with instrument making students over the years has taught me a great deal more about musical instruments than I would have learned studying them as a conservator or maker on my own. Gathering the very detailed information specifically needed for a copy or reconstruction creates opportunities to study an instrument in far greater detail than what is generally the case for conservation treatment or cataloguing and can offer opportunities for advanced technical analysis by museum scientists. For example, such was the case for the Cristofori piano in the Metropolitan Museum of Art [US.NY.mma 89.4.1219a–c]. Made in 1720, it is the oldest existing piano in the world and has been heavily altered throughout its life. Although various scholars had previously studied it extensively, working with a student whose specific goal was to make a reconstruction has led to important new discoveries about its original state and later alterations (Hollinga 2019)¹.

After graduating, some students move into post-graduate or doctoral positions, studying instrument related topics with a strong emphasis on interdisciplinary and practice-based research, allowing for an even more in-depth study of musical instrument making practices. Some examples of this type of research are given below.

In a PhD study of the 18th century violin maker *Benoit Joseph Boussu*, one scholar was seeking to achieve an optimal implementation of the idea of 'informed instrument making', where reconstructions were built on the basis of a very broad and extensive research on extant instruments, and on the working methods and biography of a specific maker (Verberkmoes 2020). In close collaboration with the Musical Instruments Museum, Brussels (MIM) and several external experts, imaging techniques like digital endoscopy and computed tomography were used to allow for a full visualisation of the internal structure of the studied instruments and to derive the original construction methods. The instruments built because of this study are used by experts of 18th century music to perform specific repertoire of the period in order to experience the possibilities in playing and sound.

Following the study of various extant instruments built in the 17th century Alemannic tradition as well as literature, iconography, original tools and other artefacts, another scholar used techniques of experimental archaeology to re-enact the circumstances of historical and traditional makers of the Alemannic School of the southern Black Forest region in order to create instruments in as consistent a way as possible (Korczak 2014). This included living and working in a 17th-century house in Germany without modern utilities such as electricity or running water to recreate the conditions in which the original instruments were made.

After studying and copying the 19th-century experimental violins made by Felix Savart from the collection of the Brussels MIM, one student built a Master's Degree project around the creation of an experimental cello partially made out of Styrofoam and now conducts a PhD study around the use of experimental materials like flax and glass-fibre in the creation of bowed stringed instruments (Duerinck 2020).

Most recently I became actively involved in a research project bringing together curators, conservators and researchers from the Rijksmuseum Amsterdam, The University of Leiden, the Metropolitan Museum in New York and the University College Ghent (Frederickx 2020). This project focuses on the Rijksmuseum's 1640 Ioannes Ruckers virginal with the goal of building a scrupulously accurate reconstruction of its original state. Combining science-based analysis and interdisciplinary research with original making techniques in an extensive holistic study into the methods and

More findings are planned to be published in a joint article with the author and other contributors. materials used by this maker, the idea is not only to copy the form of the instrument but also to understand and reconstruct the production process of the original and its decoration as well as the materials and tools that were used in creating it.

In the broader museum and art world such collaborations between art historians, curators, conservators, and scientists in the investigation of techniques, tools and materials used in the creation of a work of art is often referred to as "Technical Art History". This relatively new field originates from an increasingly scientific approach in conservation research, and uses methodologies from anthropology, history of science and material culture as well as reconstruction and re-enactment as ways to better understand an object and the circumstances and culture in which it was made (Hermes 2012). Technical art history is gaining in popularity across museums as it creates exciting new narratives with the potential of attracting a wider audience.

The interest of the study and recreation of historic instruments does not have to be limited to the fields of musicology, historical informed performance, or organology alone. It has the potential to tell powerful stories about art, technology, history, and music, thus strengthening the position of a musical instrument collection within a museum and emphasising to donors and the public the value in also preserving and collecting instruments in unplayable condition. Reconstructed instruments can be used for concerts and educational purposes without compromising the integrity of the originals, preserving not only the original instruments but also the knowledge used in creating them for future generations.

Acknowledgements

My gratitude goes out to the faculty and students of the instrument making program at the University College Ghent and to the staff of the Metropolitan Museum in New York, Museo Nazionale degli Strumenti Musicali in Rome, the Museum of Fine Arts in Boston, Museum Vleeshuis in Antwerp, the Musical Instrument Museum in Brussels, Musikinstrumenten-Museum Berlin, the Rijksmuseum in Amsterdam, Saint Cecilia's Hall in Edinburgh as well as many other institutions and private collectors for allowing students to access their collections and for their assistance and use of resources.

References

Duerinck, Tim, 2020. 'Muziekinstrumenten Uit Nieuwe Materialen' (ongoing PhD study), Ghent University/University College Ghent

Frederickx, Manu and Tamar Hestrin-Grader, 2020. 'Reconstruction of the original state of the 1640 loannes Ruckers Virginal in the Rijksmuseum Amsterdam' (ongoing postgraduate research project), University College Ghent.

Haynes, Bruce, 2007. The End of Early Music: A period performer's history of music for the twenty-first century. New York: Oxford University Press.

Hermens, Erma, 2012. 'Technical Art History; The Synergy of Art, Conservation and Science'. In *Art History and Visual Studies in Europe: Transnational discourses and national frameworks*, edited by Matthew Rampley, 151–165. Series: Brill's Studies in Intellectual History, vol. 212/4. Leiden: Brill.

Hollinga, Frank. 2019. 'The Reconstruction of the Original State of Bartolomeo Cristofori's Piano from 1720'.

Paper presented at the annual American Musical Instrument Society (AMIS) conference in Greenville, South Carolina

Korczak, Andreas, 2014. 'Research on the building methods of the 17th-century North-Alpin violin-making tradition' (post-graduate research project), University College Ghent.

Marconi, Emanuele, 2016. Diagnostic and Imaging on Musical Instruments. Florence: Nardini Editore.

Verberkmoes, Geerten. 2020. "Boussu inside out: A multifaceted organological study of the life, instruments and methods of the violin maker Benoit Joseph Boussu (1703–1773)". PhD diss. Ghent University/University College Ghent. http://hdl.handle.net/1854/LU-8664900

Musical Instruments as Educators 67

Biography

Manu Frederickx works as an Associate Conservator of musical instruments at The Metropolitan Museum of Art in New York. He received a master's degree in musical instrument making from the University College Ghent in 2002. He has worked as an independent maker and restorer of harpsichords and plucked string instruments and was trained in the conservation of wooden artefacts at the Royal Academy of Fine Arts in Antwerp. From 2004 to 2015 he was a lecturer at the University College Ghent, where he became head of the Musical Instrument Making program in 2013. He worked as a conservator at the Musical Instrument Museum in Brussels from 2009 until joining the Metropolitan Museum in 2015. Currently he also works as a researcher for the University College Ghent – School of Arts.

Piano Rolls as Sources for Interpretation Research

Heike Fricke

Musikinstrumentenmuseum der Universität Leipzig, Germany

The TASTEN digitisation project

In the TASTEN project, funded by the German Federal Ministry of Education and Research, the musical instruments museum of the Leipzig University is digitising thirty-six historical keyboard instruments and 3,200 music rolls for self-playing pianos.



Figure 1: Piano roll for Pianola by Aeolian/Choralion (Berlin): Tannhäuser und der Sängerkrieg auf Wartburg, Ouverture (Richard Wagner), Inv.-Nr. 6060, after 1909. (Photo: Marion Wenzel)

Piano Rolls

Piano rolls are storage media on which the movement impulses for operating the piano keyboard are stored as hole code. Piano rolls have been in continuous mass production since 1896. Of particular interest to our research are the piano rolls played by famous virtuosos in a special recording process at the beginning of the 20th century. These are piano rolls for the so-called reproducing piano rather than for the player piano or the pianola. The latter types, called metronomic or arranged piano rolls, are operated with piano rolls which carry the hole code for the music based on the transfer of note values and pitches into the hole code.

Many of the famous pianists who played for Welte or Hupfeld have no other sources of their musical performance available to us today, so that the piano rolls are of great importance for biographical studies of these artists. In addition, they are irreplaceable sources for interpretation research and studies of performance practice at the turn of the 19th to the 20th century (see fig. 2).

The intangible element of the historic interpretation, the performance itself, is – for the first time in history – repeatable and encoded on the piano roll. For research purposes piano rolls do not only offer an audible but also a visual representation of a performance. This enables new perspectives for interpretation analysis, which a case study should later illustrate.

First, I would like to draw your attention to some research questions raised by this unique repertory: How authentic are these recordings? What do we know about the recording and editing processes? Did the pianists have any influence on the repertoire and the editing of their recordings? How reliable are their public judgements of the different existing recording systems?

Reproduction Pianos

The first so-called reproduction piano, that is a piano which reproduced the recording of a virtuoso, was built by Welte in 1904. Shortly afterwards, in 1907, the company Hupfeld in Leipzig brought its reproduction piano Dea onto the market. In 1908, the Philipps Musikwerke in Frankfurt followed with their reproducing piano Duca.

A pianist who recorded for all these systems was for example Eugène d'Albert. Unfortunately, as a witness, he does not differentiate between the advantages of the mentioned individual systems. In fact, he found the same positive words for all reproduction systems and many other pianists did the same.

For Welte he wrote:

'The Mignon reproduction piano is a sensational invention'.1

Figure 2: Directory of the artists who played for phonola

Verzeichnis der Künstler

die für Phonola spielten

Das Mignon Reproduktionsklavier ist eine aufsehenerregende Erfindung. Es gibt die Vorträge der ersten Künstler in wahrhaft überzeugender Weise wieder und hat daher mit den üblichen mechanischen Klavieren nichts gemeinsam.

Eugen d'Albert Conrad Ansorge Leo Ascher Maria Avani-Carreras Fridtjof Backer Grøndahl Wilhelm Backhaus Roderich Baß Florence Bassermann Harold Bauer Tosta de Benici Rodolphe Berger Max Bruch Richard Burmeister Ferruccio Busoni Teresa Carreño Wladimir Cernikoff Maria Cervantes Ludwig Roman Chmel Louis Closson Ernesto Consolo Alfred Cortot Léon Delafosse Louis Diémer Ernst v. Dohnányi Edouard van Dooren Norah Drewett Marthe Dron Alfred Edelsberg † Willi Eickemeyer Julius Einödshofer verin Eisenberger Myrtle Elvyn

Edmund Eysler

Leo Fall Richard Fall

Gabriel Fauré

Otto Findeisen Gregor Fistulari

Carl Friedberg

Albert Friedenthal

Arthur Friedheim Herbert Fryer Ossip Gabrilowitsch Gottfried Galston Rudolph Ganz Leopold Godowsky Enrique Granados Edvard Grieg + Alfred Grünfeld Mark Hambourg Paula Hegner Hans Hermanns Marie Hermanns-Stibbe Ernst Heuser Alfred Hoehn Josef Hofmann Victor Hollaender Eugène Holliday Josef Holzer Engelbert Humperdinck Gerhard Isenberg Margarete Isenberg Sverre Jordan Emmerich Kálmán Charlton Keith Oswin Keller Hermann Kellner Wilhelm Kienzl Clotilde Kleeberg + Hans Klinger Raoul v. Koczalski Stephan Krehl Leonid Kreutzer Wanda Landowska Gustav Lazarus Florian Lejeune Marie Gabrielle Leschetizky

Sally Liebling + Eva Limiñana Alfred Markus Pietro Mascagni Sofie Menter Franz Mikorey Comtesse Helene Morsztyn W. Naessens Oskar Nedbal Otto Neitzel Rudolf Nelson Amadeus Nestler Elly Ney Walter Niemann Carl Nissen Ernst Oertel Patrick O'Sullivan Ilonka von Pathy Max v. Pauer Egon Petri Gabriel Pierne Francis Planté Therese Pott Paul Prill Julius Prüwe Raoul Pugno Ella Rafaelsohn Max Reger Willy Rehberg Carl Reinecke † Margarete Reinecke Alfred Reisenauer † Johannes Richardy Gustav Riemann Ludwig Riemann Edouard Risler Ninon Romaine Julius Röntgen Richard Rößler Bertrand Roth Camille Saint-Saëns Ellen Sandels

Wassily Sapellnikoff Emil Sauer Xaver Scharwenka Max Schillings Artur Schnabel Germaine Schnitzer Herrmann Scholtz Paul Schramm Georg Schumann Ludvig Schytte † Cyril Scott Alexander Scriabine Joseph Sliwinski Bernhard Stavenhager Emerich Stefaniai Max R. Steiner Constantin v. Sternberg Georg Stier Robert Stolz Oscar Straus Johann Strauß jr Josef Stritzko + H. S. Sulzberge Theodor Szántó Josef Szulc Béla v. Ujj Joaquin Valverde Hermann W.v.Waltershau Ludwig Wambold Carl Weinberger Paul Weingarten Felix v. Weingartner Otto Weinreich August Weiß Josef Weiß Joseph Wieniawski † Joh. Wijsman Mathias Wolfsohn Lucien Wurmser Michael v. Zadora Hans v. Zois



For Hupfeld he assures in 1907:

'The performance of the ballad in A-flat major by Chopin played by me in your master piano Dea is in accordance with the original down to the smallest detail'.²

And in 1909 d'Albert wrote about the competing product Duca:

'Duca is the best reproduction piano I have ever known'.3

It is not surprising that d'Albert did not want to spoil himself with the manufacturers of the reproduction pianos, because the virtuosos were well paid for their recordings. In addition, we know from the surviving contracts that the pianists were obliged to submit an assessment of the reproduction procedure.

A comparison of the handwritten comments reproduced in various DUCA catalogues shows that the words were chosen by Duca and not by the artists. D'Albert's already quoted assessment of the Duca reproduction piano is reproduced in two catalogue excerpts, but in a different order of text modules (see fig. 3, 4, 5, 6). In fact, only the sentence "Duca is the best reproduction piano I have ever known" seems to be handwritten by d'Albert.

This is also documented by another excerpt from a Duca catalogue in which Conrad Ansorge adds a sentence to the same text and signs it (fig. 5), as d'Albert probably did before. Arthur Schnabel (fig. 6) also seems to have only signed a prefabricated, handwritten text.

We find further proof of this practice in the correspondence of the pianist and composer Ferruccio Busoni. On 30 May 1908 he wrote to his wife after a recording session for the DEA system of the Leipzig company Hupfeld:

'The testimony I was asked to sign had already been typed and read: "I consider the DEA to be the crown of creation." – I said that no one would believe me, and of course I wrote my own' (Schnapp 1935, 154).

According to the Hupfeld catalogue, Busoni's own words were:

'It was a great pleasure for me to hear the DEA player piano in action for the first time today and I got the impression that it surpasses earlier similar inventions' (Hocker 2009, 153).

If, against this background, the assessments of pianists can only be cautiously cited as sources, the piano rolls themselves must also be critically examined. For example, inventory number 8060 in our collection mentions Ignaz Paderewski as the interpreter on the roll itself, the label on the box says that this is a recording by Teresa Carreño. A mix-up with Aeolian led to a piano roll of Lizst's Hungarian Rhapsody by Arthur Friedheim being released as a recording of Alfred Cortot.

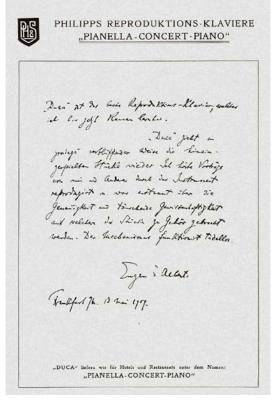
When, in 1920, Maurice Ravel signed a contract with Aeolian, in which he agreed to record seven of his works, he wrote to a friend:

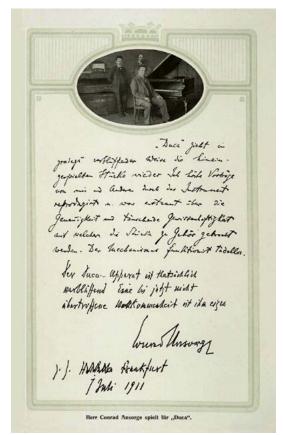
'I am actively looking for someone who is more a pianist than I am for the five others' (Hocker 2009, 186).

This seems to have been successful, as it is documented that Ravel travelled to London in 1922 with the pianist Robert Casadesus. His wife later reports that Casadesus had recorded two pieces, the Toccata from "Le Tombeau de Couperin" and Le Gibet from "Gaspard de la nuit", which had been published under Ravel's name.

- 2 Der Vortrag der seinerzeit von mir in Ihrem Aufnahme-Apparat gespielten Ballade in As-dur von Chopin und anderer Kompositionen durch ihr Meisterspielklavier Dea ist, wie ich heute zu konstatieren Gelegenheit hatte, bis in das kleinste Detail dem Original entsprechend.
- Duca ist das beste Reproduktionsklavier, welches ich bis jetzt kennen lernte. Duca gibt in geradezu verblüffende Weise die eingespielten Stücke wieder. Ich hörte Vorträge von mir und anderen durch das Instrument reproduziert und war erstaunt über die Genauigkeit und täuschende Gewissenhaftigkeit, mit welcher die Stücke zu Gehör gebracht werden.









Figures 3, 4, 5, 6: Objective assessments of pianists? "Handwritten" letters by Eugène d'Albert, Conrad Ansorge and Artur Schnabel. Source: www.playerpianokonzerte.de

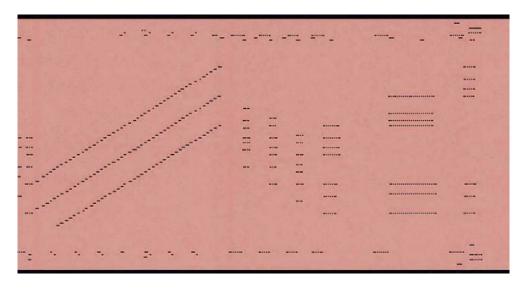


Figure 7: The machine creates virtuosity: Three-part chromatic run.

Occasionally, the pianist's stupendous virtuosity was also helped by manipulations of the piano roll. A recording of Frédéric Chopin's B minor Scherzo, for example, has been preserved, with a furious three-part chromatic passage that simply cannot be played with two hands (Hocker 2009, 188) (fig. 7).

Furthermore, the faithful reproduction of the score did not seem to have been a maxim when they were recorded, even when composers were interpreting their own works. Since the piano roll was limited to a length of about thirteen minutes, scores sometimes had to be shortened or repetitions omitted. Since not all systems had a range of eighty-eight playable notes, passages had to be transposed or rewritten.

Phrasing and agogics as well as velocity could be reproduced satisfactorily in the Hupfeld recording procedure. The dynamics were different. During the recording sessions, the chosen dynamics were apparently first written down in the score and then subsequently edited in an additional work step, often with the participation of the pianist. In the best case, therefore, the dynamics approach the original performance; they are not authentically recorded.

A further step in the editing process was the correction of wrong notes. Mistakes were eliminated by simply not punching the wrong notes. The uniformity of runs also seems to have been optimised. This is documented, for example, by a handwritten note by Paderewski on a preserved mother roll:

'I don't play it evenly. Could you do it evenly for me?' (Hocker 2009, 181).

From these observations we must conclude that today we are not listening to the authentic piano playing of great virtuosos, but rather to an improved variant of their performance, no different from what we are accustomed to today with vinyl or CD recordings.

What is possibly more irritating for today's listener than the editorial measures taken by the producers of piano rolls is the freedom with which the interpreters deal with the musical text and the tempos.

The music writer Harold C. Schonberg refers to this practice in his book *The great pianists*:

'As late as 1905 Theodor Leschetitzky made a piano roll of Chopin's D flat Nocturne. Leschetitzky was the most popular, respected, and productive teacher after Liszt, and he produced some of the greatest pianists of the twentieth century. And how does Leschetitzky play the Nocturne? Leaving interpretative considerations aside, he introduces new harmonies, a new cadenza or two, and does quite a bit of rewriting. By present standards it is intolerable. But in 1905 nobody gave it a second thought. Old recordings of Francis Planté (born in 1839), Vladimir de Pachmann

(1848) and Paderewski (1860), not to mention those of later artists like Lammond, d'Albert, Grünfeld and Friedheim, confirm the statement. By present standards their playing tends to be capricious, rhythmically unsteady, unscholarly and egocentric. But we blame them for the very things for which they were praised in the nineteenth century' (Schonberg 1987, 141).

Case study

So, let's put this to the test and take a closer look at a historical recording. As Franz Liszt's interpreter, I chose Alfred Reisenauer, who came to Liszt as a child prodigy at the age of eleven and was his pupil until Liszt's death in 1886. From 1881 to 1882 Reisenauer studied law in Leipzig and was a piano teacher at the Sondershausen Conservatory before joining the Leipzig Conservatory in 1900. He was one of the most famous pianists of his time and gave hundreds of concerts, especially in Germany and Russia.

The Hupfeld Catalogue of 1906 lists sixteen recordings by Reisenauer, including three Bagatelles and a Rondo by Ludwig van Beethoven, five works by Chopin, two works by Scarlatti, three of Robert Schumann's Fantasiestücke, op. 12 and Franz Liszt's Hungarian Rhapsody No. 12 (see fig. 9).

The *Zeitschrift für Instrumentenbau* (1905, 224) writes about presumably these recordings:

'The pianist Reisenauer recently played several pieces for the phonola, which were recorded according to the new method. The recording surprised by the fidelity in reproducing interesting modifications in Reisenauer's playing'.

Edvard Grieg noted in his diary on 11 April 1906, after he had recorded his own compositions at Hupfeld on this day:

'I heard a rhapsody by Liszt, played by Reisenauer, and that was really Reisenauer's personality. I'm very excited to hear my [pieces] played on this instrument' (Hocker 2009, 76).

Reisenauer recorded Liszt's Hungarian Rhapsody No. 10 for Welte in 1905. Here the Welte catalogue notes: "after personal memories of Franz Liszt".

As we learn from the contract with the Hupfeld company (see fig. 10), Reisenauer committed himself to recording ten pieces of music, which he was allowed to choose himself. This seems to be a special award or the result of special negotiations because a corresponding passage, which leaves the selection of the pieces to Hupfeld, was deleted.

Hupfeld secured the rights for any reproduction, did not pay any licence fees to Reisenauer, but prohibited the pianist from making similar recordings with American competitors. The artist was involved in follow-up editing works to the extent that he had to release the original for reproduction and give dynamic performance instructions.

And, of course, this contract does not lack the clause in which Reisenauer is obliged to issue a positive expert opinion on Hupfeld's reproduction system.

For the ten recordings Reisenauer received 1000 Marks, i.e., 100 Marks per recording. From the price list (fig. 9), we know that Hupfeld sold Reisenauer's recording of the Hungarian Rhapsody for 18 Marks. This means that the company had almost re-gained

Figure 8: The pianist Alfred Reisenauer (1863–1907)



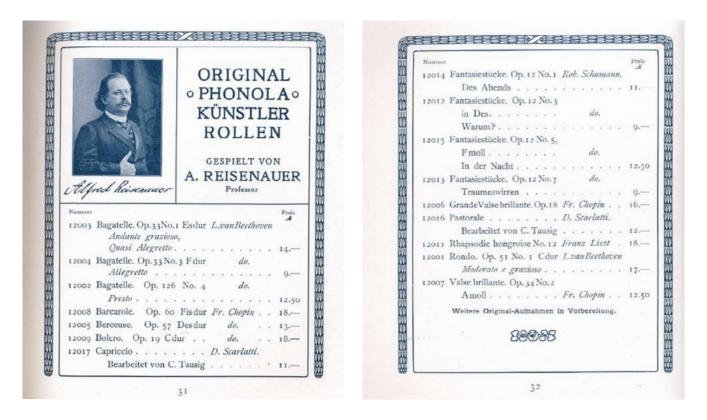


Figure 9: Recordings of Reisenauer in the Hupfeld catalogue of 1906.





Figure 10: Contract between the company Hupfeld and Alfred Reisenauer on the recording of ten piano pieces, Leipzig, June 6, 1905.

the artist's fee as soon as five of these roles had been sold. So, it is not surprising that Hupfeld quickly became very rich. And that making and copying music rolls was also a lucrative business for small private entrepreneurs.



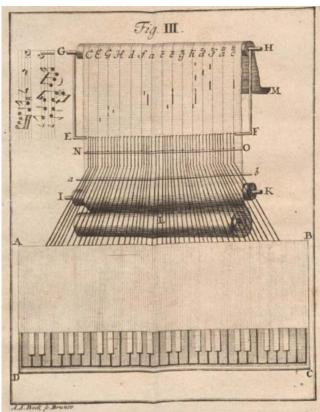
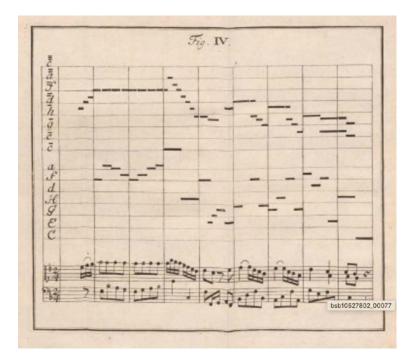


Figure 11: Johann Friedrich Unger (1774): Draft of a machine in which everything that is played on the piano is automatically recorded.



Reading piano rolls

The idea of recording the performance of virtuosos dates back to the 18th century. In 1752, Johann Friedrich Unger published a *Draft of a machine in which everything that is played on the piano is automatically recorded.*

These historic drafts (fig. 11) give a good short insight of how to read piano rolls. Unger wanted to record the playing of pianists to document improvisations and to facilitate the work of a composer.

Fig. 12 shows what a piano roll looks like when it comes out of the scan (right). The Animatic system, to which the roll of music recorded in 1905 was re-punched in

1928 as indicated by the watermark on the paper. It rewinds the perforated paper from a higher-lying piano roll to a lower-lying reel. As the roll runs downwards in the machine, I turned the image 180° (left). To relate the information on the piano roll to the printed score, I rotated it 90° and mirrored it (fig. 12, below).

The holes in the middle of the piano roll represent pitches and lengths. Low notes are further down, high notes further up. Short notes are single holes or a small number of holes in a row, long notes are produced by many holes in a row. Reading takes place from left to right. At the lower edge there are rows of holes indicating that the right pedal is used.

The dynamics were at first indicated by a stamped dotted line, which the player could follow with two levers. Violet dots at the upper edge demand piano, dots at the lower edge forte. This so-called dynamic line was coded for the Animatic reproduction system, this coding is located at the edges of the piano roll. The red line in the middle indicates the two wind chests, which ensure that the treble and bass ranges can be emphasised independently of each other. So, if one wants the treble voice to sound louder, a Forte command only affects the tones in this range, not the bass tones.

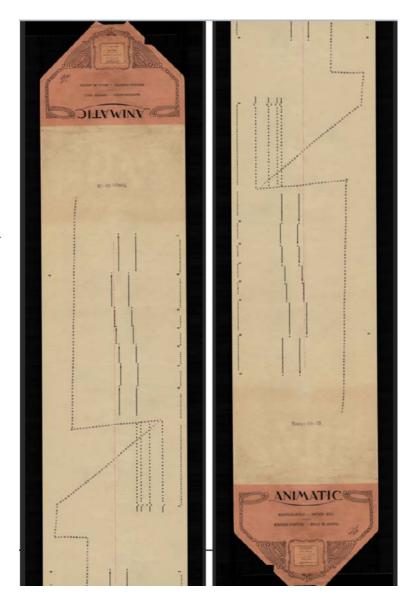
The study of the piano roll and a comparison with the score was quite exciting and informative.

In fig. 13, for example, you can see at first glance that Reisenauer makes clear breaks in bars 18 and 20. It can also be seen that he arpeggiates chords more often than noted and usually strikes acciaccaturas at the same time

as the bass note. The acciaccatura in bar 21 for example is played as a long note after the bar change.

Fig. 14 shows bars in which Reisenauer takes his time and plays more freely, such as bar 24 and bar 26, are clearly recognizable on the piano rolls because they are longer than neighbouring bars. We can even object to how much time the pianist takes for a trill: Reisenauer surprises with the length of the trill in bar 52, which in the score is labelled *lungo trillo*. We can even detect passages, where the pianist plays notes, which are not written down in the score.

Questions about phrasing, agogics, ornaments, dynamics, velocity and playing technique can be answered clearly by the exact study of the piano rolls. More than in an audio recording, the piano roll is a protocol of a pianist's interpretation, because today, over a hundred years after its creation, we can recognise every last nuance of the finger movement. The piano roll is a visualisation of a performance.



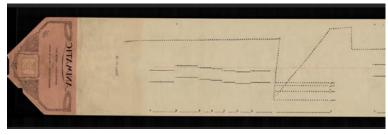


Figure 12: Information on the piano roll refers to pedal (damper); dynamics bass (lower edge); dynamics treble (upper edge); dotted, stamped dynamic line; red line indicates separation of wind chests.

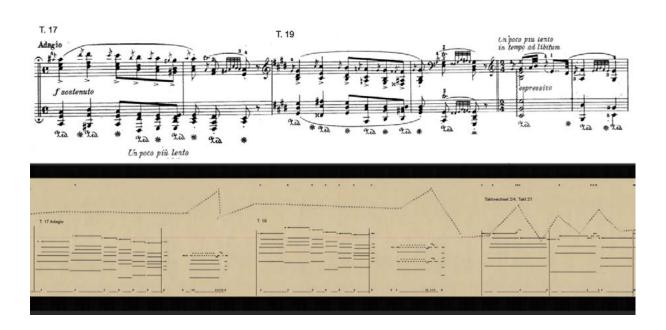


Figure 13: The piano roll is a protocol of Reisenauer's interpretation and shows, for example, caesura and acciaccatura.

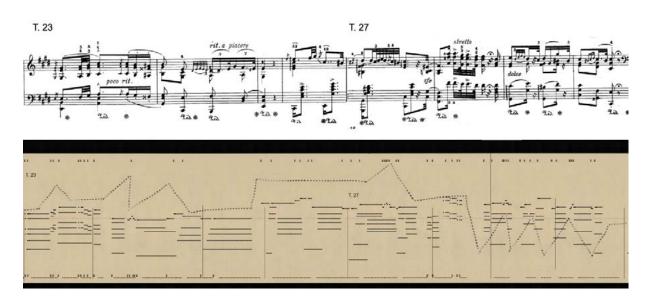


Figure 14: More freely playing, such as bar 24 and bar 26, is clearly recognizable on the piano rolls, because they are longer than neighbouring bars.

Thus, scans of these piano rolls are an indispensable source for studies in performance praxis and interpretation research. Furthermore, they are early witnesses of a cultural revolution at the beginning of the 20th century, which not only shaped the musical life, but the entire culture of the 20th century extensively.

Research tool

The Musikinstrumentenmuseum der Universität Leipzig organises all its objects in a research tool, the musiXplora, which I will briefly introduce. Out of the 3,400 piano rolls available and discussed above, we scanned all beginnings, containing stamps

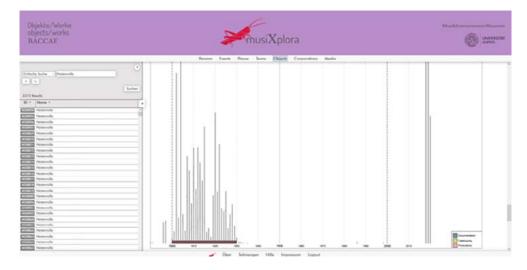


Figure 15: Searching for the term Notenrolle (piano roll) in the object part of the website. Showing the timeline of events like production (pink) on the left side, documentation (blue) and including in the collection (yellow).



Figure 16: Selection of a single piano roll out of the list of 3372 results. Listed are the term, properties, events, links to descriptive types, corporations, media, and, in red, to external sources. On the left, visualizations for the object. In this case, the scan of the piano roll, a map, and a timeline with the events.

and descriptions. Further, for 2,400 of them, we preserved the full length of the roll (up to fifty m), and, last but not least, for three hundred we also recorded the encoded tonal representations. All results are organised as open access on our website (https://mfm.uni-leipzig.de/dt/Forschung/forschungsstelle.php).

In this online source, different aspects of musicological knowledge are included, with the piano rolls being the most recently added data. Collected data also includes persons, corporations, places, events, objects, terms, and media — indexed with international authority files and powerful identifiers according to the Deutsche Forschungsgemeinschaft (DFG) standard to enable crosslinking to these important sources; examples are given with Integrated Authority File (GND), Virtual International Authority File (VIAF), items (i.e. Q-items), International Organisation for Standardisation (ISO), and International Standard Name Identifier (ISNI).

The descriptive metadata of each entity is associated with detection lexemes that are persistently referenced via standard data for subject portals, library catalogues, and knowledge resources of third parties.

Using these many powerful identifiers and detection lexemes, transdisciplinarity, internationality, and intermediality are ensured.

As a use case, you may be interested in information about piano rolls. A search in the objects part of the website lets you search by term (Notenrolle), date of production, person associated with the roll (pianist, composer, arranger), the places of the piano roll, etc.

Figure 15 shows a search by the general term of Notenrolle in BACCAE (the object part).

Figure 17: Example of a musician's result page. Next to the names, temporal dates, and biographical data (denominations, relations, professions, and places of activity), links to other parts of the database are included, like events this person has been part of. In red external links to important and well-known knowledge sources are added.

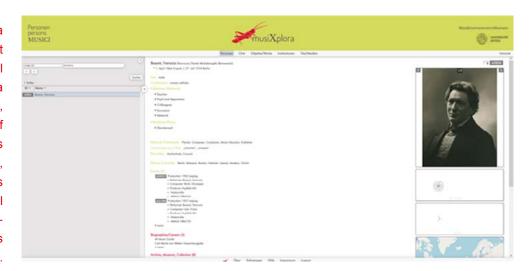


Figure 18: Overview of search results, the map showing different places in different colours symbolising places of work, of birth, of death etc.

The fields with the dots below visualize the network of the persons, colours symbolising partnerships, education, personal network etc.



As a result, you get an overview of all included piano rolls in our collection. These include more than 3,300 single objects. Figure 15 further shows them organised in a timeline, letting you see different types of events like production dates, cataloguing or documentations. Also, you can use the visualisation to set filters: In this example, the year 1920, resulting in a list of all piano rolls created in this specific year. In Figure 16, I clicked on one of the piano rolls produced in 1920. On the left side we can see the list of all other results. Now, the right-side changes from overview visualisations for all results to a single representation. In this case the piano roll with the ID 4036542. As we can see, the piano roll contains a recording of pianist Ferruccio Busoni, playing Verdi's *Rigoletto* Fantasie. Further, the metadata of the object include properties like equipment, weight or measurements and other useful events which belong to the object (cataloguing or documentation next to the already seen production). Below, links to other facets of the data are added. Hence, we can access the RES (=terms) part, to lookup on the categorization of the object, or the corporations linked to it (CASAE) or others.

To get more information about the pianist, the user can click on his name, Ferruccio Busoni, resulting in a change of the entity type to MUSICI (=persons) which is visible through the change of colour in the header of the webpage.

As with the object, we can get a wide range of information, beginning with the names of the person, temporal and geographical data as well as biographical entries like professions, denominations, places of activity. Again, links to other entities are included like relations to other persons, membership in corporations, events including this person (like the recording of the piano roll in 1920) and more.

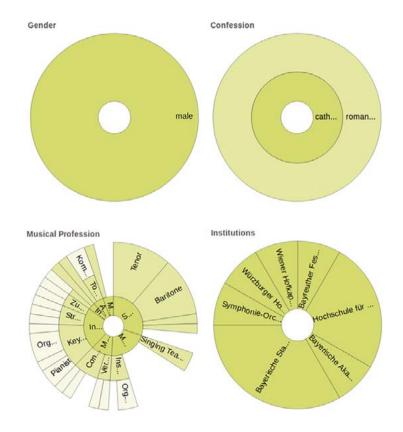


Figure 19: Different examples of pie charts and sunbursts to grasp the distribution of features in the search result.

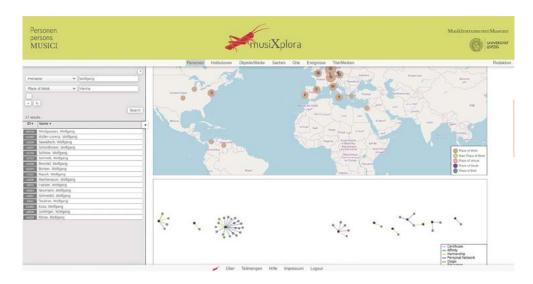


Figure 20: Single Result Page of Wolfgang Amadeus Mozart, listing different name variants, dates, and further biographical information (left), as well as visualisations for these (right).

One of the core features of the web-interface is the deploying of visualisations to help users in distant and close reading of data. These visualisations depict the distribution and range of features for all found entities. They offer an overview and enable the user to refine his search by using certain filters. Some of them have already been described, another use case should further illustrate the possibilities the musiXplora offers to users. Let us, for example, start a search for a person with the first name *Wolfgang* and the place *Vienna*.

As a result, the user will get a list of persons on the left-hand side, a map showing different places, and a visualisation of networks on the right (fig. 18). On the bottom of the page, pie charts offer visualisations of gender, denomination, musical profession, and institutions to enable the researcher to refine his search (fig. 19). It is typical for this kind of visualisation that relations between entities are easily visualised. Colour is used for communication of different types of relations.

After the searching part, the user may click on a single entity or filter until only a single one is left. This can either be done in the result list or through one of the visualisations. The right side of the page is now changed to a Single Result Page (fig. 20), whereas further biographical data is represented on the right.

Information concerning gender, denomination, relations, musical profession, branch, or institutions are shown textually. Places of work, pictures, timeline, and network are visualised on the right and can be opened separately as full screen visualisation to get a more detailed look at it.

Searching, finding, and browsing musicological and especially organological data is offered by the musiXplora, which will be online in October 2020. Check it out!

Acknowledgements

Special thanks to Richard Khulusi, M.Sc., Abteilung für Bild- und Signalverarbeitung am Institut für Informatik der Universität Leipzig

References

Hocker, Jürgen. 2009. Faszination Player Piano. Bergkirchen: Edition Bochinsky.

Schnapp, F., (ed.). 1935. Ferruccio Busoni, Briefe an seine Frau, Erlenbach-Zürich, Leipzig: Rotapfel-Verlag.

Schonberg, Harold C. 1962/1987. The great pianists. New York: Simon & Schuster.

Unger, Johann Friedrich. 1774. Draft of a machine in which everything that is played on the piano is automatically

recorded. Zeitschrift für Instrumentenbau. 1905, p. 224.

Biography

Heike Fricke studied musicology and journalism at the Freie Universität Berlin and holds a PhD in musicology. She worked with the musical instrument museums in Berlin and Edinburgh and was awarded an Andrew W. Mellon fellowship in art history by the Metropolitan Museum of Art in New York. Heike published articles in Musik in Geschichte und Gegenwart (MGG), The New Grove, Lexikon der Holzblasinstrumente and books such as Catalogue of the Shackleton Collection, Faszination Klarinette, and Die Klarinette im 18. Jahrhundert. She is the editor of the German special magazine Rohrblatt and the CIMCIM Bulletin. Currently, she conducts the research project TASTEN at the Musikinstrumentenmuseum der Universität Leipzig.

Academic Education in Museums

The Leipzig Collection as a hub for organology

Sebastian Kirsch

Musée de la Musique - Cité de la Musique/Philharmonie de Paris, France

Introduction

Ever since universities began building up collections, they have illustrated processes in academic education. Highly varied collections can consist of anatomical specimens for medical education, mechanical models, archaeological objects, and in some cases also musical instruments. Leipzig University hosts one of the largest collections of musical instruments in the world that is integrated into the musicology curriculum for students who focus on organology. Its vivid history offers the opportunity to discuss some aspects of academic education according to the history of collecting, the tradition of restoration and documentation, and the educative aspects in creating exhibitions.

The History of the Collection

The Museum of Musical Instruments of Leipzig University has its roots in the collection of the Dutch collector Paul de Wit. When he came to Leipzig in 1879, he first worked for the *Musikalische Zeitung* and the *Neue Zeitschrift für Musik*. Only one year later he founded his own journal, the *Zeitschrift für Instrumentenbau*. His passion for collecting instruments started around 1880 with a harpsichord by Jacob Kirckman. Only six years later his collection was so large that he could open his own museum. He expressed the aim of his presentation in one of his early publications, the well-known *Perlen aus der Instrumentensammlung* [*Pearls from the Musical Instrument Collection*]:

'The zeal for collecting is assuredly more than a mere pastime, and must not be undervalued, in particular, where it aids in widening our knowledge in one direction or another and throws light upon facts hitherto insufficiently illuminated. The history of the evolution of musical instruments is intimately connected with the history of music, but it has of yet been very neglectfully treated in literature'. (de Wit 1892, Preface)

Paul de Wit was a gifted player of the violoncello and organised concerts and guided tours with different artists. With his passion as a musical amateur and his intelligence as a merchant he managed to connect his interests on the level of salesmanship and research. His journal *Zeitschrift für Instrumentenbau* was not only a publication for articles about instrument making, but it was also a place for advertisement. Apart from all commercial interest, his publications such as his violin label compendium (de Wit 1902–1911) and his catalogues were important contributions to organological research at that time and still are today. As we know from entries in his guestbook, de Wit's collection was a hub for musicologists, instrument makers

and performers. Among the visitors were Angul Hammerich, Carl Claudius, Erich von Hornbostel, Ko Koda, Karl Nef, and many more.

In 1905 de Wit sold his collection to the industrialist Wilhelm Heyer in Cologne, who had acquired other significant instrument collections from the Ibach firm and the Alessandro Krause collection from Florence. The successor of the first director (of the Museum of Musical Instruments of Leipzig University) Ernst Praetorius was Georg Kinsky, a specialist for musical instruments. He became director in 1909 and published the first of his famous catalogues about the collection only one year later. In 1919, the University of Cologne planned to create a chair for musicology and the excellent work of the young, gifted Kinsky at the museum was considered. The University of Cologne suggested that Kinsky hold classes in the museum that included practical experiences. Dr Gerhard Tischler tells us:

'The Curator of the Heyer museum would be the most qualified man. The museum itself is the proper centre for the connection between science and practice, because here the instruments are in playing condition. This characteristic quality of the Heyer museum is unique in Germany. The curator of the museum would be the best collaborator for a collegium musicum, which could perform old music'. (See Fontana 2010b)

In fact, from the winter semester 1920–1921, Kinsky worked as an associate professor and motivated the founding of a collegium musicum. Rehearsals and performances were held in the rooms of the museum using collection instruments. During these early years of the early music movement, organology was understood as practical exercise with old instruments.

Already in 1905, the famous musicologist Hugo Riemann had founded a similar collegium musicum at Leipzig University. One of his successors in Leipzig, Prof. Theodor Kroyer, already bought some historical instruments for this university music group. From 1926 he played a significant role in negotiations to purchase the Heyer collection and bring it back to Leipzig as a research collection at the University. He also tried to prevent Georg Kinsky's appointment as a curator, probably because of Kinsky's Jewish roots.

From 1929 the collection formerly owned by Paul de Wit was back in Leipzig and served students as an educational resource. Kroyer's speech held at the opening of the Museum on 30 May 1929 was titled: 'The reawakening of the historical sonic image in musical heritage practice'. He saw music history as heritage work that is dependent on practical experiments.

Again, the history of music was understood in close connection to knowledge about musical instruments and performance. Photographs of that time show one of the later directors, Helmut Schultz, and some students practicing on historical instruments (Figures 1 and 2). The Department of Musicology [Institut für Musikwissenschaft] of the University was housed in the museum, in the same building as the library, study room, and classroom. The of the institute's infrastructure had a lot of advantages as expressed by the later director Schultz:

'The spatial vicinity of Institute and museum was an explicit expression for the intended goal of the collaboration of musicological work, banned to paper and the education of the ear'. (1930, 60)

During World War II the museum was heavily bombed. After the war, the concept of practical education was continued also during the German Democratic Republic (GDR). Once more, the practical exercise was a crucial part of the educational concept (Fontana 2010a). In the 1970s, the collegium musicum and the Capella Fidicina, a specialised ensemble for early music founded by Hans Grüß, had regular performances in the museum. At that time organological research was published and the institute sought international exchange.



Figure 1: Prof. Theodor Kroyer teaching organology, ca. 1929

Figure 2: Later director Hartmut Schultz playing a serpent, ca. 1929

In 1975, the Musical Instrument Museum published the first issue of the series of Karl Marx University. The goal was to publish a report of the ongoing projects of the Museum every year. Only three issues were published in the end, but they give an impression of the research projects during the 1970s. In this series, Hubert Henkel published his essay on the determination of unsigned plucked keyboard instruments using a characteristic scale progression. Other methods like photogrammetry or x-ray technology were applied. From the beginning, the staff of the museum took part in the international conferences held in Michaelstein, Blankenburg. According to one of the main research activities, the first published conference report was on the question of performance practice and interpretation of instrumental music in the first half of the 18th century.

After the reunification of Germany, teaching was continued. The director of the Museum had one or two seminars on organology per semester. In the 1990s first Winfried Schrammek and later Eszter Fontana taught organology and acoustics. In 1991 the early music program at the University of Music Felix Mendelssohn Bartholdy was established and since then has collaborated closely with the museum. In 2006, Fontana was appointed as Professor and since the establishment of a Bachelor/Master-System at the University, organology has a fixed place in the curriculum. Appointed in 2014, the new director Josef Focht has continued these initiatives.

The history of this collection illustrates many good examples of the history of collecting, organology, restoration, and presentation of objects. The individual motivations of collectors, the divergent circumstances in four different political systems, and the consequences of two world wars provide ample material to discuss with students for them to develop a critical view on the subject.

"Shaping" a Collection and Teaching Restoration

When Paul de Wit founded his collection in the 1880s, there was no question that his goal was to use the instruments for performances. In 1884, he employed the piano maker Hermann Seyffarth to take professional care of his instruments. We still find Seyffarth's repair labels in many of the pianos, harps, and lutes. For the 1892





Figure 3: (top) Lute by Johannes Rehm, repaired by Otto Marx 1930, Germanisches Nationalmuseum [D.N.gnm] MIR 905, photo: Günther Kühnel; (bottom) lute by Jonas Stehelin [D.LE.u] MIMUL 0494, photo: S.Kirsch.

exhibition in Vienna, Seyffarth joined the trip as a supervisor, bringing many objects in restored condition. The strong difference in the quality and character of his restorations suggest that Seyffarth did not do all the restoration in his own workshop but had external coworkers. After the collection was sold to Heyer in Cologne, Otto Marx was employed as a conservator in 1909. He later settled in Leipzig and cared for the collection until 1937. Marx also worked for other German collections and ended his career with extensive work for the Rück collection in Nuremberg. Both the collections in Nuremberg and in Leipzig carry the unique fingerprint of Marx's work.

Figure 3 (top) shows an instrument made by Jonas Stehelin in Strasbourg in 1596 from the Leipzig collection. The instrument below is in the Germanisches National-museum in Nuremberg. We know from the correspondence between Rück and Marx that Rück bought it [D.N.gnm MIR 905] in a "guitarised" shape. It was restored by Marx in 1930, when he was still working in Leipzig. It is quite obvious that Marx used the shape of the neck and the pegbox from the instrument in Leipzig as a model. Such examples can be used to discuss the material identity and the processes by which a collection is shaped by its conservators as well as which information about the object is necessary to estimate the shape and the history of alterations. Such changes in the shape of objects always represent not only the knowledge about technology, but also the organological and historical knowledge at a certain time.

Only five years after the reopening of the collection, and probably motivated also by the numerous losses and destroyed objects, a first concept for the education of young conservators specialised in musical instruments was conceived. After a second draft in 1963, the educational program started in 1966 and was at that time the first program in the German-speaking countries. Candidates had to have a high school education and an apprenticeship in a craft such as goldsmithing or violin making. The topics in the fundamental training were: Marxism-Leninism, German, Culture-Theory, Languages, Museology, Physics, Chemistry, Material Science, Galvano technique, Documentation, Photography, and Artistic Education.

Later, the specialised education the topics were: Introduction to Restoration Ethics, Technical Knowledge, Object Analysis, Musical Acoustics, Exhibition Technique, Holdings Maintenance, and Homework (Schrammek 1969).

As we know from other publications in the 1970s, keeping the instruments in playing condition was the most important objective.

'Highest goal is the playability of selected instruments for concerts, presentations, and archive recordings. Every musical use requires difficult special works in advance, which often take weeks or several months.' (Schrammek 1976, 13)

From 1976 the education was divided into a correspondence course in Berlin and specialised practical education in Leipzig. The program in Leipzig operated under the supervision of Klaus Gernhardt until 1994, surviving the German reunification. Still today, students who were educated in Leipzig work in various museums in Europe.

Documentation

One interesting topic in the current curriculum at the Leipzig University is the methods of documentation of musical instruments. The vivid history of the museum offers a lot of factors connecting to that topic. The first publications, illustrating the richness of his collection, were printed by Paul de Wit in his own publishing house in the early 1890s. In classes today students discuss the kind of information included, for example, the method of presenting the objects and the intention of the publisher. Compared to the small appetizer of the early publications, de Wit's 1892

Pearls catalogue, published in three languages, was much more precise and possibly motivated by the fact that de Wit wanted to sell his collection and thus needed a portfolio of sorts.

Apart from the textual information such as descriptions and measurements, the photographs are an interesting object to study. According to the research of Daston and Galison (2007), objectivity in photography for documentary purposes started around 1860. At the end of the century, many other museums and collections published catalogues with photographs and the arrangement of the objects constituted first standards of documentation. Comparing the images of de Wit's catalogue and Kinsky's, differences in the design are visible. For the students it is a good opportunity to study the background and purpose of documentation and publications.

From 1910 Georg Kinsky published three of the four planned catalogues. At the same time Curt Sachs was working on his *Reallexikon der Musikinstrumente* (1913) and his *Systematik der Musikinstrumente* (1914). Kinsky's catalogues were formative in the way information was presented and structured systematically and not historically. In 1974, twenty years after the reopening of the collection in Leipzig after the war, a position for a professional technical draftsperson was created in the museum. Technical drawing as a scientific documentation method was established in the awareness of the need for reproduction instruments to supply the vivid early music scene. At the same time, to continue Kinsky's work, Herbert Heyde started work on a catalogue, which was published in 1978. It was followed by a series of publications for the different classes of instrument.

In 2009 the Leipzig collection joined the Musical Instrument Museums Online project (MIMO) and published its inventory online. Now the institute is working on a virtual scientific infrastructure called MusiXplora which can connect biographical data with information about instruments, places, events, institutions, and media.

More than one hundred years of documentation of the same collection allows for analysis of the types of knowledge collected, represented, and missing from catalogues. From this we can determine what kind of knowledge we want to teach the next generation in order to develop new documentation methods and to ensure the long term, persistent storage of information in the digital world. The structure of documentation continually represents ongoing scientific issues and is thus an indicator of the objectives of a discipline.

Exhibition

Another indicator is the transfer of knowledge in exhibitions. In collaboration with the course in museology at Leipzig University of Applied Sciences, students get the chance to develop their own exhibition concepts. For this purpose, it is very helpful consider the way the Leipzig collection was exhibited in the past. In 1892 Paul de Wit's presentation was designed by the architect Hans Friedel. The description in the catalogue describes it as 'Kolossalgruppe' – colossal group - and the topic was 'the glorification of music' or 'allegory of music' (Adler 1892, 409–411). In the Heyer collection the instruments were arranged in a historical conception according to the work of Ernst Praetorius and Georg Kinsky. Since it was the time of systematic classification, the instruments were arranged in groups according to their type. This concept of arrangement was repeated in the exhibition when the collection was back in Leipzig in 1929. In these arrangements the contemporary challenges of organology, whose mission was arguably to create a systematic taxonomy to categorise historical instruments, are clearly visible. The exhibition corresponded to the catalogues of Georg Kinsky and the publications of Curt Sachs and expressed the challenges many

young disciplines were having. For teaching purposes the arrangement by instrument groups was useful as well to illustrate the newly established order.

After the war, the Leipzig Collection was rearranged and structured according to the main ages and epochs of music history. It was understood as a valuable new concept and might also mirror the developments in the discipline, which has somehow overcome the age of systematic classification Due to the idea of having a teaching exhibition, instruments were quite easily accessible. This lowered the threshold to get in touch with the objects that was an expression of the idea of using them as teaching things. But it also led to an administrative order that visitors had to be at least fourteen years of age because only from then a certain "maturity of reason" can be expected.

After the renovation of the collection and the reopening in 2005, the collection was constructed following the same ideas of a chronological timeline through the history of western musical instruments. It was divided in thirteen chapters and highlights parts of the collection such as the Cristofori instruments, the Hoffmann family, and the guitar workshop of Weißgerber. In the summer of 2019, a temporary exhibition opened with the title "Clara Schumann - the woman at the piano". This exhibition was prepared in all parts by students of musicology and museology as a cooperation of the Leipzig University and the University of Applied Sciences. On the occasion of the 200th birthday of Clara Schumann, the students discussed gender aspects of her biography using objects of the Collection. This gave the students the opportunity to organise every step of exhibition development, both technical and content-oriented, and to find ways of integrating recent research into the context of a presentation.

Academic Education Today

In contrast to recent general developmental trends in universities, the number of courses has increased in Leipzig in the last couple of years. Before, lectures were restricted to one lecture and a seminar per semester. In the 2019 summer semester there were seven classes in organology on different topics.

In addition to the general introduction to organology, the staff of the museum tries to establish new formats for teaching, to support the students with methods, and provide them with accessibility to knowledge. Since it is a teaching collection, organology is understood as a subject of interaction with objects. For this reason, there is one tutorial called 'Access to Objects'. The students learn how to handle objects carefully and the methods used to acquire information from the objects' materiality. Another tutorial is called 'Access to Virtual Resources'. Here, students learn how to use distant reading methods and digital databases and how to handle authority files and persistent identifiers to structure information. A third tutorial is called 'Access to Perception'. For this, a curriculum is developed together with an art historian and a psychologist. The goal is to enable the students to describe what they see when they look at objects in an understandable and well-defined vocabulary.

Another approach is to promote interdisciplinary classes. As an example, the seminar on 'Material and Materiality in Instrument Making and Arts' was open to art history students as was the seminar on 'Methods of Object Sciences'.

The direct implementation of new methods and interaction with the objects in teaching is a good touchstone for the scope of approaches and helps to develop a methodology in a very effective way. Students use the new approaches and technologies in their projects and the teachers can estimate the suitability of a method in a certain field.

As mentioned above, a big project at the Institut für Musikwissenschaft is the development of a database called MusiXplora. Using visualisation tools, different search requests can be made, and the results can be displayed neatly according to the understanding of organology as a cultural science. This project was possible due to a cooperation with the Leipzig Institute for Informatics. Developing and designing this database as well as making it suitable for musicological queries was the subject of several master theses. Students of both disciplines, – organology and informatics – are working on this digital tool.

Discussion

During the past years a discussion about the "crisis" of organology was established and shed new light on the discipline (Rossi Rognoni 2018). In an academic environment, tensions between organology and "classical" musicology are unavoidable. It seems that de Wit's 1892 statement that the research on instruments has been 'neglectfully treated in literature' is still somehow true. The only way to change it, is to be innovative and use modern trends to our advantage. A university collection has the same obligations as other museums but additionally, they have the possibility to do independent research in constant exchange with students and to develop new methods and approaches. For this, the infrastructure of the university offers a lot of opportunities for interdisciplinary exchange and cooperation. The history of the collection as well as the objects themselves can be included in the curriculum and gives a starting point for the methods and approaches of the future.

References

Adler, Guido. 1892. Fach-Katalog der Musikhistorischen Abtheilung von Deutschland und Oesterreich-Ungarn nebst
 Anhang: Musikvereine, Concertwesen und Unterricht. Wien: Selbstverlag der Ausstellungs-Commission 1892.
 Daston, Lorraine and Galison, Peter. 2007. Objectivity. London: Zone Books.

de Wit, Paul. 1902–1910. Geigenzettel alter Meister vom 16. bis zur mitte des 19. Jahrhunderts. Leipzig: Paul de Wit. de Wit, Paul. 1892. Perlen aus der Instrumentensammlung von Paul de Wit in Leipzig. Leipzig: Paul de Wit.

Fontana, Eszter. 2010a. 'Annäherungen an die Alte Musik: Leipziger Protagonisten einer "Bewegung". In 600 Jahre Musik an der Universität Leipzig, edited by Eszter Fontana, 327–336. Wettin, Dößel: Stekovics.

Fontana, Eszter. 2010b. 'Zur Geschichte des Museums für Musikinstrumente der Universität Leipzig'. In 600 Jahre Musik an der Universität Leipzig, edited by Eszter Fontana, 285–326 Wettin, Dößel: Stekovics.

Rossi Rognoni, Gabriele. 2018. 'Organology and the Others: A Political Perspective'. *Journal of the American Musical Instrument Society* 44: 7–17.

Schrammek, Winfried. 1969. 'Die Ausbildung von Musikinstrumenten-Restauratoren im Musikinstrumenten-Museum in der Karl-Marx-Universität Leipzig'. *Neue Museumskunde* 12: 98–105.

Schrammek, Winfried. 1979. Museum Musicum. Fotos S. und V. Herre. Leipzig: Edition Peters.

Schultz, Helmut; Zenck, Hermann. 1930. 'Geschichte und Gegenwart des Musikwissenschaftlichen Instituts'.

Mitteilungen der Internationalen Gesellschaft für Musikwissenschaft / Bulletin de la Société internationale de Musicologie 2. no. 2 (April): 56–61.

Biography

Sebastian Kirsch works in the Laboratory for Research and Conservation at the Musée de la Musique in Paris.

He completed studies in literature and art history in Würzburg, Munich, and Trondheim with an MA degree from Ludwigs-Maximilians-University Munich. He further pursued his studies at the Academy of Fine Arts Vienna, Austria and graduated with a Diploma in Conservation of Musical Instruments. Currently, he is working on his dissertation in musicology concerning the transformation of lute instruments.

As project manager of the research project MUSICES during the years 2015–2018 at the Germanisches Nationalmuseum, Nuremberg, he supervised more than 100 high resolution CT-scans of musical instruments and published the results in numerous articles. Later he worked as research associate at the Musical Instrument Museum of Leipzig University and focused on research and teaching about the history of technology, materiality, digital humanities, and methods of object science in organology.

Education at The Bate Collection, University of Oxford: Past, present and future

Alice Little

Bate Collection of Musical Instruments, University of Oxford, United Kingdom

Since October 2018 I have been a Research Fellow at the Bate Collection of Musical Instruments, in Oxford, where I'm responsible for the Anthony Baines Archive Project. Anthony Baines (see Figure 1) was the Bate Collection's first Curator, in the 1970s, so his archive tells us a great deal about the early history of the museum, including how teaching was carried out. This paper serves as an overview of the early days of education at the Bate Collection, and of what we do now.

In 1968, Philip Bate gave his collection of musical instruments to the University of Oxford, and in 1970 Anthony Baines came to the Bate Collection of Historical Wind Instruments (as it was then called) as the Collection's first Curator-Lecturer. Baines, a long-time instrument collector, had sold many of his instruments to Philip Bate in the 1950s and '60s – so in coming to work at the Bate Collection, Baines was reunited with items he himself had once owned. He subsequently donated many other instruments to the Collection, and lent some which were later formally accessioned.

In a talk he gave towards the end of his career, of which both draft and final versions are held in our archive, Anthony Baines recalled how, as an undergraduate, he used to trawl junk shops for musical instruments, and even sold his motorbike to buy a saxophone. He wrote in his notes about how this passion first developed:

"...a vast realm of musical instruments came suddenly upon me standing before the instrument case in the Army & Navy Stores – stringed, wind, percussion – every instrument then sold in a general store. Staring at them over and over again, I felt particularly drawn towards wind instruments, which looked peculiar, or old-fashioned, and before long, on free afternoons, in white tie and top hat, I was over Waterloo Bridge, and through to the Elephant and Old Kent Road, hunting for any such things, especially antique – costing from half-a-crown to thirty bob, and listening to the old bandsmen and theatre musicians talking about them." (Baines [n.d.])

Including the original bequest from Philip Bate and instruments brought to the Collection or donated personally by Anthony Baines, today the Bate Collection holds around two thousand instruments, primarily woodwind, brass and keyboard instruments by English, French and German makers. The gallery is arranged to show the musical and mechanical development of all orchestral wind instruments from the Renaissance to the present day. The collection continues to grow, with instruments acquired for their historical importance and their potential use for handling



Figure 1: Anthony Baines (1912–1997) in the Bate Collection. Courtesy of the Bate Collection, Anthony Baines Archive, Folder: 'Tony's ID Cards', Image 1.

sessions. We also have instruments from outside of Europe, and some which are very recently made.

It was always intended that the instruments should be in regular use as a teaching collection and that they should be made available to scholars and musicians for the performance of music for which they were appropriate. Almost every instrument can be taken out of its case to be looked at (with the appropriate supervision), and the majority can be played.

Baines became Curator at the Bate in 1970: he was 58 years old when he took up the post, his undergraduate days long behind him, but he still demonstrated the spirit revealed in the extract

above – the spirit of the collector, the spirit of an educator. Philip Bate seems to have agreed with this impression of Baines; in his biographical article in Grove, Philip Bate wrote that Baines' 'writings are informed by a rare combination of enthusiasm and authority, backed by an unrivalled range of practical experience and research' (Bate 2001). It is this enthusiasm and practical experience that is remembered by most of the people I've spoken to about Anthony in the time since I first started looking at his archive. His lectures, delivered to music undergraduates, always featured demonstrations on instruments from the Collection. Just as Philip Bate intended, then, Baines ran the Collection as a resource centre for the practical study of musical instruments of all periods.

This tradition was continued by Jeremy Montagu, who succeeded Baines as Curator-Lecturer in 1981. Montagu continued this tradition of using instruments in his teaching, bringing instruments from his private collection because otherwise it wasn't possible to get everything back in the cases again by 2pm when the Collection opened to the public. You can read about Jeremy Montagu's life as an instrument collector in his article in the Galpin Society Newsletter for autumn 2019, which is a version of a paper he delivered at the Bate Collection – Galpin Society conference in Oxford in August 2019, titled 'Why Do I Collect Instruments?', available on the Galpin Society website (see Montagu 2019).

Instruments from the Bate Collection have always been played by students and others in orchestras in Oxford, London and abroad: such free access to the collection originally made the museum unique. Baines supported this activity by founding the Bate Band, which gave concerts on the collection's instruments.

Today, the Bate continues to lend instruments to students and others to play. There are also now three ensembles associated with the Bate: the Bate Players, a student-led ensemble performing music of various periods on historically appropriate instruments; the Bate Band, which recorded a CD of 18th century military band music last year; and also a viol consort. In addition to the use of instruments by students and researchers, a dedicated Education Officer, Isabelle Le Carré, manages schools' visits and outreach activities, including hands-on experience of the collection (see Figure 2).

The Bate's mission statement has education at its core:

The Bate Collection celebrates the history and development of musical instruments of the Western Classical tradition from the medieval period until the present day. The collection is made available for study and judicious use by scholars, students, makers and players, so as to enhance and increase the knowledge of the history of music as well as the enjoyment of historic performance for all.' (Bate Collection of Musical Instruments. [2018])

All education provision in the Bate Collection is offered as a free service in line with the University's policy of encouraging schools and the public to view the



Figure 2: A family enjoys items from the handling collection. Photo credit: Bate Collection.

museums and collections as a freely accessible resource. The Bate Collection gets school visits from Kent, Devon and South Wales to Nottinghamshire and beyond, but the focus of marketing is primarily within Oxfordshire.

In addition to providing educational opportunities for researchers, students, visitors and school groups, the museum also provides learning resources and teacher training to teachers in the form of PGCE (post-graduate certificate in education) courses; it caters to special interest groups such as recorder consorts; and it reaches non-traditional audiences through outreach projects. Other education output including gallery tours is delivered by the Museum Manager and supported by volunteers.

In 2018 the Bate:

- welcomed over six thousand walk-in visitors to the Collection (that is, gallery
 visitors and evening class attendees). This figure does not include concert and
 external event attendees or education taught sessions and outreach.
- received thirty visiting researchers
- held two concerts at the Holywell Music Room (Oxford)
- hosted five recitals in the gallery
- organised two Family Fun Days
- loaned seventy-six instruments, including to students and to a film company

The Bate, being a small museum, is easily able to try things out, to experiment with new technologies and to launch projects without recourse to numerous committees. This, I think, is a great advantage when it comes to experimenting and running new educational projects. In the last couple of years, this has seen the creation of a new set of recordings for interactive displays and audio guides, and also the creation of code for 3D printing a serpent and recorders (which, when put on our website, was so popular that the site crashed), and the creation of a new iPhone app that allows visitors to 'play' at home many of the instruments on display in the gallery.

These innovations have allowed the Bate to reach new audiences beyond the museum and beyond Oxford. While such things might not have been possible to imagine in 1970 when the Bate Collection first opened its doors, I believe this is certainly within the spirit of Philip Bate's gift and Anthony Baines' work as Curator-Lecturer, and I hope there will be many further such developments in the future.

References

Baines, Anthony. [n.d.] [Notes for a talk]. Anthony Baines Archive, Box ACB 30-36, Folder 34, Images 119–120. Bate, Philip. 2001. 'Baines, Anthony C(uthbert)'. *Grove Music Online*. Accessed 29 July 2022.

https://doi.org/10.1093/gmo/9781561592630.article.01804

Bate Collection of Musical Instruments. [2018]. Mission Statement. In the Bate Collection's Education and Access Policy 2018–23 [internal document]. See also, for example, the 2014 Oxfordshire Museums Guide [Online]: https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/leisureandculture/museums/omcbooklet_0.pdf

Montagu, Jeremy. 2019. 'Why Do I Collect Instruments?', *The Galpin Society for the Study of Musical Instruments*. *Newsletter* 55 (Autumn 2019): pp. 17–19. [Online]: http://galpinsociety.org/index2_htm_files/GSN55.pdf

Biography

Dr Alice Little is a Research Fellow at the Faculty of Music at Oxford University and is responsible for the Anthony Baines Archive Project at the Bate Collection of Musical Instruments. She holds a DPhil in Music from Oxford University, for which she wrote about the collecting of music in eighteenth-century Britain and Ireland. She is a Junior Research Fellow at Corpus Christi College, Oxford, a Humanities Knowledge Exchange Fellow, and is Administrator of the Oxford Centre for Life-Writing.

Russian National Museum of Music and the Russian National Education System Collaboration experience

Daria Melnichenko

Russian National Museum of Music, The Moscow State Integrated Art and Historical Architectural and Natural Landscape Museum-Reserve, Russian Federation

The Russian National Museum of Music is one of the largest music museums in the world. The museum's collections boast archive materials, manuscripts, print sources, audio and video recordings, a selection of paintings and graphics, interior objects, works of applied arts, and a collection of musical instruments, including the State Collection of Unique Musical Instruments. In the more than one hundred years since its establishment, the museum has become the centre of attraction for visitors of different ages who are interested in global music culture.

School programs

Most of the museum programs are designed for children. They help young visitors discover the exciting world of music. Most tours for children are based on the museum's permanent exhibition — $Musical\ instruments\ of\ the\ world$. The permanent exhibition makes it possible to create programs on a variety of topics for visitors of different ages.

The museum collaborates with educational institutions and has developed a few dedicated programs under such collaborations. These programs are intended to serve as an addition to the standard school program on various subjects such as literature, history, physics, and the history of world art. Each division of the Russian National Museum of Music offers such tours, designed specifically for schoolchildren, as part of extracurricular education, for instance:

- 1. The Feodor Chaliapin Museum Estate holds a program titled 'Reading Alexander Pushkin'. It is a chance for the pupils to get acquainted with the literature of the great Russian poet via the prism of Feodor Chaliapin's deep love for the legacy of Alexander Pushkin.
- 2. The program called 'The myths and legends of Ancient Greece' is intended to contribute to a course on ancient world history. The interactive tour allows children to reinforce their knowledge of Greek mythology by taking part in performances based on legends about musical instruments.
- 3. High schoolers are welcome at 'The physics of sound' program. It is a great opportunity to try out a few physics experiments and learn more about the methods and principles of producing sound on different musical instruments.

4. Several programs are designed to complement the music lessons at school: they introduce children to the organisation of a symphony orchestra, the history of different groups of musical instruments, and the works of Russian composers.

Work with music schools

When it comes to a more professional audience – the older students at upper-level music schools – we must admit that unfortunately we do not see them attending our programs as often as we would like. Perhaps the main reason for that is the fact that music education mainly involves one-on-one interaction, and music coaches do not tend to make it their goal to gather the students together and take them to a museum. The second reason, which we did not at all expect, is the fact that many music coaches are unaware that they can hold a lesson on music history at the museum. We find it slightly surprising because our museum is over a hundred years old and historically it has been very closely related to the Moscow Conservatory, where most of the teachers received their education. Moreover, the museum is known for being a platform which hosts concerts for music students of the city. Essentially this means that the museum is indeed known among the music education institutions, but not all teachers consider using our permanent exhibitions to benefit the teaching process.

To change the situation for the better, we propose that the museum hosts admission ceremonies for first graders. Such events would include a tour of the museum's permanent exhibition followed by an official ceremony of admission for the young musicians at the concert hall. What is important is that such ceremonies would welcome not only children and their parents, but also music coaches, and the latter would get an opportunity to discover new possibilities for the educational process offered by the museum.

An interesting experience in our opinion was the set of events within *The Myth of Stradivari* exhibition project. The events were organised in preparation for the one hundredth anniversary of the State Collection of Unique Musical Instruments. We have developed a special tour dedicated to the art of violinists. The program is intended for music students who play bowed string instruments. During the event, children took a tour of the exhibition, learned about the history of how stringed instruments appeared and developed, got acquainted with the works of prominent stringed-instrument musicians of Cremona, and met a working violin restorer. The expert spoke about the specifics of his job and shared some of his industry "secrets".

Cooperation with higher education

Another part of the cooperation between the Russian National Museum of Music and educational institutions is partnering with institutions of higher education. We regularly partner with the Gnessin Russian Academy of Music and the Moscow State Art and Cultural University. The students of these establishments often undergo practical and professional training at the museum. Additionally, the young musicians are also involved in large-scale events held by the museum as volunteers.

A year ago, we signed a contract with the Military University of the Ministry of Defence of the Russian Federation, which has a Military Bandmaster Institute. The first event that resulted from our collaboration was an official concert. The Military University students opened the concert with a fanfare played by silver trophy trumpets from the museum's collection. Silver trophy trumpets were awarded to imperial

regiments of the Russian army for their bravery and courage in battle. This tradition originated in the 18th century and was maintained until the beginning of the 20th century. Young musicians playing these unique and extremely valuable instruments are a living representation of generational ties, the revival of historic memory, and the pride of the Motherland.

The agreement provides for the regular exchange of information regarding the events held by the Museum of Music and the Military University. During an excursion, students get a chance to see the collection of trophy musical instruments as part of the patriotic education of the servicemen. The Military Wind Band of the Military Bandmaster Institute participated in the Night of Museums project and gave a show in front of the museum, to the sincere admiration of the public. The new concert season is set to include collaborative concerts and teaching activities aimed at contributing to the musical education of children and youth.

On a final note, we would like to point out that the continuous collaboration between the Russian National Museum of Music and educational institutions of different levels is of course much bigger, and here only few highlights are presented. In addition, we also have other projects. For now, they are waiting to come to life, and we sincerely hope that our visitors will appreciate them in due course.

Acknowledgements

I thank the staff of the Russian National Museum of Music and General Director Mikhail Bryzgalov for their joint work and implemented projects that made it possible to prepare this paper. And a special thanks to Nataly Emelina for helping me organise my participation in the CIMCIM meeting in Kyoto.

Biography

Daria Melnichenko graduated from the Department of history and theory of art of the faculty of history of Lomonosov Moscow State University. She passed practice at the Pushkin State Museum of Fine Arts. During 2015–2017, Melnichenko was lecturer; in 2018–2019, Head of the department of educational activities of the Russian National Museum of Music. In 2020 she became Head of the exhibition department and since 2021, Head of Architectural and Ethnographic Complex Division of the Moscow State Integrated Art and Historical Architectural and Natural Landscape Museum-Reserve.

Georges Ouedraogo Music Museum: Showcase of the Aspirations of a people

Moctar Sanfo

Direction Générale du Patrimoine Culturel, Burkina Faso

Introduction

A country in the West African hinterland made up of a mosaic of ethnic groups, Burkina Faso surprises and fascinates with its rich and diverse heritage. The Burkinabè heritage, a deep expression of the values of the communities, has declined in material and immaterial forms. The material form consists of all movable cultural property (statuettes, masks, amulets, etc.) and immovable property (sites, monuments, ensembles, etc.).

As for the intangible form, it identifies with practices, representations, expressions, knowledge and know-how, as well as the instruments, objects, artefacts and cultural spaces associated with them. The intangible heritage as identified is still alive and is expressed on a daily basis. One of the essential characteristics of the intangible heritage is the strong presence of music in all circumstances and social events. Music thus presents itself as a transversal cultural fact. It constitutes a fundamental aspect of the elements of theatricality in the organisation of rituals and popular celebrations, the celebration of happy or unhappy events.

The current state of research in the field, does not allow one to give the exact number of styles and musical genres performed across Burkina Faso. However, if we consider the partial studies on certain ethnic groups, we can estimate that each of them practices at least five musical genres. In other words, the musically rich country likely has more than three hundred traditional musical genres. Unfortunately, this potential is threatened given the loss of values caused by the phenomenon of globalisation.

Faced with threats of loss of cultural values, the survival of sacred rhythms and instruments is compromised more than ever. In fact, if the custom or rite for which the musical instruments are used disappear, the rhythms they produce are also doomed to disappear. Their destinies are intimately linked. Likewise, if the persons authorised to play them are no longer, it is the same consequence, that is to say, the extinction of the music or the disappearance of the instrument. Increasingly, under the effect of conversions to revealed religions and modernism, young people no longer master the rules that govern the functioning of customs.

They have not acquired the knowledge necessary for the manufacture of instruments while requiring flawless rhythmic or melodic execution to avoid the risk of being elevated to the gods. So, to avoid any inconvenience, many prefer to abstain from their practice.

This fact creates a shortfall in teaching, education, and the transmission to young people of some of the cardinal values of ethnocultural communities. This leads to the disappearance of evidence of intellectual achievements of communities, the loss of many intangible cultural elements, instruments and artefacts, and the collapse of important indicators of technical and artistic knowledge.

Since these musical genres and musical instruments are part of the common heritage of Burkina Faso, they deserve to be saved to allow the people of tomorrow to know them and to have a choice. This safeguard could be done through education which is, of course, a method of protection and promotion in the sense that it becomes possible to entrust knowledge and skills in the bank of the human brain. As an ancient Chinese proverb [possibly attributed to Guan Zhong] that says: *If your plan is for a year, plant rice. If your plan is for ten years, plant a tree. If your plan is for a hundred years, educate a child.*

How then to educate our children in a situation where the traditional channels of transmission seem ineffective? How do we allow the people of tomorrow, that is to say the children, to know these lost values and to have a choice?

It is in light of this reality that the Burkinabè State justifies the relevance of the creation of the Georges OUEDRAOGO Music Museum. Considered a mechanism for safeguarding and enhancing the musical heritage, the creation of this museum is a solution to the problem of the loss of musical genres and musical instruments.

Geographic location and brief historical overview

Administratively, the Georges OUEDRAOGO Music Museum is one of the three departments of the Museum Promotion Directorate, a sub-directorate of the General Directorate of Cultural Heritage according to decree number 2017-000155 / MCAT / SG / DGPC of 3 August 2017, attributions, organisation and functioning of the General Directorate of Heritage. Located in the heart of Ouagadougou on Avenue du Capitaine Thomas SANKARA, the Georges OUEDRAOGO Music Museum is one of the most attractive sites in Burkina Faso (see fig. 1). Created on 4 August 1999, under the leadership of the then Minister of Culture, the Music Museum represents for many Burkinabè a symbol of the cohesion of the multitude of ethnic groups who live on the national territory in perfect symbiosis.

The specific mission of this museum is to ensure and strengthen the management

of musical heritage, to give it a new impetus by developing conservation, education and research initiatives. It will be a question of preserving it from all kinds of attacks, those of time and those linked to the upheavals of economic and social life. Following a governmental will, the museum was inaugurated on Saturday, 19 December 2015 in the name of the Burkinabé emeritus artist "FEU Georges OUEDRAOGO, le GANDAOGO NATIONAL".

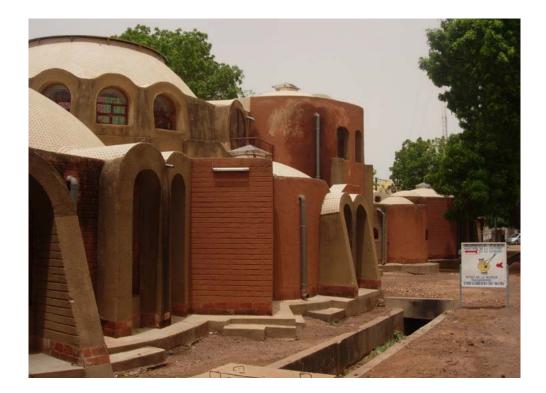
A unique architecture

With a building formed by modern architecture in stabilized earth, the building of the Georges OUEDRAO-GO Music Museum offers the pleasant opportunity to those who observe it to appreciate the beauty of this unique architecture where tradition and modernity are intermingled (fig. 2). Its originality lies in the

Figure 1: Ouagadougou, capital city at the centre of Burkina Faso. Source: United States Central Intelligence Agency's World Factbook, public domain.



Figure 2. Bâtiment du Musée de la Musique Georges OUEDRAOGO



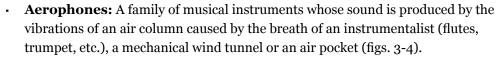
systematic use of local materials, in compacted and stabilized earth bricks, in a style specific to an architecture of North African and Sudano-Sahelian origin: vaults and cupolas are organised in small rooms nested one to the other. This building is one of the last witnesses in Ouagadougou of modern architecture in stabilised earth.

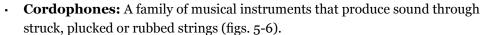
Built in 1983 to house the headquarters of the Association for the Development of Architecture and Town Planning in Africa (ADAUA), this building housed the cultural heritage department from 1990 to 1996. It was renovated in September 1998 to house collections of musical instruments. It is these collections of musical instruments that had enabled the official opening of the Georges OUEDRAOGO Music Museum in 1999.

For the second time, the collections were relocated in 2008 for a refurbishment of the museum premises. It was in December 2013 that the collections returned to the building after approximately five years of work. It is a beautiful architecture that requires permanent maintenance work regarding the materials used and especially the erosive effect of bad weather. The transformation of the headquarters of the Association for the Development of Architecture and Town Planning in Africa (ADAUA) into a museum is indeed helping to preserve the real estate heritage. The building, picturesque in its forms where the architectures of the traditional habitats of several ethnocultural groups intermingle, is a real architectural feat that attracts many visitors.

A rich and diverse collection

The Music Museum collection is housed in seven exhibit halls and a storeroom. This collection includes the four families of musical instruments. The museum currently has around four hundred traditional musical instruments, iconographic archives, and audio-visual media. The families of instruments present at the Music Museum are as follows:





- **Idiophones:** Family of musical instruments not provided with strings or membranes, the solid body of which is sufficient to produce a sound (castanets, rattle, xylophones, the harp, etc.). This family brings together instruments that are neither string, membrane, nor wind (fig. 7).
- **Membranophones:** This is the family of musical instruments comprising one or two membranes stretched over a cavity (drum or drum case) on a frame (Basque drum) over the orifice of a tube and likely to vibrate by percussion, friction or blowing air (fig. 8).

Cultural mediation

The Music Museum offers its visitors the opportunity to discover the musical history of Burkina Faso through its rich and diversified collection, a mapping of traditional instruments according to uses and the area of geographic origin, in picturesque architecture. Accessible to all, the museum allows everyone to admire and listen to the sounds of instruments and the most representative works of a particularly rich and varied musical heritage.

Apart from visits to exhibitions (permanent, temporary or traveling), the museum offers other services: percussion shows at the visitor's request, music listening workshops, conferences, entertainment after the visits, a video room with a large quantity of iconographic and audio-visual archives on the traditional music of Burkina Faso, educational workshops using interactive digital boards.

The relevance of these exhibition themes and the quality of its cultural offer makes the Music Museum one of the privileged places of convergence for all national, expatriate and especially school audiences (fig. 9). The museum message is also disseminated in schools through the design and distribution of educational kits. The Museum developed a relatively attractive educational program which enabled it to implement for the benefit of young audiences' projects such as "the museum goes to school", "colouring", "school to the museum", "I come to the museum, I learn". In order to be closer to its public, the Museum has a program to occupy public space during official ceremonies and large-scale events at the national level.

Creation of similar initiatives

The Georges OUEDRAOGO Music Museum pursues a national interest. For this, it has enabled the development of other initiatives to safeguard rhythms and musical genres. We note the safeguard of local rhythms as well as the protection of artifacts related to traditional music and dance.



Figure 3: Flûte



Figure 4: Cor



Figure 5: Cithare (Tianhoun)



Figure 6: Kora



Figure 7: Balafon Incurvé



Figure 8: Tambour hémisphérique (Bendré)



Figure 9: A lively meeting with students in the auditorium of the Museum.
Courtesy of the Georges
Ouedraogo Music Museum



Figure 10: Musée de Warba / the Warba Museum in the city of Zorgho. Courtesy of the author.

These private initiatives which were set up in the same dynamic of the Georges OUE-DRAOGO Music Museum participate in the safeguarding of tangible and intangible witnesses linked to Burkinabè music. These are the Warba Museum in Zorgho and the Music Museum from yesterday to today (fig. 10). These museums are showcases for heritage preservation, but also excellent spaces for education and teaching on traditional rhythms.

Biography

Conservator of the museum profession, **Moctar Sanfo** holds a master's degree in environmental and sustainable development. In 2007, he joined public service in Burkina Faso as a senior museum technician, then Conservator of Museum in 2014. He has held several positions of responsibility at the Department of Culture, Arts and Tourism.

Curator of the Museum of the Music Georges Ouedraogo from 2014 to 2017, Director of the promotion of museums from 2017 to 2020, Sanfo specializes in curatorial arts at the Louvre school in 2016 and Museology at the National Institute of heritage in 2018, in Paris, France. As curator on several themes at the music Museum Georges Ouedraogo, he has experience in management of music artefacts.

Sanfo is an active member of the national committee ICOM-BF and ICOM international committee CIMCIM. He was promoted in February 2020 to General Director of Cultural Heritage. He is author of several scientific publications in the field of cultural heritage.

Joint Educational Programs with Other Organisations for Children through Music and Musical Instruments

Kazuhiko Shima

Hamamatsu Museum of Musical Instruments, Japan

Introduction

The Hamamatsu Museum of Musical Instruments has given many educational programmes to let people know the larger, deeper world of musical instruments, and its relation to fields such as symbolism, mythology, religions, natural science, animals, plants, legends, dances, dramas, arts, and other cultures. We never think instruments are just tools for making sounds or music. We think they are eloquent objects of culture. We believe they can be strong educational devices for children to understand and accept every culture and its people. Children at present are adults in the future, and they make the world in the future; the future world should be peaceful for them. So our mutual understanding acquired through musical instruments and music is so important from that point of view. And children's programmes presented by

museums must be ones for children, whether they love music or not, to learn and enjoy musical cultures, to be familiar with music and instruments, and further, to be familiar with people's life in the world in order to appreciate differences and common points in the world.

Various programmes have been held by our museum over a long time through trial and error. After 2015, because of the many successes of these programmes, we decided to make some of them our joint programmes with other organisations. The merits of making joint programmes are following four points:

- Increasing participants from inside and outside the city by wider promotion
- 2. More social contributions by mutual development of the museum and others
- 3. Making new programmes stimulated by each other
- 4. Sharing the budget for the programmes.

In this paper, I would like to report the following five examples of our educational workshop programmes for children (fig. 4).

Figure 4: Flyer



- 1. Javanese Gamelan Playing for Junior High School Students
- 2. Javanese Shadow Puppet Making
- 3. Javanese Gamelan Playing for Elementary School Students
- 4. Javanese Traditional Dance
- 5. Making Woollen Felt Pictures of Musical Instruments.

Programs 2, 3, and 4 are included in one workshop named Experience of Indonesian Traditional Arts.

Javanese Gamelan Playing for Junior High School Students

A perfect playable full set of Javanese Gamelan is displayed in our museum. We have used it for many concerts, CD recordings, and workshops, including the junior high school programme. One private junior high school in Hamamatsu City requested this programme. A music teacher at the school, who was a former staff of our museum, thought that European-centred music class at the school was not enough for children to understand the world. She thought they needed to visit the museum to learn about the wider musical cultures of the world. So, she offered this programme. After the discussion between the school and the museum, we made the following special curriculum for the seventh-graders.

- Time: five hours class in a day at the museum
- Number: two classes of the seventh graders, around sixty students
- Program: dividing into three groups, each of which enjoy four different lessons in turn:
 - 1. Lecture about general history of musical instruments (fig. 1)
 - 2. Lecture about Asian music culture and Mongolian morin khuur
 - 3. Seeing displayed Indonesian and world instruments (fig. 2)
 - 4. Javanese gamelan playing (fig. 3).
- → Figure 1: Lecture about the general history of musical instruments
- → Figure 2: Seeing displayed Indonesian and world instruments
- Figure 3: Javanese gamelan playing







Experience of Indonesian Traditional Arts

Our museum has produced many workshops of Gamelan playing for adults and children. Those are Javanese shadow puppet *wayang kulit* making, Javanese traditional court dance, and lecture concerts of *wayang kulit*. The participants of each workshop were different because these were given separately. However, these three, Gamelan playing, shadow puppet, and court dance, are deeply connected to one another to make one world of value based on Gamelan music in common. These three fields must be integrated in the same person to understand one culture more appropriately.

It was therefore so natural for us to make up a new children's workshop named 'Experience of Indonesian Traditional Arts', which consists of those three lessons of activities given in a day. And fortunately, this new workshop was adopted for a program of Mt. Fuji Land Art College for Children sponsored by the cultural department of Shizuoka Prefecture. We could receive subsidies and recruit participants from all over the prefecture.

We provided three teachers in all lessons, two Japanese teachers who studied in Java and one Javanese instructor who is a *dalang* and lives in Japan. The order of the lessons was: puppet making, gamelan playing, and, finally, traditional dance. It was so successful that the participants said they wanted to visit Indonesia with their family. Each lesson is as follows.

Javanese Shadow Puppet Making

• Time: 150 minutes

Number: around ten families, third to sixth graders

Wayang kulit is a traditional shadow puppet performance in Java and Bali, designated as a World Intangible Heritage. One *dalang* performs with shadow puppets, while telling stories accompanied by Gamelan.

The programs are drawn from traditional ones, such as Ramayana and Mahabharata, to current topics created by the performer for the audience to enjoy and easily understand much about traditional values and current affairs. Although puppets should be made of water buffalo skin, we used cardboards in this workshop (figs. 5—7). After the completion of puppets, children performed an improvisational play using their puppets accompanying live gamelan music (figs. 8-9). The aim of this lesson is to make children enjoy and feel the traditional Indonesian culture through very friendly puppets and performances which children always love.

∠ Figure 5: Printed
Wayang figures

↓ Figure 6: Cutting figures









- ↑ Figure 7: Family discussion
- 7 Figure 8: Playing shadow puppets
- → Figure 9: Shadows on front



Javanese Gamelan Playing

• Time: 60 minutes

· Number: around ten children, third to sixth graders

Gamelan is a general name of a set of bronze instruments in Java and Bali, and also a name of the music created by it. It is originally a court instrument, and now popular among all people. There are more than twenty kinds of instruments such as gongs, xylophones, flutes, and strings. Each child chose a favourite from the eleven kinds of bronze percussion instruments, and learned how to play it (fig. 11). Within the forty-minute main exercise they were able to play gamelan ensemble music fairly well (fig. 10). Their families could sing and play clapping together to make the music gorgeous and colourful, and cheered up their children. Children unfortunately could not try other instruments because of time restraints.

Javanese Traditional Court Dance

Time: 90 minutes

· Number: around 5 families, third to sixth graders

Children like dancing. Dance is a symbol of the culture and represents the sense of beauty and values. Dance is fun and people feel happy when dancing. So, it is very effective for us to become familiar with and understand other cultures through dance.







↑↑ Figure 10: Playing gamelan all together

↑ Figure 11: Individual lesson

7 Figure 12: Practice dancing

→ Figure 13: Participants and staff



Javanese traditional court dance is very slow and elegant, though very deep and difficult. So Javanese dance is easy for children to get used to. Being slow is good for children who are not good at a fast dance. Children can enjoy dancing while paying attention to the shapes of their own movements, while listening to gamelan music. Javanese costumes and accessories are also very attractive for them. We prepared two kinds of dance – the princess and demon dance – for children to learn and enjoy (figs. 12-13).







↑ Figure 14: Flyer

¬¬¬ Figure 15: The author explaining instruments of the world

→ Figure 16: Choose an instrument

Making Woolen Felt Picture of Musical Instruments

In cooperation with the Shizuoka City Museum of Art

Time: 90 minutes

· Number: 10 families, 3rd graders and parents

• Teacher: 2 educational curators from Shizuoka City Museum of Art

Workshops at musical instrument museums tend to be those of playing instruments. But playing instruments is difficult for some people, even though it is a beginner's programme. It is true that one of the big functions and charms of musical instruments is to be played to make sounds and music. But musical instruments as tangible objects have other charms than that. They are full of visual, attractive aspects such as unique figures, various colours, and symbolic carvings, etc. That is why we can think of workshops from the stand points of visual arts, not only as intangible sound and music (fig. 15).

First, we can easily come up with ways to make instruments. But these handmade instruments, sometimes from PET bottles, cans, and papers, often become just like "poor toys". They will be thrown away shortly into a wastebasket without being kept or played at home.

Second, we can plan workshops of drawing or painting images of instruments with crayons, pastels, coloured pencils, and watercolours. But these activities need water, which may stain walls, floors, and clothes. They depend upon the individual ability of drawings or paintings, and are mundane, not unique.

So, I thought about what activity is enjoyable and pleasant for children, even though they are not good at playing the instruments or feel an inferiority complex for music, what work makes children happy and wanting to continue for a long time.













Finally, I reached the experience programme of making woollen-felt pictures of musical instruments (fig. 14).

This coloured woollen felt picture workshop was first presented by the Shizuoka City Museum of Art, planned by two educational curators. The museum had a workshop for children to make woollen felt pictures of their fathers for Father's Day presents.

These pictures create a really heart-warming, cute atmosphere because of the quality of the wool, and many of the beautiful colours of wool that also create a fantastic expression. When framed, the become charming artworks full of each child's personality (figs. 20-23).

Making a felt picture is very simple and easy. It is done by sticking the felt with a needle and fixing it to the felt canvas. So, we can re-fix again and again if we want to change the design. This is the biggest advantage for children and why I adopted the woollen felt picture making (figs. 16-19). This new workshop was done cooperatively with the Shizuoka Museum of Art.

One of the aims of this workshop is a fusion of music and art at the musical instrument museum. It is important to look at instruments from different perspectives,

Figure 17: Explaining how to make the picture

↑↑↑ Figure 18: Making a Thai drum

Figure 19: Making a violin

↑↑ Figure 20: Pictures made by the children of a 'morin khuur'

↑ Figure 22: Pictures made by the children of a violin, and Gamelan



Figure 23: Children with their wonderful works

without sticking to the easy preconception of "musical instruments = music = performance". We can say this workshop is a unique achievement of cooperation between the two museums.

Conclusion

The Hamamatsu Museum of Musical Instruments has many missions. One of them is to make visitors familiar with musical instruments in the world in much the same way as we are familiar with cuisines of the world. The way to do so is not only an academic, organological approach, but also a cultural approach to daily life.

Japanese people, of course, love music. But most of them love western music, classical or pop, more than Japanese traditional and non-western music. It cannot be said that it is a desirable situation; the 150-year history of modern Japan after the Edo period explains the reason. Japanese people must respect and be proud of their own and Asian musical culture, as well as western and others. This social and cultural responsibility is very important for us, the music museum in Japan. The challenges of Hamamatsu Museum of Musical Instruments will be continued.

Biography

Kazuhiko Shima, born in Osaka in 1955, graduated from Kyoto University, Department of Education. After graduation, he taught at junior high schools for thirteen years, including three years at Jakarta Japanese School, Indonesia. Shima studied recorder and ethnomusicology under Prof. Nobuo Nishioka, Osaka College of Music. He performed ensemble concerts in London, Antwerp, etc, winning prizes such as the Osaka Cultural Festival Award. Shima joined the staff of the Hamamatsu Museum of Musical Instruments in 1994. After its opening in 1995, he worked as a chief curator, and from 2004 to 2019 he served as its Director. One of the CDs of fortepiano music that the museum produced was awarded the Grand Prize at the 2012 Japan National Art Festival. The museum itself was awarded the world-famous Koizui Fumio Prize of Ethnomusicology in 2014. Kazuhiko was a member of the steering committee of the 2019 ICOM Kyoto conference and a local organiser of the 2019 CIMCIM annual meeting. He retired from the museum in 2021.

"Ongoma ohayi hokelwa pondjila": Making the Museum of Namibian Music

Jeremy Silvester
Museums Association of Namibia, Namibia

Ongoma ohayi hokelwa pondjila is a proverb in Oshiwambo that can be translated to mean 'The drum is carved next to the path'. The meaning of the saying is that when something is created in an open and visible space it encourages all the members of the community to comment and be involved in the creative process. The traditional use of animal horns by many communities in Namibia to gather people together will form a second central metaphor for a new Namibian museum that will use music to unite people and transcend the racial and ethnic prejudices that are an unwelcome legacy of a long history of colonialism and apartheid.

The Museums Association of Namibia (MAN) is a Non-Governmental Organisation that has been given the responsibility for regional museum development in Namibia and which receives an annual Grant-in-Aid from our Ministry of Education,

Arts and Culture. We are currently working on an ambitious project funded by the European Union that includes facilitating the development of the 'Museum of Namibian Music' in Omuthiya. Namibia has a rich heritage landscape studded with monuments, museums, and heritage sites. However, the perception has existed that the primary audience for heritage is the tourism market and this has been reflected in a number of ways, such as visitor profiles and the languages used in captions. MAN's slogan is 'Making Museums Matter' and reflects our passion to change this perception. When MAN conducted a survey of young Namibians to ask them why they do not visit museums and what topics might entice them to do so, a museum of music was high on their wish list.

The project has raised a number of conceptual issues about the role of a music museum in Africa, the definition of 'Namibian' music and the ways that the museum might be an inspirational, interactive medium for music education. My presentation will explore the challenges and opportunities that have arisen in developing the museum and our efforts to involve various stakeholders in the definition and development of the museum.

The process of museum-making started with a conceptual workshop in February 2018 involving a diverse group of musicians, academics, artists, and museum workers. The main aims of the workshop were to agree on the name for the museum and the main themes that should be covered in the displays. Namibia

Figure 1: A horn made out of Kudu horn (Enghuma) was used in Oukwanyama during the Efundula ceremony (NAN 3388)



has eleven main languages, with English as the official language. A lengthy, lively, but necessary debate took place about the best name for the museum. Whilst there was a strong argument that the museum should carry an indigenous name, such as *Egumbo lyoongoma* (which means 'The House of Drums' in Oshiwambo), it was eventually decided – for the sake of inclusivity of other local language groups and clarity to international visitors – that the name should be 'The Museum of Namibian Music'.

Agreement on the name led to a further debate about the definition of 'Namibian Music'. The debate focused on two questions. The first question was: Should the museum focus on traditional musical instruments and the cultural role of music in historical rituals? It was argued that such a museum would provide a place of inspiration for contemporary Namibian musicians and convey the essence of 'Namibian' cultural identity. However, the counter-argument prevailed. The danger of such a perspective is that it presents a notion of pure and essential musical traditions that have been contaminated by contact with different musical influences.

It was especially argued that this privileged a century of 'colonialism' (1884–1989) over the many 'pre-colonial' centuries that preceded it. During this time, people migrated, new materials became available, and states waxed and waned. In other words, it was agreed that there is no reason to assume that culture and society in Africa (and in the chunk of it that is now labelled 'Namibia') had not been dynamic throughout history. It was agreed that the museum's collection should have no chronological restrictions.

The second question was whether Namibian artists who performed musical genres that were viewed as foreign would be included in the museum. The previous debate led to the logical conclusion that Namibian music is music that is performed by a Namibian and that the museum should even embrace music that had been performed in Namibia by visiting solo artists and groups. Whilst, for example, *kwaito* is a genre that is associated with South Africa, it was considered to have been 'Namibianised' when local performers such as The Dogg and Gazza created compositions with lyrics in English and Oshiwambo. A second example was the influence of 'Papa' Francoise, a musician from the DRC, on *Ndilimani* (meaning 'dynamite'). *Ndilimani* was a musical group formed by SWAPO during the liberation struggle and that sang freedom songs in several indigenous languages, but with rhythms that also reflected the musical influence of the DRC.

The workshop took place in Omuthiya in the Oshikoto Region of Namibia so that the participants were able to view the proposed venue for the museum. The museum will be housed in the Omuthiya Cultural Centre that was built in 2007. The building was purpose-built with one half intended to serve as a regional library and the other half as a regional museum. We were aware that the building had a large gallery space with quite a visually interesting design. Since construction is a massive expenditure, the existence of a suitable building was important. In addition, there was a small outside area that would be suitable for a small café and a large piece of land belonging to the Ministry which could be used for open air concerts or further expansion in the future.

Furthermore, MAN believes strongly in decentralisation and Omuthiya is well located. It is on the B1, which is the main road to northern Namibia, where 50% of the population live. But it is also only seven kilometres from the turning to the King Nehale Gate, the northern exit from the Etosha National Park. The park, where wildlife, such as lions and elephants, roam is one of the most popular tourist destinations in Namibia. We believe that the development of the museum can help lure overseas tourists north of the park as well as help promote Namibian music internationally. However, when workshop participants visited the building, we realised that we faced

two challenges that have been caused by the fact that the 'museum' has been empty for twelve years.

The first was that partitions had been installed to create office space. However, we plan to see the division of the previous single 'open plan' space into the current eight distinct spaces as an opportunity to create small thematic galleries. The second challenge is more problematic. There had been little maintenance for the last decade. The museum needs renovation and shows signs of termite damage. Termite mounds are very common in the region and very beautiful, but termites and a museum are a bad combination. We have had to take (budget draining) action to make sure that the museum is termite free and to do some renovations to make the exhibition space useable.

We are striving to make the 'process' of museum-making inclusive. The workshop identified eight main themes for the museum. We then established a

'shopping list' of what we need for each gallery, and we are currently in the 'collecting' phase of the museum's development. One of the working groups that was established for the museum was tasked with providing an initial overview of Namibia's existing archives of music. The working group actually realised that there was no common template for archiving music in Namibia and one of the positive outcomes of the project, already, has been the development of such a template.

Two themes were highlighted at the workshop as being those that should have the greatest prominence in the museum. The first will be to describe the role of music in the Namibian liberation struggle. Music and song lyrics were composed in SWAPO's camps in Angola, Zambia, and Tanzania. One of the exciting discoveries made by the Archives Working Group was that the National Archives of Namibia had a set of recordings from SWAPO's Kwanza Sul camp in Angola from 1982. The recordings were in an obsolete, DATT format, but an agreement was reached with the Namibian Broadcasting Corporation to digitise the thirty-five hours of recordings. In addition, a former member of *Natilimani* has been tasked with recording interviews with some of the surviving musicians. The project has also located a huge promotional poster for 'The Winds of Change', a single performed by singers from SWAPO (fig. 2). Music was, of course, a very pervasive form of resistance inside Namibia during the liberation struggle against South Africa's occupation. The security forces could ban and confiscate publications and posters, but it was impossible to stop people from singing resistance songs!

The second stream that has been given priority is the documentation of performances using 'traditional' musical instruments and this has been linked to discussions about the ways that these instruments and the sounds they produce might be 'safe-guarded'. We have approached the National Museum of Namibia which has twenty-one traditional musical instruments in its collection that could be available for loan. However, we believe it is important to involve Namibians as widely as possible in the collecting process. We have therefore distributed 40,000 fliers to one-fifth of the 200,000 post boxes across the country and are conducting a radio campaign in indigenous languages. People are requested to contact one of the culture offices found in each of the fourteen regions if they have information or objects that they would wish to donate, loan, or sell to the Museum of Namibian Music. The theme was also picked up in the slogan for Namibian Heritage Week for 2019. The slogan for was – *Namibiab* $|\bar{o}|$ *gauba Sao* which translates, from Khoekhoegowab, as 'Follow the Namibian

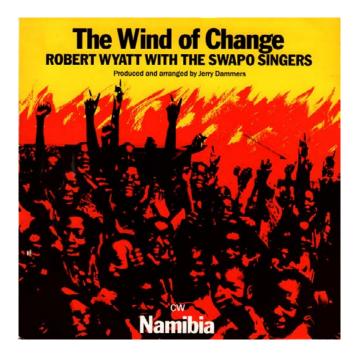


Figure 2: The Winds of Change, released in 1985, featured two songs sung by Robert Wyatt, Bience Gawanas, Vaino Shivute, Lohmeier Angula, Theo Angula, Theo Angula and Richard Muzira (Photo: Discogs.com)



Figure 3: //Ao N!ani, Baqu Kha//an, N!ae Komtsa and Seg//ae N!ani performing at the Warehouse Theatre in Windhoek, 17 August 2017 (Photo: Sandrine Thiebaud)



Figure 4: The logo of the museum (Designer: Mpingana Dax)

Beat' and events took place across the country celebrating our musical heritage and raising awareness of the museum. Culture is dynamic and we believe that traditional rhythms and sounds can also reach a wider worldwide market. In pursuit of that goal, we worked with a talented group of four San women on a project funded by UNESCO's International Fund for Creative Diversity. The women worked with another Namibian musician, Shishani, to create an album and, in 2019, travelled to Europe to participate in several festivals. Our dream is that the Museum of Namibian Music should also be a creative space which inspires similar new compositions that reflect the creative possibilities that emerge from musical fusions drawing on Namibia's cultural diversity.

We are keen to get young people excited about the museum and one of our strategies to achieve this was to have a competition to design the logo for the new museum. A total of eighty Namibian graphic designers entered the competition and five designs were short-listed by the Committee. The final design choice was made by the public who voted on social media. Of course, this was a constituency that was mainly young and urban, but it did generate a lot of interest and involved hundreds of young Namibians. The design sought to reflect the fact that the museum would include both traditional and contemporary Namibian music. The patterns reflect some of the patterns worn in the traditional clothing of different Namibian communities, whilst the guitar is, probably, the most widely played instrument in Namibia today.

One of the challenges of making a collection of traditional musical instruments is that ethnographic museums and the apartheid state emphasised the ethnic identity of artifacts. Michael Nixon has written about the ways that museums and archives of musical instruments in South Africa reinforced and cemented racial and ethnic classifications (Nixon 2014). The fact is that one of the principles of collecting was to emphasise difference and yet similar instruments were often produced by different language groups in Namibia. For example, the *Okaxumba* (in Oshikwanyama) is called a ‡*gaukhas* in Khoekhoegowab. I would also like to highlight the fact that in captioning musical instruments in the museum we will use the names that were given to the instruments in local languages. The *Okahumba* has been captioned in some museums as 'the Ovambo guitar', which is not a translation, but an attempt to create

an equivalence with another instrument entirely by making reference to western categories of musical instruments. Musical instruments were traded and clearly circulated. One unusual case was a musical instrument that is stored in the Namibian collection in the Museum am Rothenbaum - Kulturen und Künste der Welt in Hamburg. It had travelled to Namibia with a camel driver from Somalia when Germany imported camels for mounted police patrols in the desert at the beginning of the end of the nineteenth century. The point is that the use of a taxonomy that is based on ethnographic bubbles would erase a long history of cultural exchange and interaction that perforates boundaries.



Figure 5: A Ju/'hoansi child playing a //guashi (NAN04145). (Photo: Alice Mertens, 1963)

Whilst traditional musical instruments and liberation struggle music were identified as the priorities for the museum it was agreed that there should be six other themes. One of these is to look at the history of popular music inside Namibia during the apartheid period, particularly from the 1950s through to the 1980s. Here the museum hopes to be able to work with the 'Stolen Moments' project which has been researching this topic and has already developed a travelling exhibition that has been shown at venues in Germany and the UK.

The musical form that actively involves the largest number of Namibians today is choral music. Namibia is a strongly Christian country and has thousands of church choirs. The display on this subject will not only showcase some of the most popular choirs, but also make the link with the composition of local lyrics and tunes. One of the most celebrated composers of choral music is Axali Doeseb. Doeseb was also the winner of the competition that was held when Namibia obtained its independence in 1990 to select our National Anthem. A proposal was made that we should have an interactive map of Africa which would give visitors the opportunity to listen to all the national anthems on the continent.

The theme of contemporary music will be explored through a section that deals with the Namibian Music Awards (known as the NAMAs). The NAMAs give awards for a wide range of musical genres, such as *Damara Punch*, *Oviritjie* and *Kweto*. The proposal was made that the museum should contain a giant juke box that would allow visitors to select a wide range of Namibian music. The proposal has led to interesting discussions about copyright but has also raised the question of technology. We believe that a museum of music should not be silent, but we have been struggling with the challenge of finding appropriate and sustainable technology.

The other four themes that will be covered in the museum will me mentioned briefly. One of the points that was strongly made to us at the planning workshop was that music cannot be separated from dance. A space will, therefore, be dedicated to different forms of dance. We would also like to have a display that explains the science behind music and an educational area. In the educational zone visitors would have the opportunity to try playing a range of instruments, but also obtain information about how they can learn to become musicians in Namibia. Finally, we will have one space that would serve as a temporary gallery. The gallery will provide a space for visiting exhibitions, but also feature displays on individual musicians who are being inducted into the museum's Hall of Fame that will be near the main entrance to the building.

In conclusion, we have the structural and conceptual framework for the Museum of Namibian Music. However, our success with the limited resources available will depend on whether our process is successful in involving our musical citizens in collecting and making the museum. Our drum must be carved in the open, if we want people to dance when it is beaten.

If anyone would like to contribute to the establishment of the Museum of Namibian Music, they can contact the Museums Association of Namibia on museums@iway.na

References

Nixon, Michael. 2014. 'Depths of Field: Photographs and early Southern African Music Studies'. In Carolyn Hamilton and Pippa Skotnes (Eds.), *Uncertain Curature: In and Out of the Archive*. Johannesburg and Cape Town: Jacana.

Biography

Jeremy Silvester (22 December 1962 – 5 July 2021) was Director of the Museums Association of Namibia (M.A. N.) since 2005. M.A. N. is responsible for regional museum development in Namibia; its work involves training as well as supporting the development of new exhibitions and museums. Prior to that role (1997–2005), he was a Lecturer in History at University of Namibia, teaching Namibian and Public History. Silvester was awarded a PhD in African History from the School of Oriental and African Studies, University of London (1994); a Postgraduate Certificate in Education (PGCE) from King's College, University of London (1988); a MA in Southern African Studies from University of York, UK (1986); and a BA (Joint Honours) in History and English from University College Cardiff, University of Wales (1983).

Recent publications include: 'The Africa Accessioned Network: Do museum collections build bridges or barriers?' in Larissa Förster, Iris Edenheiser, Sarah Fründt & Heike Hartmann (Eds.), *Provenance Research on Ethnographic Collections from the Colonial Era*, Berlin (2018); and 'The Africa Accessioned Network: "Museum Collections Make Connections" Between Europe and Africa: A Case Study of Finland and Namibia' in *Museum Cooperation between Africa and Europe*, University of Zurich: Zurich (2018). Silvester's recent exhibitions included *Changing Climate*, *Changing Namibia*: The Impact of Climate Change on Namibia (2018); Muti or Medicine: The Use of Plants in Traditional Medicine (2017); Nama Khoen \$NiSasib\$ (2016), Omukwa: Africa's Tree of Life (2016); and Black and White: Early Finnish Photographs of Northern Namibia (2015).

In 2019, Silvester was working on: an EU-funded project towards the development of two new Namibian museums: The Museum of Namibian Music and the Zambezi Museum as well as two new mobile exhibitions drawing on artifacts held in museum collections beyond Namibia's borders; a chapter titled: 'The Voice of the Voiceless: The Role of Petitions and the Perspective of Petitioners on the Liberation Struggle for Namibia, 1946–1966' for the Namibia History Project volume on the Liberation Struggle; and was co-curating a new mobile exhibition designed to tour all fourteen regions of Namibia during 2019: *The OvaHerero and Nama Genocide: Learning from the Past.*

Silvester was a 2019 CIMCIM travel grantee to attend ICOM Kyoto. His travel grant report 'Reflections on Reading Music Museums and the Ethnographic Gaze' is published in the April 2020 CIMCIM *Bulletin*. On 5 July 2021, Silvester passed away from COVID-19. [This biographical statement is based on the CV he submitted to CIMCIM for his 2019 grant application.] Silvester's further contributions to ICOM are described on the ICOM Network website: 'In Memoriam – Dr. Jeremy Silvester, Board Member of ICME' (https://icom.museum/en/news/in-memoriam-dr-jeremy-silvester-board-member-of-icme/) and an obituary by Patricia Hayes appeared in *The Guardian* on 15 July 2021 in Culture: Other lives – Museums (https://www.theguardian.com/culture/2021/jul/15/jeremy-silvester-obituary). (Biography written by Christina Linsenmeyer)

Documenting The Rijksmuseum's Musical Instrument Collection

Giovanni Paolo Di Stefano

Rijksmuseum Amsterdam, The Netherlands

Maarten Heerlien

Rijksmuseum Amsterdam, The Netherlands

The Rijksmuseum boasts a collection of over one million objects, which offer an overview of Dutch art and history from the Middle Ages onward. Highly heterogeneous in its nature, the collection also focuses on the position of the Netherlands within an international historical context, and thus includes an extensive number of European and Asian artworks and artefacts.¹

Brief overview of the musical instrument collection

The Rijksmuseum owns one of the two major collections of early musical instruments in the Netherlands, the second being at the Kunstmuseum Den Haag (the municipal museum in The Hague, formerly known as the Gemeentemuseum).

The musical instrument collection counts over five hundred artefacts, mostly assembled in the last decades of the nineteenth century through the acquisition of private collections and a number of permanent loans by Dutch institutions. Among the latter, there are the Koninklijk Oudheidkundig Genootschap (Royal Antiquarian Society), the Kabinet van Zeldzaamheden (Cabinet of Rarities), the Koninklijke Militaire Academie (Royal Military Academy), the Centraal Magazijn van Militaire Kleding en Uitrusting (Central Warehouse of Military Clothing and Equipment), and the Gemeente Amsterdam (the Municipality of Amsterdam). Over one fifth of the entire collection was acquired in 1899 from the heirs of Dutch musicologist Johan Coenradus Boers (1812-1896) (Thijsse 1992, 212–24). The collection mainly includes European instruments from the 11th century to the 19th century. It also includes Asian instruments that date from after 482 BC. Understandably, however, the collection focuses particularly on Dutch instruments.

History of the collection's curatorship

In the musical instrument collection's early days, there was no designated curator in charge of these objects. The lack of a specialised curator is clearly visible in the surviving documentation from the period, such as the old handwritten entries, often

1 From the Rijksmuseum vision and mission, www.rijksmuseum.nl/en/organisation/ vision-and-mission



Figure 1: The musical instrument gallery in 1939

inaccurate and incorrect as far as the organological terminology and technical descriptions of the instruments are concerned.

Included among the collections of decorative arts and history, instruments were displayed in the museum galleries until World War II (see Fig. 1). Then, in 1952, the musical instrument collection was given on permanent loan to the Gemeentemuseum. This loan became of vital importance because – from 1952 to 2012 – it was the only public collection of musical instruments in the Netherlands, thus becoming *de facto* the only collection of the kind in the country. Consequently, for several decades, the Rijksmuseum did not acquire any musical instrument and did not undertake any relevant activity to document this part of its collection.

In 2012, after sixty years, the Rijksmuseum's musical instrument collection was brought back to Amsterdam, where it was partly displayed in the museum galleries. Relevant documentation concerning the Rijksmuseum's collection, produced by the Gemeentemuseum between 1952 and 2012, came to Amsterdam also, and needed to be organised for both curatorial and research purposes.

In 2014, the Rijksmuseum opened the position of curator of musical instruments for the first time in its history. Since then, the collection has been enriched by new purchases and donations, such as the acquisition of the Han de Vries Collection in 2018, which includes sixty-nine early oboes (Di Stefano, 2020, 76–9). The museum has also worked on a number of documentation projects. For example, between 2014 and 2018, an extensive photo campaign based on the MIMO international standards was carried out. As a result, there are now a few thousand high-resolution images available.

Other relevant activities include conservation and restoration projects, scientific research, cataloguing, historical research, and concerts and other musical projects. These activities involved a number of departments and sub-departments, such as Curatorial, Conservation and Science, Research Services, Exhibitions, Registrars, Photography, Education, Development, Communication and Marketing, Events. The documentation on the musical collection, which has been scattered among different databases until recently, includes a massive amount of digital data such as:

- Publications (copies of books, articles, auction catalogues, etc.);
- Catalogue entries;
- Copies of archival documentation;
- Correspondence;

- Legal documentation (loan agreements, exhibition requests, etc.);
- Valuation reports;
- Conservation and restoration reports;
- Scientific analyses (CT scans, dendrochronological analyses, XRF analyses, etc.);
- Technical drawings;
- Photos (historical object photographs, slides and photo negatives, high resolution images);
- Audio and video recordings;
- Concert programmes/brochures.

It has been therefore necessary to sort, optimise and make available all these digital documents in an efficient way.

The information landscape of the Rijksmuseum

For numerous management and business processes related to the collection, the Rijksmuseum relies upon the museum-wide collection information infrastructure that supports it. However, this information landscape is highly fragmented as specialists in different departments throughout the museum contribute to the corpus of information on each individual object. This ranges from descriptive contextual information and core collection management data to extensive, highly technical analytical research data and commercial business intelligence. This together with the lack of high-level coordination of the collection information life cycle and, as a result of that, the lack of an overarching collection information strategy has resulted in a situation where the Rijksmuseum's information specialists are constantly working in a tension field of specialisation on the object and subcollection level versus standardisation of the information on the collection as a whole. Traditionally, this has led to a situation of constant conflicts of interests between departments regarding the form and functionality of captured information, negotiation, and customisation of the supporting information architecture.

Research services aims and strategy

To improve upon this situation, the Research Services department was established in 2016. In this new department all processes and departments within the museum working on collection information management were unified, effectively making Research Services responsible for the management of the collection information life cycle and improving the position of the Rijksmuseum as a knowledge hub. The five departments that were placed under the Research Services umbrella in 2016 are the Research Library, Collection IT (Information Technology), the onsite Study and Reading Room, the Collection Information department and Library Depot Services, while in 2020 the Archives department was added.

Research Services focuses particularly on users, both internal and external, who need more in-depth information on the Rijksmuseum collection and the art historical and historical themes related to it. Research Services facilitates interdisciplinary, object-based research by collecting, registering, archiving and making available, bibliographical and documentary data, together with collection data, conservation data and provenance data. The strategy to achieve this mission is to integrate the heterogeneous information sources that the Rijksmuseum has curated over time in meaningful ways, in order to appreciate the full context of the object, with a particular

focus on standardisation of data and information across information resources and on access to data and information independent of location and platform. This is further supported by the development of a scalable, systems-agnostic information architecture based on Semantic-Web standards and techniques.

Information silos

This strategy is not unique to the Rijksmuseum. Museums in the past years have become more and more aware of their central role in society as "inclusive and polyphonic spaces for critical dialogue" (as proposed in the unadopted 2019 ICOM museum definition) and have invested in providing contextually rich and multi-voiced information as input for this dialogue. The size and long history of the Rijksmuseum collection and the resulting heterogeneity of the information resources related to it, are particularly challenging in this respect. Information on any single object can be found in any combination of numerous digital and analogue information systems that are not interconnected.

To illustrate this, we have collected all the information related to a crystal flute made by Claude Laurent in 1807 (inv. NG-475). This instrument, given by king Louis Bonaparte to the famous flautist and composer Louis Drouet, has been in the Rijksmuseum's collection since 1962. In addition to an object record in Adlib Museum, the Rijksmuseum's collection management system, the original, handwritten entry on the flute can be found in the inventory book for its subcollection and nineteen digital images are recorded in the MediaBin Digital Assets Management system. Furthermore, there is both an analogue and a digital documentation folder with (overlapping) contextual documents, several publications with information on the flute in the library collection, XRF-data on scientific measurements of the objects and several relevant thesaurus concepts (See Fig. 2). As of yet there are no facilities in place for users to find and access all of this information in an efficient and effective way.

2 See object record: http://hdl.handle.net/10934/RM0001.COLLECT.262953

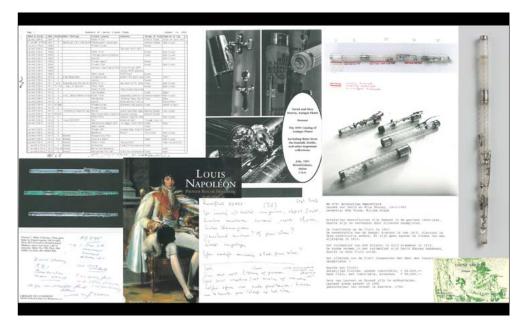


Figure 2: Impression of the heterogeneous contents of the documentation file of the NG-475 Laurent crystal flute

Digitisation of the documentation collection

In working towards the realisation of the goals described above, Research Services has deployed several projects simultaneously focused on technical improvements, drafting and implementation of data and information management policies, information architecture design and digitisation of analogue resources. In the latter category the focus has been on digitisation of the documentation collection. Gathered over the 200-year existence of the museum and regarded as the "collective memory of the museum", it contains all types of documents that contextualise a specific object, a series of objects, or subjects related to the Rijksmuseum collection. These documents have been produced and gathered by curators, conservators, and all others whose work at the museum is directly related to the collection. The resulting files are rich referential sources about the objects or subjects they document. In total, the analogue documentation collection comprises thirteen thousand object files containing referential documents on over fifty thousand collection objects and four hundred metres of thematic documentation files. Although most of the physical files can be accessed within the museum upon request, digitisation of the documentation collection is seen as a high priority. Access to the information within this collection needs to be location-independent for several reasons, but especially due to the impending move of a significant part of the Rijksmuseum's objects collection to the newly built Collection Centre of the Netherlands (CCNL) depot, near the city of Amersfoort, east of Utrecht.3

Challenges regarding digitisation

Beginning in 2018, the documentation digitisation primarily focuses on the digitisation of the object-related documentation files, as these are the most relevant for business and research processes. Several immediate challenges occurred that needed to be addressed in the digitisation strategy:

- There was no catalogue available on the object documentation files. It was not known exactly how many files there were, exactly which collection objects these documented and how many and which types of documents these contained. Although object records in Adlib Museum contained a checkbox to note whether or not there was a physical documentation folder on the recorded object, this data could not be translated one-to-one with corresponding files, as most physical files contain documents on more than one object, ranging from two to well into the hundreds in a single physical file. Furthermore, the checkbox was not used consistently over the years, making this data unreliable.
- Resulting from the above point, the legal status of many of the documents
 within the physical files was unclear. Oftentimes files contain copies or articles,
 images and original documents that may have an archival function. Gathered
 over a long period of time, establishing the provenance and purpose of these
 documents and the related legal rights and prohibitions proves challenging.

A third, minor challenge was the partial overlap of some physical documentation files with a digital counterpart. As a temporary solution a provisional digital documentation space was created in Microsoft Sharepoint in 2014 (see Fig. 3). Although this was never a great success due to the lack of native functionality in Sharepoint

3 See https://www.rijksmuseum.nl/nl/collectiecentrum-nederland (in Dutch)

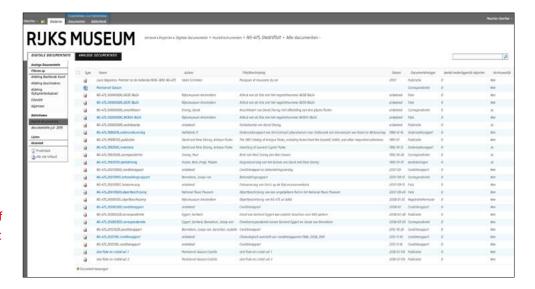


Figure 3: Screen capture of the temporary, custom-built Sharepoint digital documentation space

required to create a proper digital documentation management system, the system was used extensively by some.

Digitisation strategy

As a first step towards a digitisation strategy, the current process of documentation curation and management within the museum was analysed and visualised, using the Business Process Model and Notation (BPMN) standard.⁴ Based on this mapping and the interdependencies and bottlenecks it laid bare, the process could be redesigned from a "digital documentation first" starting point. The resulting process model formed the basis for the functional and technical requirements of a proper digital documentation management system.

Second, a high-level catalogue was created for the thirteen thousand physical object documentation files. Using a simple spreadsheet, Research Services' Information Specialists noted for each physical file:

- the object registration number or number range written on the file;
- the object name or description written on the file;
- the types of document each file contained.

Based on these data, a representative, 5 percent cross-section of the physical files was probed for their exact number of documents, as well as the number and size of the pages (A4, A3, other) of each of these documents and whether these pages were printed single-sided or double-sided. This allowed for an estimation of the total number of documents within the files as well as an estimated total number of scans it would require digitising the entire corpus, respectively 190,400 and 408,330.

The gathered data was further analysed and compared to data from Adlib Museum, in order to match the physical files with the exact objects they contained documents on, which resulted in approximately fifty thousand object matches. The recording of the types of documentation present in the files meanwhile allowed for anticipation of the nature and number of legal issues that were to be countered when making accessible digital versions of the documents.

Consequently, these requirements were added to the functional design of the digital documentation management system in order to ensure adequate measures

4 See http://www.bpmn.org

related to at least copyright law, the GDPR (General Data Protection Regulation) and the possible presence of sensitive object information.

Though the intention at the start of the project was to digitise subsets of document files based on their related subcollections (e.g., painting files, Asia art files, etc.), a different document digitisation strategy was chosen based on the gathered data, working upwards from simple files containing only one type of document, to large and complex files containing multiple document types. This allows for rapid digitisation and metadata registration by a digitisation service provider of the simple files, while at the same time the more complex files are prepared for digitisation by Research Services in a way that ensures efficient and effective digitisation and metadata recording once the simple files are digitised. At the time of writing, around 5,800 files have been digitised with the rest coming later in 2020 and early 2021.

Digital Documentation Management System and future developments

The digitised files are made integrally accessible through JOIN, a standard, cloudbased records management application developed by the Dutch company Decos. In addition to the functional and technical design, which were met by JOIN on all key requirements, the choice for JOIN was informed by three starting points. First, preference for the utilisation of suitable solutions already available in-house, in order to reduce the costs of the implementation process and speed the process. Second, duplicating as little data as possible from other collection systems limits the risk of multiple versions of data on the same object circulating in the information infrastructure. And third, integrating the system into existing work processes. JOIN has been in use by the Rijksmuseum's Archives department as a digital archive and document management system since 2018, ensuring that employees of the museum were already familiar with the system. To limit data duplication, only the persistent object identifier and the current object name and registration number are recorded in JOIN file records, ensuring basic findability while at the same time anticipating the development of the aforementioned Semantic Web-based information architecture (see Fig. 4). At the time of writing, the design of this architecture is in its final stages and will be realised in phases in the years to come, using a rapid application development and prototyping approach. The entire corpus of object documentation is expected to be digitally accessible for Rijksmuseum employees in the course of 2021, while a more limited set of legally cleared digitised documentation will be made accessible to external users at a later date.

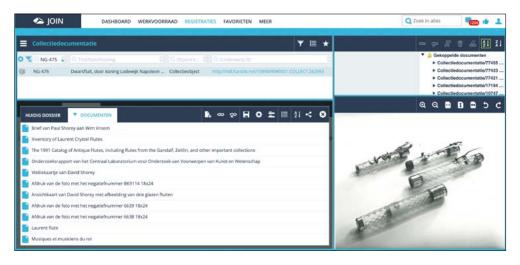


Figure 4: Screen capture of the JOIN digital documentation management system, displaying the digitised file on NG-475 Laurent flute. JOIN was taken into production in January 2020.

References

Thijsse, Wilhelmus Hermanus. 1992. Johan Coenradus Boers, 1812–1896 en zijn betekenis voor het Nederlandse muziekleven, Heerlen: s.n.

Di Stefano, Giovanni Paolo. 2020. "The Han de Vries Collection of Oboes." *The Rijksmuseum Bulletin* XLVIII, no. 1: 76–9.

Biographies

Giovanni Paolo Di Stefano is the Curator of musical instruments at the Rijksmuseum in Amsterdam. He studied musicology in Palermo and Rome where he received his PhD. His research interests focus on the history and technology of musical instruments. He has published widely and has taught organology at Italian universities and conservatories since 2008. He is a member of the Advisory Board of CIMCIM.

Maarten Heerlien is Head of Collection Information & Archives at the Research Services department of the Rijks-museum in Amsterdam and manages a team of information and data specialists. He studied Early-modern History at the University of Groningen and has been active in the heritage sector since 2008, focusing on collection digitisation and data enrichment. Maarten is editor and author for e-Data & Research Magazine and is a member of CIDOC.

The V&A's Musical Instruments Collection: New challenges in a multi-sensory museum

Eric de Visscher
Victoria and Albert Museum, United Kingdom

A brief history of the V&A's involvement with music

Appearing at the very heart of the now much discussed British colonial Empire, the V&A (first known as the South Kensington Museum) grew out of the 1851 International Exhibition, which attracted more than six million visitors. The initiator of this event, Prince Consort Albert, was as much interested in politics and industry as he was in the arts. He was a gifted amateur musician and even composed some songs in honour of his wife, Queen Victoria. Some years before the Great Exhibition, as recalled by the musicologist Carl Engel who later played a determining role in the creation of the South Kensington's musical instruments collection:

'the late Prince Consort took so much interest in musical antiquities that in the year 1845, by his desire, a Concert of Music of the Sixteenth Century was performed, in which several instruments of that period were employed. (...) The intelligent mind of the Prince evidently appreciated the interesting information which these relics of the Olden Time convey of the tastes and artistic conceptions of our forefathers, as well as the reliable evidences which they afford in illustration of the History of Music'. (Engel 1872, xi)

The income profits made by the Great Exhibition allowed for a development of what could later be called "Albertopolis", an art and education campus, then situated outside of London's town centre, open to connoisseurs, artists, and craftsmen as well as working class people; today, the South Kensington remains an important art and science hub hosting both Royal Colleges of Art and of Music, the Science and Natural History Museums, Imperial College, Royal Albert Hall and, of course, the V&A. Prince Albert then counted on the activism of Henry Cole, the V&A's first director, tireless organizer and collector, a man truly powered by his vision of a museum by and for the people. But also a passionate music-lover, a great fan of Haendel's operas, acquiring himself some of the earliest instruments from the collection and commissioning a specially-designed Wornum grand piano for his wife, which ultimately ended up in the museum's collection!

Two other men played a significant role in the development of a musical presence at the South Kensington Museum: Andrew Digby Wyatt and, foremost, the already mentioned Carl Engel. The former was an architect and acted as "art referee" for the museum, which consisted in chasing and advising on future acquisitions. Among those that Wyatt encouraged the museum to buy, through beautifully illustrated hand-written notes, was a rare 18th century Taskin harpsichord as well as

ivory woodwinds from Gioachino Rossini's personal collection. But of course, it is Carl Engel who gave a decisive turn to the museum's musical instruments collection first by lending, then later offering to buy a significant part of his own collection. He wrote the first extensive catalogue of that collection, which through its introductory articles is still considered a landmark in the history of modern organology, and organised in 1873 a much-attended temporary Exhibition of Musical Instruments, securing loans from many British and foreign collectors.

The core of the musical instruments collection was acquired before 1900. But soon after, as a result of a major building extension and reorganisation of the displays, questions arose around the true significance of these objects within this museum which considered itself as a "museum of decorative arts". They reveal the double nature of these objects, functional and aesthetic, and thus the ever-repeating question of whether these instruments were collected for their artistic (i.e., visual) value or for their musical interest. At different times, the museum tried to address this question, and what was written in 1910 by the then director Cecil Harcourt Smith – 'As a conclusion, I think the time has come when a decision should be taken as regards the policy to be adopted in regard to Musical Instruments' (1910) – is, in a way, still valid.

But the V&A's involvement with music did not materialise only through musical instruments. From 1923 onwards and in particular between 1950 and the late seventies, the V&A became a hot spot for concerts, selecting private promotors who produced concerts on a regular basis, at their own risk. Besides some orchestral concerts, these events held in the Raphael Cartoon Gallery are now mostly remembered for their outstanding recitals and chamber music concerts. Exceptional performers could be heard, such as Myra Hess, Kathleen Ferrier, Benjamin Britten and Peter Pears, the Bush Quartet or pianist Wilhelm Kempff, to name just a few. The V&A also played a significant role in the discovery of new repertoires, from the Medieval to the Baroque, with rare performances by Alfred Deller and Ralph Kirkpatrick, to be followed by a whole generation of young performers, such as Roger Norrington, Jordi Savall or Trevor Pinnock, who are still leading figures in the so-called Early Music movement. Sir John Eliot Gardiner held, in 1968, his first full concert with the Monteverdi Choir, in a Monteverdi program to which he paid tribute 50 years later in the same location as part of the V&A's exhibition dedicated to opera. The museum also hosted contemporary music with often UK or world premieres of works by Benjamin Britten, Peter Maxwell Davies and, in 1969, a rare performance of Karlheinz Stockhausen's Mikrophonie II.

During the sixties a growing awareness of the importance of the instrumental collection for those who were precisely interested in studying, copying, and playing these instruments led to the conception of a new Musical Instruments Gallery which opened in 1968. Making the totality of the Western instruments accessible to the public, with up-to-date design and lighting, and recordings of some instruments made under the impulse of BBC producer Madeau Stewart, this gallery was indeed revolutionary and influenced the development of other music museums. A nascent dialogue with the music community around these instruments led to a limited but significant number of concerts played on instruments of the collection. Whereas guest concerts, with no strong relation to the museum's content, slowly lost public interest and came to a halt in 1971, a new type of performances was then looked after, involving the musical instruments collection, and giving both these instruments and the institution a new *raison d'être*. As the curator in charge of this collection – and responsible for this strong renewed interest – P. K. Thornton wrote:

The primary reason for initiating these concerts was to provide something that could normally not be obtained at other concert halls – namely, music of a given period played on appropriate instruments that would further the role of this Museum in the musicological field.' (1975)

A smaller number of events then took place in different areas of the museum (Tapestry Court, external Courtyard), involving also other musical genres: jazz, Indian music and even rock concerts. Significantly, an acquisition made in 1974 for the musical instruments collection, the 17th century Vaudry harpsichord, was praised both as 'an exceedingly important musical instrument" and "a dated piece of Louis XIV furniture' (1974), and inaugurated with a concert given by Kenneth Gilbert and Jordi Savall.

Despite the interest of directors and curators for the subject, - such as director Roy Strong writing in 1974: 'I am very pro music in the Museum, but as usual there are many problems concerned with actually achieving it.' (1974) — priorities given to other areas unfortunately led to the closure of the musical instruments gallery in 2010. The present situation is that, out of a collection of about 300 Western instruments, 32 are on display in different galleries, whereas a similar number of objects is on loan at the Horniman Museum in South London. The museum's collection also features about 200 Indian instruments, of which a few are on display. At present, new ways of displaying these objects are currently under consideration, as part of the V&A's extension plans in East London.

Obviously, the closure of the musical instruments gallery in 2010 was not well received, especially in music circles, but – maybe as a consequence – led to a growing number of sonic events, in a larger variety of musical genres. Friday Late Events regularly include musical performances, while educational activities also became "sonic" in many aspects. Artistic residencies have included musicians, such as *viola da gamba* player and composer Liam Byrne, who gave intimate one-to-one concerts in the interior of the spectacular Trajan columns. And the exhibited Indian instruments have been "animated" as part of a sound installation commissioned by the V&A Research Institute for the 2018 London Design Festival to sound artist Caroline Devine. This work, entitled *Resonant Bodies*, presents the sounds of the silent instruments within the case woven throughout a composition, developed from recordings of classical South Asian instruments, that resonated across the surface of the glass case and throughout the gallery (Devine 2018).

The importance of sound has also impacted curatorial design as exhibitions that may not initially be associated with music such as *Hollywood Costume* (2012) or *Alexander McQueen: Savage Beauty* (2015) have been highlighted for their curated audio components. An experimental audio-tour with ten specially commissioned pieces from leading sound artists led to the innovative *Shhh – Sounds in Space* exhibition in 2004. And most notably, ground-breaking and highly successful exhibitions on music, such as *David Bowie is...* (2013), *Pink Floyd: Their Mortal Remains* and *Opera: Passion, Power, Politics* (both in 2017), have become international trademarks of the V&A's program. The impact of these early musical moments in the V&A's history is reflected in the programming and exhibitions that occur today.

Future perspectives

The Victoria and Albert Museum is in the process of expanding into East London, specifically the Olympic Park in Stratford. This expansion will see in 2023 the creation of a new museum and of new Collection and Research Centre (CRC), which will house the majority of the V&A's collections. A core principle of V&A East is making

the collections accessible through innovation and collaborative process. Another core principle of V&A East is to engage with "non-traditional" museum audiences. Therefore, V&A East provides the perfect exploratory platform for developing the presence of sound in the museum, and I have therefore been asked to develop plans to incorporate sound into the CRC and the new museum. This will include putting more musical instruments on display and developing the presence of sound as a way of engaging with other museum objects.

In order to develop a comprehensive concept of sound in the museum, I suggested to think about musical instruments as part of a larger collection of "sonic objects", meaning by that those museum objects that produce sound or whose interpretation and enjoyment can be sonically enhanced. This includes thus radios, telephones, clocks, etc., as well as musical iconography and more remote connections to sound and music.

Secondly, through various workshops with several stakeholders both within the museum staff but also outside, different concepts were discussed which would lead the way on how music and sound could be present. These were:

- STORAGE: a driver for multisensory discovery, ritualized in new ways, providing a new spatial and temporal exploration of the objects;
- MUSIC BOX: a relational object that requires embodied engagement, taking different shapes and sizes;
- VOICES: hearing "other" voices as part of visitor's experience, especially from those who are not familiar with museum objects and experiences;
- TOOLS: according to anthropologist Tim Ingold, these are 'objects joining a story to the appropriate gestures' (Ingold 2005, 58)

To give one example, the MUSIC BOX concept links the tangible with the tangible, supposes physical or embodied interaction, relates many different parts and materials and has no limit in size and space. It also blurs the borders between inside and outside. A gallery space, a whole building and its surroundings can be considered as a music box. This allows us to think "globally", i.e., to think the museum as a vibrant and sonic entity, rather than a silent space in which sound is felt as intrusive. And we can relate this concept to many objects from the collection, from actual music boxes to all musical instruments, from radios and computers to period rooms or large-scale objects – some of which will be exhibited in this accessible collection centre, from a 16th century Spanish ceiling to a 360° painted panorama of Rome or a Frank Lloyd Wright complete office.

Philosopher John Dewey defines objects as "events with meaning". Making each of our museum objects an "event" is a challenge. But thinking of it as an event opens up new possibilities, as precisely that which offers a new life to the object. This is what sound studies guru Jonathan Sterne writes in a short article published in the catalogue of the exhibition *Art or Sound*, held in 2014 at the Fondazione Prada in Venice:

Hanging on walls at music stores, leaned up against chairs on stage, assembled into racks, or organologically classified at museums, instruments can suggest some kind of spirit when separated from their moment of making or use. (...) When anyone can walk up to a consecrated object and interact with it, the idea that instruments are for some people and not for others begins to erode; the invitations to touch, hear, engage or interact break down the separation of performer and audience. The collection itself also offers a commentary on instruments as objects with magic inside them.' (Sterne 2014, 396–398)

References

Anonymous. 1974. V&A Press Notice, London: V&A Archives.

Devine, Caroline. 2018 Resonant Bodies. Documentary clip, https://www.youtube.com/watch?v=OhQvexmOWSg (Accessed 1 July 2020)

Engel, Carl. 1872. *Introduction to the Catalogue of the Special Exhibition of Ancient Musical Instruments*. London: Science and Art Department South Kensington Museum - John Strangeways.

Harcourt Smith, Cecil. 1910. Minutes from Board discussion, London: V&A Archives, SF921.

Ingold, Tim. 2005. Being Alive. Essays on Movement, Knowledge and Description. New York: Routledge.

Sterne, Jonathan. 2014. "The Magic in Instruments: Music Technologies and Commodity Fetishism", *Art or Sound* (exhibition catalogue). Venezia: Fondazione Prada.

Strong, Roy. 1974. Letter to Anna Collis, London: V&A Archives.

Thornton, Peter K. 1975, Letter to Maurice Cochrane. London: V&A Archives.

Biography

Eric de Visscher has been artistic director of the Ars Musica Festival in Brussels, after studying philosophy, linguistics and music. In 1997, he became Artistic Director of IRCAM, the musical institute of the Centre Pompidou in Paris. From 2006 to 2016, he was Director of the Musée de la musique (Philharmonie de Paris), where he led a major revision of the museum's permanent collection and developed the exhibitions program. He's now "Andrew W. Mellon Visiting Professor" at the V&A Research Institute (VARI) (Victoria & Albert Museum, London), where his research focuses on the uses and impact of sound in museums. He has published in journals and exhibition catalogues, notably on the relations between visual arts and music, and was guest editor of a special issue of *Curator: The Museum Journal* entitled "Sonic".

The Significance of Traditional Japanese Music Education at a Musical Instruments Museum

Mayumi Wakiya

Museum of musical instruments, Musashino Academia Musicae, Japan

Recently, it has become extremely important for us in the international community, not only to understand music and be proud of our cultures, but also to develop a greater understanding of the diversity in cultures of other countries.

However, it is relatively recent that the importance of traditional Japanese music has increased in musical education in Japan. In 1998, the course of study was modified to require deeper learning about traditional Japanese music. In this update it was stated that students should use one or more kinds of Japanese musical instruments during their three years of Junior high school. At last, they began focusing on teaching traditional Japanese music nationwide.

Many teachers were confused due to three reasons. First, most teachers were unable to play traditional Japanese instruments. It was not a prerequisite to become a teacher. Second, there wasn't enough equipment to learn about traditional Japanese instruments. Third, there was a problem with the number of music classes. Today, the number of music classes is on the decline. Because of these three reasons, students usually acquire knowledge of traditional Japanese music through textbooks and from listening to performances on DVDs. However, in some cases, they can have a chance to listen to Japanese music live and experience how to play the instruments with the cooperation of musicians. In such situations, what kind of significance can be found in museum education that cannot be found in school education or from musicians?

I will introduce you to one of our educational activities for children about traditional music in our museum. The theme of this activity was the sounds of nature, which is one of the important foundations of Japanese culture. Japanese people have been historically considerate of harmony with nature, and this sensitivity is reflected in music. In the activity, children were taught about the sounds of nature and scene descriptions in an old Japanese tale by playing Kabuki winds and percussions.

In Kabuki there are two kinds of music. One is played on stage. It expresses the story and accompanies the acting and dancing by using shamisens, drums, a transverse flute and voices. This kind of music is well known in general. The other is played backstage. It expresses the sounds of nature and describes the scene using the other Kabuki instruments like the activity I showed. When they learn about Kabuki music at school, in most cases they study only about the instruments on stage. But if they can also learn about these Kabuki instruments which are played backstage, their understanding about Japanese music will be deeper.

Here I found the significance of museum education to be different from school education. As you know, the most important characteristic of a museum is the diversity of its collections. I think there are two kinds of education possible from museums.

The first is the only field that schools teach is of famous kinds of music based on the curriculum. However, museums can give a wider and more detailed perspective of each. The second is cross-sectional, in other words, we can recognise the characteristics of our own culture by comparing the differences with other cultures. Furthermore, a broader perspective including the propagation and transformation of traditional Japanese instruments is possible in museums. I am sure that museum education can provide what school education lacks, because there is no limit based on the curriculum and the inadequate number of class hours.

Biography

Mayumi Wakiya works at the Museum of musical instruments, Musashino Academia Musicae in Tokyo. In 1993, Wakiya graduated from Tokyo University of the Arts (traditional Japanese music) and became a curator at the Museum of musical instruments Musashino Academia Musicae. Since 2019, Wakiya has been a lecturer at the Musashino Academia Musicae. Wakiya specialises in the fields of traditional Japanese music and museology. E-mail: mawakiya@helen.ocn.ne.jp





Traditional Japanese Hand Drums "Tsuzumi" Collection Stored in The National Museum of Japanese History: Wood identification of Tsuzumi bodies

Misao Yokoyama Kyoto University, Japan

Minoru Sakamoto
National Museum of Japanese History, Japan

Introduction

The traditional Japanese hand drum, tsuzumi, is a two-headed, hourglass-shaped

membranophone used for Noh drama that is listed as an intangible cultural asset by UNESCO. The *tsuzumi* consists of three parts: a wooden body, two leather heads and hemp tunes.

The origin of the Japanese traditional *tsuzumi* drum is still unknown, but it is thought to have been established during the period from the 12th to the 14th century (from Kamakura Era to Muromachi Era).

In this paper, we investigate one of the biggest Japanese hand drum collections, the 'Ikuta collection' stored in the National Museum of Japanese History, as a part of a collaborative research project "Crossover Research on Use and Application of Wood Based on Chronology".

To trace the history of this Japanese traditional musical instrument, the *tsuzumi*, we will focus on changes to the specific material used for the instrument's wooden body. It is known that trends in wood species used for musical instruments can change from era and area.

Our research goal is to understand the wood species used and the acoustic properties of Japanese traditional hand drum bodies within a chronicle of Japanese



Figure 1: Exhibition scenery of the Ikuta collection at the National Museum of Japanese History, Japan

musical instruments. Wood identification is a good way to understand material variations of small Japanese hand drums, which are all thought to be of *Prunus*, valued for its acoustic character. In this presentation, we mainly focus on scanning images of wooden bodies from the Ikuta collection to discuss techniques and materials of each musical instrument from the point of view of wood science.

Materials and Methods

The Ikuta (生田) Collection

The Ikuta collection was collected by Mr. Hiizu Ikuta and his elder son, Mr. Kohichi Ikuta, during the Meiji period and the Taisho period, and consists of ninety-one small hand drums (小鼓胴) eight large hand drums (大鼓胴), and related Noh drama archives. Among the small hand drums in the collection are various types which were made during the 15th century to the 20th century (from the Muromachi era: 1336–1573 to the Edo era:1603–1868) and are invaluable assets as lacquer arts and handicrafts. The collection is stored at the National Museum of Japanese History as serial No. H-1796.

Figure 2: Scanning images of wooden body's end section of a *tsuzumi*. Ikuta collection No. H-1796-67, National Museum of Japanese History, Japan

Wood identification



Generally speaking, *tsuzumi* have been made of sakura wood (*Prunus*) since the 7th century. However, determination of wood species by the naked eye is very difficult, especially in the case of aged wood and/or with Urushi Japanese lacquer coatings. Usually, we make a slide for optical microscopic observation by taking small samples from the target of surveys. However, we were not allowed to get samples from such musical instruments and museum artefacts.

Therefore, in this research, the wooden body of a *tsuzumi* has been investigated by using scanning images as a non-destructive inspection technique for classification by the anatomical features of the wood. Fig. 2 shows an example of scanning images of the wooden body of the *tsuzumi*.

Results

More than ninety wooden *tsuzumi* bodies in the Ikuta collection were investigated by scanning images. We found that all items had hardwood drum bodies; none included any soft wood.

We classified the hardwood according to three categories by its vessel type in cross section: rings-porous, diffuse-porous, and radial-porous (See Fig. 3).

As a result, all items of small hand drums (小鼓胴) show anatomical features of diffuse porous wood, and on the other hand, all items of large hand drums (大鼓胴) show anatomical features of ring porous wood.

We could not identify wood species in more detail in terms of their anatomical features using this method with scanned images. However, the wood material of Japanese traditional hand drums has a clear trend, that is, diffuse porous wood for small hand drums, and ring porous wood for large hand drums even in various types made from the 15th century to the 20th century.

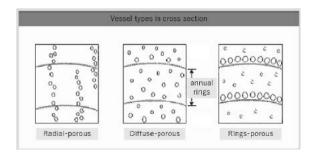


Figure 3: Diagrams of vessel types of hardwood

Discussion

In this paper, we mainly focus on scanning images of wooden bodies of Japanese hand drums for wood identification in order to discuss wood processing techniques and material selection of each musical instrument from the point of view of acoustic properties.

It is generally said that *Subgen. Cerasus* spp. *Prunus* is suitable for small hand drums, and *Zelkoba serrata* (*Thunb.*) is good for large hand drums. It has been very difficult to distinguish *Subgen. Cerasus* spp. from any other porous wood species, and difficult to distinguish *Zelkoba serrata* from any other wood species especially by using the scanned images of the end section of wooden bodies, which provides a cross-sectional view of the wood grain.

However, we could say that the wooden material of small hand drums differed from that used to make large hand drums, based not only on vessel types present in the hardwood but also the width of annual rings and specific gravity. In addition, these physical properties of each wood species are related to its acoustic properties, for example, by Young's modulus (E), density (ψ), specific elastic modulus (E/ ρ) and internal loss(η).

In our previous archives survey, other Japanese hand drum bodies were made with the following hardwoods: Kiri (*Paulownia tomentosa Steud.*), Keyaki (*Zelkoba serrata (Thunb.) Makino*), Yamazakura (Subgen. *Cerasus* spp. (*Prunus*) and soft wood: hinoki (*Chamaecyparis obtusa Endl.*), sugi (*Cryptmeria Japonica Don*). These wood species each have a different Young's modulus (E), density (ψ), specific elastic modulus (E/ρ) and internal loss(η), respectively.

Another parallel study using computed tomography for wood identification of the *tsuzumi* bodies revealed that not only Yamazakura (*Subgen. Cerasus* spp. (*Prunus*) but also Ho-no-ki (*Magnolia obovate*) were used for small Japanese hand drums.

Our research goal is to understand which wood species were used to make traditional Japanese hand drum bodies with a chronicle of traditional Japanese musical instruments. As mentioned above, the origin and introduction of the *tsuzumi* is not clear even now and various opinions exist. But it is mostly believed that the *tsuzumi* was imported from ancient China and Korea in the 6th century. And since then, the *tsuzumi* has varied and been influenced by East Asian culture to Japanese culture. It has been played in many kinds of traditional Japanese music which can be found in several archives like Shizei kogaku zu (信西古楽図) illustrated handscrolls in the Heian period (794–1185) and Wakan sansai zue (和漢三才図会), Encyclopedia in the Edo period (1603–1867).

Regarding wooden musical instruments, especially chordophones and idiophones in western music, relationships between wood selection and acoustic properties have been investigated. On the other hand, traditional Japanese membranophones were investigated with regards to the craft of Urushi lacquer and not from that of biological material science.

Further research to survey the membranophone in traditional Japanese musical instruments, specifically hand drums and their wood species and fundamental physical properties. Wood identification crucial to the understanding of material variations of musical instruments, and relates to acoustic properties, wood processing, vegetation and manufactured location. In light of this situation, this research plays a small role but is the first step for material science of the Japanese traditional hand drum.

Acknowledgements

This paper is one of the achievements of Collaborative Research projects at Rekihaku "Crossover Research on Use and Application of Wood Based on Chronology: Fundamental Research, FY2013-2015, Head of the research team: Prof. SAKAMO-TO Minoru".

This paper is also as part of:

Misao Yokoyama_and Hiroki Hayashi, "Wood mechanics on Japanese small hand drum *Tsuzumi*",

The Organological Congress 2014 –international scientific meeting for sound and musical instrument studies, 19–20 July 2014, Braga, Portugal. (Financial support by Kyoto University foundation.)

Special thanks to Professor. Kaori Hidaka, the National Museum of Japanese History, Japan for the kind support and useful advice.

References

IAWA Committee. 1989/2007. IAWA List of Microscopic Features for Hardwood Identification. Edited by E. A. Wheeler, P. Baas, P., and P. E. Gasson. *IAWA Bulletin n.s.* 10, no. 3: 219–332.

IAWA Committee. 2004. IAWA List of Microscopic Features for Softwood Identification. Edited by H. G. Richter, D. Grosser, I. Heinz, and P. E. Gasson. *IAWA Journal* 25, no. 1: 1–70.

Yokoyama, Misao, et al. Wood Identification of Japanese Small Hand Drum by X-ray CT. Presented at The Eighth World Archaeological Congress (WAC8), 2016 August 2–6 September 2, Kyoto.

Bucur, Voichita. 2010. Acoustics of Wood, 2nd ed. (Series: Wood Science). Berlin: Springer.

Masamune, Atsuo. 1927. Shinzei Early Music. Shinsei Kogakuzu. (Series: Complete Works of Japanese Classics; Vol.2) Nagasaki: Japan Classic Complete Works Publishing Association. Online: https://dl.ndl.go.jp/info:ndljp/pid/1194190 (Accessed 24 September 2022)

Ryoan (Shojun), Terashima, ed. Ming 17-21. Japanese and Chinese Sansai Zue. [n.p.]: Nakakondo. Online: https://dl.ndl.go.jp/info:ndljp/pid/898160 (Accessed 24 September 2022)

Ikuta 生田 collection, National Museum of Japanese History, Japan [webpage]: https://www.rekihaku.ac.jp/up-cgi/searchrd.pl (Accessed 24 September 2022)

Biography

Misao Yokoyama, PhD is a Researcher at Kyoto University. Yokoyama majored in wood science and cultural property science. Contact address: misao@kais.kyoto-u.ac.jp

Minoru Sakamoto, PhD is Professor at the National Museum of Japanese History, Japan. Sakamoto majored in Radiocarbon dating and Museology. Contact address: sakamoto@rekihaku.ac.jp





Abstracts

Ten years of MIMO – A critical review of a worldwide musical instrument resource for research, promotion and education

Frank P. Bär, Germanisches Nationalmuseum, Nuremberg, Germany Rodolphe Bailly, Cité de la musique – Philharmonie de Paris, Paris, France

From 2009 to 2011, the European commission has funded the creation of MIMO – Musical Instrument Museums Online – as unique access point to musical instrument collections in the European Union. Initially conceived as "dark provider" for the European cultural portal EUROPEANA, MIMO has since then become the self-standing website of the world's largest online resource on historic musical instruments in public collections. The initial number of nine collections has grown to over 200, and MIMO has expanded from Europe to Africa and, recently, Asia. The MIMO digitisation standard for musical instruments is currently the only standard for photographing historic musical instruments, and the multilingual vocabulary is used by cultural heritage institutions worldwide as a reference. Financial support from CIMCIM has helped in the past to enhance membership and to exhaust functions of the website www.mimo-international.com.

The talk presents a critical view of this success story: What has been achieved and how? What are current and future challenges? What do we know about the users? To which degree a resource about museum instruments has become a tool for studying and teaching organology?

Exhibiting Sámi Music Tradition

Verena Barth, Ringve Musikkmuseum, Trondheim, Norway

In 2017 *Ringve Musikkmuseum* took part in the 100th anniversary celebrations (Tråante) of the Sámi people's first general meeting in Trondheim with an exhibition on Sámi music (*Juoigat – a journey in sámi music*).

Dealing with the music of the indigenous Sámi people, who have populated the artic region of Europe (Norway, Sweden, Finland, and the Russian Kola peninsula) since prehistoric times, required a sensitive approach, in light of the historical conflicts and ongoing tense relations between the Sámi people and the majority population.

This project was intended to spread knowledge about Sámi music to the majority population and provide the opportunity for Sámi people to connect with their cultural heritage and identity.

This paper will shed light on the choices taken to produce the exhibition, *Juoigat – a journey in Sámi music*. The exhibition was intended to be a platform to gain knowledge in a traditional-cognitive way as much as through experiences (e.g., vocal). Sámi people participated and actively contributed to the content of the exhibition.

Sámi music is historically a vocal music tradition and therefore *Juoigat – a journey in Sámi music* was from the beginning not primarily focused on objects but on experiences and engaging the visitors in music making.

The Role of Education in the Development of Musical Culture in Azerbaijan, and Music Museum's Contribution to Education

Alla Bayramova, State Museum of Musical Culture of Azerbaijan, Baku, Azerbaijan

Until the 20th century, Azerbaijani music was featured only with oral folk music tradition. The first music classes appeared in the beginning of the 20th century organized by Russian woman musician Yermolayeva. Music was included into the curriculum of the first school for Muslim girls established by the oil millionaire-philanthropist Zeynalabdin Taghiyev. Conservatoire was established in Baku in 1921. Professors from Russia were invited to teach there, including cellist Leopold Rostropovich, father of the worldwide famous Mstislav Rostropovich who was born in Baku. A lot of music schools and colleges without any tuition fee were opened during the next decades. In the end of 1930s, a group of Azerbaijani students was sent to Moscow to continue their education there, in one of the best conservatories of the world. Two of them - Gara Garayev and Jovdet Hajiyev - became students of Dmitry Shostakovich. All this brought Azerbaijani professional music to a high level within less than a century. Historical documents that witness history of music education, growth of professionalism, and achievements of Azerbaijani pianists, violinists, singers, composers, folk musicians, etc., occupy special niche in the collections of the State Museum of Musical Culture of Azerbaijan. The Museum organizes a lot of activities for school children and students of different profiles to enrich their music awareness and to diversify their leisure time.

Since 2005 the State Museum of Musical Culture of Azerbaijan has published unknown works of the most prominent Azerbaijani composers, whose manuscripts had been revealed among the vast Museum collections, different archives out of the Museum (in Baku, Moscow, and Saint-Petersburg), edited by us, and first performed in the Museum. The publication of the four collections of these works became an educational material for the young and mature musicians who have willingly included them into their repertoire.

Education through Engagement: Sounding the world at the Horniman Museum

Margaret Birley, Horniman Museum, London, UK

In 1901, Fredrick Horniman dedicated his collection housed in his purpose-built museum as a gift to the people of London 'for their recreation, instruction and enjoyment'. Enrichment through learning is still central to the organisation's vision. While the permanent collection of over 9,500 musical instruments is developed and interpreted by curators in the Museum's Musical Instrument department, formal and informal education for schools, families, and communities, is delivered by the Horniman's Learning department. At the core of that department's musical instrument related learning programmes is the Horniman's handling collection of over 330 instruments from all corners of the globe, reflecting the international nature of the permanent collection. The visitors' interaction with the handling instruments and facilitators promotes the delivery of what is essentially experiential and affective learning (Greenhill 2007, pp.36 and 41). As indicated in the Call for Papers, it is 'the social potential of music to create emotional bonds' that is key to the Horniman's informal learning sessions for communities and families, where handling objects are considered to 'provide opportunities for group members to have fun, get to know each other better, to reminiscence...' as well as allowing users to experiment with the instruments' sounds [https://www. horniman.ac.uk/learn/book-a-session (accessed 18 January 2019)].

140 Abstracts

As part of the Horniman's ongoing three-year Music in the Making programme, the Horniman will be working with musicians from South London communities specialising in grime music and related genres such as Afrobeat and garage, for the purpose of bringing new meaning to our objects. The musicians will also be using the sounds of the instruments in the collection as inspiration for their own music. This process will draw on aspects of reflexive learning, that are manifest in behaviours 'when learners think about, think on and engage with their ... worlds in new ways' (Afolayan 2016). Here the learners will be both the musicians and listeners including Horniman staff, who will all be experiencing the sounds of musical instruments outside their usual modes of production and contexts.

This paper will explore the different programmes and modes of engagement for learning about musical instruments that have been devised for this very diverse collection by both the Learning and the Curatorial departments of the Horniman Museum. It will also discuss users' responses to them, as assessed through evaluation processes.

Afolayan, Gbenga Emmanuel. 'Reflexive Learning'. In Steven L. Danver, ed., *The Sage Encyclopedia of Online Learning* (Thousand Oaks, 2016).

Greenhill, Eilean Hooper. *Museums and Education: Purpose, Pedagogy, Performance* (Abingdon, 2007). DOI:10.4135/9781483318332:n303

Material or Immaterial? A questionnaire to help decisions about the playing of musical instruments

Vera de Bruyn-Ouboter, Ringve Music Museum, Trondheim, Norway

To bring forth knowledge about musical instruments to future generations, there are two major aspects important to focus on: the instruments material values and its immaterial values. Both have to be preserved to guarantee no loss in the long term. The preservation is the basis for all information to be taught in future and for all education around the musical instrument. To preserve both the material and the immaterial aspects of an instrument is in most cases contradictory and presents a dilemma.

The questionnaire is intended to help assess the risk of losing material when the instrument is played over against the loss of immaterial aspects when the instrument is not played. It is a tool for assessing whether individual musical instruments belonging to the museum's collection may be played – for the reason in educating and keeping the knowledge of its sound alive.

Loss of the material means the damage and alteration of material parts that are often caused by the mechanical stress and forces incurred through long-term playing. The result is a bad condition as deformation and cracks as well as change of the sound producing technology.

Loss of the immaterial includes the loss of the sound of the instrument as passed down through the generations. This sound vanishes and is no longer available in the hearing of today or in the memories of yesterday. The immaterial value also is the playing function, the historical context, the sensory experience for a musician, experience for living traditions of instrument makers and the listening experience for the listener.

Several aspects should be taken into consideration when making decisions about playing. These aspects form the basis of the questionnaire in form of points. The resulting outcome of the sum of points is intended to help the decision of whether to play or not to play. At the same time the completion of the questionnaire should raise awareness of the various aspects involved in the dilemma. The process of answering the questions lead to good communication in the team.

Abstracts 141

The questionnaire is a step towards the opening up of the restorers and the educator's approach, to focus on preserving both the material and the immaterial values of a musical instrument.

Living Musical History: A struggle for survival. An overview on small musical instrument museums in the Netherlands

Jurn Buisman, Geelvinck Music Museums, Amsterdam - Zutphen, Netherlands

In the Netherlands exist only a handful of – usually small – museums dedicated to historic musical instruments. It mainly concerns working collections and related to these are craftsmen. In the past months, our museum conducted research on how these museums have survived up till today and what their challenges are for the near future.

In my paper, I'll give special attention to these museums as hubs for living musical heritage, i.e., their inherent intangible heritage. In this it is of utmost importance that both performing on the instruments and sharing technical knowhow and experience – craftsmanship – with apprentices is part of the museum's educational program.

The research was conducted with the intention to map-out the possibilities for developing a platform for cooperation between the musical instrument museums in the Netherlands. My talk will give an insight in the results of this research. The research was materialised with the financial support of the Mondriaan Fonds (state fund for the support of museums and visual arts).

Interpreting the Music of the Shu Kingdoms in Two Chengdu Museums

Stewart Carter, Wake Forest University, Winston-Salem, North Carolina, USA

When China's Tang Dynasty collapsed in 907 CE, the era known as "Five Dynasties and Ten Kingdoms" ensued. One of the ten kingdoms was Shu, with its capital in Chengdu. Historians generally identify two brief periods of relative stability in China's southwest during these turbulent times, "Former Shu" (907–925) and "Later Shu" (934–965). Two museums in Chengdu bear witness to court musical practices during these two reigns.

The Yongling Mausoleum, excavated in 1942, is the burial site of Wang Jian, the first "emperor" of the Former Shu. Around the base of Wang's tomb are stone carvings of twenty-four musicians and dancers. Among the musical instruments depicted are *pipa*, *paiban*, *paixiao*, *shenq*, and several drums.

Less well-known are fourteen terracotta statues of musicians and dancers in the new Chengdu Museum. This museum houses many artifacts recently unearthed in the Longquanyi suburban district east of Chengdu, from the tomb of Zhao Tingyin, an important general in the service of the Later Shu. Apparently, all of the figures originally held musical instruments, but approximately half of these objects are now missing. Still in place, however, are examples of *sheng*, *pipa*, *fangxiang*, *bili*, and a few drums.

My paper compares the art works in these two museums with Buddhist images of musicians and dancers of the Tang Dynasty, particularly those in the Mogao Grottoes near Dunhuang. It argues that the two Shu kingdoms, like other Chinese polities of this era, looked back to the Tang for models of musical culture as well as political and military practices. Finally, it demonstrates the role of these two museums in interpreting musical traditions in their region, as well as the relationship of those traditions to the broader history of music in China.

Music Socials: Creating meaningful experiences for people with dementia

Sarah Deters, St Cecilia's Hall, Edinburgh, Scotland

As a university museum, St Cecilia's Hall, the home of the University of Edinburgh's musical instrument collection, provides educational opportunities to children, university students, and adults. Recently the University launched 'Edinburgh Local', an initiative that challenges the University to make positive contributions to the city and to become active in the local community. This programme has been a catalyst for exploring new ways in which St Cecilia's Hall works with our communities through the creation of educational opportunities that create meaningful experiences for learners of all ages.

One way St Cecilia's Hall has reached out to the community is through our Music Socials programme. The project, a monthly learning event for people with dementia and their carers, demonstrates how museums can provide services beyond the traditional "education" programme and become social spaces for marginalized individuals. This paper will explore the ethos behind the Music Socials programme and will explain how the programme was originated, organized, and executed. The paper will conclude with a discussion of the benefits of the programme, not only for those affected by dementia but also for the staff of St Cecilia's Hall.

Sound as a Catalyst for a New Breed of Exhibition

Jascha Dormann, Idee und Klang Audio Design, Basel, Switzerland

Sound – be it music or sound design or everything in between – is the most direct gateway to our emotions. However, the immediate impact sound has on us, manifests itself in a completely subversive way. This makes sound the ideal design medium for exhibitions that are both highly intuitive and sensual. Fully harnessing the perks of sound sometimes calls for bold concepts. The newly opened, *Sounds of Silence* exhibition at Museum of Communication in Bern (Switzerland) serves as a good example: This exhibition about the topic of silence builds entirely upon sound both in terms of dramaturgy and design. Written text is completely done without, and also exhibits, photographs, and videos are but sporadically represented. Abstract spatial graphics merely function as a guideline and starting point for associations.

Nonetheless, the exhibition provides a broad variety of knowledge, which can be accessed by visitors in a playful, explorative way. By means of the so-called Binaural Sound Technology together with interactive programming, a three-dimensional soundscape in the room is being built. A tracking system is evaluating the positioning and head rotation of all visitors. With the aid of this data, the listening perspective of each visitor, in relation to the soundscape surrounding him, can continuously be calculated, enabling some individual interaction and immersion therein. Accompanied by an invisible voice that is daring for a start, thereupon encouraging and sometimes even provoking, the visitor is sent on a journey whose exact route he may determine himself.

For some content, sound is even the only possible means of communication. The 'First World War Galleries' in the Imperial War Museum in London for instance convey the horrors of the war via an elaborate multichannel soundscape in ways that words simply couldn't. Sound can be the key player in a new breed of exhibition, offering a fresh, intuitive approach on education.

Abstracts 143

Musical Instruments as Educators

Manu Frederickx, The Metropolitan Museum of Art, New York, USA

As museums and collections of musical instruments are confronted with the dilemma of playing or not playing, an often-suggested alternative is the making of replicas to recreate the sound and playability of historic instruments.

The benefit of this approach lays in the fact that the integrity of the original object is being preserved while at the same time enabling to appreciate the sound and playability of the instrument as it would have been when it was originally made.

But how can we extract the knowledge that is inherently stored within these historic objects? How do we establish a holistic approach in collaboration between instrument makers, museum curators and conservators, scientists, musicologists, and musicians? How can we train young people to be able to interpret the complexity of a historic instrument?

In recent years students and researchers of the Musical Instrument Making Department of the School of Arts of the University College Ghent, Belgium have created a number of projects focusing on the study and reconstruction of historic musical instruments in various museum collections. Using the principles of reverse engineering and experimental archaeology they aim to understand and recreate the methods and techniques used by instrument makers of the past.

Some of the most notable projects are the 'Investigation of Methods and Construction in the North Alpine Tradition of Violin Building', 'A study of the life, instruments and working methods of the 18th century violin maker Benoit Joseph Boussu', 'The Reconstruction of the 1640 Ioannes Ruckers Virginal in the Rijksmuseum Amsterdam', and 'The Reconstruction of the original state of the 1720 Cristofori piano in the Metropolitan Museum in New York'.

This paper will explore the challenges and benefits of creating replicas of historic musical instruments in an educational setting and the interaction between makers and museum professionals.

Piano Rolls as Sources for Interpretation Research

Heike Fricke, Musikinstrumentenmuseum der Universität Leipzig, Leipzig, Germany

The Musical Instruments Museum of the Leipzig University possesses more than 3,200 piano rolls, and about sixty-five mechanical instruments like orchestrion, serinette, organette or flute clocks, which are featured with spiked cylinders and punched discs or cards. Our collection contains, for example, piano rolls by Eugen d'Albert, Wilhelm Backhaus, Ferruccio Busoni, Alfred Cortot, Edwin Fischer, Walter Gieseking, Edvard Grieg, Felix Mottl, Arthur Nikisch, Max Reger, Carl Reinecke, Arthur Rubinstein, Camille Saint-Saëns, Arthur Schnabel, or Richard Strauss, which are of importance for interpretation analysis far beyond piano music.

In a university as well as in a museum context, we are facing an increasing number of research questions aroused by this unique repertory: How authentic are these recordings? What do we know about the recording and editing processes? Did the pianists have any influence on the repertoire and the editing of their recordings?

The intangible element of the historic interpretation, the performance itself, is – for the first time in history – repeatable and encoded on the piano roll. For research purposes piano rolls do not only offer an audible but also a visual representation of a performance. This enables new perspectives for interpretation analysis, which a case study should illustrate. The pianist Alfred Reisenauer (1863–1907), himself a pupil

of Franz Liszt, was professor for piano and director of the Conservatory Felix Mendelssohn Bartholdy in Leipzig. His "recording" of Liszt Hungarian Rhapsody No. 12 (Leipzig, 1905) is the subject of a closer investigation, which offers insights into performance praxis in general and the execution of musical elements like embellishments in particular. As Reisenauer studied this composition with Liszt himself, we will also get an idea how Liszt intended to have free or improvised passages. Finally, the paper discusses how this research could benefit students, musicians, musicologists, and broader audiences.

Academic Education in Museums

- The Leipzig Collection as a hub for organology

Sebastian Kirsch, Museum for Musical Instruments at the University of Leipzig, Germany

The University of Leipzig hosts one of the few research collections, which are bound directly to the education of students in music and musicology. The director of the museum is tenured professor for organology and many research fellows teach at the University of Leipzig and at the University of Music. This structure gives the chance for the development of new formats of the transfer of knowledge. However, how can the objects be a base for academic education and what can a collection teach?

In order to provide direct access to the objects, students learn the basic skills of object handling. The seminar teaches not only about the physical contact with the instruments according to museum standards, but also the research and data processing tools.

Organological documentation methods and the historical context of musical instrument collections are imparted based on the vivid history of the collection. From the first small overview of Paul de Wit's collection in 1892, the catalogues by Georg Kinsky (1910–1913), the documentation during the GDR, new tools like MIMO and the recently developed MusiXplora show the change of standards and media in different periods and political systems.

Acoustics, material and materiality, the social life of objects and ideas about a new organology are topics of seminars and public discussions. The direct implementation of new methods and the interaction with the objects in teaching is a good touchstone for the scope of approaches and help to develop a methodology in a very effective way. For further progression, the academic structure offers interdisciplinary exchange with other humanities, library science or informatics.

The talk will discuss how the chances and challenges in research and transfer stresses organology as an academic or museum discipline and how a university collection can be a hub for new ideas and critique on recent developments in our field.

Education at the Bate Collection, University of Oxford: Past, present, and future

Alice Little, University of Oxford, UK

By September 2019, the Bate Collection of Musical Instruments will be half-way through the Anthony Baines Archive Project, which focuses on the documentation left by the Collection's first Curator/Lecturer, who was at the Bate from 1970–1982. Since Philip Bate's gift of his musical instrument collection to the University of Oxford in 1968, the museum has not only conserved these items and used them for study but has also encouraged students and others to take instruments out of the cases and to play them.

Thanks to Philip Bate's gift, and subsequent donations by Anthony and Patricia Baines, among others, the Bate is Britain's most comprehensive collection of European woodwind, brass, and percussion instruments, and one of the top five collections in the country of harpsichords and clavichords. From the start, education has been a high priority, as was made clear by Baines' appointment as Curator/Lecturer, and not simply Curator. Since its inception, then, the Bate has been a playing collection, where undergraduates, researchers, and casual visitors are encouraged to play (or try to play) instruments in the gallery. Today, in addition to the use of instruments by students and researchers, a dedicated Education Officer manages school visits and outreach activities, including hands-on experience of the collection.

Beyond interactive displays and audio guides, recent projects have included creating code for 3D printing a serpent online and the creation of a new iPhone app that allows visitors to 'play' at home many of the instruments on display in the gallery. Such innovations have allowed the Bate to reach new audiences beyond the museum and beyond Oxford.

In this paper I will detail what the Anthony Baines Archive reveals about the original educational remit of the Bate, how instruments in the Collection are used by students today, and our plans for the future.

Russian National Museum of Music and the Russian Educational System. Interaction experience

Daria Melnichenko, Russian National Museum of Music, Moscow, Russia

Currently, the problem of integrating the museum into the educational system is extremely relevant. There is a need to expand the scope of museum programs in order to find new points of contact with educational institutions and to adapt them for modern students, to interest and attract the attention of a new audience.

The Russian National Museum of Music has a long practice of preparing museum tours that complement the main school curriculum. Many museum programs are developed as an elective to the main school course in various subjects: history, geography, literature, the Russian language, etc. An important project should be the development by the museum experts of a methodical manual of museum programs for music lessons, which are held in Russian schools. This will open a new stage of interaction of the Museum of music with schools.

A separate segment is work with musical educational institutions for which the museum is ready to offer special programs. Thematic tours of the museum acquaint future musicians with various groups of musical instruments, the structure of a symphony orchestra and creative biography famous Russian composers. Finally, another side of the museum's educational work is public lectures for a wide audience. Holding special events with the involvement of leading musicians and musicologists allows the Museum to show a qualitatively new level of its work. The complex of educational activities of the Russian national museum of music is designed for a wide audience and causes the continued interest of visitors of different ages and interests.

Georges Ouedraogo Music Museum: Showcase of the aspirations of a people

Moctar Sanfo, Musée de la Musique de Georges Ouedraogo, Ouagadougou, Burkina Faso

Face to threats of loss of cultural values, the survival of the rhythms and sacred instruments are more than ever compromised in Burkina Faso. Indeed, if the custom or rites to which musical instruments are solicited disappear, they are doomed to disappear. Their fates are intertwined. Similarly, those entitled to handle no longer, if the same, i.e., the disappearance of the musical instrument.

More and more, under the influence of modernism, young people no longer control the rules that govern the functioning of customs while the use of traditional instruments sometimes requires an execution without the slightest mistake at the risk of being cantilevered with the gods. For this reason, they prefer to refrain from their practice to avoid any inconvenience. And so, an important part of the cultural heritage is threatened.

And yet these musical instruments deserve to be backed up in order to allow the men of tomorrow to know and to have a choice. This backup could be done through multiple methods that are both traditional and modern.

It is from this problem that Burkina Faso has realized issues of protection and valorisation of the collections of musical instruments. Awareness manifested by the creation of the Museum of the music Georges Ouedraogo. This museum represents a quintessential of conservation of the collections of musical instruments and of valuation of important iconographic and audio-visual archive. Apart from this formal framework, other initiatives important exist and actively participate in the preservation of collections of musical instruments.

The educational program: the Museum of music since its creation has stimulated educational programs in the place of its visitors while doing the awakening of the young school her mantra. Work of enculturation, museum education developed by the Music Museum is based on pedagogy, development, and learning of new knowledge to the young school. Indeed, entertainment with the school programs are organised including 'the Museum of music, my old school', 'the Museum go to school', 'the Museum, my old school'.

These activities were mainly focused on guided tours and sessions of Museum animations on the resources of the Museum including the collections of musical instruments. They have allowed the Museum to reach a significant audience.

Also, the Museum has digital equipment including interactive digital whiteboards exclusively for school activities. With the Sankoré [Sankoré Project, supporting education in Africa through digital empowerment via innovative technologies], adapted programs are previously designed to allow a better understanding of musical instruments and ritual events for which they are used by the communities. This form of mediation allows a greater ownership of the collections by the public as well as better transmission of the values that are associated with offspring.

The Music Museum, through its collections of musical instruments, supplies somehow today the transmission of knowledge and the intangible values that convey music instruments.

Joint Educational Programs with Other Organisations for Children through Music and Musical Instruments

Kauzhiko Shima, Hamamatsu Museum of Musical Instruments, Hamamatsu, Japan

Our museum has been providing many kinds of joint programs for children to learn and enjoy musical cultures in the world. We consider musical instruments as treasure boxes which have lots of charming and mysterious points. They can make sounds, play music. They have interesting structure and mechanism. They have various kinds of plant and animal parts in their body. They have so artistic forms and decorations. They have deep, long history of symbolism. And much more. This fact means that all people, whether they like music or not, can have a chance to approach

musical instruments from different standpoint to find out and understand the culture of human beings.

Our museum has tried to make good programs for children to become familiar with musical instruments for the last ten years. We would like to present at this time four examples of joint programs with other organisations outside the museum: 1. Javanese Gamelan Playing, 2. Javanese Shadow Puppet Making, 3. Javanese Traditional Dancing, and 4. Woollen Felt Picture Making. The organisations with which the museum joins include the Private Junior High School, Shizuoka City Museum of Fine Arts, and Cultural Department of Shizuoka Prefecture.

About woollen felt picture making, we collaborate with Shizuoka City Museum of Fine Arts. With the educational curator's help and teaching, children make woollen felt pictures of an instrument which they choose from many instruments in the museum from around the world. The picture is so warm and cute for displaying in their home. And the children often choose various Asian instruments, rather than European ones. This is one example – of cultural understanding via education for children through musical instruments – that the musical instrument museum can provide.

I would like to introduce the details of these four joint educational programs at the Hamamatsu Museum of Musical Instruments.

"Ongoma ohayi hokelwa pondjila": Making the Museum of Namibian Music

Jeremy Silvester, Museums Association of Namibia

Ongoma ohayi hokelwa pondjila is a proverb in Oshiwambo which can be translated to mean 'The drum is carved next to the path'. The implication is that when something is created in an open and visible space it encourages the community to comment and be involved in the creative process.

The Museums Association of Namibia (M.A.N) is facilitating the development of the 'Museum of Namibian Music' in Omuthiya. The project has raised a number of conceptual issues about the role of a music museum in Africa and the definition of 'Namibian' music and the ways in which the museum might be an inspirational, interactive medium for music education. The paper will explore the challenges and opportunities that have arisen in developing the museum and our efforts to involve various stakeholders in the definition and development of the museum.

We are striving to make the 'process' of museum-making inclusive and have identified eight themes that will be pursued. One of the most important is the role of music in the Namibian liberation struggle where music and lyrics were composed in SWAPO's camps in Angola, Zambia, and Tanzania. The second stream that has been given priority is the documentation of performances using 'traditional' musical instruments and this has been linked to discussions about the ways in which these instruments and the sounds they produce might be 'safeguarded'.

M.A.N. believes that it is important to link historical collections with contemporary musicians, as transcending time and space can inspire new Namibian compositions infused with content rooted in local rhythms. Our drum must be carved in the open if we want people to dance when it is beaten.

The V&A's Musical Instruments Collection: New challenges in a multi-sensory museum

Eric de Visscher, V&A Research Institute (Vari). The Victoria and Albert Museum, London, UK

The Victoria and Albert Museum, as the world's leading museum of art, design, and performance, has a long-standing involvement with music, being among the first European museums to collect and exhibit musical instruments. Its initiators, Prince Albert and Henry Cole, were passionate music-lovers; after World War II, Benjamin Britten, Kathleen Ferrier, and many other outstanding performers were regularly hosted in the Raphael Cartoons Gallery, whereas then young musicians such as Sir John Eliot Gardiner held their first concerts at the V&A. When "early" music was being re-discovered in the 1960s, the museum became a temporary platform where performers, instrument makers, scholars and broadcasters could meet: concerts were then held on the museum's instruments, for which a new gallery opened in 1968. Its closure in 2010 sparked strong reactions within the music community – including CIMCIM! – but led to a growing number of music-related events, in a larger variety of musical genres. Most notably, ground-breaking music exhibitions have become international trademarks of the V&A, culminating in spectacular shows such as *David Bowie is...* or *Opera: Passion, Power, Politics*.

The V&A's expansion in East London, which will see the creation of a new museum and a new Collections and Research Centre in 2023, represents an opportunity to rethink museum collections and objects, considering their history and other temporal aspects, their multisensory dimension, and the need for a more embodied relation to visitors. In this context, which includes research and education, sound will definitely play a more significant role, and sonic objects, such as musical instruments, should thereby receive greater attention.

This lecture will briefly look at the history of the musical instrument collection and expose some of the strategies that are being experimented within VARI, the V&A's Research Institute, to enhance the place of sound and sonic objects in the museum.

The Significance of Traditional Japanese Music Education at a Musical Instruments Museum

Mayumi Wakiya, Museum of musical instruments, Musashino Academia Musicae, Tokyo, Japan

Today, it is extremely important for us who live in a more international community, not only to understand music but also to understand and have affection for our cultures. It also leads to understanding the diversity of other cultures and having respect for other countries. However, in Japanese schools since the middle of the 19th century the focus has been on teaching European music. It is in recent years, that the importance of traditional Japanese music has increased in school musical education. In 1998, The Course of Study was modified to require learning about traditional Japanese music in depth. In the new course of study at Junior high schools they focus on "clarification of teaching how to play traditional Japanese musical instruments".

In such situations, what kind of significance can be found in museum education that is different from school education and music players?

In school education they usually learn the basic knowledge of traditional Japanese music in textbooks and listen to performances on DVD. In some cases, they can have a chance to listen to Japanese music and an experience of how to play the instruments with the cooperation of the players.

On the other hand, the most important characteristic of a museum is the diversity of the collections. I think there are two kinds of education possible from the museums. One is cross-sectional, in other words, a broader perspective including the propagation and transformation of traditional Japanese musical instruments. Another field that schools teach is only famous kinds of music based on The Course of Study. However, museums can deal a wider and more detailed perspective of each.

I am sure that these are suitable education for museums where there are no limit of the course of study and the number of class hours.

Traditional Japanese Hand Drums "Tsuzumi" collection stored in the National Museum of Japanese History: Wood identification of tsuzumi bodies

Misao Yokoyama, Kyoto University Museum, Kyoto University, Kyoto, Japan Minoru Sakamoto, The National Museum of Japanese History, Sakura City, Japan

Our research aim is to understand wood species of Japanese traditional hand drum bodies with a chronicle of Japanese small hand drums. Wood identification is a good way to understand a material variations of Japanese small hand drums, which is thought all Prunus, and value their acoustic characters.

In this presentation, we mainly focus on scanning images of wooden bodies of Ikuta Collection, one of the biggest Japanese hand drum's collection, which is stored in the National Museum of Japanese History, to discuss techniques and material of each musical instruments from the point of view of wood science.

Programme

Sept	September 2, 2019			
Sound	d Spaces			
Chair: Gabriele Rossi Rognoni				
Locat	Location: Inamori Memorial Hall, room 205 – metro station: Kitayama			
14:30	Introduction and shamisen musical welcome			
	Gabriele Rossi Rognoni, Royal College of Music: UK			
	MINEKO HAYASHI, Shamisen			
14:45	New challenges in a multi-sensory museum			
	Eric De Visscher, V&A Research Institute (VARI): UK			
15:00	"Ongoma ohayi hokelwa pondjila": Making the Museum of Namibian Music			
	Jeremy Silvester, Museums Association of Namibia			
15:15	"Walk-in Orchestra", listening to classical music			
	Patricia Liao, Chimei Museum: China			
	Jojo Wang, Chimei Museum: China			
15:30	"The Play(ing)'s the Thing"; The Picking Parlor and undirected education at the			
	Bluegrass Hall of Fame and Museum			
	Matthew W. Hill, Bluegrass Hall of Fame and Museum: USA			
	"Art in Tune": When musical instruments take over a museum of fine art			
	Robert Giglio, Museum of Fine Arts, Boston: USA			
	Sound as a catalyst for a new breed of exhibition			
	Jascha Dormann, Idee und Klang Audio Design: Switzerland			
15:50	Q&A Discussion (All Session 1 Presenters)			
16:00	Break			
Highe	r Education and Professional Training			
	: Kazuhiko Shima			
Locat	ion: Inamori Memorial Hall, room 205 – metro station: Kitayama			
16:30	Academic education in museums: The Leipzig University Collection as a hub for			
	organology			
-	Sebastian Kirsch, Musical Instrument Museum University of Leipzig: Germany			
16:50	Archiving traditional African music and dance by integrating culture bearers to teach at			
	teachers' colleges			
	Wonder Maguraushe, Midlands State University: Zimbabwe			
17:00	Education at the Bate Collection, University of Oxford: Past, present, and future Alice Little, University of Oxford: UK			
17:10	Musical instruments as educators			
	Manu Frederickx, Metropolitan Museum of Art: USA			
17:30	Hands-on experience: Museum internships as educational resources			
	Jonathan Santa Maria Bouquet, University of Edinburgh: UK			
17:50	Material or immaterial? A questionnaire to help decisions about the playing of musical			
	instruments			
	Vera De Bruyn-Ouboter, Ringve Music Museum: Norway			
	The role of education in the development of musical culture in Azerbaijan and the			
	Music Museum's contribution to education			
	Alla Bayramova, State Museum of Musical Culture of Azerbaijan: Azerbaijan			

September 3, 2019			
13:30	General Assembly and Elections		
	nt Traditions		
	: Patrice Verrier		
	ion: Kyoto International Conference Center, room 501		
15:00	Interpreting the music of the Shu Kingdoms in two Chengdu museums		
45.00	Stewart Carter, Wake Forest University: USA		
15:20	On the practice of music of reminiscence in the Song Dynasty		
45:40	Sun Xiaohui, Wuhan Conservatory of Music: China		
15:40	Reconstructing the Silver Lyre of Ur: the museological and educational approach Patrick Huang, SOAS University of London: UK		
15:50	Abd al-Qadir al-Maraghi, "Steel Plates": Intercultural way of creating music		
	Seifollah Shokri, International Council of Museums: Iran		
	Niloofar Nedaei, International Council of Museums: Iran		
	Case study: Museum music educational program branding – 'Ritual and Music		
	Classroom Program' of Hubei Provincial Museum		
	Zhang Xiang, Hubei Provincial Museum: China		
16:00	Break		
	ng and Sustaining museums and communities		
	: Giovanni Paolo Di Stefano		
	ion: Kyoto International Conference Center, room 501		
16:30	Learning from musical instruments as manifestations of production and consumption		
	Panagiotis Poulopoulos, Deutsches Museum: Germany Hayato Sugimoto, Kwansei Gakuin University: Japan		
16:50	Museum of music in Ouagadougou: Showcase of the aspirations of a people		
10.50	Moctar Sanfo, Musée de la Musique Georges Ouedraogo: Burkina Faso		
 17:10	Living musical history: A struggle for survival. An overview on small musical		
17.10	instruments museums in the Netherlands		
	Jurn Buisman, Geelvinck Music Museums: Netherlands		
	21st-century curators as transformative professionals: Music museums, public		
	pedagogy and social responsibility		
	Heidi Westerlund, Sibelius Academy: Finland		
	Christina Linsenmeyer, Yale University: USA		
	Education through engagement: Sounding the world at the Horniman Museum		
	Margaret Birley, Horniman Museum: UK		
17:30	Music Socials: Creating meaningful experiences for people with dementia Sarah Deters, University of Edinburgh: UK		
17:45	Exhibiting Sámi musical traditions		
17.45	Verena Barth, Ringve Musikkmuseum: Norway		
	Torona Baran, rangro masilalinassani. Norma,		
Conf	tombor 4, 2010		
	ember 4, 2019		
AM	Visit to Tobaya String Making Factory (space limited to 30 persons)		
	IM Joint session with CIDOC		
	ion: Kyoto International Conference Center, room H		
13:30	Music in the museum		
	Trilce Navarrete, Erasmus University of Rotterdam: Netherlands		
	Goran Zlodi, University of Zagreb: Croatia		
14:00	Ten years of MIMO – A critical review of a worldwide musical instrument resource for		
	research, promotion and education		
	Frank P. Bär, Germanisches Nationalmuseum, Nuremberg: Germany		
14.20	Rodolphe Bailly, Cité de la Musique – Philharmonie de Paris: France		
14:30	The musical collections of the Rijksmuseum in Amsterdam Maarten Heerlien, The Rijksmuseum: Netherlands		
	Maarten Heerlien, The Rijksmuseum: Netherlands Giovanni Paolo Di Stefano, The Rijksmuseum: Netherlands		
15:00	Carnival Calnali Hidalgo: An approach to cultural heritage through traditional music		
10.00	Ana Karina Puebla, National Institute of Anthropology and History: Mexico		
15:30	Piano rolls as sources for interpretation research		
10.00	Heike Fricke, Musikinstrumentenmuseum der Universität Leipzig: Germany		
	175.00 175.00, Madmindramonical made of one of the original control of the original original of the original		

152 Programme

16:00 **Break**

September 4, 2019

School systems and educational programs

Chair: Jennifer Schnitker

Location: Kyoto International Conference Center, room 509b

16:30	Joint educational programs with other organizations for children through music and musical instruments
	Kazuhiko Shima, Hamamatsu Museum of Musical Instruments: Japan
16:50	Musicking the museum: Participatory museum learning
	Katherine Palmer, DMA, Musical Instrument Museum: USA
	The significance of traditional Japanese music education at a musical instruments museum
	Mayumi Wakiya, Museum of Musical Instruments, Musashino Academia Musicae: Japan
	Russian National Museum of Music and the Russian educational system: Interaction

experience

Daria Melnichenko, Russian National Museum of Music: Russia

Education and Exhibitons

Chair: Christina Linsenmeyer

Location: Kyoto International Conference Center, room 509b

	• • • • • • • • • • • • • • • • • • • •
17:10	The Pierre Henry Studio: New educational space at the Musée de la Musique Marie-Pauline Martin, Cité de la Musique – Philharmonie de Paris: France Jean-Philippe Échard, Cité de la Musique – Philharmonie de Paris: France
17:30	Shohé Tanaka's organ for the Royal Academy of Music Berlin in 1893 Conny Sibylla Restle, Musikinstrumenten-Museum: Germany
17:50	Multi-approaches for hearable reinterpretation of museum musical collections for educational purposes Yang Jin, Shaanxi Normal University: China Music museums and education: The variety of educational method and subject through
	music museums in Iran Tayeebeh Golnaz Golsabahi, Cultural Institute of Bonyad Museums: Iran
18:00	Closing Remarks Gabriele Rossi Rognoni, Royal College of Music: UK

Distributed Poster

Traditional Japanese hand drums "Tsuzumi" collection stored in the National Museum of Japanese History: Wood identification of tsuzumi bodies

Misao Yokoyama, Kyoto University Museum: Japan

Minoru Sakamoto, National Museum of Japanese History: Japan

September 5, 2019

ICME & CIMCIM Joint off-site meeting Location: National Museum Of Ethnology

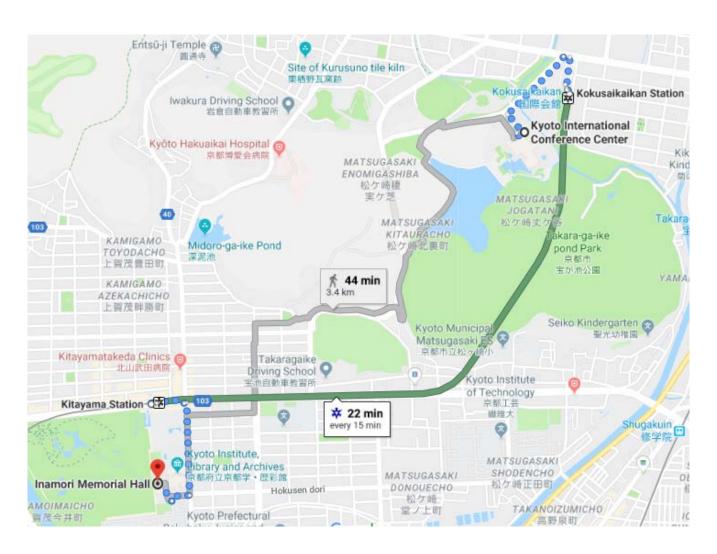
8:45–9:00	Meet for No. 14 Bus (Hachijo Gate of Kyoto Station)
9:00-10:00	Journey to Minpaku from Kyoto
10:00–13:00	Guided gallery tours
13:00–14:20	Lunch
14:20–14:30	Bus transfer to Hotel Hankyu Expo Park
14:30–14:40	Introduction
14:40–15:10	ICME Keynote
	Kenji Yoshida, Director-General: National Museum of Ethnology
15:10-15:40	CIMCIM Keynote
	Kazuhiko Shima, Former Director: Hamamatsu Museum of Musical Instruments
15:40-16:10	Q&A
16:10–16:40	Break
16:40–17:40	Discussion
	Viv Golding, ICME President
	Gabriele Rossi Rognoni, CIMCIM President
	Kenji Yoshida, Director-General: National Museum of Ethnology
	Kazuhiko Shima, Former Director: Hamamatsu Museum of Musical Instruments
17:40–17:50	Bus Transfer to Kyoto for CIMCIM Participants

153 Programme

September 6, 2019				
Excursion to hamamatsu (space limited)				
7:50–9:05	Travel from Kyoto to Hamamatsu via Shinkansen Train			
9:20-11:00	Visit Hamamatsu Museum of Musical Instruments			
11:00–11:30	Lunch			
11:30–13:00	Bus transfer and visit Yamaha Museum			
13:00–15:00	Bus transfer and visit Yamaha Wind Instruments Factory			
15:00–16:30	Bus transfer and visit Kawai Piano Factory			
16:30–17:15	Return to Hamamatsu Museum			
17:20–18:30	Concert – Early Shakuhachi and So			
18:30	Free (dinner and return to Kyoto as desired – last train leaves at approximately 22:00)			

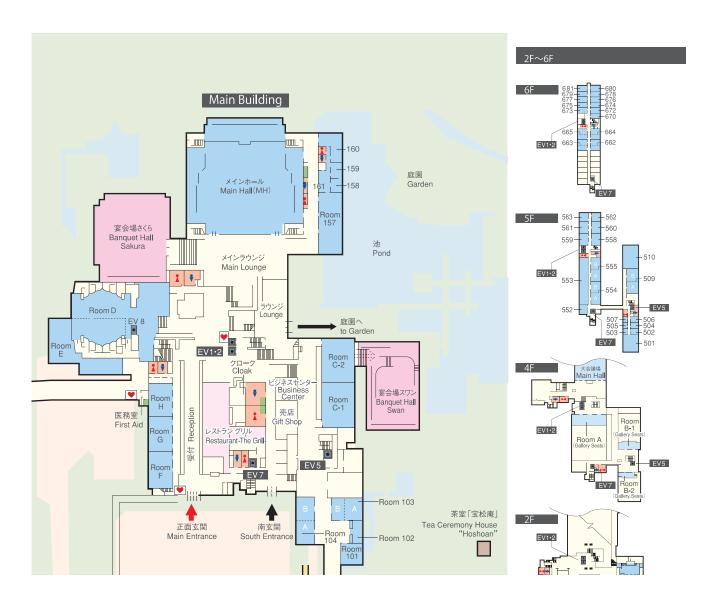
Map To Inamori Memorial Hall

The Inamori Memorial Hall is located at: Shimogamo Hangichō, Sakyō-ku, Kyoto, 606-0823, Japan. See https://goo.gl/maps/nyKoWSQECJv/ for a detailed view.



Kyoto International Conference center (Room locations)

Full map at https://www.icckyoto.or.jp/wp-content/uploads/2016/12/floor_guide_map-1.pdf



Programme 155

ICOM-CIMCIM Kyoto Photo Gallery



1. The outgoing Board (2016–2019)



2. The incoming Board (2019–2022)



3. Group photo at the Kyoto International Conference Center



4. Group photo in the Hamamatsu Museum (Photo: Kazuhiko Shima)



5. Group photo in front of the Tobaya String Factory, Kyoto (Photo: Kazuhiko Shima)



6. Group photo at the Yamaha Toyooka Factory and museum (Photo: Kazuhiko Shima)



7. Group photo outside the Yamaha museum and factory (Photo: Kazuhiko Shima)

