# Museology and Museography of Musical Instruments

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This volume has been produced as part of the project funded by the European Union – Next GenerationEU.
National Recovery and Resilience Plan (PNRR) – Mission 4 – Component 1 – Investment 3.4 'Advanced university teaching and skills', sub-investment T5 'Strategic partnerships / initiatives to innovate the international dimension of the AFAM system'.
Project: *Between Italy and Jerusalem: Retracing Music and Arts Networks, Enhancing Education and Promoting Cultural Heritage Preservation (Jerus-it-Arts)*
Project code: INTAFAM000_44
CUP: E33C24000160006

Edited by Andrea Zanella
*Museology and Museography of Musical Instruments*

Layout by Elisa Pozzoli

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Published by BIBLION edizioni
May 2026

**ISBN 978-88-3383-553-2**
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This publication was produced as part of the activities of the Brera Academy of Fine Arts for the Jerus-It-Arts project

**Acknowledgements**

Gerlinde Andraschek (Salon Stolz, Graz), Mirella Bet (Aba Brera), Claudia Caffagni (Claudio Abbado Civic School of Music), Cristina Calò (Aba Brera), David Catalunya, Walter Chinaglia, Annalisa Curtarelli, Lucia D'Anna, Mirna Draženović (Muze Zagreb), European Museum Academy Foundation, The Hague, Roberto Favaro (Aba Brera - Claudio Abbado Civic School of Music), Massimiliano Guido (Department of Musicologyand Cultural Heritage, University of Pavia), Dirk Houtgraaf (European Museum Academy), Giovanni Iovane (Aba Brera), Antonia Iurlaro (Aba Brera), Mateja Kuka Brkić (Muze Zagreb), Stefano Lorenzetti (A. Pedrollo Conservatory, Vicenza), Franco Marrocco (Aba Brera), Sonia Martone (National Museum of Musical Instruments - Directorate of State Museums of the City of Rome), Luca Mercuri (Directorate of State Museums of the City of Rome), Beatrice Mezzogori, Fr. Stéphane Milovitch (Custody of the Holy Land), Francesca Nava, Chiara Nenci (Aba Brera), Salvatore Panza (Aba Brera), Fr. Alberto Pari (Custody of the Holy Land), Marco Pedrazzi (International Museum and Library of Music, Bologna), Lorenzo and Elena Ronzoni (Santa Cecilia Museum Foundation, Massa Marittima), Gabriele Rossi Rognoni (Royal College of Music Museum, London), Marco Salluzzi (Aba Brera), Matteo Sartorio (Museo Teatrale della Scala), Cecilia Santinelli, Ezio Spinoccia (A. Pedrollo Conservatory, Vicenza), Sandra Suatoni (Central Institute for Sound and Audiovisual Heritage, Rome), Riccardo Tamai (A. Pedrollo Conservatory, Vicenza), Anna Zareba (San Colombano Museum. Tagliavini Collection, Bologna).

# INDEX

# PRESENTING THE VOLUME

This book owes its existence to an unrealisable proposal that led to unexpected directions.

This initial impossibility came in the form of the PNRR-funded JERUS-IT-ARTS international cultural partnership project, led by the Arrigo Pedrollo Conservatory in Vicenza. One of its partners, the Accademia di Belle Arti di Brera put its School of Cultural Heritage at disposal, engaging educators and students in research activities with scholarship support. The project aimed to trace and recreate artistic networks between Italy and Jerusalem from late antiquity to the twentieth century. It centred on archival and digital humanities research, music and dance creation, knowledge exchange and heritage promotion.

One of its proposals concerned 222 organ pipes excavated in 1906 at Bethlehem's Church of the Nativity. They are today conserved in Jerusalem's Terra Sancta Museum. They constitute our earliest direct material evidence of an organ from the Christian world. Dating with good probability to the eleventh century, the pipes have recently been the object of rigorous analysis by musicologist David Catalunya. The idea of bringing Brera's to bear on those extraordinary finds soon revealed a suite of impracticalities, however – first for technical reasons, and then for logistical difficulties that were rendered definitively insurmountable by the crisis in the Middle East.

Nevertheless, our thoughts did not stop there. We pivoted in a direction that proved over time to be stronger. From questioning how those fragments could be musealised, a larger question arose: how can musical instruments be musealised, more generally? And from there a need emerged for a theoretical framework that did not exist at the time, or existed only in scattered form among specialists who were rarely in dialogue with one another. This volume is our attempt to construct such a framework in the form of a manual that is simultaneously rooted in science and appropriate for classroom use. The Bethlehem pipes remain at its core: not as objects for restoration, but as a privileged case study – the example that set this entire journey in motion. For so doing, it merits our greatest attention.

This volume has been put together as a collective work whose many voices are in dialogue with one another, following a progression from general theoretical frameworks to specific practices. My work opens the volume with a seemingly

simple question – what is a musical instrument museum? – to demonstrate how available categories overlap, uncovering a heritage that blurs the lines of all taxonomy. I move through the history of collections, from cabinets of curiosities to modernity, and face the industry's trickiest tangles, from colonial acquisitions to contextualisation, from the organ as an instrument and an institution to the new CLIO-SCN cataloguing system. My central case study is the Bethlehem pipes (for which there is an appendix) and the concrete museographical project they represent in Jerusalem's Terra Sancta Museum.

The essay by Massimo Negri and Laura Diamanti deals with contemporary museological approaches in their widest sense, shedding light on a phenomenon that in music museums is at once both obvious and unresolved: sound acting as a structural – rather than auxiliary – component of a museum experience. Negri and Diamanti's work introduces fundamental concepts for the interpretation work done by museums. They put these concepts to the test across a series of diversely-organised institutions, from Eisenach's Bachhaus to Stockholm's Avicii Experience and Odense's Carl Nielsen Museum, which won the Luigi Micheletti Award in 2024.

Sandra Suatoni's essay confronts the knotty issue of musical instrument conservation, beginning with items' nature as complex heritage entwining material and auditory dimensions. From Italy's regulatory and institutional context, Suatoni brings the field's vital characteristics into focus. She critically reinterprets the opposition between conservative restoration and refunctionalisation, proposing a more dynamic, interdisciplinary approach. Suatoni brings rare expertise to this topic, acquired during her time as director of Rome's National Museum of Musical Instruments and Italian Central Institute for Sound and Audiovisual Heritage.

Marco Negroni's contribution tackles the issue that most greatly risks remaining in the shadows of a manual like this one: rather than considering ways to conserve or exhibit a musical instrument, what if we considered ways to let it speak? His essay starts from a precise premise that he unwinds with consistency: an instrument displayed in a case is a structurally incomplete object, deprived of half of itself, the part that consists in sound. From this premise – formulated in accordance with the Aristotelian category of an object's power – hangs the entire architecture of his contribution. He creates a taxonomy of content levels which a digital interface should offer, criteria for planning sound experiences, and the logic behind narrative-driven exhibitions that bring individual entries into coherence.

Thirty-five profiles of museums across the world follow, created by Massimo Negri and Laura Diamanti in collaboration with international scholars. They describe museums that range from Vienna's Kunsthistorisches Museum to Phoenix's Musical Instruments Museum, Sidi Bou Saïd's Centre des Musiques Arabes et Méditerranéennes, and London's Royal College of Music Museum. Our volume

closes with an appendix describing MIMO – an international platform that gathers over 64,000 instruments documented by 33 museums across three continents – and the *Grove Music Online* database.

Who is this book for? It is aimed at students of musicology, museology, and cultural heritage, but also at professionals such as curators, designers, restorers, and different kinds of conservators. Musical instrument museology is a discipline that is very much still in formation. It still lacks an up-to-date Italian-language reference manual – a lacuna that I frequently noticed in practice even before I began these theoretical reflections, and one that provides a more direct reason for the existence of this book. The fact that all this work has found a concrete and coherent form is thanks largely to Marco Negroni, a professor at Brera Academy and operations manager for the project's Milanese facet. Without him – without his ability to hold together vision and detail, deadlines and relationships, scientific and organisational aspects – neither the project nor this volume would have acquired the form it has today. We owe the coordination of all our activities to him, including editorial ones. This book carries my name, but it also, indelibly, carries his hand.

*Andrea Zanella*

# MUSICAL INSTRUMENTS, MUSEUMS AND MUSIC

*Andrea Zanella*

## Introduction

This section of the volume provides a tool for students of musicology, organology, and museology, who must unite theoretical reflection with applied practice. Its format is hybrid – halfway between scientific essay and manual. This choice reflects my conviction that musical instrument museology is a discipline whose theory acquires sense only in the face of concrete case studies and open methodological questions. My text unfolds across twelve chapters and two appendices, one with a concrete museographical proposal. This structuring reflects a precise methodological configuration: correctly musealising a musical instrument requires expertise that ranges from a museum's institutional definition to cataloguing practices, from ethnomusicology to organology, and from liturgy to military history.

On first glance at the table of contents, chapter sequence seems heterogeneous. Matters of definition and theory pass into non-European collections, folk instruments, civic and military bands, liturgical music, and the organ – and from there to cataloguing and a case of medieval organology. This volume does not aim to construct an exhaustive taxonomy of music museums, nor linear histories of instrument museology. We prefer, instead, to move through a series of issues – contextualisation, intangible dimensions, object-sound relationships, cultural identity – through themed case studies that bring them clearly into the light. The choice to tackle seemingly distant areas stems not from any lack of systematic approach, but from the conviction that musical instrument museology can be better understood at its borderlines. Here, instruments reveal their complexity and challenge the ordinary categories of museum exhibitions.

The first two chapters build conceptual foundations. Chapter 1 deals with definitions – *music museum, museum of music, museum of musical instruments* – showing how these terms' imprecision is a structural condition of their manifold heritage. Chapter 2 introduces the instruments of museology and organology, with focus on the tension between the conservation of an object and the restitution of a sound experience. Chapters 3 and 4 widen this perspective to include non-European cultures and ethnomusicology, showing how non-European collections are simultaneously irreplaceable organological archives and products of acquisition histories very often marred by uneven power relations. Chapter 5

Figure 1 | Sign of a luthier, 18th century, Paris, Musée de la Musique, Philharmonie de Paris. Photo by the author.

reflects upon contextualisation: musical instruments appear in extremely diverse museums – museums for ethnography, the military, archaeology, history, and the decorative arts – and in each context take on different meanings. Understanding this semantic flexibility is essential for anyone designing an exhibition.

Chapters 6, 7, and 8 – folk instruments and civic and military bands – stand in striking contrast to the literature in conventional museology. For decades, music museology has almost exclusively centred on art music, marginalising a heritage that has extensive reach among the lower classes as well as the festive and religious rites of entire communities. Civic music bands, for example, have been the chief vehicle for music literacy in Italy and Europe for almost two centuries.

Chapters 9, 10, and 11 shift the volume's thinking toward liturgical aspects, considering the organ as both an instrument and an institution. A historic organ in a church is at once an instrument that makes sound, a liturgical furnishing, a technology, and an architectural monument. To manage an organ, a museum must have expertise at its fingertips that goes far beyond cataloguing. Chapter 11, about the medieval organ in the Church of the Nativity in Bethlehem, is the volume's most specific case study. Through organological analysis of the pipes that were very fortunately uncovered at the beginning of the previous century, and through comparing sources from its period, this chapter demonstrates how this discovery can rewrite a page of medieval music history. Then, its accompanying appendix concretely illustrates how to plan an exhibition that spotlights incomplete materials.

Chapter 12 is about ICCD cataloguing. Last on the list, it was originally devised as an appendix and arrives when the reader has already encountered every shade of complexity music heritage has to offer. It is therefore easier to grasp why cataloguing an instrument is not a purely technical operation. It is instead an interpretative act. The section outlining and critically comparing the new CLIO-SCN system with SIGECweb anchors the text in present-day Italian museum practices. Operations-oriented appendices – about guidelines and service charters for museum institutions – complete the volume's manual aspect, offering tools that can be put to work immediately.

A systematic manual would have been organised by museum type, geographical zone, or historical period. A series of profiles are provided for this purpose, selected with specific criteria, in a separate section of the volume. Here, arguments are organised by theme and issue, mirroring the volume's early life as musings that matured over time through research, teaching, and museum practices. They have been distilled into chapters that retain a sense of autonomy at the same time as they are in conversation with one another. Each can be read on its own and used selectively in teaching or research. Mixing topics was a conscious move by the volume: reflecting the interdisciplinarity of a field of study that is still very much in formation. Here, the boundaries between museology, organology, ethnomusicology, and cultural heritage continue to engender new questions. This volume

does not claim to be exhaustive. It claims to be useful, and it claims to open more questions than it closes.

A brief clarification regarding large 'musical instrument museums' – the MIM in Brussels, Musée de la Musique della Philharmonie in Paris, Museo Nazionale degli Strumenti Musicali in Rome, Horniman in Londra, Musical Instrument Museum in Phoenix, Hamamatsu in Japan, Hubei Provincial Museum in Wuhan, Museum of Music History in Budapest, Gugak Museum in Seoul, Museu de la Música in Barcellona, and more. These institutions are not the main subject of the present text, which does not intend to provide systematic reviews or comparative evaluations. Nevertheless, they are mentioned and discussed in the chapters that follow when they prove relevant to a line of reasoning. Their history, museographical choices, and modes of tackling the dynamics between sound and object, instrument and cultural context, and conservation and restitution of sound experiences provide material for many essential considerations in music museology. They might be dealing with the tension between organological philology and sensory immersion, or the issue of contextualising non-European instruments, or even the unresolved matter of how to restore sound when faced with a silent object. Whatever their challenges may be, these museums have generated solutions, errors, and open questions that are threaded throughout the volume. Saying their names is a means of recognising their foundational role, with no claim to have exhausted analysis.

## 1 | One Definition For All? Music Museums, Museums of Music, and Museums of Musical Instruments

*Three music museum categories explored across the history of European collecting and of the earliest public institutions.*

Museums that centre on music have three main categories and one more recently defined category (soundscape and sound art museums).

The broadest category is *music museums* (*musei musicali*), a term so generic that even its English translation can refer to almost any type of museum themed around music or sound. The same term is often even used to define museum environments inside music conservatories, academies, or orchestral institutions where scores, manuscripts, librettos, and other objects are stored that relate to the history of a given institution.

Slightly more specific is the expression *museum of music* (*museo della musica*). Even in this situation we are dealing with the broader concept of an interdisciplinary museum. The resources these museums conserve include instruments, scores, manuscripts, librettos, musician portraits, letters, posters, concert programmes, historic documents, and instrument-making materials associated with music practices.

Here *musical* (*musicali*) contexts are presented that can be historic, culturally amplified or restrained, and often framed and organised in alignment with themed exhibitions. We could cite, as an example, Bologna's International *Music* Museum and Library (Museo Internazionale e Biblioteca *della Musica*) and Venice's *Music* Museum (Museo *della Musica*).

The former's displays promote the two central elements of the museum's heritage: its instrument collection and its rare books on the subject of music, property of the city of Bologna. Its rooms, spread across the piano nobile of the Palazzo Aldini Sanguinetti, are organised by musical themes and hold, beside instruments, objects that are part of its art- and history-oriented storytelling. Venice's Museo della Musica, on the other hand, is a private institution housed in a neoclassical church. Its displays centre on the history of Italian instrument construction, with particular attention dedicated to eighteenth-century Venetian and Cremonese crafting.

A third category is *musical instrument museums* (*musei degli strumenti musicali*). These represent the most specific situation, and the main object of our study. These museums often began their existences as collections of instruments that were understood to be material heritage. Their cultural value was enhanced by philological exhibitions assembled by organological, historic, or geographic themes.

Outside of these main categories, numerous subtypes exist: museums for lutherie and the making of specific musical instruments, house museums of musicians and composers, or museums for specific genres or local traditions. Immersive, interactive museums have appeared more recently, too. They centre on soundscapes and sound art, and the experiencing of sound animates their exhibition design. Some examples are the Soundscape Museum (Museo del paesaggio sonoro) in Chieri[1] and the more technically advanced Soundsphere (Sonosfera) in Pesaro.[2] In general, more sound art short-term installations exist right now than full museums in the true sense of the word.

A significant example of a house museum made to follow a sensory-dominant and post-collecting model is the Casa di Rossini in Lugo di Romagna, for Gioachino Rossini. Inaugurated in 2020, the building belonged to the composer's family and he spent adolescent holidays there between 1802 and 1804. The project, co-funded by the Emilia-Romagna region and designed by artist Claudio Ballestracci, has a five-room exhibition experience whose narrative thread is not the collection of objects but the music itself. This music is a living presence that visitors can activate through scores, glass domes, and audio drawers that interweave composition and biography. Unlike large historicised music institutions founded

[1] Guido Raschieri and Cristina Ghirardini, *L'etnomusicologia e la sedimentazione dell'esperienza sonora negli archivi: suoni, memorie, oggetti al Museo del paesaggio sonoro di Riva presso Chieri*, in "Archivi sonori", 2021, p. 177-190.

[2] David Monacchi, *L'Arca dei Suoni Originari*, Milan, Mondadori, 2019; pesaromusei.it/sonosfera/.

on material heritage, the museum at Lugo opts for an immersive, experience-centric model that is realised on an intimate and domestic scale congruent with the nature of the house itself. This case effectively demonstrates how musician-house museums can take many forms today, even sensorial forms that renounce the mediation of objects in order to restore sound practices with immediacy.[3]

A musical instrument museum is above all a museum, however, and as such falls under the generic definition of the term, no matter the particular characteristics it may have. It shares many of the issues common to other museum institutions, but possesses, too, specificities associated with the nature of the objects it conserves.

The word museum is today understood as a permanent physical location where tangible and/or intangible cultural heritage is presented to communities and the general public in a way that does not generate profit and that accords with criteria able to be articulated and/or understood by choice and by organisation (independently from the existence or otherwise of a collection). Significant, for this reason, is the claim made by Krzysztof Pomian that museums are always in some way public institutions: even when they spring from a private collection or a foundation, they acquire public value the moment they become accessible to communities.[4] Institutional definitions of a museum, its function, and its professional standards are discussed in subsequent chapters. Here, I am interested in underlining the ways in which this shared accepted meaning already sheds light on the tension – constitutive for music museums – between a material object and the sound practice for which it is a vehicle.

The word museum famously traces its origins to the Ancient Greek term *mouseion*, denoting a place dedicated to Apollo and the muses. In the third century BCE, the lexical item began to designate an institutional space devoted to learning, such as the famous Mouseion of Alexandria, founded by Ptolemy I Soter. Knowledge was transmitted from masters to disciples of various disciplines: even though roles were not assigned, the concept of the mouseion is more similar to university centres we see today, with libraries, porticoes, study spaces, and rooms for meeting and exchange.

The term museum came back into use to indicate collections of rare or precious objects. A famous example is the villa on Lake Como where Paolo Giovio installed, in around 1537-1543, his portrait collection. Over time, the word's meaning narrowed until it only referred to a place where artistic or scientific resources were conserved and presented.

The history of museums is intimately linked to the history of collecting. Even in the case of musical instruments, the formation of a collection frequently predates the creation of the museums that will house it. Below we run through several noteworthy examples.

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[3] casarossinilugo.it.

[4] Krzysztof Pomian, *Collectionneurs, amateurs et curieux*, Paris, Gallimard, 1987.

Figure 2 | Musical instruments made from recycled materials, interactive display, London, Horniman Museum.
Photo by the author.

Between the end of the fifteenth and the beginning of the seventeenth centuries, there is evidence of musical instrument collections at the court of Innsbruck under Maximilian I, a Habsburg (1459-1519). There is also such evidence at the court of Archduke Ferdinand II of Tyrol (1529-1595), who at Ambras Castle created a music-themed cabinet of curiosities with various instruments. It was the richest princely collection in Europe, and included lutes, flutes, violas da gamba, trombones, and chamber organs. Most of these instruments ended up enriching the heritage in Vienna's Kunsthistorisches Museum, which also incorporated part of the Obizzi treasures. This collection was begun in the seventeenth century at the Castello del Catajo near Padova and expanded in the eighteenth by Tommaso degli Obizzi (1750-1803).[5] Conserved in Vienna, too, it is part of Habsburg Rudolf II's collection. He had begun a cabinet of curiosities in Prague (which housed the foreign musical instruments referenced in this volume's chapter about ethnomusicological contributions). Inventories inform us of instruments owned by the Prince-Elector of Saxony, whose collection in a splendid gallery in Dresden included musical instruments.[6] In England, we know that Henry VIII acquired instruments for himself and his children, and in Spain the Bourbons did likewise. In the eighteenth-century the figure of Infante Gabriel of Spain (1752-1788) emerges. He purchased various instruments and had others made, including several organs that he loved to play.[7] In France under the Bourbons, from Henry IV to Louis XVI, different assets have been identified.[8] Among the more conspicuous holdings figure the collections of the eighteenth-century Princes of Conti[9] and of Joseph Bonnier de la Moisson (1702-1744), who had an important cabinet de curiosités.

An exceptionally well-documented case of an eighteenth-century music cabinet is Henri Bertin's (1720-1792). Minister to Louis XV, Bertin engaged in regular correspondence for over twenty years with the Jesuit Joseph-Marie Amiot (Toulon 1718-Beijing 1793), a missionary living in Beijing. Amiot sent him instruments such as the *qin* (zither), *sheng* (mouth organ), *gong*, and *yunluo*, and furnished organological descriptions, scores, and translated music treatises. At Bertin's death, the collection passed to the Bibliothèque nationale and, in 1880, to the

[5] Elena Corradini (ed.), *Gli Estensi e il Catajo. Aspetti del collezionismo tra Sette e Ottocento*, Modena – Milan, Franco Cosimo Panini Editore, 2007.

[6] Eszter Fontana, *Musical Instruments for the Electoral Kunstkammer in Dresden around 1600*, "Musique, Images, Instruments: Revue Française d'organologie et d'iconographie Musicale", VIII (2006), p. 8-23.

[7] B. Kenyon de Pascual, *Infante Gabriel de Borbòn y Sajonia (1752-1788) and his musical instruments*, "Musique, Images, Instruments", p. 8-27.

[8] Florence Gétreau, *Quelques cabinets d'instruments de musique au temps des rois Bourbons*, "Musique, Images, Instruments", p. 25-44.

[9] Thomas Vernet, *Les collections musicales des princes de Conti*, "Musique, Images, Instruments", p. 45-68.

Musée d'Ethnographie in Paris, where some of the items are still held today.[10] The case of Bertin and Amiot illustrates with rare accuracy eighteenth-century routes conveying objects to museums: acquisition by a specialised informer in the field, selection undertaken by a commissioning collector, gradual public institutionalisation of the resources. Here, this is marked by the same returning revolutionary who would nationalise ecclesiastical assets and open the Louvre.

In Italy, the Este family (first in Ferrara and later in Modena) and the Gonzaga family in Mantua were great collectors and commissioners of musical instruments. Both of these holdings have scattered to the winds, however, though some items with this provenance are located in Modena and in Vienna and in museums and private collections. In Florence, the Medici had been musical instrument collectors from the time of Cosimo I. It was chiefly the Grand Duke Ferdinando at the close of the seventeenth century, however, who increased their assets, which included harpsichords, spinets, organs, and bows. Fifty or so pieces from this collection are conserved and displayed in the Galleria dell'Accademia in Florence.[11] A collection at the Ospedale dei Mendicanti still existed in Venice in the eighteenth century, though now only manuscript inventories remain.[12]

The eighteenth century marks a metamorphosis for many of the grand collections. Some were opened as public from the very beginning, as in the cases of Peter the Great in Russia ("I want the people to observe and to learn") and Maria Theresa in Austria. Others passed from private to public. This was what occurred in 1737, when the last descendent of the Medici gave the family's collections to the region of Tuscany; in 1753, when the British Parliament acquired Hans Sloane's collection and founded the British Museum;[13] and in France, when ecclesiastical assets were nationalised in 1789 and the Louvre Muséum Central des Arts was inaugurated in 1793. That same year, the Institut National de Musique (which would become the Conservatoire de Paris) was created for the teaching of music. The idea for a 'Cabinet d'instruments,' was already in the air at that point, but the collection would only be organised the following century.

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[10] François Picard, *Joseph-Marie Amiot, jésuite français à Pékin, et le cabinet de curiosités de Bertin*, "Musique, Images, Instruments", p. 69-86; Ernest-Théodore Hamy, *Les origines du musée d'ethnographie*, Paris, Leroux, 1890; rist. Paris, Jean-Michel Place, 1988, p. 29.

[11] Franca Falletti, Renato Meucci, Gabriele Rossi Rognoni (eds.), *La musica e i suoi strumenti. La collezione granducale del Conservatorio Cherubini*, exhibition catalogue (Florence, Gallerie dell'Accademia), Florence, Giunti, 2000.

[12] Caroline Giron, *Une collection perdue: les instruments de l'ospedale des Mendicanti, à Venise*, "Musique, Images, Instruments", n. 8, 2006, p. 28-47.

[13] James Delbourgo, *Collecting the World: Hans Sloane and the Origins of the British Museum*, Cambridge (MA), Belknap Press of Harvard University Press, 2017.

In the early 1800s, numerous European museums were open to the public. They fell into three broad categories: art museums (including archaeological museums), natural science museums, and history museums. In this era, all collections were displayed in full, and we could term such parameters a 'museography of abundance.' Musical instruments, too, began to appear in these heteroclitic presentations. This diffusion was facilitated by the great world fairs as well as colonialism, orientalism, and tastes for ethnography and folk traditions. The concept of a European museum was then exported to the United States. A pivotal step in this direction occurred with the 1872 opening of the Metropolitan Museum of Art in New York (founded in 1870). Their holdings would be rapidly enriched by the additions of several other collections, one of which contained musical instruments.

In 1861, the French government acquired the collection of composer Louis Clapisson (1808-1866). That same year, Clapisson was appointed conservator at the Musée instrumental du Conservatoire in Paris, which opened to the public three years later, in 1864.[14] In 1888, the Musikinstrumenten-Museum was founded in Berlin, and in 1877 the Musée des Instruments de Musique (MIM) in Brussels. These institutions remain to this day extremely important for the variety and quantity of instruments they hold. The Brussels museum served as a model when the Musée du Conservatoire in Paris was reorganised, and its five-volume descriptive and analytical catalogue (1880-1922) – the work of conservator Victor-Charles Mahillon – has been taken as an example by other museums.[15] In 1886, Paul De Wit (1852-1925) opened a private museum in Leipzig in which he displayed his collection of historical musical instruments.[16] It was subsequently acquired and expanded by Cologne paper manufacturer Wilhelm Heyer in 1905. Heyer's successors gave it over to the University of Leipzig in 1926. To create exhibition space, a building was designed. It was inaugurated in 1929.[17]

The musical instrument collection at London's Royal College of Music was built across five large consecutive donations. First was Raja Sir Sourindra Mohun Tagore's Indian instrument collection (1884). George Donaldson's magnificent

[14] F. Gétreau, *Aux origines du Musée de la Musique: les collections instrumentales du Conservatoire de Paris. 1793-1993*, Paris, Klincksieck / Réunion des Musées Nationaux, 1996.

[15] Victor-Charles Mahillon, *Catalogue descriptif et analytique du Musée instrumental du Conservatoire Royal de Musique de Bruxelles*, Gand, 1893-1922 (5 vol.).

[16] De Wit was also a founder and director of the Zeitschrift für Instrumentenbau (Leipzig, 1880-1925), a leading European scientific body dedicated to the making and the study of musical instruments, contributing to Leipzig's status as an international centre for organology.

[17] The building inaugurated in 1929 is the new Grassimuseum. Its collection's scientific catalogue was published by Georg Kinsky in three volumes (vol. 1, 2 e 4; Köln, Musikhistorisches Museum von Wilhelm Heyer / Kommissionsverlag Breitkopf & Härtel, Leipzig, 1910-1916; the third volume was never published), and is still a fundamental reference source today in organology.

collection followed in 1894. It had been mounted in a museum that he himself had decorated in the style of renaissance Italy. In 1909, King Edward VII, founder of the College as the Prince of Wales, donated a collection of instruments that came mostly from China. In 1911, Edith and John Hipkins gifted the collection that had belonged to their father, A. J. Hipkins, the College's first honorary curator. In 1968, E. A. K. Ridley added his wind instrument collection, which was at the time held in a museum in Luton. The new museum was inaugurated on the 23rd of April 1970 by Queen Elizabeth the Queen Mother.[18]

Another great European collection is in the Vienna Kunsthistorisches Museum (organisation beginning 1916-1917). At the 1914 death of Archduke Franz Ferdinand of Austria, its archives passed to the Imperial Treasury in Vienna. They were studied from 1916-1917 onwards by Julius von Schlosser and Hermann Julius Hermann, who were responsible for arranging the historic musical instrument collection and compiling its 1920 catalogue – still considered one of our topic's first scientific publications.[19] Two years later, the Berlin Musikinstrumenten-Museum's catalogue was released.[20]

In Italy, the first institutions to organise their musical instrument collections were music schools and conservatories. The first mention can be traced to the Conservatorio di Musica Luigi Cherubini in Florence where, in 1863, the Grand Duke's instrument collection was located – though as of 1996 it can be found on loan in the Galleria dell'Accademia di Firenze, where it has been on public display since 2001.[21] Next, we find Milan's Conservatory, which in 1881 instituted its instrument collection officially.[22] Rome's Accademia Nazionale di Santa Cecilia created its first museum in 1895: begun as an internal collection, it was soon restructured along museum lines and saw important growth in 1926 with the bequest

[18] Elizabeth Wells, *Foreword*, in E.A.K. Ridley, *The Royal College of Music Museum of Instruments Catalogue Part I, European Wind Instruments*, London, The Royal College of Music, 1982, p.5; on the museum, see also Gabriele Rossi Rognoni and Richard Wistreich, *Expanding perspectives: materialising musical instruments*, "Journal of Musicological Research", 43, 2-3, 2024, p. 57-75.

[19] Julius von Schlosser, *Die Sammlung alter Musikinstrumente*, Vienna, Kunsthistorisches Museum, 1920.

[20] Curt Sachs, *Sammlung alter Musikinstrumente bei der Staatlichen Hochschule für Musik zu Berlin. Beschreibender Katalog*, Berlin, 1922.

[21] G. Rossi Rognoni (ed.), *Strumenti musicali: guida alle collezioni medicee e lorenesi*, Florence, Giunti, 2001; Id. (ed.), *Galleria dell'Accademia, collezione del Conservatorio 'Luigi Cherubini': Gli strumenti ad arco e gli archetti*, Livorno, Sillabe, 2008; Id., *Il sistema di catalogazione e documentazione degli strumenti musicali del Dipartimento degli Strumenti Musicali della Galleria dell'Accademia di Firenze*, *"Philomusica on-line"*, 8/3 (2009), p. 97-117.

[22] The collection was promoted by a committee chaired by Conte Carlo Borromeo on the occasion of Italy's 1881 music world fair. The fundamental historical catalogue is: Eugenio De Guarinoni, *Catalogo del Museo del Conservatorio di Milano*, Milan, Hoepli, 1908.

of Queen Margherita of Savoy.[23] One year earlier, in 1925, the collection of the Conservatorio San Pietro a Maiella in Naples was institutionalised.[24]

Rome's Museo Nazionale degli Strumenti Musicali owes its creation to the collection of tenor Gennaro Evangelista (Evan) Gorga (1865-1957). After retiring from the stage in 1899, Gorga dedicated his time almost exclusively to collecting. His acquisitions reached the heights of over 150,000 items before bankrupting him. In 1929, his collections were placed under administrative forfeiture and twenty years later the state purchased his property, settling his debts. Many vicissitudes later, in 1963, the instrument collection was transferred to the Palazzina Samoggia near the church of Santa Croce in Gerusalemme. The museum was finally opened to the public in 1974.[25]

The Museo degli Strumenti Musicali in Milan's Sforza Castle arose from a collection owned by Natale Gallini. The city purchased part in 1958, and extended this in 1961. First set up in the Palazzo Morando, the museum was transferred to the Sforza Castle and definitively organised there in 1963.[26] Over time, these holdings have been augmented by new donations, including one from the Monzino family in 2000. In 2008, RAI's Studio di fonologia musicale di Radio was added as a room.

The manifold shapes taken by the institutions described here – from instrument museums to house museums, immersive sound art environments, and conservators' collections – reflect music objects' complexity as cultural heritage, and the myriad of approaches through which different periods and traditions have understood conservation and public access. The history of music collecting shows how transitions from private collections to public institutions were never simple administrative matters. They were instead the result of specific cultural and political decisions. Amid all of this, music objects have continually oscillated between their materiality and the practices of sound their materials convey. Music museums' raison d'être inhabits this constitutive connection, the space between memory and use, instrument and sound. This is where music museums will find, in the next chapter's analysis of functions and professional standards, their institutional conjugation.

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[23] Annalisa Bini and Laura Bognetti, *Database e scheda del MUSA – Museo degli strumenti musicali dell'Accademia Nazionale di Santa Cecilia, Roma*, "Philomusica on-line", 8/3 (2009), p. 119-130, doi: 10.6092/1826-9001.8.771. The museum was instituted in 1895 by the former Regia Accademia and its new location in the Auditorium Parco della Musica was inaugurated in February 2008.

[24] Gemma Cautela, Lorella Starita, and Luigi Sisto (eds.), *Dal segno al suono. Il Conservatorio di musica San Pietro a Majella: repertorio del patrimonio storico-artistico e degli strumenti musicali*, Naples, Arte'm, 2010; Luigi Sisto, Emilia Cardi, and Stefania Tassi (a cura di), *Il Museo della Musica. Strumenti antichi e documenti del Conservatorio di San Pietro a Majella*, Battipaglia, AOC, 2002.

[25] Design was curated by Luisa Cervelli, who twenty years later published the collection's catalogue, Luisa Cervelli, *La Galleria Armonica. Catalogo del Museo Nazionale degli Strumenti Musicali di Roma*, Rome, IPZS, 1994.

[26] Renato Meucci, *La collezione Gallini e il Museo degli Strumenti Musicali di Milano: precisazioni e approfondimenti*, "Arte Lombarda", 1-2, 2021, p.45-64. Official museum website: strumentimusicali.milanocastello.it.

## 2 | Musical Instrument Museology and Museography

*Material conservation and experiences of sound: fundamental tensions in music museology.*

Music museology investigates the ways in which music, its objects, and their associated cultural practices are conserved, interpreted, and communicated in museum institutions. Musical instruments occupy a particularly significant position in this sphere because they are simultaneously material artefacts, historical documents, and devices that produce sound. Musealisation therefore requires an interdisciplinary approach that encompasses museology, organology, music history, and cultural heritage studies. Indeed, musical instruments are not only objects fabricated through specific techniques, but are evidence of complex cultural systems that entwine artisanal knowledge, performance practices, music traditions, and social contexts. Museological reflections on this type of object must thus tackle contemporary questions around material conservation, historic interpretation, and the restoration of experiences of sound.

The last few decades of the twentieth century and first few of the twenty-first have witnessed a remarkable blossoming in the international museum landscape. Numerous museums have been built up from scratch, while many other existing institutions were subject to sweeping architectural and museographical transformations. Parallel to this, new interpretive categories have been developed in the field of museology and public interest has grown toward socalled 'new museums' and large short-term exhibitions. On the one hand, this has seen the creation of display spaces designed to attract increasingly wider and diverser audiences, characterised by theatrical set ups and the intensive use of multimedia technologies. On the other, we see a higher presence of more informed visitors with greater needs, capable of requesting greater levels of interpretation and contextualisation for content. Expectations for museum institutions have therefore increased in articulation and complexity, just as museum types and display models have multiplied. In this context, musical instruments and the museums that house them constitute a particularly fascinating field of observation for the way they relate material objects to cultural practices and sound phenomena. Indeed, with musealisation, multiple factors must be taken into account at the same time: an object's nature, the cultural context in which it was produced and used, and the modes with which it is interpreted and presented in the museum space.

The word *museum*, as recorded in encyclopedic dictionaries and museology manuals, has ancient roots and a meaning that transformed over time. Across the twentieth century, the need crystalised for an internationally intelligible definition, one capable of guiding cultural policies and professional practices in the museum sector. This task has gradually been assumed by ICOM (the International Council of Museums), an international organisation founded in 1946 under the

Figure 3 | View of the main hall, Berlin, Museum of Musical Instruments.
Photo by the author.

aegis of UNESCO that has developed, over the years, various official museum definitions. Its most recent formulation, approved in 2022, defines a museum as "a not-for-profit, permanent institution in the service of society that researches, collects, conserves, interprets and exhibits tangible and intangible heritage. Open to the public, accessible and inclusive, museums foster diversity and sustainability. They operate and communicate ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection and knowledge sharing."[27]

Within this theoretical framework the relationship between tangible and intangible cultural heritage takes on particular importance. Tangible heritage – understood as a fixed or portable monument or material asset – has a predominantly western history, and has been developed chiefly from antiquarian traditions and from the protection of historic monuments. The concept of intangible heritage thus takes on partly East-Asian shades, an acquisition from cultural contexts whose transmission of knowledge, artisanal techniques, and performance traditions historically took on central value. In Japan, the *Law for the Protection of Cultural Property* had introduced the category of *Living National Treasure* (*Ningen Kokuhō*) as early as 1950.[28] This recognised, for the first time, the heritage value of techniques and practices passed down through oral traditions. Before 2003, the western world struggled to fully recognise the value of intangible cultural heritage. The UNESCO World Heritage Convention had already formalised protections for cultural and natural heritage of outstanding universal value in 1972.[29] Only with UNESCO's 2003 Convention for the Safeguarding of the Intangible Cultural Heritage, however, was an explicit definition of intangible cultural practices achieved. By this convention, intangible cultural heritage comes to cover practices, performances, expressions, understandings, and knowledge – along with instruments, objects, and their associated cultural spaces – that communities recognise as integral elements of their cultural identity.[30]

Musical instruments occupy a particularly significant position within this conceptual framework, constituting in the same moment both material objects and producers of sound. They make the deep connection between cultural heritage's tangible and intangible dimensions crystal clear.

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[27] ICOM – International Council of Museums, *Museum Definition*, approved by the Extraordinary General Assembly in Prague on the 24th of August 2022. For its implementation in Italian regulations see D.M. 21st February 2018, n. 113, available on cultura.gov.it.

[28] Voltaire Garun Cang, *Defining Intangible Cultural Heritage and its Stakeholders: the Case of Japan*, "International Journal of Intangible Heritage", 2, 2007, p.9-17.

[29] UNESCO, *Convention Concerning the Protection of the World Cultural and Natural Heritage*, Paris, UNESCO, 1972.

[30] UNESCO, *Convention for the Safeguarding of the Intangible Cultural Heritage*, Paris, UNESCO, 2003.

The study of musical instruments in museum spaces thus finds itself at the intersection of museology and organology. Museology analyses museums' social, cultural, and communication-related functions, while organology deals with musical instruments' history, classifications, and technologies. Henri Rivière defined museology as an applied science examining history and the role of museums in society, forms of scientific research, modes of conservation, and methods of presenting collections.[31] Bernard Deloche later interpreted museology as a serious philosophy of museums.[32] It is useful in this context to recall the differences between museology, museography, and museum technology.

An international museological debate began to be fostered predominately from the 1970s onwards, with the creation of ICOFOM, ICOM's museology committee. Italy entered this debate with greater intensity between the 1980s and 1990s, due partly to the work of Giovanni Pinna and the creation of the *Nuova Museologia* (*New Museology*) journal. Parallel to this, organology, too, experienced a long debate over its status as a discipline. Curt Sachs considered it the science of musical instruments, under the umbrella of musicology. More recent studies have widened this perspective to include technological and cultural dimensions.[33]

Musical instruments thus form a very particular cultural heritage category due to their simultaneous involvement of both tangible and intangible dimensions. If a museum is already a complex structure in and of itself, musical instrument museums – or music museums more generally – present us with further complexity. Exhibiting instruments cannot be curtailed to simply presenting objects or integrating listening devices. Rather, the museological challenge consists in building an experience that can restore musical instruments' double nature: material document and producer of sound. Music museums are therefore not simply places where instruments are conserved. They are interpretive spaces where objects, sounds, and cultural contexts must be placed in relation to one another through museographical devices and active mediation. Some museums deal with the tension between conservation and sound function by creating functioning instrument copies, recordings from their history, or multimedia installations that allow original timbres to be heard without compromising the integrity of the object.

An important moment in defining this disciplinary sphere is represented by the 1960 creation of the CIMCIM (Comité international pour les musées et collections d'instruments et de musique). An ICOM international committee, CIMCIM is

[31] Georges Henri Rivière, *La muséologie selon Georges Henri Rivière*, Paris, Dunod, 1989.

[32] Bernard Deloche, *Museologica. Contradictions et logique du musée*, Mâcon, W, 1989.

[33] Gabriele Rossi Rognoni, *La definizione dell'organologia come disciplina attraverso i primi cataloghi museali (1866-1911)*, "Annali: Arte, musica e spettacolo", Università degli Studi di Firenze, 9, 2008, p. 155-171.

dedicated to the study and protection of musical instrument collections.[34] Their objectives include compiling an international repository of musical instrument museums and collections, articulating guidelines for conservation and restoration, and fine-tuning cataloguing standards.

An important theoretical contribution that has long remained in the margins of this international discussion (untranslated into English) is Curt Sachs' 1934 essay *La signification, la tâche et la technique muséographique des collections d'instruments de musique*, published in the journal *Mouseion*.[35] It constitutes the first systematic attempt to develop a theory of music museology. Sachs addresses matters such as museum targets, restoration policies, exhibition design principles, and the role of the curator. His thoughts are informed by his own direct experience leading Berlin's Sammlung alter Musikinstrumente (Collection of Early Music Instruments). Particularly relevant is his insistence upon the aspect of sound as an inalienable condition of exhibiting: an instrument that cannot be listened to, Sachs contended, makes as little sense as a painting that cannot be seen. Musical instrument museums are not conservation spaces for silent objects, but places where material and sound must coexist. This intuition came decades before the debate that would later characterise music museology in the second half of the twentieth century. The questions that Sachs poses – whom is a museum for? should it instruct or entertain? should it preserve relics or monuments? – remain constitutively unanswered and still today pervade theories across the sector.

Before the CIMCIM launched this work codifying, Sachs himself first addressed the question of musical instrument restoration in theoretical terms. His 1934 essay traced distinctions between transformations that were compatible with an instrument's natural type – and thus to be conserved – and alterations that conflicted with it – to be corrected. He also identified two situations where restoring an instrument to a playable state proves unjustifiable: when its sounding component has been completely lost, or when an intervention would risk destroying a find's archaeological value. The specific solutions Sachs proposed have today largely fallen behind evolving technologies of analysis and the protocols developed by CIMCIM. Nevertheless, he keeps his laurels as the first person to correct the methodological course: not *whether or not* to restore, but *by what criteria* and *to what end*.

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[34] CIMCIM – Comité international pour les musées et collections d'instruments et de musique, *International Directory of Musical Instrument Collections*, https://cimcim.mini.icom.museum/resources/international-directory-of-musical-instrument-collections/.

[35] Curt Sachs, *La signification, la tâche et la technique muséographique des collections d'instruments de musique*, "Mouseion", vol. 27-28, 1934, p. 153-184; reprinted in "Cahiers de musiques traditionnelles", 16, 2003, p. 11-41. For an analysis of the essay see Florence Gétreau, *Curt Sachs and his Contribution to the Museology of Music*, in Klang, Gedanke*, Instrument. Curt Sachs und die Musikwissenschaft heute*, Berlin, Staatliches Institut für Musikforschung, 2006, p. 99-109.

Despite this progress, the concept of musical heritage is still largely unarticulated in Italy. The word 'music' does not explicitly appear in the Code of Cultural Heritage and Landscape and the protection of this heritage is entrusted to indirect regulatory instruments. Just a dozen years ago a specific musical instrument cataloguing model was introduced,[36] while previously only the SMO organ record had existed. Our museological challenge therefore consists in building exhibition devices capable of returning musical instruments' double status as historic objects and sound experiences.[37]

## 3 | Museums and Non-European Musical Instrument Collections

*From cabinets of curiosities to large-scale contemporary museums: ethnographic collections across provenance, restitution, and cultural identity.*

Music constitutes one of the most profound ways a society has of organising time, rituals, bodies, memories, and community relationships[38]. This is why musical instruments are never simply tools that make sound. They are cultural objects that store within themselves techniques, knowledge, hierarchies, cosmologies, and forms of belonging. Ethnomusicology, understood as the study of music in its social and cultural context, has clearly demonstrated that understanding a culture's instruments means entering a key area in their visions of the world. From this perspective, museums are not only places of material conservation, but zones of anthropological interpretation in which sound becomes a historical document and music culture a privileged pathway towards coming to know a people.[39]

Non-European musical instrument collections – frequently also termed ethnic, ethnographic, or non-western – are found in numerous museums around the world today. For the most part these are not autonomous institutions but a subsection within a musical instrument museum, ethnographic museum, or comparative organological collection, sometimes organised into ethnomusicological sections. Historically, large swathes of such collections have been sourced from collectors, travellers, missionaries, scholars, and musicologists between the nineteenth and twentieth centuries, as well as from diplomatic donations or acquisitions related

[36] ICCD – Istituto Centrale per il Catalogo e la Documentazione, *Scheda SM – Strumenti Musicali*, cataloguing standards, Rome, Ministry of Culture, https://www.iccd.beniculturali.it/it/standard-catalografici/sm-strumenti-musicali. For musical instrument cataloguing, see infra, Chapter 12.

[37] Sandra Suatoni, *Gli strumenti musicali dallo spettacolo al museo spettacolare*, Rome, Universitalia, 2019.

[38] See in particular Merriam, *The Anthropology of Music*, op. cit., chap. 11; Blacking, *How Musical Is Man*, cit.;Nettl, *The Study of Ethnomusicology*, cit.

[39] Bruno Nettl, *The Study of Ethnomusicology: Thirty-One Issues and Concepts*, Urbana–Chicago, University of Illinois Press, 2015. See also John Blacking, *How Musical Is Man*, Seattle, University of Washington Press, 1973.

to colonial and postcolonial contexts. For this reason, current collections must be interpreted with two aspects in mind. On the one hand, they are archives with irreplaceable organological comparisons and studies of the world's music cultures. On the other hand, they are the products of particular acquisition histories frequently shot through with unequal power dynamics.[40] The most informed museums do not just exhibit 'exotic' instruments and leave it at that. They work hard to gain knowledge of provenance, access for original communities, symbolic restitutions, and critical rereadings of museum terminologies.[41] From a museological perspective, the step that counts most is the one that passes beyond the logic of curiosity. If in the nineteenth century non-European instruments were often entered into European collections as rare, picturesque objects, today they tend to be presented as material witnesses to a complex cultural heritage that is intimately linked with practices of music, ritual, performance, and other social elements. Contemporary museography thus ever more frequently combines instruments with sound recordings, audiovisual equipment, iconographical apparatuses, and devices that mediate by reconstructing use contexts. In this sense, music museums encounter anthropology and heritage studies, redefining their own role as a space for listening, interpretation, and intercultural dialogue.

In the list of most important European museums, the MIM in Brussels remains one of the most convincing situations, for both the breadth and clarity of its exhibitions. The museum contains over eight thousand instruments and devotes a significant portion of its gallery space to instruments from other continents.

In Paris, the Musée du quai Branly - Jacques Chirac and the Musée de la Musique in the Cité de la Musique - Philharmonie de Paris constitute two complementary models. The first houses one of the vastest European collections of non-European art and culture. It insists today not only upon conservation but also upon spreading knowledge about the societies that produced their objects and are their heirs today, as well as original community access to collections. The second began in 2025 to redistribute its over eight thousand instruments and art objects from Africa, Asia, Oceania, and the Americas throughout its entire permanent exhibition, overcoming rigid separations between 'European music' and 'world music' and proposing a more relational history for the instruments and their circulations. In this sense, the Quai Branly is particularly strong on an anthropological and postcolonial level, while the Cité de la Musique is an example of comparative readings between history and organology.

[40] Felwine Sarr and Bénédicte Savoy, *The Restitution of African Cultural Heritage: Toward a New Relational Ethics*, Paris, Ministère de la Culture, 2018.

[41] James Clifford, *Routes: Travel and Translation in the Late Twentieth Century*, Cambridge (Mass.), Harvard University Press, 1997, chapters 5 and 7.

In a German context, the Humboldt Forum in Berlin and its Ethnologisches Museum occupies a central position for the very reason that it weds instrument and sound archive conservation to explicit reflections about colonisation and colonialism. The museum's Department of Ethnomusicology conserves approximately three thousand instruments and two sound archives with over one hundred and fifty thousand recordings – a rare case where instrument collections and sound archives were united under a single system, from the very foundation of Berlin's Phonogramm-Archiv (1900). Furthermore, the Forum made an open declaration of the central questions regarding its objects' provenance, the conditions of their entrance into the Berlin collections, and the legitimacy of their continuation there. A model has been derived from this, under which music studies cannot be separated from collections' political histories.

In the United Kingdom, the museum conducting the most important anthropological readings of its instruments is without doubt the Horniman. Its collection is one of the most complete in Great Britain, with over eight thousand instruments organised into sections themed by African, Asian, American, and Oceanian music traditions. Furthermore, the museum has in recent years adopted active engagement policies for communities of origin. It dedicates remarkable attention to integrating instruments with sound documentation and contextualised use cultures.[42]

Even in Italy this picture, despite being more fragmented, abounds with crucial nexuses. Rome's Museo Nazionale degli Strumenti Musicali, which houses an important collection of instruments from Africa, Oceania, and the Americas, unveiled in 2026 an exhibition titled *Sinestesie dal Mondo* (*World Synaesthesias*) whose multisensory design is themed around the instruments from the five continents.[43] Rome's point of reference for a strictly ethnographic component is the Museo Preistorico Etnografico Luigi Pigorini, which today forms part of the Museo delle Civiltà in the EUR neighbourhood. Its ethnographic heritage spans over sixty thousand items spread across its Africa, America, Oceania, Asia, and Mediterranean Cultures sections. Standing out among its holdings is the Indian musical instrument collection donated by Raja Sir Sourindra Mohun Tagore to King Vittorio Emanuele II[44] and given over the museum in 1879, as well as materials acquired through the travels of merchants, voyagers, and missionaries between the late nineteenth century and early twentieth. Milan's Museo degli Strumenti Musicali in the Sforza Castle positions Lombard lutherie alongside a selection of approximately two hundred non-European ethnographic instruments. Rome's Accademia Nazionale di

[42] Jonathan Tomlinson, *The Horniman Collection*, "The Galpin Society Journal", vol. 44, 1991, p. 2-14.

[43] *Sinestesie dal mondo*, *gbopera.it*, 8th February 2026, https://www.gbopera.it/2026/02/roma-museo-nazionale-degli-strumenti-musicali-sinestesie-dal-mondo/.

[44] Tagore donated similar collections to many institutions across the world during the same period: in 1876 to the MIM in Brussels, and other institutions such as Oxford, the Smithsonian, and the Melbourne Museum.

Figure 4 | Display case containing ethnographic artefacts, Berlin, Humboldt Forum, Ethnological Museum. Photo by the author.

Santa Cecilia, too, houses a collection that traverses five centuries of history across Europe, Asia, and Africa, art music and ethnic music from beyond Europe.

One of the most specific collections is the non-European instrument room in the Civico Museo Teatrale Carlo Schmidl in Trieste, which evokes the network of commercial relationships branching outward from the city's port toward the Levant, across the Suez Canal, and into the farthest Orient in the second half of the nineteenth century. A room in Florence's Galleria dell'Accademia focuses on the figure of Alessandro Kraus, a collector and anthropologist active in the city in the late nineteenth century. His collection of over a thousand pieces matches European instruments with sound-making objects from more varied cultures, transgressing the era's historically Eurocentric vision. The collection was presented at the 1878 Exposition Universelle in Paris, a situation where Italian organology encountered the world of universal expositions and this encounter was documented.

Outside of Europe, the most spectacular and didactically effective case is the Phoenix Musical Instrument Museum, which holds over fifteen thousand instruments from almost two hundred countries and territories. It organises its exhibitions by geographical area, with strong audio and video integrations. An institute more oriented toward historical research is the National Music Museum in Vermillion. Fundamental in the United States, further, are the collections in the Metropolitan Museum of Art, whose circa five thousand instruments range from six continents and the Pacific Islands, and the Smithsonian complex, which pairs instruments, sound archives, and performance traditions with a global perspective. They do this with particular care toward Indigenous, African American, and Caribbean cultures.[45] In Asia, very worthy of mention is the Hamamatsu Museum of Musical Instruments, often referenced for the abundance of its collections and breadth of the global landscape it documents.

These collections' importance does not depend, however, only upon the scale of their numbers. Musical instruments are some of the most effective objects for understanding cultures because they unite technique, symbolism, gesture, listening, and social relationships. An African talking drum, a Javanese gamelan, a Japanese koto, an Arabic oud, or an Andean flute tell not only the stories of their sound, but understandings of their bodies, rites, powers, memories, and spaces. The best museums are therefore those that do not isolate instruments as silent masterpieces but restore their contexts of use, their networks of meaning, and even, today, their histories of theft and transfer. This is where music museology crosses paths with anthropology, and where knowledge of cultures passes particularly tangibly through their instruments.

[45] Metropolitan Museum of Art, Department of Musical Instruments, https://www.metmuseum.org/about-the-met/collection-areas/musical-instruments; Smithsonian Center for Folklife and Cultural Heritage, https://folklife.si.edu.

## 4 | The Contribution of Ethnomusicology

*From comparative ethno-organology to Italian folk traditions and music archaeology.*

In Europe, many museum holdings contain non-western musical instruments. These are often labelled 'ethnic' and their collections inserted into general museum contexts or specialised sections. Studies of these instruments enter the realm of ethno-organology, a discipline that is in turn a branch of ethnomusicology.

The Enciclopedia Treccani defines ethnomusicology as a field of musicology created in Great Britain and Germany at the close of the nineteenth century. The object of its study is a mix of music traditions that do not fall within the remit of European art music. They instead include every expression of ethnic and social groups, passed down mainly through oral traditions. Research methodologies must keep track of three fundamental factors: modes of transmission, forms of creation and performance, and contexts of function.[46] Essentially, this is a discipline that examines music within its cultural context.

As illustrated in Chapter 1, the roots of these collections go back to sixteenth- and seventeenth-century cabinets of curiosities, where non-European instruments were featured as oddities rather than testimonies to cultures.[47] The presiding structure forming these collections, however, was more complex than the simple logic of curiosity. As shown in Chapter 1 with the case of Bertin and Amiot, objects' provenance was systematically obscured by their function in western scientific discourse.[48]

Seashell instruments, scrapers, rattles, pan flutes, foreign wind instruments, xylophones, drums, and other membranophones were some of the most widely found objects in 'exotic' collections. Some instruments from non-European territories were probably present in Medicean collections, too, and those of Ferrante Imperato in Naples in the late sixteenth century. Instruments from Africa, the Americas, and Asia appeared in the famous Kunstkammer of Rudolf II of Habsburg in Prague.

Many objects arrived in Europe through international embassies and commerce. Musical instruments were present in Ferdinand of Habsburg's collection in Ambras Castle and in Danish scholar Olao Worm's collection Copenaghen, which included Inuit, Sámi, African, and American items. Musical instruments are listed among the artificialia in the collection's catalogue, and the frontispiece etching

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[46] Pierluigi Gallo, *Etnomusicologia*, in *Enciclopedia Italiana di Scienze, Lettere ed Arti*, V Appendix, Rome, Istituto dell'Enciclopedia Italiana, 1992.

[47] Julius von Schlosser, *Raccolte d'arte e di meraviglie del tardo Rinascimento*, trans. Paola Di Paolo, Florence, Sansoni, 2000 [ed. or. *Die Kunst- und Wunderkammern der Spätrenaissance*, Leipzig, 1908].

[48] Picard, *Joseph-Marie Amiot*, p. 69-86. On the uneven dynamics between collector and interpreter in ethnographic collections, see supra, n. 10.

Figure 5 | Sound recording equipment, Rome, Central Institute for Sound and Audiovisual Heritage. Photo by the author.

seems to depict a musical instrument, probably a flute or trumpet, among other exhibited items.[49]

A more abundant and significant collection would likely have been that of Athanasius Kircher at the Collegio Romano. It was put into order by his student Filippo Buonanni, who wrote a tract on musical instrument classification.[50]

Bit by bit, the need emerged to describe not only instruments but also the way in which they were used. Early descriptions, initially sporadic, became increasingly frequent and in greater depth, until, between the end of the nineteenth and beginning of the twentieth century in Germany and England more systematic research was undertaken.

Musicological studies then begin to emerge in two broad areas. On the one hand, historical musicology centres on European art music. On the other, comparative musicology includes the study of musical traditions from other continents. Two leading scholars in this latter area were Guido Adler[51] and Alexander J. Ellis, who measured the scale of different European musical instrument collections.[52]

In 1900, the Phonogramm-Archiv was founded in Berlin by Carl Stumpf and Otto Abraham. Erich M. von Hornbostel directed it from 1905. Curt Sachs collaborated with its archive but was not a founder. These two men developed the well known Hornbostel musical instrument classification scheme that is widely used today.

In 1947, the International Folk Music Council was founded in England. It later became the International Council for Traditional Music (ICTM, 1981) and then the International Council for Traditions of Music and Dance (ICTMD, 2023). This institution promotes the study, documentation, and conservation of music and dance traditions across the world, operating in collaboration with UNESCO.

In France, music studies developed earlier and with an anthropological turn. It was no accident that Julien Tiersot wrote in the introduction to his 1905 *Notes* that «La musique des peuples éloignés par l›espace n›a-t-elle pas les mêmes droits que celle des peuples éloignés par le temps?».[53]

1931-1933, Marcel Griaule directed, with Michel Leiris as secretary and Schaeffner as temporary member in the role of musicologist, the Dakar-Djibouti mission that collected sound recordings and African musician instruments. In

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[49] Hans D. Schepelern, *The Museum Wormianum Reconstructed: A Note on the Illustration of 1655*, "Journal of the History of Collections", vol. 2, n. 1, 1990, p. 81-85.

[50] Cristina Ghirardini, *Filippo Bonanni's Gabinetto armonico and the Antiquarians' Writings on Musical Instruments*, "Music in Art: International Journal for Music Iconography", vol. 33, n. 1/2, 2008, p. 168-234.

[51] Guido Adler, *Umfang, Methode und Ziel der Musikwissenschaft*, "Vierteljahrsschrift für Musikwissenschaft", vol. 1, 1885, p. 5-20.

[52] Alexander J. Ellis, *On the Musical Scales of Various Nations*, "Journal of the Society of Arts", vol. 33, n. 1688, 27th March 1885, p. 485-527.

[53] Julien Tiersot, *Notes d'ethnographie musicale*, première série, Paris, Fischbacher, 1905, p. 1.

1936, Schaeffner published his *Origine des instruments de musique*, a comparative organological study with an anthropological approach.

Parallel to this, interest for French folk music led to the creation of the Service d'ethnographie musicale at the Musée national des Arts et Traditions Populaires, founded by Claudie Marcel-Dubois in 1939.

Both of these initiatives were made possible by the actions of Georges Henri Rivière, who in 1929 had formed, at the Musée de l'Homme, the first French Organology Department. A liaison between the worlds of music – he was a pianist and composer, a student of Koechlin and frequenter of Paris' Jazz avant garde – and of museology, Rivière embodied the double expertise required by instrument museology: practical music knowledge and institutional vision.[54]

The discipline began, from the 1950s onwards, to take on more precise theoretical definition. This was due in part to several publications, among which the volume written by Jaap Kunst and Allan Merrian should be remembered.[55] In 1955, the Society for Ethnomusicology was formed in the United States.

In comparison to situations in other European countries, ethno-musicology developed more sluggishly in Italy, and was chiefly focused on studies of folk music traditions.

Notable forerunners were Costantino Nigra and Alessandro Kraus. In the nineteenth century, Nigra began to systematically collect folk songs from the Piemonte region, applying a rigorous philological and comparative methodology.[56]

Alessandro Kraus, instead, developed a more ethnologically and organologically oriented approach. His musical instrument collection, presented at the 1878 Paris Exposition Universelle, garnered serious interest. His volume on Japanese music, the first to be published in the west, won first prize in a music history contest.[57]

In the period after World War II, a crucial boost was given by Giorgio Nataletti, founder of the Centro Nazionale di Studi di Musica Popolare at the Accademia Nazionale di Santa Cecilia.[58]

More scholars with more influential contributions to the development studies on Italian folk music traditions included Alan Lomax, Diego Carpitella, Ernesto De

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[54] F. Gétreau, *Georges Henri Rivière et la musique*, in Germaine Viatte and Charlotte Calafat (dir.), *Georges Henri Rivière. Voir, c'est comprendre*, Paris, Mucem–RMN, 2018, p. 214-221.

[55] Jaap Kunst, *Ethnomusicology: A Study of Its Nature*, The Hague, Martinus Nijhoff, 1955 (3rd ed.; 1st ed. as *Musicologica*, 1950); Alan P. Merriam, *The Anthropology of Music*, Evanston, Northwestern University Press, 1964.

[56] Costantino Nigra, *Canti popolari del Piemonte*, edited by Franco Castelli, Emilio Jona, and Alberto Lovatto, with an introduction by Alberto M. Cirese, Turin, Einaudi, 2009.

[57] Daniele Sestili, *A Pioneer Work on Japanese Music: La musique au Japon (1878) and Its Author, Alessandro Kraus the Younger*, "Asian Music", vol. 33, n. 2, 2002, p. 83-110.

[58] Giorgio Nataletti, *Dal Centro Nazionale Studi di Musica Popolare agli Archivi di Etnomusicologia*, Rome, LIM, 2005.

Martino, and Roberto Leydi. In 1962, Carpitella created, with Antonino Pagliaro, the Archivio Etnico Linguistico-Musicale at the Discoteca di Stato (today the Istituto Centrale per i Beni Sonori ed Audiovisivi) in Rome.[59]

Disciplines such as music archaeology and archeological organology have evolved from historic musicology and ethnomusicological studies.

Music studies in the ancient world present issues similar to those in ethnomusicology, but with an additional difficulty: a lack of direct sound sources. In this sphere, archaeological finds, iconographical sources, and literary evidence take on looming importance.[60] More than museums, large short-term exhibitions have played an important role in the rise of this area of study. Some of the most important such exhibitions have been *Musica e archeologia: reperti, immagini e suoni dal mondo antico*; *Echos de l'Antiquité. Musiques!* e *Archaeomusica - Suoni e musica dell'Europa antica*, from the European EMAP project.[61]

## 5 | Museums Contextualise Musical Instruments

*Every exhibition context constructs different meanings: objects that make sound between army museums, ethnographic museums, decorative museums, and music museums.*

Musical instruments occupy a unique position within museum collections: as shown in Chapter 2, their double nature as material artefacts and sound-making devices makes museum interpretations particularly complex.

As with all musealised objects, musical instruments have been selected and plucked out of their original context, acquiring a quality that museological theory terms 'museality.'[62] This is not a property innate to an object, but a value assigned by an observer who perceives cultural, historic, or symbolic meaning within the object.

In the case of musical instruments, this attribution takes on particularly articulate shades. Instruments can be interpreted as material artefacts, and this highlights their techniques of construction, decoration, or artistic value. On the other hand, they can be interpreted as tools for sound that testify to music practices,

[59] Sandro Biagiola (ed.), *Etnomusica: Catalogo della musica di tradizione orale nelle registrazioni dell'Archivio Etnico Linguistico-Musicale della Discoteca di Stato*, Rome, Il Ventaglio, 1986.

[60] Historic musical instruments are often conserved in archaeological museums. For the Italian context, refer to the permanent exhibition of Ancient Roman musical instruments in the Parco archeologico di San Vincenzino in Cecina.

[61] Giulio Paolucci and Susanna Sarti (eds.), *Musica e archeologia: reperti, immagini e suoni dal mondo antico*, exhibition catalogue (Castelluccio di Pienza, July 2010 – March 2011), Rome, Edizioni Quasar, 2012.

[62] The concept of *museality* (*muzealita*) was introduced by Zbyněk Zbyslav Stránský in *Muzeum a věda*,"Múzeum", XV, 1970, n. 3, p. 173-183.

repertoires, and cultural traditions. At a further remove is the perspective gleaned when considering an instrument within a particular soundscape – in other words, in the acoustic and social context in which it was originally used.

This multiplicity of interpretations explains why musical instruments can appear in starkly varied museum contexts rather than only in music-focused museums. They can be exhibited in archaeological, ethnological, or anthropological museums when they are interpreted as witnesses to ritual or cultural practices. They can be exhibited in technical, artistic, or trade-themed museums when the expert craftsmanship necessary for their fabrication is prioritised. They can be exhibited in museums centring on decorative arts or history as elements of home decor or social status symbols.

It is therefore not surprising that instruments can turn up even in museum contexts that seem far distant from music. For example, the few instruments conserved in the Musée Carnavalet, which tells the history of the city of Paris, hold immense symbolic value. There is the harp commissioned by Queen Marie Antoinette from the best artisan in Paris to give to a colonel in the Swiss Guard. In decorative arts museums, however, instruments are very often presented in a way that privileges appreciation of their design and woodworked elements, aesthetics over their sonic dimensions.

The principle that an instrument's meaning depends on its exhibition context is not new on the scene. Sachs had already in 1934 centred this idea within his museological theory (see Chapter 2). Contextualisation is not a scenographic option but an epistemological condition: without it, an instrument can speak only of itself, silent about the culture that produced it.

The situation with Bertin and Amiot analysed in Chapter 1 offers precise historic confirmation of this argument: modern-day museology attempts to correct this epistemological error through restoring objects' provenance networks of cultural relationships.

In other cases, instruments contribute to reconstructions of historic social environments. An example is provided by the Musée des Beaux-Arts de Rouen, where there is a room for Rouen musician François-Adrien Boieldieu (1775-1834). Displayed here are portraits, furniture, instruments, and mementos of the famous composer, in the style of a period room. This helps visitors understand the cultural context of exhibited works. In the same way, a trumpet or drum in a military museum exhibition takes on different hues of meaning that it would in a music museum. It becomes a testimony to army life and ceremonial practices.

The principle that emerges is simple but fundamental: the significance of an item depends to a very great extent on the interpretative context in which a museum presents it. Changing an exhibition context changes, too, the cultural storytelling whose construction an object is part of. Musical instruments represent a particularly crucial example of this dynamic, since their museum identity swings

Figure 6 | Georges Cousineau, Hooked harp, c. 1780, Paris, Musée Carnavalet, Salon de l'hôtel de Breteuil (reconstruction of a period room).
Photo by the author.

continually between their material aspects, functions producing sound, and symbolic values. This plurality of meanings is the point of departure from which the reflections of the following chapters develop.

The museum object's semantic dynamism finds a theoretical base in the work of Jean Baudrillard, who in *Système des objets* (1968) traces distinctions between an object in its practical function and an object abstracted from its utility. When the latter enters into a collection, its function yields place to possession and its 'sign value.' Musealised musical instruments are emblematic examples of this: removed from the sound practices that define them, objects risk transforming into pure signs inside the exhibition apparatus, communicating their belonging to a culture or a period without conveying any further the sound experiences that constituted their original sense.[63]

## 6 | Popular Musical Instruments, Museums, and Sound Archives

*Sound heritage in traditional communities: from research in the field to musealisation, between Italy and ethnomusicological archives.*

Before continuing, it will be useful to identify two institution types that come in close contact often over the course of this chapter: museums and sound archives. Museums conserve and display material objects – instruments – building around them publicly accessible, culturally interpreted exhibitions. Sound archives instead conserve audio recordings and ethnographic documents, and are primarily research tools. Access is generally reserved for scholars, even when archives are physically located inside a museum. These two institutes complete one another – the silent museum object finds its voice in the archive, the archive finds its body in the object – but they respond to logic that is institutional, regulatory, and distinct when it comes to use. Both these institutions appear frequently throughout this chapter: sound archives as places where traditional folk music has been documented in the field before it was ever musealised, museums as spaces where this same heritage has – not without tension – found exhibition form and public function.

Folk instruments constitute some of the most meaningful evidence we have of material culture in traditional societies. In many societies, music organises ritual time, builds collective identity, and passes down cultural memories. Instruments are an essential component of all this because they make visible and tangible a sound culture that is otherwise ephemeral.

[63] Jean Baudrillard, *Le système des objets*, Paris, Gallimard, 1968; Italian translation *Il sistema degli oggetti*, Milan, Bompiani, 1972, in particular p. 103-150.

The study of these instruments is located at the intersection between ethnomusicology, cultural anthropology, and museology. If ethnomusicology analyses music practices in their social and cultural context, museology deals with the conservation, interpretation, and exhibition of the objects that document such practices. In this sense, musical instrument museums and ethnographic collections do not constitute solely places of material conservation but very real spaces of cultural interpretation, where instruments become historic documents capable of telling the stories of their musical lives and the communities that produced and used them.

In the Italian context, folk music – especially in central and southern regions – has for centuries played a fundamental role in the lives of rural and pastoral communities. Songs, dances, and musical instruments accompanied their farmwork and punctuated their religious and festive calendars, contributing to the construction of local identities that were strongly rooted in the land. Musical instruments thus represent an essential component of these cultural systems, but their meaning emerges clearly only when they are placed in conversation with the music repertoires, performance movements, and social contexts in which they were used.

Over the course of the twentieth century, scientific interest toward documenting music traditions induced the creation of sound archives, research centres, and specialised museums that conserve instruments, recordings, and ethnographic materials. In Italy, this process has been strongly influenced by the development of ethnomusicology and research carried out in the field from the 1950s onward.

As illustrated in Chapter 4, ethnomusicology redefined the study of musical instruments as complex cultural systems: they are not only simple technical objects but components of social practices, symbolic meaning, and modes of transmission for music knowledge.

One of the most important folk instrument contributions in the Italian scene was made by Febo Guizzi, who devoted numerous studies to organology and Italian traditional music.[64] His research shed light on the large variety of instruments used in different regional areas and their close ties with artisanal practices, music repertoires, and local identities. A similarly critical contribution came from the work of Roberto Leydi, who analysed folk music's role in local cultures and the processes of social transformation that swept across the countryside during the twentieth century.[65]

A key moment, too, for the development of ethnomusicological studies in Italy was the 1950s research campaigns led by Diego Carpitella, often in collaboration

[64] Febo Guizzi, *Gli strumenti della musica popolare in Italia*, Lucca, LIM, 2002.

[65] Roberto Leydi, *L'altra musica*, Milan, Giunti-Ricordi, 1991.

Figure 7 | Display case containing bagpipes – bagpipes and zampogne – Brussels, Musée des Instruments de Musique (MIM).
Photo by the author.

with Alan Lomax.[66] The recordings they created in the course of this research are today documentary sources of major importance. They are held in the Archivi di Etnomusicologia dell'Accademia Nazionale di Santa Cecilia and with the Istituto Centrale per i Beni Sonori e Audiovisivi, institutions that play central roles in the conservation and promotion of music heritage documented across the twentieth century.

Beside sound archives, museums play a pivotal role in conserving the material culture of traditional music. One of the most important Italian institutions in this sphere is the Museo delle Arti e Tradizioni Popolari, today part of the Museo delle Civiltà, whose collections include musical instruments from different Italian regions gathered during demo-ethno-anthropological research conducted in the twentieth century.

An important case is the Museo Ettore Guatelli, which conserves a huge collection of agricultural material culture that does not neglect musical instruments nor sound-making objects connected to traditional rural music practices.[67]

The Museo del Paesaggio Sonoro di Riva near Chieri is documented with particular depth in the work of Cristina Ghirardini, who reconstructs its intellectual genesis: Domenico Torta's collection – musical instruments, game calls, noisy objects, musical toys – was put together outside the bounds of ethno-organological academia but fully embodies its principles. This begins with the non-hierarchical definition of a musical instrument developed by Guizzi, which centres not on the object in itself but on the relationship between a project's intention and the sound potential of a given material. In this way, the museum becomes not only a place for conservation but a space where a community's soundscape – its noises, memories, rapport with the environment – is made public and transmittable. Chieri's museum forms one of those boundary cases where the line between museum and sound archive tends to blur: Torta's collection has the structure type of a material archive for acoustic landscapes, but its public purpose and openness to collective interpretation place it squarely in the museum sphere.[68]

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[66] Diego Carpitella, *Etnomusicologia*, Palermo, Flaccovio, 1973; Alan Lomax, *Folk Song Style and Culture*, Washington, American Association for the Advancement of Science, 1968.

[67] Cristina Ghirardini, *Gli strumenti musicali del Museo Ettore Guatelli di Ozzano Taro* [unpublished work]. The Museo Ettore Guatelli is located in Ozzano Taro (PR); official website: museoguatelli.it.

[68] C. Ghirardini, *Il paesaggio sonoro del Museo del paesaggio sonoro di Riva presso Chieri*, in Guido Raschieri (ed.), *Il terzo suono. Dialoghi al crocevia delle tradizioni orali*, vol. 1, Quaderni 11, Università degli Studi di Trento, Trento, 2021, p. 255-276. Available open access: https://iris.unitn.it/retrieve/handle/11572/459697/1062397/Q11_Ghirardini.pdf.

The variety possessed by Italian regional music traditions is reflected in the presence of numerous folk instruments linked to ritual and festive contexts.[69] Among these, particular importance is assumed by the accordion, tambourine, and launeddas, each of which is closely associated with specific cultural zones across the peninsula. The zampogna belongs to the bagpipe family, traditionally associated with pastoral practices and central-southern Christmas performances. The accordion, a small instrument with diatonic bellows that became widespread from the nineteenth century, accompanies folk dances and community festivals. The tambourine, a framed drum broadly used across the Mediterranean, has an important rhythmic function in southern Italian traditional music. Launeddas are instead one of the instruments that most characterise Sardinian music traditions.[70]

Among these, the zampogna occupies a particularly crucial position both for its symbolic value and for the scientific and museum documentation that concerns it. Considered the Italian bagpipe par excellence, it is linked to central-southern pastoral zones and traditionally accompanies Christmas novenas, religious processions, and feasts for patron saints.[71] From a museological perspective, the main reference for the study of the zampogna, an emblematic of Italy's centre and south, is the Museo Internazionale della Zampogna "P. Vecchione" in Scapoli, a unique museum wholly focused on the zampogna and bagpipes. Its exhibitions place regional Italian variants in dialogue with bagpipes from across Europe and beyond. It thus integrates historic instruments, sound documentation, and multimedia devices. Further, examples of this and other pastoral instruments are conserved in the Museo Nazionale degli Strumenti Musicali in Rome, which come largely from the Gorga Collection.

As described in Chapter 2, musical instruments cannot be interpreted exclusively as material objects: they are complex cultural systems that incorporate performance practices and social contexts. As a consequence, sound museography today combines instrument exhibitions with sound documents, audiovisual materials, and ethnographic testimonies.

This perspective can be found in UNESCO intangible cultural heritage protection policies (see Chapter 2).

[69] R. Leydi and Tullia Pianta, *Strumenti musicali popolari italiani*, Milan, Electa, 1985.

[70] Bernard Lortat-Jacob, *Musique et fêtes en Sardaigne*, Paris, CNRS Éditions, 1990.

[71] Antonello Ricci, *La zampogna: storia, organologia, repertorio*, Rome, Squilibri, 2010.

## 7 | Civic and Folk Bands: Music Heritage and Musealisation

*Two centuries of collective music literacy: philharmonics, their archives, and the challenge of musealising a still-living practice.*

Community and folk music bands are one of the most widespread and enduring phenomena in modern music history. Created across the nineteenth century as part of philharmonic societies, local music associations, and municipal initiatives, these bands have long formed one of music culture's main tools of circulation among European and western communities.[72] Their importance does not only regard artistic activity. They also hold social and anthropological dimensions. Indeed, bands wielded educational, aggregative, identity-related functions that made them a central component of public life in many communities.

From a historic and museological perspective, bands can be thought of not only as musical formations but as makers of material culture. Indeed, musical instruments, uniforms, scores, concert programmes, photos, and documentary archives form important heritage for the study of collective music practices and their evolution over time. Analysing these materials allows the historic dimensions of ensemble playing, and the role of bands in the formation of modern music culture, to be reconstructed

Across the nineteenth and early twentieth centuries, musical bands became a principal means for the lower classes to access music. Concerts by marching bands in squares, public gardens, and patron saint feast days allowed complex repertoires to spread – especially lyric opera and symphonic music – beyond theatres and concert halls. Through transcriptions and wind-instrument fantasias, melodies from operas by composers such as Giuseppe Verdi, Gioachino Rossini, or Gaetano Donizetti entered collective music memory.[73]

In this context, bands also functioned, importantly, as informal music education. Public listening and repeated marching band concerts allowed audiences to familiarise themselves with themes, melodies, and musical frameworks from both operatic repertoires and folk songs. Furthermore, bands contributed to the spread and popularisation of many songs that would become part of the collective imagination: from famous operatic arias to widely circulated folk songs like *Bella ciao*[74] or, in more local contexts, catchphrases from Rocco Granata's 1959 song *Marina*.

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[72] Vincent Dubois, Jean-Matthieu Méon, and Emmanuel Pierru, *The Sociology of Wind Bands: Amateur Music Between Cultural Domination and Autonomy*, London, Routledge, 2016.

[73] R. Leydi, *La musica popolare in Italia*, Milan, Il Saggiatore, 1973; Marco Santoro, *La musica nelle piazze: bande e cultura musicale nell'Italia dell'Ottocento*, in *Storia della musica italiana*, vol. 8, Turin, EDT, 2005.

[74] Cesare Bermani, *Bella Ciao: storia e fortuna di una canzone*, Rome, Donzelli, 2020; Franco Fabbri, *Around the Clock: una breve storia della popular music*, Turin, UTET, 2008.

Parallel to this, community and military bands aided the spread of patriotic and ceremonial repertoires. A particularly emblematic example is the March of the Bersaglieri, composed in 1860 by Giulio Ricordi upon lyrics by Giuseppe Regaldi. Subsequently reworked, it became one of the most recognisable symbols of Italian military music and was often performed by marching bands and public ceremonial bands.[75] After World War II, some melodies with army origins entered popular culture with permanency. This occurred partly due to the expansion of the music industry marching band performances. A particularly well-known Italian example is *Il silenzio* by trumpet player Nini Rosso. Released in 1964, it rose to the top of the charts by 1965 and sold millions of copies. The piece is a variation of the US military bugle call *Taps,* commemorative music that honours the fallen.

In many cities and countries, municipal bands were associated with music schools or other forms of learning that afforded young people free or reduced-cost classes. Here, they got to play instruments. This system contributed to the training of many musicians who would later take up professional careers in the theatre, in orchestras, or in music institutions. Bands thus became a place of music knowledge circulation and cultural mobility.[76]

From a music perspective, community bands were formed upon a core combination of wind and percussion instruments. Woodwind instruments included flutes, piccolos, clarinets, oboes, and bassoons. The brass section comprised trumpets, flugelhorns, trombones, baritone horns, euphoniums, and tubas. Percussion instruments – bass drums, snares, and cymbals – complete the picture and augmented outdoor performance sound projection. This type of ensemble was characterised by huge flexibility of timbre that facilitated the development of specific repertoires for bands – spanning symphonic marches, original compositions, operatic arrangements, and folk music.

The study of music bands has grown in relevance over the past few decades, even in the realm of museology. Objects associated with marching band practices – musical instruments, uniforms, scores, photos, concert programmes, and archival documents – indeed form a crucial part of music's material culture. Musealising these materials enables the documentation not only of the evolution of instruments and musical groups but also of the social and cultural practices of ensemble playing.

Museum collections allow us to observe the organological evolution of eighteenth- and nineteenth-century wind instruments, from valve development to the spread of new instrument families.[77]

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[75] Trevor Herbert and Helen Barlow (eds.), *Music and the British Military in the Long Nineteenth Century*, Oxford, Oxford University Press, 2013.

[76] Dubois, Méon, and Pierru, *The Sociology of Wind Bands*, cit., p. 45-67.

[77] Arnold Myers, *The Museum of Musical Instruments: History and Function*, "Journal of the American Musical Instrument Society", 29, 2003, p.5-23.

Figure 8 | Agustinus Sasundu, the “Musik Bambu” ensemble, Sanghie Islands, Indonesia, Paris, Musée de la Musique, Philharmonie de Paris.
Photo by the author.

Musical instrument museums here play a fundamental role. As discussed in Chapter 1, Italy's main musical instrument museums hold important nineteenth- and twentieth-century aerophone and percussion marching band instrument collections.

In a European context, the MIM in Brussels, Musikinstrumenten-Museum in Berlin, and Grassi Museum für Musikinstrumente in Leipzig – discussed in Chapter 3 – have important nineteenth-century wind instrument collections that allow the circulation and standardisation of marching band compositions to be examined.

In addition to museum collections, community band traditions are today documented in historic archives and the music collections of local philharmonic associations, libraries, and cultural institutions. Indeed, many historic bands possess archives that encompass sheet music, manuscript scores, recordings, photos, administrative documents, and other materials that permit the history of music practices and role of bands in community cultural life to be reconstructed.

From a contemporary point of view, marching band practices are fully fledged elements of community intangible cultural heritage, and this is recognised by 2003 UNESCO Convention (see Chapter 2).

Ultimately, community and folk bands are a form of heritage that fuses material qualities – instruments, scores, archives – with the living music practices passed down within communities.

## 8 | Military Bands, Signal Instruments, and the Musealisation of Army Music

*From battlefield acoustic signals to halls inside museums: drums, trumpets, and bugles as documents of sound and military history.*

It emerged in the previous chapter that community bands trace their roots in large part to the organological and organisational models developed by army bands: it is therefore worth examining specific traits within this military matrix.

This relationship concerns not only the instrument composition of bands or circulation of musicians between military and civil spheres, but also the way in which sound is configured as an instrument of public spaces' social and symbolic organisation. Indeed, army music was created first and foremost as a system for communicating and coordinating operations, before it ever took autonomous artistic shape. As Raoul F. Camus observes, army music has historically functioned as an organising sound for military activities – acoustic signals precede and structure the actions of a group.[78]

[78] Raoul F. Camus, *Military Music of the American Revolution*, Chapel Hill, University of North Carolina Press, 1976; Herbert e Barlow (ed.), *Music and the British Military*, cit., in particular Chapter 1.

In the modern era, garrison life was marked by complex networks of acoustic signals. Before electronic communication systems were invented, drums, fifes, trumpets, and, later, horns and bugles formed some of the most effective means of conveying orders on the field and coordinating troop movements. Codified sound sequences were used to delineate the critical moments in military life – from alarms to muster or attack marches to retreats or silence – in a way that was immediately recognisable even from great distances or among noise or confusion. In such a context, music represents a very real device for commanding, an integral element of discipline and military organisation.

Historical and anthropological interpretations of this system view it as an acoustically codified form of power. Sound does not occur only as an aesthetic function, but becomes a means of ordering space and group behaviour. The language of musical signals – rhythmic in the case of drums and melodic in the case of wind instruments – constitutes as such a specific semiotic system through which military authority is rendered perceptible, recognisable. From this viewpoint, the dimension of sound becomes an integral element within the symbolic mechanisms through which castrensial institutions manifest in public spaces.[79]

Among the instruments used for military signalling, the drum takes centre stage. Field drums beat the tune of troops' steps by codified rhythmic sequences. Military manuals and rule books develop serious drum languages for communicating specific actions like advancing, retreating, or mustering. Beside the drums, melodic instruments with strong sound projection were being used: the trumpet, blowing horn, and, especially, the nineteenth-century bugle. As Anthony Baines underlines in his work on brass organology, these instruments' development was closely linked to functional needs in military communication.[80]

From the eighteenth century onwards, this sound signalling system began progressively to transform into a more articulated music formation. Military bands expanded their composition by stirring in even greater numbers of wind instruments, and developed more complex repertoires. An influx in parade music and wind instrument formations in central Europe contributed to this process, as did innovations in instrument construction: perfecting woodwind instruments, gradually affirming keyed brass instruments and then valved brass instruments. Then, in mid-nineteenth-century France, Adolphe Sax made the decisive contribution of his new instrument system.

Across the nineteenth century, military bands were configured in relatively stable formations: clarinets and other woodwind instruments for the melody line;

[79] Stéphane Brosseau, *La musique militaire au tempo de l'armée de Terre*, Paris, Economica, 2017; Tim Carter and John Greer (eds.), *The Routledge Companion to Music and Museums*, New York, Routledge, 2022.

[80] Anthony Baines, *Brass Instruments: Their History and Development*, New York, Dover, 1993; Ralph Thomas Dudgeon, *The Keyed Bugle*, Lanham, Scarecrow Press, 2004.

trumpets, cornetts, and flugelhorns for brilliance of timbre; trombones and basses for depth of sound; and a group of percussion instruments tasked with keeping rhythm to the march. In different European countries, especially after mid-century French reforms, this way of setting bands up became further standardised. Municipal or folk groups, which had spread through nineteenth-century European cities, took up this structure and a not insignificant portion of marching-band repertoires, though they differentiated themselves by their social function. Army bands accompanied official ceremonies, parades, and public rallies, and were symbols of state authority. Civic bands, on the other hand, were rooted in community life. They participated in religious festivals, city-wide celebrations, and open-air concerts. Furthermore, in Italy, they rapidly extended their repertoires with transcribed operas and entertainment music, infusing their military model with a strong theatrical and municipal vocation.

Regardless of their differences in function, these two worlds remained closely connected. Many musicians trained in army bands became directors or instructors within civil bands, contributing to the spread of marching band culture into urban and popular contexts. In this sense, city bands can be interpreted as public and community transformations of military bands, culturally and socially recasting the army's sound language.

On the level of organology, a connecting role is played by the clarinet. It highlights the passage from signalling music to bands' identity as clear-cut musical groups. This instrument was gradually introduced into army bands across the eighteenth century, and helped widen melodic and timbric possibilities for marching band formations, becoming a central instrument even in nineteenth-century civic bands.[81]

A special case is presented by bagpipes, which belong to a much older music tradition deeply rooted in folk cultures. Unlike marching band instruments developed in modern military contexts, bagpipes come from pastoral traditions spread across diverse regions in Europe and the Mediterranean. Their organological origins likely trace back to the Ancient Near East. There is iconographic evidence in Ptolemaic Egypt and Imperial Rome, and the instrument spread from here to Western Europe and the Eastern Mediterranean Basin. Its presence in army bands occurs mainly in specific contexts, especially Scotland and the more general areas of Britain and the Commonwealth, where the Great Highland Bagpipe was incorporated into regimental Highland traditions and became a symbol for cultural identity beyond a means for creating sound.[82]

[81] Stephen Dobney, *Military Music in American and European Traditions*; Baines, *Brass Instruments*, cit.; Herbert e Barlow (ed.), *Music and the British Military*, cit.

[82] A. Baines, *Bagpipes*; Hugh Cheape, *Bagpipes: A National Collection*, Edinburgh, National Museums Scotland, 2008.

A particularly salient detail is the transit of several military signals, marches, and patterns into non-army popular spheres. Italy's best known case is *Il silenzio* by Nini Rosso, which reworks Italian Cavalry bugle call Silenzio Fuori Ordinanza in concert and record format, transforming military signaling into an extraordinarily wide-reaching commercial and memorial song. Even the bersaglieri tradition offers a meaningful example of this process: March of the Bersaglieri, commonly associated with *Flik Flok*, was created through the intersection between corps traditions, brass band repertoires, and nineteenth-century adaptations. It became one of the most recognisable sound symbols of the Italian patriotic imaginary.

Beside these Italian examples, others can be recalled where music that was originally military became popular well beyond its use context. The *Radetzky-Marsch* op. 228 by Johann Strauss Sr., composed in 1848 as a celebratory military march and subsequently a steady appearance in his mass concert repertoire. Or the *Colonel Bogey March* by Kenneth J. Alford (pseudonym of Frederick J. Ricketts), composed in 1913 and published in 1914, which came from the universe of bands in the British army but soon became widely known even beyond the military context. These cases show how army music contributed significantly to the formation of the collective sound imaginary.

When military musical instruments enter into museum collections, they take on value that passes way beyond their original function. In museological terms, they can be interpreted at the same time as testimonies to the material culture of music – by which music practices are embodied in objects and technologies – and as traces of historic soundscapes. As R. Murray Schafer observes, every social environment produces its own recognisable acoustic landscape, and the life of modern-era armed forces was deeply organised by signalling, marching, and ceremonies with music, which contributed to demarcate sensory experiences of military spaces. Through such objects, museums allow not only instruments' evolution to be studied, but also the music practices, repertoires, and collective rituals tied to military life.[83]

A particularly significant example of military music musealisation is the *Cabinet des instruments de musique* at Paris' Musée de l'Armée. This museum has a collection of approximately three hundred musical instruments, mostly aerophones and membranophones connected to the history of French military bands between the eighteenth and nineteenth centuries. The collection includes field drums, fifes, trombas d'onore, military clarinets, serpents, ophicleides, piston-valved cornets, trombones, and numerous percussion instruments used in marching and regimental bands. The cabinet is part of a broader *Cabinets*

[83] Raymond Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, Rochester, Destiny Books, 1994; Carter and Greer (eds.), *The Routledge Companion to Music and Museums*, cit.

Figure 9 | Military drum, Armoury, Valletta, Palace of the Knights of Malta.
Photo by the author.

*insolites* exhibition and presents instruments in relationship with uniforms, paintings, and ceremonial objects: a display choice that allows not only instruments' organological evolution to be observed but also their role in symbolic representations of the army and of the state.[84]

A particularly important case for military instrument museology is offered by the show *Entendre la guerre. Sons, musiques et silence en 14-18*, installed in the Historial de la Grande Guerre in Péronne between March and November of 2014. The show – and the scientific catalogue accompanying it – takes an unusual approach: rather than depicting war, it invites visitors to listen. Through instruments, scores, letters, and sound installations, it reinstates the entire auditory universe of conflict, from military marches and patriotic chants to the rumble of artillery and the silence of November 11. Florence Gétreau's contribution on soldiers' instruments analyses a little-studied organological category: instruments made by soldiers at the front, often carpenters by trade, with whatever materials they could find. This improvisational form of instrument-making recalls ancient techniques and at the same time testifies to the scarcity of materials, ingenuity of constructors, and the intransmutable need to make music, even in extreme conditions. Many of these instruments have biographical inscriptions – places, dates, names – that turn them into memory-bearing objects as well as artefacts capable of sound. The cello built for soloist Maurice Maréchal, held in the Musée de la Musique in Paris, is one of the more studied examples of this.

In addition to these cases linked to professional musicians, the Historial's permanent collection holds instruments made by common soldiers. These include the cello created by engineer Marcel Larguier in Oise, December 1916, with a handwritten note on the inside recording the names of his fellow soldiers – an object whose functions for sound are inseparable from those for a life story. Museologically, these objects beg particularly sharply the question of musical instruments' double status: they are at once relics of war and devices for sound, material witnesses to a cultural need that violence was not able to suppress.[85]

In the Italian context, military musical instruments' presence in museums seems not generally as systematic as that in some wider European specialised institutions. In Italian armed forces museums musical instruments hardly ever comprise independent organological collections. Rather, they appear as historical

[84] Musée de l'Armée, *Cabinet des instruments de musique*, percorso dei *Cabinets insolites*, Paris, https://www.musee-armee.fr.

[85] F. Gétreau, *Instruments de soldats*, in Ead. (dir.), *Entendre la guerre. Sons, musiques et silence en 14-18*, Paris, Gallimard / Historial de la Grande Guerre, 2014, p. 52-67. Éric Sauda, "La musique au front durant la Grande Guerre: l'exemple de François Gervais", in *Temps de la guerre versus temps de la paix : l'expression musicale comme agent du lien social*, *Actes du 136e Congrès national des sociétés historiques et scientifiques*, Paris, Éditions du CTHS, 2013.

documentation subsections for single military corps. The Museo Storico dell'Arma dei Carabinieri has material connected to the history of their police musical band, whose sequence of events as an institution, from its nineteenth-century roots to its modern reorganisation, documents a journey from marching band to large-scale permanent state band. In the Museo Storico dei Bersaglieri, in the Porta Pia, the element of music is instead closely linked to traditions of marching bands in movement, inextricable from the sound identity of the corps.

Next to military museums in the strict sense, an important role for studies of marching band instruments is played by the Museo Nazionale degli Strumenti Musicali in Rome, where instruments used in army and civilian bands have a dedicated space reserved within the wider European organological historical framework. The evolution of aerophones and percussion instruments used in marching band formations can thus be observed by visitors. The presence, in a state musical instrument museum, of materials attributable to bands reinforces the idea that army music cannot be relegated to the margins of general music history. It must instead be understood as one of the matrices of modern marching band culture.

All together, these collections evidence a full spectrum from acoustic military signaling to the formation of civic bands: a trajectory where sound's operative function is progressively transformed into shared cultural practice. By conserving the musical instruments that were the material protagonists of this practice, museums today help a sound history be seen and studied that would otherwise remain accessible only through written sources. This work restores the symbolic systems, repertoires, and acoustic landscapes that defined military life and moulded traditional European bands.

## 9 | Music, Liturgy, and Objects that Make Sounds: Perspectives on Musicology across Cult, Material Memory, and Acoustic Landscapes

*Bells, songs, and instruments in medieval Christian liturgy: museums as places of restitution for acoustic landscapes of the sacred.*

Music's presence in religious practices is an almost universal phenomenon. In almost every cult tradition, in fact, sound – whether vocal or instrumental – contributes to defining the relationship between a community of the faithful and the sphere of the sacred. Sound organises ritual time, intensifies collective participation, and renders celebrations' symbolic dimension perceptible. From this perspective, music is not only an element auxiliary to a rite but one of the languages through which the sacred can be interpreted and shared socially. On the level of methodology, this invites us to consider religious music not only as repertoire or text, but as embodied practice, in space, gesture, and objects.

Even in the Christian tradition, music has always occupied a central position in liturgy and community devotional life. In the religion's early centuries, however, cult sounds were dominated mostly by the human voice: chanting accompanied the proclamation of scripture, psalmody, shared prayer, and ritual remembering of events in the sacred story. These early Christian communities thus generated predominately vocal soundscapes. In western traditions, liturgical song repertoires – which culminated in the form that modern historiography labels Gregorian chant – for centuries constituted the main way music occurred in Latin liturgy.[86]

A historic reconstruction of music in Christianity cannot, however, stop at repertoires or known musical sources. It must also take a perspective that can frame ritual practices alongside their architectural spaces and material objects. Indeed, medieval and modern Christianity produced well-defined religious soundscapes in which chants at mass and at the offices coexisted with processions, liturgical calendar celebrations, confraternal rites, pilgrimages, funerals, feast days for patron saints, and, more generally, all public manifestations of devotion in which sound was part of the way sacred experiences were constructed. In this sense, the concept of a soundscape – despite being developed in a different era and disciplinary sphere – proves very useful as an interpretive category. Religious life can be read as a system of embedded sound events, each with their attendant functions, spaces, and communities.[87]

From this point of view, museums assume particular importance. If music historiography traditionally privileged texts, repertoires, and written sources, a museological perspective recentres sound's materiality. Objects conserved in collections – musical instruments, bells, choir books, pipe fragments, keyboard details, bellows, wooden resonance chambers, acoustic devices, and liturgical items with sound functions – are indeed critical evidence not only for understanding what music was performed but for reconstructing the way in which sound was produced, shared, perceived, and symbolically invested within religious practices. In museological terms, an object that makes sound is not simply a technical artefact. It constitutes the material remains of ritual acts and of specific cultures of listening.[88]

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[86] Willi Apel, *Gregorian Chant*, Bloomington, Indiana University Press, 1958; David Hiley, *Western Plainchant: A Handbook*, Oxford, Clarendon Press, 1993.

[87] Mark M. Smith (ed.), *Hearing History: A Reader*, Athens, University of Georgia Press, 2004; Bruce R. Smith, *The Acoustic World of Early Modern England: Attending to the O-Factor*, Chicago, University of Chicago Press, 1999.

[88] Susan M. Pearce, *Museums, Objects and Collections: A Cultural Study*, Leicester, Leicester University Press, 1992; Chris Caple, *Objects: Reluctant Witnesses to the Past*, Abingdon, Routledge, 2006.

This point is particularly important for the history of Ancient Christianity. As James McKinnon has shown, caution displayed by many ecclesiastical authors around instruments was largely caused by instrumental music's association with the pagan world – theatre and the spectacles of antiquity. Their preference for the human voice thus reflects not only an aesthetic decision but the assumption of a cultural and theological position around the nature of Christian worship.[89] Nevertheless, this did not prevent the gradual formation of a more complex sound universe. Outside of eucharistic celebrations, in fact, Christian communities' religious life was marked by many ritual moments where sound held multiple functions: convening the faithful, announcing a celebration, accompanying a procession, dividing feast days from ordinary days, signalling grief, festivals, or emergencies.

In the Middle Ages these aspects of sound were further articulated. Bells, especially, were among the most pervasive presences in the Christian soundscape. They governed the rhythms of daily life as well as religious life. They announced the canonical hours, indicated festivities, accompanied processions and funerals, and marked crucial moments for a community. Their noise determined a true sound geography for Christian spaces, placing liturgical time in relationship with town and city social life. Alain Corbin, although a scholar of a much later historical context, has done work on the way in which bells signal identity and community. This work remains methodologically useful even for longue durée historical considerations of this sound device.[90]

In addition to bells, other instruments could come into play in specific contexts. Trumpets and horns could accompany solemn ceremonies, ritual entrances, and processions. Instruments from folk or pastoral traditions could appear on certain feast days in the Christian calendar, or in local devotional contexts. Various percussion instruments could play their part contributing sound to public rites. Even when such instruments did not belong to liturgy in the strictest sense, they nevertheless contributed to defining sound perceptions of the sacred and to reinforcing religion's public facet. The distinction between para-liturgical and devotional liturgy, from this perspective, does not mirror the neat delineation between acoustic experiences, which often overlapped in community social spaces.

From a museological perspective, this mix of objects that made sound forms a primary source for reconstructions of past religious practices. What a museum conserves is not simply a musical instrument but the material traces of ritualised sound experiences. Indeed, each item carries within itself the signs

[89] James McKinnon, *The Temple, the Church Fathers, and Early Western Chant*, Brookfield (VT), Ashgate, 1998.

[90] Alain Corbin, *Village Bells: Sound and Meaning in the Nineteenth-Century French Countryside*, trans. Martin Thom, New York, Columbia University Press, 1998.

Figure 10 | Four-stop positive organ, German-made, c. 1600, Berlin, Musikinstrumenten-Museum, cat. 4981.
Photo by the author.

of its own insertion within a network of functions: convening, accompanying, solemnising, ordering time, distinguishing moments of celebration, ensuring sacred presence is perceptible in space. This is the perspective from which the studies of Susan Pearce and Chris Caple prove useful. They examined objects' centrality as cultural documents: an artefact is never just a 'thing' – it is a tangle of relationships spanning use, context, material biography, and the making of meaning.[91]

This observation is particularly valuable for museums of sacred art, parish museums, and liturgy museums. In these contexts, instruments and sound-producing objects are often presented alongside relics, vestments, processional crosses, choir books, ecclesiastical furnishings, and devotional objects. Interpretations of musical objects occur then within broader ritual systems, where they are observed not as isolated examples but members of functional and symbolic constellations. Museums, in this case, imbue instruments with a sense of their original location through the framework of celebrations and liturgical community life.

In musical instrument museums, however, the same objects are analysed chiefly from organological and technical perspectives. Nevertheless, even in these contexts, instruments within Christian traditions require an approach that takes stock of their liturgical and ritual dimensions. Music museology is called upon thus to correlate form to function and to aspects of relating to sound. To reconstruct not only an object's structure but its sound-production context. The same goes for medieval instruments, whose legibility often depends on a web of different sources: archaeological finds, iconography, documents, treatises, architectural spaces, traces of use.[92]

One of the principal difficulties in the study of medieval instruments, in fact, springs from the dearth of artefacts that have survived to the present day. Many items that made sound were fabricated using perishable objects such as wood, leather, or plant fibres, and were transformed, reused, or destroyed over the centuries. As a consequence, reconstructions of medieval soundscapes must be founded on diverse forms of evidence: archaeological finds, iconographic sources, written documents, theoretical treatises, regulatory texts, and musical sources. Museums, in dialogue with music archaeology, thus become places where these miscellaneous historical witnesses can be reorganised and made understandable within the bounds of a coherent historical narrative.

Medieval music archaeology offers, in this sense, a decisive contribution. Through the study of excavation contexts, instrument fragments, and iconographical representations, details can be reconstructed of sound practices that go unrecorded

[91] Pearce, *Museums, Objects and Collections*, cit.; Caple, *Objects: Reluctant Witnesses to the Past*, cit.

[92] Peter Williams, *The Organ in Western Culture, 750-1250*, Cambridge, Cambridge University Press, 1993.

in written sources. A flute fragment, a lyre, a pipe from an organ, or depictions in illuminated miniatures. These are not solely technical data, but hints at broader cultures of sound. In such a sense, studies of the history of listening and of soundscapes – though often developed in late-medieval or modern contexts – offer methodological tools useful for reading religious music as a sensory, spatial, and social phenomenon that is not reducible to the single dimension of their composition.[93]

From this perspective, museums are not only places for conservation. They are spaces where material artefacts can be reinterpreted as traces of lost sound experiences. Museology for musical instruments in religious contexts thus cannot be limited to classification or technical description. It should aspire, instead, to reconstruct, at least in part, the complexity of the soundscapes characterising past religious practices.

Within this horizon, the organ emerges as the most emblematic case, and the subsequent chapter follows this thread.

## 10 | The Organ between Liturgy, Technique, and Museology

*From hydraulis to church organ: the instrument-cum-institution that brings together architecture, ritual, and challenges for conservation in a unique way.*

Of all the musical instruments in the western tradition, the organ occupies a wholly unique position, both technically and culturally. Indeed, few other objects so closely entwine elements of music, architectural space, and ritual function. The history of the organ traverses more than two millennia and takes stage in profoundly varied contexts. The instrument passes from ancient practices of spectacle to the liturgical use that characterises it within western Christian traditions, until it reaches its contemporary musealisation. This historic arc itself is what renders the organ a privileged object in museological thought: it is not just a musical artefact but a sounding device that exists always in relation to space and community.

The ancestor of the medieval organ is generally argued to be hydraulis, an instrument developed in the third-century-BCE Hellenistic world and described in Vitruvius' treatise *De Architectura*. In this device, a hydraulic system controlled the air pressure needed to make the pipes vibrate by ensuring that air flow stabilised inside the instrument. In the Roman world, the hydraulis saw relatively widespread use, especially during spectacles that occurred in theatres and amphitheatres. Numerous iconographical representations – mosaics, reliefs, and frescoes

[93] Smith (ed.), *Hearing History: A Reader*, cit.; Smith, *The Acoustic World of Early Modern England*, cit.

– evidence the instrument's presence in imperial urban culture. In this stage of its life, the organ did not yet have a liturgical function. Rather, it belonged to the public dimension of spectacle and civic ceremony.

The organ does not fully vanish with the fall of the Roman Empire. Some forms of the instrument continue to be known in the Byzantine world and Eastern Mediterranean. Through these points of contact, the organ gradually returned to circulation in high-medieval western Europe. Carolingian sources record, for example, the sending of an organ by the Byzantine emperor Constantine V to the Frankish king Pepin the Short in the eighth century.[94] This episode is much cited in organological historiography as one of the first signs the instrument was being reintroduced to the medieval west. During the high medieval period, the organ underwent decisive technical metamorphoses. The hydraulis' hydraulic system was gradually replaced by pneumatic mechanisms powered by the manual pumping of bellows. This change made the instrument better adapted for use in ecclesiastical contexts and facilitated its progressive spread throughout Europe's great churches.

Knowledge or high-medieval organs depends, however, largely on indirect sources. Material evidence is extremely rare, and available information stems chiefly from literary descriptions, technical treatises, and iconographical depictions. Texts like *De diversis artibus*, attributed to Theophilus Presbyter,[95] attest to the existence of specialised expert craftspeople fabricating instruments, suggesting that between the eleventh and twelfth centuries the organ was known in several ecclesiastical contexts. As Peter Williams observes, instruments from this period were likely relatively simple in comparison to those of later centuries. However, they were still incredibly complex musical devices requiring high levels of technical organisation.

Across the Middle Ages, different types of organ were developed. One of the commonest was the portative organ, often referred to as the organetto. This instrument was small in scale, with a reduced keyboard and manually pumped bellows. It was used in contexts both liturgical and profane, and appears frequently in medieval iconography, especially in depictions of music-playing angels or court musicians. In circulation alongside the portative organ was the positive organ. This instrument had larger dimensions but it was still relatively compact, built to be kept long-term in chapels or churches. From the depths of the medieval period onwards, however, the form that would mark

[94] Williams, *The Organ in Western Culture*, cit., p. 136-146; Notker Balbulus, *Gesta Karoli Magni* (ca. 883-887).

[95] Theophilus Presbyter (fl. ca. 1100-1125), *De diversis artibus*, whose third book contains the earliest known instructions for constructing an organ; ed. with English translation: C. R. Dodwell (ed.), *Theophilus: The Various Arts*, Oxford, Clarendon Press, 1961.

most profoundly the instrument's history was the fixed church organ. Because this organ type would be permanently installed within a sacred building, each one was designed with regard for the architectural and acoustic qualities of its liturgical space.[96]

It is this relationship to architecture that renders the organ a particularly fascinating case from a museological point of view. Unlike most musical instruments, it was conceived not as an autonomous object but as an integrated element within an already constructed environment. The arrangement of its pipes, the position of its keyboard, and the distribution of its sound are intimately linked to the structuring of its building and attendant acoustic properties. For this reason, the instrument inhabits a limbo between musical object and architectural feature.

This characteristic explains, too, the rarity of conserved medieval organs. Over the centuries, churches' architectural transformations and evolving organ techniques often meant that older instruments were substituted with newer constructed organs. Surviving medieval organs are therefore extremely few, and hold outstanding historical value. One of their most important examples is conserved in Scandinavia. Some materials from the organ that was in Norrlanda Church, in Gotland, are conserved today at the Historiska Museet in Stockholm. The organ dates to before 1430 and is one of the most important pieces of evidence for medieval organ-building. The instrument retains important parts of its mechanism and keyboard, though other elements – such as its pipes and bellows – have not survived.

This same museum also contains the case of an organ from Sundre Church (Gotland), crafted in 1370 by Verner di Brandeburgo and considered most likely the oldest organ resonance chamber in the world. The instrument's internal structures, however, have been lost.[97]

Nevertheless, museologically, the characteristics of organ conservation strategies differ from those of other instruments. Because the organ has close connections with the architecture of the building it has been placed inside of, many historic organs continue to be kept in the same churches for which they were fabricated. In these situations, the edifice itself takes on the functions of a museum, becoming the instrument's place of conservation and valorisation. Indeed, conserving an organ in situ allows not only the organ's structuring material to be preserved, but also its relationship with its acoustic space of origin.

[96] Williams, *The Organ in Western Culture*, cit.; P. Williams, *The European Organ 1450-1850*, London, B. T. Batsford, 1966.

[97] Williams, *The Organ in Western Culture*, cit., p. 307.

Figure 11 | Monumental organ, Centre Hall, Glasgow, Kelvingrove Art Gallery and Museum. Photo by the author.

There does exist one case, however, of a grand organ that has been integrated within a museum context: the Kelvingrove Art Gallery and Museum in Glasgow. This instrument was made by the firm Lewis & Co. for the 1901 Glasgow International Exhibition and set up in the show's grand concert hall. At the close of the exhibition, the organ was purchased by the city with the event's surplus profit and shifted to Centre Hall in the Kelvingrove museum, where it was reinstalled as the central element in the architecture of the building. The instrument retains features typical for late-Victorian organs: three manuals and a pedal, forty-eight speaking stops and 2,889 pipes. The large decorative case with facade pipes was designed for the museum by architect John W. Simpson. This organ's history is particularly significant from a museological perspective because it concerns not only the musealisation of an instrument made for a church, but the transformation of an exhibition organ into a permanent part of the museum's structure.[98]

In Italy, museological reflections on historic organs have developed predominantly over the past few decades, through several institutions for the study of musical instruments. The Museo degli Organi in Massa Marittima, Museo di San Colombano in Bologna (Fondazione Tagliavini), and Museo Diocesano in Genoa are important examples of institutions that integrated organ studies into broader thought around musical heritage and liturgy. In these contexts, organs are interpreted not only as musical objects but facets of liturgical material culture and sound history in Christian societies.

Despite the importance of organs conserved in European churches and museums, understandings of this instrument's most ancient historic stages depend in large part on archaeological evidence. Since medieval organs were often uninstalled or transformed over the centuries, material finds that permit their original structures to be studied are extraordinarily rare. For this exact reason, several discoveries become exceptionally valuable for the history of organology.

Of these, the discovery of organ pipes in Bethlehem's Church of the Nativity performs a wholly special role: over two hundred metal fragments comprising one of the rare direct material testimonies to the organ's presence in the Middle Ages. Their organological analysis and musealisation are the subject of the following chapter.

[98] James Hunter, *The Kelvingrove Organ: A Short History*, edited by Fiona Macleod, Glasgow, Culture and Sport Glasgow / Glasgow Museums, 2011.

## 11 | The Medieval Organ in Bethlehem's Church of the Nativity: Historic Context, Rediscovery, and Organological Interpretation

*Two hundred and twenty-two pipes found in 1906: how a lucky discovery in the Holy Land rewrote organ history.*

As seen in the previous chapter, medieval organ remains are extremely rare. This renders the discovery of pipes in the Church of the Nativity in Bethlehem an exceptionally important case for studies of medieval organs.

The Church of the Nativity has a complex history that spans various liturgical and cultural traditions. The sanctuary was built in the fourth century at the will of the Emperor Constantine and subsequently rebuilt under Justinian's reign in the sixth. Over the centuries, the church was attended and administered by different Christian communities, including Greek-Byzantine, Armenian, and Latin. Crusaders took the area in the late eleventh century and consolidated their control in the twelfth with the formation of the Latin Kingdom of Jerusalem. A stable Latin liturgical presence was introduced to the church during this period, a particularly decisive moment in its history.

This detail is fundamental for understanding the possible presence of an organ in the context of this church. Use of instruments during worship was banned in Byzantine liturgical traditions, where music practices were based on monodic vocal repertoires. In western Latin traditions, however, the opposite was happening. The organ was already widespread in European churches between the eleventh and twelfth centuries and had a burgeoning role in liturgies. The presence of an instrument like an organ in the Church of the Nativity thus appears plausible when linked to the Crusades and their presence of Latin liturgical communities.

The discovery of organ remains in the church occurred in 1906, during construction works on its Casa Nova Franciscan pilgrim hospice in the Catholic cemetery adjacent to the church. In the course of excavations, a cache of metal objects was identified. It contained 222 metal organ pipes, along with other items that produced sound and were used in liturgy such as a carillon of small metal bells, as well as other objects from the church's cultural context.[99] The materials were collected and conserved in the Custody of the Holy Land priory, added into its collections associated with the history of the Church of the Nativity.

[99] Bellarmino Bagatti, *Gli antichi edifici sacri di Betlemme: in seguito agli scavi e restauri praticati dalla Custodia di Terra Santa 1948-51*, Studium Biblicum Franciscanum Collectio Maior, vol. 9, Jerusalem, Franciscan Printing Press, Francescani, 1952, p. 41-43; Jeremy Montagu, *The Oldest Organ in Christendom, "*FOHRHI Quarterly*"*, n. 35, April 1984, p. 51-52; Williams, *The Organ in Western Culture*, cit., p. 31.

The found fragments have characteristics consistent with the way medieval organs were made. They were crafted in copper- and tin-based metal alloy, and feature fabrication techniques analogous to those documented for medieval European organ pipes. Dimensional analysis reveals significant variety in their length and diameter, suggesting that the original instrument was capable of diverse sound durations and a relatively broad pitch range.

From an organological perspective, the pipes' length and diameter proportions show similarities with those described in medieval organ construction treatises and in the *mensura fistularum* tradition[100] These proportions were critical for determining the instrument's timbre and level of tuning, and reflect awareness of the empirical relationship between pipe dimension and sound pitch.

A grasp of the historic significance of the Bethlehem artefacts is aided by comparison with other documented examples in medieval organ history. One of the best known cases is the organ Wulfstan Cantor describes in a Winchester cathedral in his tenth-century chronicles. He describes the instrument as possessing hundreds of pipes powered by many hand-pumped bellows. Although this description was likely celebrative in character, it attests to the existence of large-scale organs in European churches by the time of the High Middle Ages.[101]

Comparisons with European organ traditions suggest that the Bethlehem instrument could belong to a medium-size organ type, perhaps similar to the positive organ or the church organs documented in twelfth- and thirteenth-century Europe. Some scholars have hypothesised possible connections to French medieval organ traditions, which during the Crusades were particularly well developed and might have included instruments brought to the Holy Land.

The first systematic organological study of these finds was published in 1984 by Jeremy Montagu, who was in a position to examine the pipes – conserved in the Studium Biblicum Franciscanum museum at the Flagellation Monastery in the Via Dolorosa in Jerusalem – through the collaboration of director and priest Michele Piccirillo. Montagu counted circa 220 visible pipes, in five rows – with 49 in the front-facing row and 42-43 in each subsequent one – and noted the presence of further fragments in an underlying space. He observed that all pipes present notably uniform diameters, between 28 and 29mm, regardless of their length. This confirms the absence of any scaling. The speaking length of the pipes accessible in the first row varies from 16.8cm to 58.8cm. Pipes of such similar length were grouped together that Montagu interpreted them as indications of a system where each key had multiple pipe groups. The

[100] Klaus-Jürgen Sachs, *Mensura fistularum: die Mensurierung der Orgelpfeifen im Mittelalter*, vol. 1, Stuttgart, Musikwissenschaftliche Verlags-Gesellschaft, 1970.

[101] The description of the organ in the Old Minster in Winchester (tenth-century) is attributed to Wulfstan Cantor; see Williams, *The Organ in Western Culture*, cit., p. 177-192.

pipes were constructed as single pieces by rolling metal foil around a tube, with a longitudinal overlap of 3-5 mm. Their mouths are almost rectangular in shape. The metal analyses Montagu conducted on a fragment brought to Italy revealed a typical bronze composition (95.6% copper, 2.3% tin, and traces of lead and silver), compatible with medieval metallurgy techniques. Based on the formation of pipe lengths and physical groupings, Montagu paralleled the Bethlehem fragments to the Winchester cathedral organ, speculating for the instrument a twelfth-century date range and creation context of the Latin Kingdom of Jerusalem.[102]

Systematic research with greater depth was launched by musicologist David Catalunya in 2018, and it intensified between 2020 and 2022 after receiving funds from the Bavarian Research Alliance and University of Würzburg. The project has benefited from scientific collaboration with Jerusalem's Terra Sancta Museum, whose scientific committee includes Catalunya as a member, and has involved historian of organology Koos van de Linde and organ-maker Winold van der Putten. Its first concrete outcome was to create the first systematic inventory of the surviving pipes – 222 pieces, each identified by a unique catalogue number – and to reveal the pitches produced by each pipe. From this foundation, Catalunya set out to reconstruct the instrument's original structure, arguing that the organ was composed of: approximately 360 pipes, with a keyboard that extended approximately two and a half octaves (do–fa) with up to eighteen rows of pipes for each note. This made it capable of producing imposing waves of sound, equivalent to the monumental organs that high-medieval sources describe.[103]

Critically, the discovery was made that the pipes' proportions correspond remarkably accurately to mathematical models outlined in eleventh-century organ treatises that trace back to the theoretical work of Gerbert of Aurillac (later Pope Sylvester II, d. 1003). The Bethlehem pipes have uniform diameters – a characteristic consistent with Pythagorean proportions – and many carry inscriptions in a protogothic hand specifying pitch, a rare medieval example of organ pipes labelled by their maker. For Catalunya, these details support an eleventh-century dating and suggest the instrument might have been fabricated in France or another western European centre before being transported to the Holy Land by Crusaders, and was likely no longer a very new instrument by that point. Furthermore, analysis reveals that some pipes in a different alloy could have

[102] Montagu, *The Oldest Organ in Christendom*, p. 51-52.

[103] David Catalunya, *New Light on the Early Church Organ: A Vestige from the Holy Land*, "Newsletter of the Westfield Center for Historical Keyboard Studies", 33/2, 2022, p. 2-6; Id., *L'orgue médiéval de l'église de la Nativité à Bethléem: une redécouverte*, "Terre Sainte", 676, 2021, p. 36-45.

Figure 12 | The pipes of the medieval organ from the Basilica of the Nativity in Bethlehem on a stand, Jerusalem, Custody of the Holy Land.
Photo A. Pedrollo Conservatory, Vicenza.

been added as substitutes for damaged pieces, perhaps during the organ's transfer to the east.[104]

Catalunya's project also intends to create a 3D model of the organ and fabricate experimental replicas of a select group of pipes, to facilitate studies of its acoustic behaviour and craftsmanship techniques. A fundamental step along the path of this knowledge production and circulation was the conference organised on the 9th of September 2025 at the Monastery of Saint Saviour in Jerusalem. At this event, Catalunya played audiences sound made by one of the original restored pipes, as well as sound from pipe reconstructions built by Koos van de Linde. This was the first documented playing of a Bethlehem organ pipe in the modern era, and most likely represents the oldest medieval organ sound ever restored to hearing. This presentation elicited broad-ranging interest, both in historical organological areas and among specialists of organology and music archaeology. The music playing stops here, however, because the instrument's missing wind case, bellows, and original keyboard leave any complete reconstruction entailing levels of guessing that are reducible only by future excavations or new documentary evidence.

Within the framework of this experimental research we find, too, the work of trained physicist and organ-builder Walter Chinaglia. Over the past few decades, Chinaglia has developed a methodological approach based on medieval iconographical sources – including the Stephen Harding Bible illuminated organ miniature – and empirical acoustic tests with medieval-alloy pipe replicas. His facsimiles have facilitated explorations of timbres and acoustic behaviours in unscaled pipes (pipes with consistent diameter), furnishing useful comparison with interpretations of the Bethlehem artefacts.

From a historical perspective, the importance of the Bethlehem discovery resides in its ability to evidence the organ's presence in a particularly complex geographical and cultural context. Indeed, its church was a meeting place of diverse liturgical and cultural traditions, and the presence of a western instrument such as the organ testifies to Latin liturgy's influence during the Crusades.

From a museological perspective, the Bethlehem organ is a particularly fascinating case. The instrument did not survive whole, but as a trail of fragments that must be interpreted and contextualised. The musealisation of these artefacts thus consists not in the straightforward display of a complete instrument but in the building of an interpretive exhibition where visitors can grasp the instrument's history and meaning.

[104] Catalunya, *New Light on the Early Church Organ*, p. 3-5; Id., *Chapter 8: Technologies*, in *A Cultural History of Music*, vol. II: *The Middle Ages*, edited by Helen Deeming and Elizabeth Eva Leach, London–Oxford, Bloomsbury, 2023, p. 199-223.

The exhibition project for the organ fragments in the Terra Sancta Museum in Jerusalem's Custody of the Holy Land provides an opportunity to develop a museographical approach that integrates archaeology, organology, and liturgical history. In this way, the public can have a sense not only of the instrument's structure but also of the role it played in the medieval Christian soundscape.

The Bethlehem organ thus illustrates how musical instrument history can also emerge by means of archaeology. The metal fragments discovered in the Church of the Nativity represent not only the remains of a lost instrument but the material witnesses to a sound practice that was a defining element in medieval liturgical experiences.

## 12 | Cataloguing Music Heritage: Attempts at Problemsolving

*SM database, SIGECweb, and CLIO-SCN: cataloguing an instrument not as a technical act but as a cultural interpretation.*

Music's recognition as an integral element of cultural heritage has had a much more convoluted and drawn-out course than other categories of historic and artistic patrimony in Italy. Musical instruments, sound archives, and evidence of music practices have long been scattered among different protection classes, with no uniform definition capable of fully reckoning with its particularities.[105]

Over the course of the twentieth century, musicological and museological studies have gradually expanded the concept of music heritage to express not only the idea of a material object but of a suite of evidence that encompasses instruments, documents, performance practices, and sound traditions. By this framework, cataloguing takes on a critical role: not only as a technical or administrative operation, but first and foremost as an instrument of knowledge. Cataloguing defines the criteria by which a piece of heritage is recognised, described, and interpreted. This is particularly evident when it comes to musical instruments. As Chapter 2 illustrated, an instrument is not just an item. It is a device for making sound, one that melds artisanal knowledge, music practices, and social contexts of craft and use.

This double nature itself precipitates an issue at the heart of music heritage museology: the tendency to prioritise tangible aspects above the intangible

[105] Paola Elisabetta Simeoni, Roberta Tucci (eds.), *La collezione degli strumenti musicali*, Museo Nazionale delle Arti e Tradizioni Popolari, Rome, Istituto Poligrafico e Zecca dello Stato – Libreria dello Stato, Rome, 1991 (*Cataloghi dei Musei e Gallerie d'Italia* imprint).

dimensions wielded by sound and performance (see the Conclusion). Many practices that involve playing music are today recognised as living cultural heritage, while the instruments that enable them are conserved as museum objects. Cataloguing thus becomes an essential tool for linking instruments' material dimension with music traditions and the cultural contexts in which they were used.[106]

In Italy, cultural heritage documentation and conservation depend on the Ministry of Culture's Istituto Centrale per il Catalogo e la Documentazione (ICCD), whose task is to develop shared cataloguing standards and establish descriptive models that can guarantee scientific uniformity across national cultural heritage documentation.[107] Over time, the ICCD has worked on tools to create records that are specific to music heritage, addressing the need to document objects with special characteristics. Correctly cataloguing an instrument requires information about the structuring of its sound, the techniques of its construction, the functions of its music, and the contexts of its use. It does this by mediating between different disciplines – museology, organology, ethnomusicology, music history, and conservation.

The main musical instrument cataloguing model developed by the ICCD is the SM (Musical Instruments (Strumenti Musicali)) database. This was designed to systematically describe musical instruments held in museums, public or private collections, ecclesiastical institutes, and other heritage contexts.[108] The record is made up of fields relevant to identifying an object, its name and organological classification, its creator and context of creation, its timeline, its materials and techniques of construction, its measurements, its state of conservation, its provenance, its collection history, its historic and cultural background, as well as its bibliography and photographic documentation. This structure reflects musical instruments' complex nature. They must be described not only as an artefact but as a functioning object within practices of music. Filling in a record entry is thus an operation in need of specialist expertise and many hours. For this reason, it would be opportune were more cataloguing levels available.

Historic organs fall into a peculiar music heritage category, requiring clearer cut documentation models. These instruments are complex, made up of

[106] Sandra Suatoni, *Gli strumenti musicali dallo spettacolo al museo spettacolare*, cit.

[107] ICCD – Istituto Centrale per il Catalogo e la Documentazione, *Standard catalografici per i beni culturali*, Rome, Minstry of Culture (iccd.beniculturali.it/it/standard-catalografici). For ICOM standards, see the international museum system portal: https://www.museiitaliani.it.

[108] ICCD, *Scheda SM – Strumenti Musicali*, cataloguing standards (trial version 4.00). Available at: iccd.beniculturali.it/it/ricercanormative/64/sm-strumenti-musicali-4_00. It should be clarified that SM 4.00 guidelines were published with 'trial' status and have not yet been officially released as guidelines for use.

manifold structural and phonic elements – a case, keyboard, pedal, registers, pipes, bellows, windchests, and transmission mechanisms – often embedded in the architecture of the religious buildings in which they are found. This is why the ICCD developed the SMO (Musical Instruments – Organ) database.[109] The SMO complements the SM's general data with specific details about an organ's location in its building, the structuring of its case, its number of keys and pedals, the arrangement of its registers and pipes, and its systems of transmission and wind power, as well as restoration interventions and modifications it may have undergone over time. Such information is essential because an organ cannot be understood as an isolated object when it is instead inextricably linked to the architectural space and liturgical function for which it was devised.

Musical instrument cataloguing must inevitably confront the issue of organological classification. A fundamental historic reference point is the system developed by Victor-Charles Mahillon, conservator at the Musée Instrumental in Brussels' Conservatory. He organised instruments according to how their sound was produced, and this record system was then reworked by Erich von Hornbostel and Curt Sachs into their famous classification. Still in wide use today, it divides instruments into four overarching categories: idiophones, membranophones, chordophones, and aerophones (electrophones were later added).[110] In the context of the ICCD's filing system, this classification has an important, though not exclusive, function. It must be integrated with information related to cultural context and use functions, which become particularly significant with traditional and folk musical instruments.[111]

The SAMIC project is an up to date example that practically applies this system in a digital and Italian context. It adopts Febo Guizzi's revised version (2015), which is published open licence and used as an authority file on Wikidata, and embeds it within the MIMO Working Group for Classification and Thesauri revised version.[112]

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[109] Flavia Ferrante and Sandra Vasco Rocca, *La scheda SMO (Strumenti Musicali – Organo)*, in ICCD, "Quarto Rapporto sulla catalogazione", Rome, Istituto Centrale per il Catalogo e la Documentazione, 2009, p. 100-103.

[110] Victor-Charles Mahillon, *Catalogue descriptif et analytique du Musée instrumental du Conservatoire royal de musique de Bruxelles*, Brussels, 1880-1922; Erich von Hornbostel and Curt Sachs, Systematik der Musikinstrumente: ein Versuch, *"Zeitschrift für Ethnologie"*, 46, 1914.

[111] F. Guizzi and R. Leydi (eds.), *Gli strumenti musicali e le tradizioni popolari in Italia*, Milan, Ricordi / LIM, 1994; F. Guizzi, *Gli strumenti della musica popolare in Italia*, cit.

[112] Ilario Meandri and Cristina Ghirardini (eds.), *SAMIC*, 2019, p. 19-20 (revised by Guizzi 2015) and Chapter 4 (the LOD system and MIMO). Guizzi's revision of the Hornbostel-Sachs system is available under a CC-by licence at: http://www.suonoeimmagine.unito.it/SAMIC/HS_REF_EN_v01_072018.pdf.


Figure 13 | Musical instrument and decorative object in the storerooms of the Victoria & Albert Museum, London.
Photo by the author.

Sachs himself very meaningfully warned about the limits of any classification system applied to music cataloguing, however. In his 1934 essay he expressed the hope that someone might one day sketch the critical history of musical instrument cataloguing in a way that could document the evolution of descriptive terminology, analysis criteria, and standards of expertise across time. This history has not yet been comprehensively written. The current shift from SIGECweb to CLIO-SCN – with its transition from object-centric to relational logic – rearticulates in contemporary terminology the same need: to catalogue instruments not as isolated artefact but as connections within a relational web networking material, sound practice, and cultural context.

From the framework of cultural heritage protection politics, musical instrument filing systems take on a double function. On the one hand, they represent indispensable documentary foundations underpinning the juridical safeguarding and administration of heritage. On the other hand, they constitute promotional tools for science and museums. A well-formed record allows heritage to be precisely identified, its state of conservation documented, its provenance reconstructed, its history inserted into networks of organological comparisons, its restoration interventions planned, and its accessibility ensured for research and public use. This is particularly relevant in a sector where many different item types coexist: high-culture pieces, folk instruments, monumental organs, military instruments, sound archives, and documentary materials.

Musical instrument cataloguing is thus a critical component of contemporary music museology: through a filing system, heritage enters into systems of knowledge that facilitate safeguarding, study, and enhancement. The work of the ICCD offers an essential methodological framework. However, its most recent inflection invites understandings of cataloguing that go beyond simply generating inventories, to generate cultural interpretations capable of linking material, sound, and historic social contexts. From this perspective, the shift to the new CLIO-SCN (National Catalogue System) takes on particular importance. Developed by the ICCD to substitute the current SIGECweb system, CLIO takes its name from an acronym (Cataloguing, Locating, Identifying, Organising) as well as a metaphor for Clio, Ancient Greek muse of history, who symbolises the catalogue's aspirations to preserve heritage in memory through rich, well-articulated storytelling.[113]

[113] ICCD – Istituto Centrale per il Catalogo e la Documentazione, *CLIO-SCN. Il nuovo Sistema del Catalogo Nazionale come rete della conoscenza*, Ministry of Culture communication, 27th February 2025. Available at: cultura.gov.it/comunicato/27297.

The current SIGECweb system, managed by ICCD pursuant to Article 17 of the Code of Cultural Heritage and Landscape (legislative decree 42/2004), today brings together almost 3 million records from central institutes, authorities, regions, universities, and ecclesiastical entities that are accredited as cataloguing entities. The system has enabled the digitising and standardising of cataloguing on a national scale, but its model remains fundamentally object-centric. Each heritage item is described in a closed entry that is generally exhaustive, according to over thirty catalogue layouts divided by disciplinary sector, with a logic that separates data which in the real world would be deeply connected.

CLIO introduces a radically different vision: cultural heritage not as a gathering of isolated objects but as a system of relationships. The new system is based on knowledge graphs of Italian cultural heritage, built off the ArCo ontology network (Architettura della Conoscenza (Knowledge Architecture)), developed by the ICCD in collaboration with the CNR's Institute for Cognitive Science and Technology (ISTC, Istituto di Scienze e Tecnologie della Cognizione) between 2018 and 2020. Through the technologies of the semantic web and Linked Open Data (LOD), all catalogue data becomes a node within an open network of connections: from geographical locations to timelines of productions and from authors to events, not forgetting the subjects who generated or engaged with the heritage over time. This modular approach means a record can begin even with a very small identificatory dataset, and amplify it with progressive interdisciplinary depth, while qualified community contribution tools allow experts to integrate and correct the published data. The idea of geography here assumes unexpected centrality: the catalogue is no longer simply a collection of record entries, the catalogue is a system that can present integrated, multi-scale readings of the terrain, and can do this diachronically.[114]

The sectors that benefit most from this new approach are intangible demo-ethno-anthropological heritage, which has the BDI (beni demoetnoantropologici immateriali) database, and music heritage, which has the SM and SMO databases. A critical analysis of these catalogues sheds light on five types of structural issues that CLIO sets out to fix.[115] The first concerns object-centric, disciplinarily closed-off logic: the SM database treats instruments as isolated artefacts, privileging morphological and provenance-related attributes, detached from the chain of relations – maker, workshop, commissioner, musician, repertoire – that generated them. The second limitation is difficulty

[114] Carlo Birrozzi et al., *Il patrimonio culturale come sistema di relazioni. Verso un nuovo Sistema del Catalogo Nazionale*, in *29ª Conferenza GARR 2024 – Navigare la complessità. Selected Papers*, 2024.

[115] C. Birrozzi, interview with AgenziaCULT, *Catalogazione è fondamentale, con CLIO cambio di paradigma*, 13th March 2025. Available at: agenziacult.it.

of representing the intangible: practices of playing music, oral traditions, and ritual contexts remain outside the bounds of the catalogue, relegated to the BDI as separate entities, with no strong semantic mechanisms to connect them. The third issue is knowledge fragmentation between non-communicating entries: a violin made in Cremona, played in a Lucanian ritual context, and today conserved in Palermo is described in different hard-to-navigate entries. The fourth limitation is the inflexibility of what is traced: compulsory fields and closed lexicons are not adapted to the variety of non-European or ethno-organologically interesting instruments. The fifth absence is diachronic georeferencing: locations are recorded as static data, without tracing heritage items' movement across time nor the expanded geographical context of the traditions to which they belong.

CLIO responds to some of these problems. Each musical instrument becomes a node in a graph connected to their instrument-makers, workshops, repertoires, communities of practice, restorations, exhibitions, and the museums in which they're conserved. A modular approach lowers the threshold for access to cataloguing. Diachronic georeferencing allows a heritage item's entire geographical history to be traced. ArCo ontologies, aligned with dominant international standards (CIDOC-CRM, Europeana Data Model), ensure that Italian musical instrument record entries can be queried by and checked against catalogues across Europe and the world. One deep-seated critique, however, remains an open question. Ontologies' conceptual complexity can complicate cataloguer training, and the graph's relational freedom necessitates ever more rigorous data quality standards if inaccurate or inconsistent connections are to be avoided. CLIO's challenge is thus deeply methodological and educational before it even becomes technological: the new catalogue's quality will hang on its ability to build a community of cataloguers capable of thinking through semantic relations.

A direct working precedent to this logic is offered by the SAMIC project (*Sound Archives & Musical Instruments Collections*, University of Turin, 2016-2019), which created the first national CMS LOD open source for the digital cataloguing of musical instruments, applied to the collections at the Museo del Paesaggio Sonoro in Riva presso Chieri. The project produced 354 record entries, copied data from the European MIMO portal, and collaborated with ArCo to transfer all to the General Cultural Heritage Catalogue (Catalogo Generale dei Beni Culturali), concretely testing out – before CLIO – relational logic with organological data, controlled vocabularies, and shared semantic infrastructure.[116]

[116] I. Meandri and C. Ghirardini (editors), *SAMIC*, cit. The system is accessible at: http://museopaesaggiosonoro.org/sound-archives-musical-instruments-collection-samic/.

This project is a cog in the Piano Nazionale di Digitalizzazione del patrimonio culturale (National Plan for the Digitisation of Cultural Heritage), part of five-year PNRR investment M1C3 1.1 (2022-2026). It held a conference to publicly present its findings – "Inheriting Things: The New National Cataloguing System as Network of Knowledge" (Ereditare le cose. Il nuovo Sistema del Catalogo Nazionale come rete della conoscenza) – on the 27th of February 2025 at the Ministry of Culture's Sala Spadolini. Its operational release was scheduled for the autumn of 2025, but at the time of this volume's writing (March 2026) no official communications have been released by the ICCD confirming the system's full launch for cataloguing entities.[117] On a practical level, the question remains unaddressed of what will happen to the circa 3 million record entries already in SIGECweb. An automatic migration is not possible, as data structured in accordance with a closed-field layout should not be remapped on ArCo's ontological graph, an operation that is not always bijective.[118] We note, however, that a semantic projection of SIGECweb heritage already exists – data was automatically converted to LOD and is consultable through the SPARQL endpoint on the Ministry portal – while with CLIO the LOD would be natively produced during that same compilation. All signs point to a phase in which these two systems, both de facto in operation, co-exist. PNRR grants advertised in 2026 continue to describe SIGECweb as a functioning platform, and the iterative approach declared by the ICCD excludes total simultaneous substitution. The more concrete risk is long-term stratification: for the music heritage and intangible demoethnoanthropological heritage sectors – for whom cataloguing campaigns have historically been left incomplete – this scenario intensifies the urgency of an explicit strategy for recovery and valorising what preceded. At the moment, this has still not been publicly defined.

[117] CLIO-SCN was set to be released for the autumn of 2025. As of March 2026, no official ICCD communications have occurred confirming its full operativity.

[118] ICCD – MiBACT, *Standard catalografici*, github.com/ICCD-MiBACT/Standard-catalografici; dati.cultura.gov.it (SPARQL endpoint).

# APPENDICES

## Appendix I
## Founding a Museum: Goals, Guidelines, and Service Charters

*An operational proposal for public and private museums in the frameworks of regulations and contemporary museology.*

When a museum is planned out, whether public or private, the institution must clearly define its cultural outcomes, organisational structure, and modes of managing the heritage it intends to conserve and promote. A museum, indeed, is not just an exhibition space. It is a complex cultural institution that functions to protect, conserve, research, educate about, and communicate its cultural heritage.

This state of affairs finds a solid foundation both in Italian regulations and in international museological standards. In Italy, the relevant juridical frameworks are principally implemented through a legislative decree n. 42. This law, from the 22nd of January 2004, governs the protection and enhancement of cultural heritage and recognises museums' central role in heritage conservation and public access. It also sets down that heritage enhancement occurs through a series of activities aimed directly at promoting understandings of cultural heritage and ensuring the best conditions for its public use and enjoyment.

Beside this national regulation, the way that museums function is guided by principles developed by ICOM, whose effective definition (2022) and related Code of Ethics are described in Chapter 2.

In light of these touchstones, a museum's creation necessitates above all defining clear cultural and scientific aims. In the case of a museum for musical instruments, these goals must take into account these objects' dual nature – discussed in Chapter 2 – as material artefacts, blends of technical and artisanal knowledge, at the same time as devices whose raison d'être is producing sound, intangible cultural heritage par excellence. Their conservation thus concerns not only an item's material integrity but its memories of associated music practices and technical expertise.[119]

For this reason, a musical instrument museum's targets should not be limited to conserving objects. They should also span the enhancement of instruments' sound and performance dimensions. Indeed, in the contemporary museological sphere, there has been gradual affirmation for the idea that music museums should fuse an artefact's conservation with the communication of its sound experience. This

[119] D.M. 21st February 2018, n. 113, available at cultura.gov.it; working portal: museiitaliani.it.

can occur through concerts, music demonstrations, didactic activities, organological research programmes, and initiatives aimed at documenting and passing down music traditions.

In this sense, musical instrument museums are places of encounter between tangible and intangible heritage. They help visitors understand the relationship between an object, the production of its sound, and the cultural context in which it was used.[120]

Once an institution's objectives have been articulated, it must prepare museum guidelines that regulate internal operations, tasks for managing authorities, modes of safeguarding and managing collections, and the administrative and scientific procedures that enable functioning.

For public museums, these guidelines fall within the purview of administrative regulations and the cultural politics of the state or local bodies. They must correspond to the cultural heritage Code instructions and to norms around public administrative management. When a private or foundation-managed museum, however, its organisation is defined by the entity's statute and constitutive act, in line with civil legal regulations. Nevertheless, in both cases, they remain bound by orders relating to cultural heritage protection and internationally-recognised ethical and professional principles.

Guidelines must particularly regulate several fundamental areas of institutional life: the museum's governing structure, the expertise of its director and scientific authorities, its acquisition and collection management procedures, its politics of conservation and restoration, and its relationship to the public and to scientific communities.

Beside these guidelines, a museum should also be equipped with a service charter: a public-facing document defining the institution's principles of operation, quality standards, and commitments to visitors. A service charter functions as a tool for transparency and responsibility, the means by which a museum communicates goals, services offered, and rights for citizens.[121]

A workable service charter for musical instrument museums should be based on several foundational principles. Firstly, the protection and conservation of its collections, guaranteed through acts of inventorying, cataloguing, preventative conservation, and restoration activities. Secondly, transparency in collection management, involving documentation and object provenance traceability, in line with ICOM ethical principles for museums around lawful acquisitions and scientific responsibilities.

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[120] Camera dei Deputati, XIII Legislatura, Proposta di legge n. 7017, *Istituzione del Museo nazionale degli strumenti musicali: princìpi fondamentali*.

[121] See the Ministry of Culture decrees relating to museum quality standards and organisational needs (D.M. 21st February 2018, n. 113).

A further principle concerns cultural heritage accessibility, through exhibition activities, short-term displays, educational programmes, concerts, and public initiatives that facilitate general audience and local community participation. Side by side with these aspects is the quality of visitor services, attention paid to scientific research, and the promotion of sustainable practices managing museum activities.

Furthermore, a service charter should precisely define visitors' rights and responsibilities, as well as ways the public can share observations, suggestions, or complaints, thus contributing to the continual improvement of the institution's activities.

In conclusion, a museum institution must have at its fingertips not only a collection and a space in which to show it, but – most importantly – an organisational and regulatory structure capable of guaranteeing heritage projection and quality cultural services. Guidelines and service charters represent complementary instruments. The former defines a museum's institutional and management structuring. The latter spells out the relationship between an institution and the public. By integrating national regulations with ICOM's professional ethical principles – and keeping in mind musical instruments' special nature as tangible culture engendering intangible heritage – a museum model can be outlined that is based on music culture's special blend of scientific rigour, transparency, and enhancement.

## Appendix II
## A Museographical Proposal for Exhibiting the Remains of the Medieval Organ at the Church of the Nativity

*Three levels of interpretation – material, reconstructive, and auditory – that transform archaeological fragments into the telling of history.*

The special qualities present in the musealisation of the organ fragments from the Church of the Nativity necessitate a specific approach to exhibition. Since the instrument did not survive whole (see Chapter 11), a museum display must move beyond the concept of presenting a complete instrument. It must instead construct an interpretive journey that allows the artefacts' original function to be understood, as well as their historic and organological significance.

In the context of the Terra Sancta Museum in the Jerusalem Custody of the Holy Land, the exhibition of the Bethlehem organ could play a central role in the section exploring medieval liturgical life in the holy land. In this framework, the remains would not be presented merely as isolated archaeological objects but as material evidence of sound practices tied to the presence of Latin Christian communities during the Crusades.

Museographically, the exhibition could be organised into three main interpretive levels: the archaeological dimension of the finds, the organological reconstruction of the instrument, and the way its liturgical soundscape was brought back to life.

The first level concerns the way the original finds are presented. Organ pipes and other metal objects discovered in the earth should be displayed in climate-controlled cases that grant up-close observation of these artefacts' technical qualities. In this context, the exhibition's design should prioritise organological readings of items, highlighting size differences between pipes and the imprints of their medieval fabrication techniques. Graphic supports and explanatory panels could describe the medieval organ pipes' main aspects of construction, such as the relationship between their length and diameter, and the pitch they emit.

A second interpretation level would concern reconstructions of the instrument. Because the organ did not survive in its complete form, it would be advisable to place the original side by side with its graphic or 3D reconstruction, introducing visitors to speculations around the instrument's aspect in its original context of the medieval church. This type of reconstruction would be founded on comparisons with other documented European medieval organs, such as those described in sources relating to the cathedral organ in Winchester or positive organs spread throughout twelfth- and thirteenth-century European churches. The goal of this section would be to aid the visitor in grasping how the fragments on display originally formed parts of a more complex instrument.

The third interpretation level concerns the instrument's sound. Indeed, one of the most complex aspects of musical instrument musealisation lies in restoring an object's acoustics to audiences. In the case of the Bethlehem organ, this dimension can be evoked through sound reconstructions based on medieval organological models. Audio installations or directional sound systems could allow visitors to hear possible reconstructions of the medieval organ's timbre, modelled on the qualities of the conserved pipes in comparison with similar instruments.

A further museographical element could be represented by the instrument's liturgical contextualisation. Panels and audiovisual materials could illustrate the organ's role in medieval Latin liturgy and explain the differences from traditional Byzantine music, which did not permit the use of instruments in worship. This way, the exhibition would pass beyond the instrument's technical dimensions, allowing its cultural and religious significance to be understood in the context of the Church of the Nativity.

Lastly, the section focusing on the Bethlehem organ could reference the history of its discovery and subsequent research, presenting the work of scholars who analysed the fragments in the twentieth and twenty-first centuries. These individuals include Jeremy Montagu, who was the first to conduct systematic organological studies of the material, as well as David Catalunya and the more recent

projects he has led, which introduced new methodologies of scientific analysis. Thus, the museum exhibition would reveal even the scientific research that facilitated interpretations of the artefacts.

In sum, a museographical arrangement of this nature would transform the Bethlehem organ fragments from mere archaeological objects into tools that tell the stories of history and of sound. The exhibition would thus contribute to showing public audiences not only the material aspects of an instrument but the soundscapes of medieval liturgy and the role that the organ might have played in the Church of the Nativity.

## Conclusion

The journey this volume has traced emerged from a seemingly simple question: what does it mean for a museum to conserve and communicate music? This inquiry opens up technical and practical challenges that pass transversely through museology, organology, ethnomusicology, and music history.

This study's throughline is the tension between musical instruments' tangible and intangible dimensions. As was discussed at length in the preceding chapters, more advanced museums attempt to address this tension with diverse, complementary strategies, none of which proves definitive.

This is just as true for the instruments of European art music as for those used in folk, liturgical, and military traditions – indeed, perhaps it is truer for the latter. In each of these cases, an object's meaning is inextricable from the cultural practices that engendered its existence. Musealising, too, continually raises the dilemma of whether to present an object as a historic artefact or as evidence of a living culture?

A central gain for this volume is the idea that musical objects' meaning is never inherent. It is instead always relational: dependent upon the context, practices, and histories an object has traversed. Contextualising – as argued in Chapter 5 – is not optional for museums but one of their epistemological conditions.

Ethnomusicology has offered precious conceptual tools in this sense. The work of Sachs, von Hornbostel, Blacking, Leydi, and Carpitella deals not only with instrument classification but constructs a holistic approach centring on the relationship between object, sound, and cultural context. This is the approach that music museology should translate into appropriate exhibiting practices. Worthy of direct mention within this frame of thought is Sachs' contribution to music museology, which remains the least explored corner of his work. His 1934 theoretical reflections – developed in his Paris exile through direct contact with the Musée du Trocadéro and international museological debates of the period – were remarkably lucid precursors to many of the issues grappled with in this volume: object-sound relationships, the narrative function of exhibition design, the need

for curators whose visions are intellectual as well as technical, and opening up non-western music cultures to be factual conditions rather than 'exotic' curiosities. The fact that Sachs' text was ignored for decades – partly because it lacked an English translation and partly because grafting music museology into consolidated disciplinary confines was difficult – tells us something not only about the scholar's fate but also about structural resistance within a field of study that is still struggling to recognise its own theoretical traditions.

It is no accident that the journal that republished Sachs in 2003 – *Cahiers de musiques traditionnelles* – also published Picard's reconstruction of the agent-collector-theorist chain through which Chinese instruments in the eighteenth century passed from Beijing to Parisian salons. These two texts mutually inform one another: Sachs offers theory and Picard the history that precedes and grounds it.

A second theme transecting the volume is inclusion. Conservation choices are never neutral. They reflect the cultural hierarchies and institutional priorities that determine which music and which instruments should be passed down the generations. Heritage such as Italian folk music, civic and military bands, and provincial liturgical instruments have long been marginalised in official museology. Their promotion has required specific approaches and these have often been developed by researchers and institutions at the periphery. A similar consideration can be made with non-European cultural heritage: postcolonial museology has shed light on the political implications of conservation choices and pointed out trajectories towards the more equitable management of global music heritage.

The case of the medieval organ in Bethlehem's Church of the Nativity is a moment in which the volume's theoretical reflections find concrete application. The 222 pipes discovered in 1906 constitute our only direct material witnesses to the presence of an organ in the medieval East. They evidence Latin liturgical practices in the extraordinarily complex context of Greek, Armenian, and Latin traditions coexisting in the same sacred building. Organological analysis has confirmed that their construction techniques were consistent with those occurring in Europe at the time, and the museographical proposal in this volume's appendix suggests ways in which this complexity might be translated into an exhibition that repositions the pipe finds within their historic, cultural, and sonic contexts.

Many areas remain unresolved, however: digital technologies and augmented reality for instrument contextualisation;[122] preventive conservation in non-climate-controlled environments; and museums' relationship to local, practicing communities. Two issues appear particularly urgent. The first is cataloguing: the

[122] As concerns applied research, two EU projects directly tackle these topics: HERITALISE (Heritage Buildings and Objects Digitisation & Visualisation within the Cloud) and META-MUSEUM (Co-Creation, Participation, and Digital Interaction). For updates, see the NEMO and ICOM Italia portals.

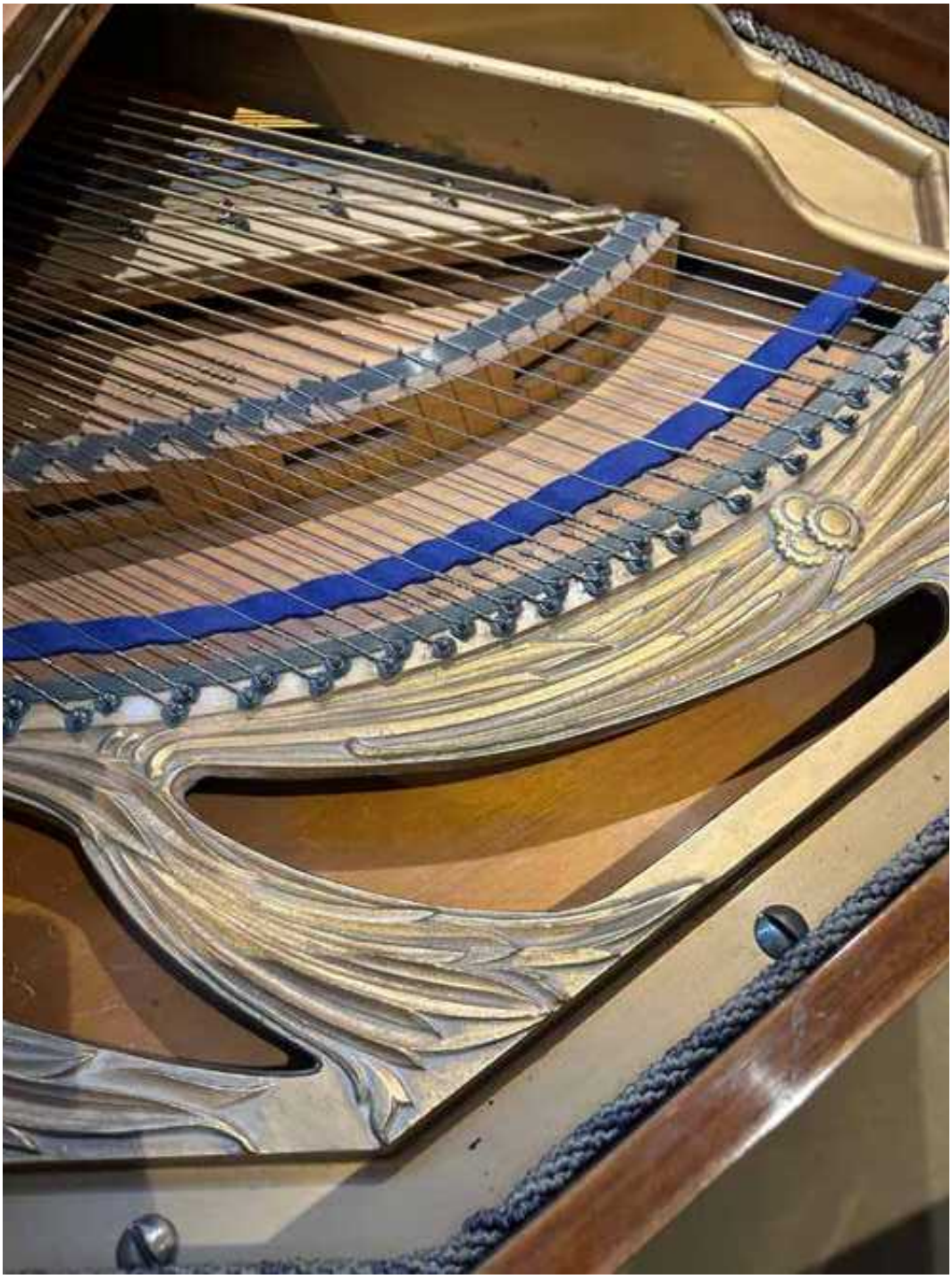

Figure 14 | Carl Mand, Joseph Maria Olbrich, interior of a grand piano, Koblenz, c. 1900, Berlin, Musikinstrumenten-Museum, cat. 5203.
Photo by the author.

2016 introduction of the SM database (ICCD) constitutes an important step, but many collections remain uncatalogued due to insufficient resources. The second is coordinating forms of tangible heritage protection with those for intangible heritage: The 2003 UNESCO convention opened new perspectives but the connection between the two areas remains issue-ridden, and music museums can play a crucial role as meeting points between objects and practices.

Sandra Suatoni observed that an instrument faces risks in its transfer to a museum. It risks being turned into one-dimensional material evidence when it ceases to produce sound. This risk is very real, but is not an inevitability. Better museums show how it is possible to conserve instruments without silencing them, to document their history without alienating them from its meaning. This possibility entails methodological awareness, scientific rigour, and the ability to place different disciplines in conversation with one another. This is what this volume has sought to do, from the conviction that music, even when silent, continues to speak to those who listen.

# CONTEMPORARY MUSEOLOGICAL APPROACHES TO MUSIC COLLECTIONS

*Massimo Negri, Laura Diamanti*

The object of our discussion in this arena centres on the relationship between musical instruments, music, and museum environments. Any approach to this topic cannot disregard its wider context: museums' worldwide proliferation. This phenomenon has made an almost infinite number of case studies available, real-world applications that should be kept front of mind when formulating working theories and analyses like the works within this volume.

Indeed, recent decades have seen the museum industry grow exponentially. Approximately 95 thousand museums are estimated to exist in the world today, over half of which are located in Europe. In the United States, over 40 thousand can be counted (more, according to an ironic Washington Post observation, than every single McDonald's and Starbucks put together). In China, too, the number has dizzily ascended: from several dozen registered museums in 1949 to almost seven thousand in 2023. Against this backdrop of continuous expansion, museums have established themselves as a true 'mass medium industry' – manifold, globalised, and highly varying in terms of quality, but with a shared intention to communicate with a vaster public than ever before.

Parallel to this, museum terminology has been refreshed. More and more often, a museum's format is defined as a dynamic, interactive, and accessible space, even in its more hidden corners. Emblematic of this are visitable storage rooms (as seen in Rotterdam's Depot Boijmans Van Beuningen or London's V&A East Storehouse) which attract at least as much public interest as the permanent collections. One of the more innovative projects of this type is Amersfoort's CollectieCentrum Nederland (CC NL). Created through a unique collaboration between national institutions in the Netherlands, this institution exemplifies new conceptions of museums as shared cultural infrastructure. Storage rooms that are visitable or even just visible (like the one for musical instruments experienced as part of the Musée du quai Brainly exhibition in Paris, a museum designed by Jean Nouvel). A large number of museums in this sector, however, continue to present static qualities, and have difficulties being understood by the general public. This contributes to a public image where all kinds of museums are silent, dusty, uncompelling places. We are thus in the presence of evolutionary processes investing the entire world with museums, and this is the realm where we find the musical heritage valorising that this volume was created to explore.

Further, musical instruments can be found in a great many museums in the world, and in very diverse collection contexts. This owes to the varied life events of collectors, as well as to these instruments' historic, aesthetic, and symbolic value, a value that takes on communicative possibilities inside the exhibition structure.

A crucial aspect that emerges from many recent experiences is the role of sound as an immersive instrument of narrative within exhibition practices. If museums have long been associated with the idea of silence – rooms to tread with lowered voice, where sounds seem counter to engagement – today we witness a profound transformation. Particularly in music museums but also in other settings, sound is now recognised as an active element of a museum's communication style.

Audioguides[1] were an early turning point. They introduced forms of individual acoustic mediation that were often coordinated with objects or sequences. A road opened up from there, paved with increasingly sophisticated solutions: immersive, interactive installations, soundscapes, AI voice interactions, AR experiences with auditory materials, and so on. All of this has been engendered by fast-paced technological development that is making many devices available and financially accessible – of great help for what we could call 'sound staging' in the context of an exhibition. For example, microphones and directional loudspeakers make non-invasive sound communication possible. They are easily integrated (even thanks to their minimalist design) into music environments, providing the visitor with a plurality of audio experiences. All things digital – hardware and software – have multiplied our possibilities to render engagements with sound more accessible, adaptable, and engaging.

Ultimately, the unending proliferation of digital sound content is an inexhaustible source of content, continually growing and renewing. Words, sounds, tunes, voices, historic recordings and environmental noises thus become narrative materials capable of activating our sensory and emotional memories, of evoking cultural contexts, or of restoring heritage's intangible dimensions. Sound, in fact, is not just accompaniment. It comes to play a structural role in the story of museums, contributing to define rhythm, atmosphere, and perspective.

We should here recall too that any exhibition inevitably generates its own 'sound mood,' which is produced by the visitors themselves: the babble of their voices, their comments, their footsteps, the noises of their digital devices. Just like the signs of so-called 'museum fatigue' – coughs, sighs, yawns – these noises constitute a

[1] First introduced in 1952 at Amsterdam's Stedelijk Museum for the show "Vermeer: Real or Fake" by using shortwave radio technology. Another fundamental step, in 1963 at New York's Metropolitan Museum, was the introduction of audio tours that consisted in allocating a cassette player to be distributed to visitors. It should be noted that these differing technologies mandatorily involved linear narration, setting a visit's exact timeframes as well as its modalities.

not insignificant component of the visit experience. A museum's 'sound sphere,' like that of a city, is thus the result of a complex stratification of intentional and unintentional sounds. The overlap in this wide noise spectrum (often caused, too, by architectural choices) urges us to activate new expertise and infrastructure. Alongside curators and historians, sound engineers, digital technicians, sound artists, developers, directors, and set designers come into play. Their challenge is to build a true museum sound heritage, one that isn't incidental but an integrating element of exhibition strategy. We could speak here of a three-pronged interaction: the sounds of visitors, the sounds of instruments, and the sounds of interpretive apparatuses (first and foremost listening devices, which today have reached high levels of complexity and convey more diverse formats, from podcasts to audioguides). Last but no less key is the fact that modern museum visitors, in the overwhelming majority of cases, embark on an exhibition environment with their *own unique* soundtrack: the never-ending smartphone noises that accompany the multitudes. We hear our technology almost uninterruptedly, from the sound of our morning alarm to the click of the electric switch when we decide to fall asleep.

One of the more insidious risks in modern museography is thus the unchecked overlap between sound languages, the acoustic reverb generated by interactions of sound and architecture, and the coexistence – at times conflictual – of an individual's sound sphere with the exhibition's. As has been noted already, technologies offer effective instruments for addressing this complexity: directional loudspeakers and "sound baths," for example, allow modalities of communication that had been unthinkable until just a few years ago.

The 'spoken' word has assumed an ever more central role in daily life, the masses familiarised with constant audio engagement that goes beyond music. Woody Allen, half a century ago, joked that: "I took a course in speed reading, learning to read straight down the middle of the page, and I was able to go through *War and Peace* in 20 minutes. It involves Russia."[2] Today that same operation is entrusted to a myriad of apps that promise to substitute the fatigue of reading with listening (hence audiobooks' great success). Our difficult relationship with reading in general is further complicated by museum environments, and becomes no small ingredient in 'museum fatigue.' Technological digital solutions can help greatly at mitigating this type of weariness. However, the risk of speedy obsolescence and 'oversaturating' with perceived possibilities do impose caution. Attention must be paid to avoid these processes overwhelming museum visitors.

Such problems concern all museum types, but particularly those dealing with musical instruments and music in general. Therefore, a need becomes evident for

[2] The quote appears in the comedic short story "Speed Reading" (Woody Allen, *Without Feathers*, New York, Random House, 1975).

conscious planning around these problems. Despite the inherent instability stemming from the velocity of developments in digital technologies, a balancing point must be found between the different multisensory reception modes proposed by the 'language' of museums. On the one hand, there is the coexistence of experiences that are generally mostly visual, tactile *hands on*, olfactory and, from time to time, even gustatory. On the other, within the soundsphere, there is the coexistence of noise, music, and words.

The music museum of the twenty-first century operates thus within a complex space, composed of the physical and the immaterial, of visible objects and invisible sounds, of advanced technologies and stratified recollections.

In a time where great storytelling – around identity, science, technology – returns to the centre of museum discourse, music offers up particularly fertile experimental terrain. It can evoke emotions, activate deep connections, and produce collective experiences that are at the same time individual. These capacities render it a powerful instrument of mediation and innovation. But the result is not always guaranteed, as Kenneth Hudson (1916-1999) observes in his discussion of museum capabilities. He notes that a result can at times be "intellectually strong,

House of Music, Budapest_Credits: György Palko.

but museologically weak – or vice versa,"[3] suggesting that a cultural project will always be defined by the characteristics of its museum space – with all its capacity for engagement but also its structural limits. The future of music museums will play out precisely on this balancing act: between conceptual strength and museographical quality, between the richness of its content and the effectiveness of its exhibiting mechanisms. It is in this fertile, dynamic, creative tension that the most meaningful museum experiences, capable of speaking to the most diverse public audiences, can be engendered.

It is thus fundamental that we understand how these institutions succeed at overcoming the logic of the purely contemplative exhibition so as to actively engage visitors with multisensory interactions while also safeguarding musical instruments' intrinsic functionality and acoustic properties.

Furthermore, it should be remembered that, if the past decades' museum proliferation is marked by a mixing of languages and progressive hybridising of canonical museum varieties, then music museums can be (or can become) sources of inspiration also for institutions with distant themes – when they wish to put communicative strategies into play in which a soundsphere could take on a factor of improvement to the exhibition environment, whatever its principal theme may be.

The path towards modes of engaged experiences thus requires a delicate balance between rigorous conservation and the controlled use of the instruments in performance contexts, which transforms static objects into dynamic cultural artefacts.

But another addition must be made to the communication network investing the entire exhibition space, one that accompanies each and every one of us in practically every move we make in a day: the web and its content. Exhibition infrastructure and the web are a virtuoso pairing when they contribute to revitalise, for example, lesser known or forgotten music genres, enriching the visit experience and at the same time furnishing incentives to conserve sound heritage in individual memory.

Museums have traditionally been considered places of 'statements,' of codified and consolidated truths. By the 1990s, Kenneth Hudson described the ideal museum as one that a visitor leaves with more questions than they had walking in.[4]

This is a statement that is in part utopian, but without a doubt a very real shift is taking place across the landscape of modern museums: from statements to questions, from one-directional information transmission to attempts at sparking public debate and encouraging participation. In the context of museums, this change

[3] *A tiger in a museum is not a tiger*, edited and introduced by M. Negri, A. Nicholls, W. Van der Weiden, and A. Rihter.

[4] *A tiger in a museum is not a tiger,* ibidem.

can be interpreted as an evolution in exhibition processes: from aligning single objects to establishing connections between these objects and the interpretative apparatuses accompanying them.

If in the past museums were defined principally by their collections, today this perspective has to a certain extent reversed. It is the museum that constructs its own collections' meaning, and it does this through ever more articulate interpretative processes and new communication formats. It is no longer only objects that occupy the foreground in this portrait, but the processes and phenomena that these items render legible and understandable.

The term *interpretation* has become central to contemporary museology debates. The word is particularly effective because it describes exactly the process that takes shape inside a museum: content – object, document, sound – is first studied and understood through the language of experts, and then later 'translated' into a code that makes its meanings accessible to a wide, nonspecialist public. This second language is the language of presentation, more specifically of stage-setting.

A statement thus has a double direction. It refers, on the one hand, to the object it analyses and decodes. On the other, it refers to the visitor to whom it returns – in clear and shareable form – a sense of the content presented. We speak, all in all, of a complex process of communication. One part of this mechanism remains invisible to the public and concerns the acquisition and selection of information that derives from content analysis. Another part is instead perfectly visible and coincides with its exhibition, whose staging constitutes its most incisive element.

The tools of interpretation include all every apparatus that can be used to narrate a collection's history and significance: moving and static images, written or spoken texts, lighting, room-fittings, attached or transportable architectural solutions, design effects, interactive devices, replicas and models, etc. The development of digital technologies further broadened this interpretive repertoire, to draw in multimedia stations, immersion environments, and web integrations that have thoroughly transformed the museum environment and the way it is accessed by the public.

In short, the effectiveness of a museum's communication depends on the correct balance between different levels that work together to build a rich museum experience congruent with the complexity of museum language.

To simplify, we can distinguish four complementary components that encapsulate the interpretative process. The first level is that of information: accurate content, rigorously chosen and calibrated to available spaces. The second level is that of narrative: a recognisable account, complete and coherent, whose diverse interpretative cores connect in a logical way. The third component is evocativeness: a presentation that can engage the visitor, spark curiosity, and activate emotional dimensions. Finally, there is the element of experience: the visitor's

chance to interact, experiment, and actively participate in discovering a topic. All of the above require mastery of an appropriate and cogent methodology.[5] Anna Bright, Interpretation Officer at the British Museum, explained the fundamentals of her work in an institutional blog post: "Broadly speaking, museum interpretation is everything we do that helps visitors make sense of our collection. […] I am working to help define the stories that will be told through the objects on display and to develop a structure for these narratives. As part of the core project team I also work with designers to ensure that the design helps communicate these stories and key messages. I will then edit the text that curators write for panels and labels."

The museum experience can therefore be described as a form of intuitive rationality, where critical processing and sensory perception act in complementary ways. Each definition and each operative model are thus the result of a complex synthesis that is built to depart from a variety of data: practices consolidated with time, institutional traditions, but also – and ever more often – recent experiments that characterise the international contemporary museum scene. This scene is marked by hybridisation between exhibition models, disciplinary contaminations, and rapid metamorphosis in terminology and communication registers.

If we observe more closely the field of listening-centred museums, and of museums based on single personalities in music history, certain trajectories in their evolution sharply emerge, lending particularities to the formation of this sphere that are difficult to ascribe to a distinct model.

In this arena, an exhaustive overview cannot be offered. However, we have selected a deeply considered set of examples for their representativeness of the manifold types of music museums or music sections inside larger museums (as in the case of New York's MET or Vienna's Kunsthistorische) or museums connected to prominent figures in the music world or particular music genres.[6]

A historically significant case is represented by Eisenach's Bachhaus, founded in 1907 by the New Bach Society as the first museum in the world completely dedicated to Johann Sebastian Bach. Their mission is to collect, document, and conserve evidence around the composer's life and work.

Over a century after its opening, this museum underwent an important expansion that saw the creation of a new building designed by Berthold Penkhues, a student of Frank Gehry, in Kassel. Internal design renovations were entrusted to Studio Bruckner in Stuttgart. Although the outcomes of the overall operation are not totally uniform, it nevertheless reflects an attempt to overcome the traditional

[5] For more on this, see *Developing Exhibitions: There is a Method in This Madness* by D. Hougraaf (ed. M. Negri, Waanders Uitgevers, Zwolle, 2020).

[6] These case studies are dealt with in further depth in the *Profiles* section of this volume.

limits of the House Museum. An entire floor, for example, is dedicated to reconstructing the home environment of Bach's family.

One of the most impressive aspects of its exhibitions is its instruments gallery, which is animated by hourly live musical performances with different kinds of historical keyboards. It contains a bubble chair zone designed by Eero Aarnio. Chairs are suspended in space, conceptualised as stations for immersive individual listening through a selection of Bach's music. Less successful, on the other hand, is what should have represented the museum's multimedia hub: the Begehbare Musikstück (music walk). This circular environment has 180-degree immersive projections, visually translating some of Bach's compositions. In the space's concrete realisation, however, it proves technically and emotionally weak.

Beside this historic example, the contemporary landscape attests to a pronounced proliferation of museums dedicated to individual personalities in the world of music. Their approaches are at great variance to one another. In recent decades, house museums have sprung up, such as Italy's Casa Museo Luciano Pavarotti (2015), that leverage intimate, biographical dimensions or are highly narrative- and identity-driven experiences, such as the Netherlands' Herman Brood Museum & Experience (transformed into a museum in 2018). Flanking these are hybrid institutions that combine celebration, entertainment, and interactive devices, like ABBA: The Museum and the Swedish Music Hall of Fame (2013) or the more recent Avicii Experience (2022) in Sweden, where biographical accounts are interwoven with strong immersive and theatrical components. A different case of hybridisation is offered by the Museo Interactivo de la Música in Malaga, Spain, a private institution that fuses its global organological instrument collection with a radically participation-driven approach. This is synthesised in its motto *Please play*, which invites visitors to directly play exhibited instruments.

Parallel to this, museum formats are being developed that tie in with locations of music production – studios and performance spaces – such as Switzerland's Queen: The Studio Experience (2013). There are also larger-scale museums dedicated to pop music's myriad variations, such as the UK's British Music Experience, which shifted to Liverpool in 2015, the Coventry Music Museum (2013), and the Eel Pie Island Museum (2018). Even creations that are apparently more traditional, such as Italy's Museo del disco d'epoca (1995), attest to growing interest toward objects, supports, and practices connected to the memory of nineties sounds. These centre not so much on a creator as on the media technologies of listening.

Beside these museums for music figures, scenes or genres, a solid tradition continues to develop of museums dedicated to musical instruments and organological collections – often of national or international relevance. Examples are: the Russian National Music Museum in Moscow, which conserves one of Russia's

Salon Stolz, Graz.

oldest and richest musical collections; the Cité de la Musique's museum of musical instruments in Paris; the Museu Nacional da Música in Lisbon, which has an important collection of academic and popular Portuguese and international instruments; or the Musical Instruments Museum in Phoenix, USA, created by the private initiative of Robert Ulrich and today one of the biggest museums of musical instruments in the world. Added to this constellation are historical institutions like the museum of musical instruments inside London's Royal College of Music, which has over 800 instruments from Europe, Asia and Africa, and strongly identity-centred situations like Yakutsk's Museum and Center of the Khomus of the People of the World (1990) dedicated to global varieties of lamellophones (popularly called the 'Jew's harp'). Lastly, the Hamamatsu Museum of Musical Instruments (1995), the first and perhaps only Japanese museum entirely dedicated to musical instruments, fits into this same framework.

As a whole, these examples give an extremely clear overview of how biographical museums, experience-centred museums, instrument museums, technology museums, and sound memory museums coexist. They constitute a genuine kaleidoscope that reflects the plurality of music practices, cultures of listening, and interpretative strategies for presenting music in museums today.

Some museums are created as they are, transformed to be what they are, change function from what they are or even disappear. The 192 & Demis Roussos Museum in the Netherlands opened in 1995 but subsequently closed. The Museu da Tabanca (a music genre and a popular festival of extreme importance to local community identity) was founded in 2000 on the island of Santiago in Capo Verde and has now closed. And the Lithuanian Povilas Stulga Museo for popular musical instruments was founded in 1985 and is now, too, currently shut down.

# MATERIAL AND SOUND. PROTECTION, PRESERVATION, AND RESTORATION OF MUSICAL INSTRUMENTS

*Sandra Suatoni*

## 1 | The Materials of Sound: Musical Instruments Conservation1 and the Public Dimensions of Education, Enhancement, and Protection

As a form of cultural heritage, musical instruments are complex. They are aggregates, amalgams of aspects from their histories, techniques of construction, functions, acoustics, music, aesthetics, social worlds, and symbolism.

Organology and ethno-organology study the instruments that make music, from 'high' art music to 'low' popular music, investigating their histories, structures, construction techniques, functioning, acoustic and mechanical characteristics, performance practices, and classification.[2]

These disciplines, in step with musicology, were established much later in Italy than the rest of Europe. This in turn conditioned the actions taken by public institutions to protect music and sound cultural heritage, leaving musical instruments to be classified and musealised in foreign collections throughout the nineteenth century.

Indeed, Italy's national museum for musical instruments was founded in 1974, more than a century after the main public museums in Europe and the Americas were created and had absorbed a not insignificant number of Italian heritage items, victims to local indifference.

Music culture itself, whose heritage is intangible yet core to civilisational identities, has in Italy persistently lacked attention toward its conservation and transmission. Italy has instead tended to circumscribe music to the realm of entertainment.

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[1] The most substantial of my several interventions on this topic can be found in *Gli strumenti musicali – dallo spettacolo al museo spettacolare. Tutela, valorizzazione, museologia, museografia. L'esempio del Museo nazionale degli strumenti musicali*, Rome, UniversItalia, 2019, pp. 74-101.

[2] For Renato Meucci it is simply the "discipline that studies the histories and technologies of musical instruments," *Organologia: definizione e contenuti di una recente disciplina, in "Rendo lieti in un tempo gli occhi el core". Il museo degli strumenti musicali del Conservatorio "Luigi Cherubini" di Firenze*, Mirella Branca (ed.), Livorno, Sillabe, 1999, p. 1.

Music remains unrecognised today in Italian cultural heritage protection legislation. This is mirrored in the Ministry of Culture's organisational structure, which allocates no special units or offices to music heritage.[3]

Although Italy complies with international policies around intangible cultural heritage (the Convention for the Safeguarding of the Intangible Cultural Heritage, adopted in Paris on the 17th of October 2003 and ratified by Italy in 2007, and the 2005 Faro Convention ratified by Italy on the 23rd of September 2020), no measures have yet been taken to protect and promote music's tangible and intangible heritage.

Most instances where musical instrument heritage has been protected and enhanced have garnered critiques, however, some avowed and some emerging. These dynamics are tinged by factors from the discipline of history, regulations, organisations, and education.

In the Italian education system, compulsory exams about musical instrument history at the termination of Italian musicology degrees are notably absent. The study of musicology has only recently been recognised by Italy's Ministry of Culture, with the impetus of its new scientific and technical profile (art historians, architects, archaeologists, demoethnoanthropologists, etc.).[4] Since this point, no public exams for functionaries in musicology have been undertaken. The first Ministry of Culture office to create a musicological profile within its own staff was, in 2026, the Central Institute for Sound and Audiovisual Heritage (Istituto centrale per i beni sonori ed audiovisivi). This body conserves the first public national sound archives and was introduced in 1928 by royal decree of Vittorio Emanuele III. At the time, it operated under the name of State Music Archive (Discoteca di Stato).

Contradictions and structural lacunae run rife in the main regulatory source for Italian cultural heritage protection and promotion: the Code of Cultural and Landscape Heritage (*Codice dei beni culturali e del paesaggio*, a 22nd of January 2004 legislative decree, n. 42). In the Second Part of the *Code*, Chapter 1 of Title 1 (*Object of Protection*) contains detailed directions around what constitutes an

[3] For more on this topic see Annalisa Gualdani, *Il bene musicale: una categoria ancora in cerca di definizione* in *I beni musicali verso una definizione*, «Il Saggiatore musicale», Florence, Olschki, 2005, pp. 158-180. Also by A. Gualdani, see, *I beni musicali: una categoria in cerca di autonomia* in *Aedon, rivista di arti e diritto on line*, n.3, 2003 www.aedon.mulino.it/archivio/2003/3/gualdani.htm.

[4] On the issue of technical and scientific training and on the absence of solutions, see the work of Francesco Luisi, *Esperienze e prospettive della formazione universitaria* (pp.31-34); Roberto Giuliani, *Beni musicali: formazione e ricerca tra università e conservatori riformati* (pp. 142-154); Laura Mauri Vigevani, *L'educazione alla cultura musicale* in the volume «Annali dell'Associazione Ranuccio Bianchi Bandinelli» dedicated to *Il patrimonio culturale musicale e la politica dei beni culturali,* edited by Roberto Scognamillo*,* n. 14, 2003, Rome, Graffiti, pp. 31-31; 142-154; 173-176.

object of protection (Article 10: *Cultural Property* and Article 11: *Properties Subject to Specific Protection Provisions*). The categories listed of privately-owned cultural heritage subject to protection include, directly after geographical maps, "musical scores of a rare and precious nature" (Article 10, 4d).

All other tangible music heritage items, however, are omitted from this list in Articles 10 and 11. These would be: musical scores of a rare and precious nature;[5] musical instruments, recording and sound production instruments; and audio equipment in general[6] of a rare and precious nature.[7] A set of issues unspool from this omission that imbricate acts of cataloguing, circulation, conservation, and restoration – for musical instruments and other material heritage – and that still today lack shared rules or practices.

2016 saw the creation of the first single-cycle (undergraduate- and graduate-level) Italian degree in Cultural Heritage Conservation and Restoration for musical instruments, instrumentation, and scientific and technical instruments. The programme was launched in Cremona by the University of Pavia's Department of Musicology and Cultural Heritage. Its task was to create uniform conservation and restoration profiles with specified theoretical and technical training. This would enable interventions that were culturally and organologically grounded at the same time as scientifically and technically grounded, fully able to grasp the complexity of this heritage.

The programme is run through the University of Pavia with the support of the Polytechnic University of Milan for music acoustics courses. It has three main areas: restoration-focused science subjects; humanities disciplines centring on music, art, and the history of science; conservation theory; and conservation and restoration labs. Students must complete 2,500 hours of practical lab work over their five-year degree. This work experience is organised by artefact type: bowed string instruments, plucked string instruments, organs, keyboards, aerophones, and scientific instruments. Students receive their certificate after passing exams, practicing restoring an artefact, writing a dissertation, and defending their work before a mixed committee featuring representatives from the Ministries of Public Education and of Culture. Each year, of all applicants, only five students are accepted into the degree (complying with a law that ensures the rigorous dynamics of one instructor to every five students). At full capacity, the programme contains around 25 students from different parts of Italy as well as from overseas.

[5] Which should have appeared beside the musical scores when they were listed.

[6] Not to be confused with the "documentation of events, oral or verbal" in Article 11, 1f.

[7] These suggested inclusions take into account written music heritage, musical instruments of all organological types, and instruments for sound production and recording (phonographs, gramophones, etc.) and their supports (wax cylinders, perforated paper, vinyls, ribbons, etc.).

Figure 1 | Rome, National Museum of Musical Instruments, Gilded and painted harpsichord, 17th/18th centuries, inv. 2821; ENEA X-ray, 2016.

Figure 2 | Rome, National Museum of Musical Instruments, Gasparo da Salò, three-stringed double bass (formerly a six-stringed violone), Brescia, second half of the 16th century, inv. 765; ENEA X-ray 2016.

Educators in this degree are professionals with demonstrated experience collaborating with Italian and European museums and institutions. Some are from outside of Italy (Grant O'Brien, Thomas Wilder, Andrew Dipper, Kerstin Schwarz, etc.).[8]

This, however – along with the Ministry of Culture's official list of restorers qualified by the exercise of their profession – hinders public commissions from reaching artisans and makers who are isolated from accreditation pathways.[9]

Before 2015, just under one hundred restorers specialising in musical instruments had been able to demonstrate experience specific enough to be added to the list. A noticeable majority were organ-makers, two were luthiers, and one an expert in historic pianos.

2016 was the year, too, when the Ministry of Culture's Central Institute for Cataloguing and Documentation finalised and released their card-index for musical instrument cataloguing. This tool represents an early move to understand and to protect. To this day, however, it receives only scanty use in the field.[10]

## 2 | Debates: Conservative Restorations, Functional Recoveries, and Philological Copies

Musical instruments are a peculiar cultural heritage category, one that blends aesthetic value, historic relevance, and their sound-producing functions – so necessary to achieve the purposes for which they were created.

This pluralistic nature is shared by other manmade artefacts with artistic, historic, and use-based features (consider architecture, for example, or, still in the world of entertainment, works of cinema). This pluralism, however, is also a breeding ground for issues of approach when it comes to acts of conservation and restoration.

Musical instruments restorations, similar to (but more delayed than) restoration's fuller history, are marred by conflicts, shifts in opinion, rethinks, and, above all, deep metamorphoses when it comes to concepts, philosophies, and operative techniques.

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[8] For this information, see Sebastian Kirsch, Massimiliano Guido, Roland Hentzschel, *Education programs for the restoration-conservation of musical intruments in Europe – history and current situation*. This work is part of CRBC No 40 – 2023 published by ARAAFU https://araafu.com/wp-content/uploads/2023/12/1576.pdf.

[9] In the Ministry of Culture, authority to speak on the subject of cultural heritage professionals is given to the Direzione generale Archeologia, belle arti e paesaggio, Servizio I, Department of Cultural Heritage Protection (Dipartimento per la Tutela del patrimonio culturale) https://professionisti.cultura.gov.it.

[10] SM catalogue version 4.00. See http://www.iccd.beniculturali.it/index.php?it/473/standard-catalografici/Standard/64), edited by Sergio Chierici, Flavia Ferrante, Maria Letizia Mancinelli, Laura Mauri Vigevani, and Roberta Tucci with work contributed by a group representative of Mibac, the area, and the worlds of science, museums, universities, and music conservators.

Italy's delay defining a discipline and praxis for conserving this category of artefact came after the other above-mentioned delays, which partly contribute to its historic rationale.

The Central Restoration Institute was founded in Rome in 1939, and was a groundbreaking operation at the time. The institute has always focused its activities upon works of art, in line with dominant concepts around aesthetics and restoration. Their work in this field furnished examples of correct methodological procedures and operative solutions. In this context, material manifestations of music traditions (although highly representative of Italian civilisation) did not receive adequate consideration for their conservation nor care for their conveyance to future generations. This unfolded, too, in the wake of extremely elevated restoration concepts theorised and put into practice by Cesare Brandi. As a consequence of such factors, works not identified as 'high' art were effectively barred from consideration. 'Lower' categories of artefacts (glasswork, furniture, fabrics, ceramics, etc.) received interventions that had no specific discipline. Conservators resorted to modes of habitual repair and did not document the techniques they executed in their workshops.

Such a fate was visited upon musical instruments too, which were essentially perceived as functional objects but fell nonetheless through the cracks of restoration theories and praxes. Thus, neither the Central Restoration Institute nor other public entities working in the field carried out any appropriate restorations of organs or other historic musical instruments. This explains why, in this sector, the distinction between repairing, remaking, and, more generally, refunctionalising and restoring has only been addressed in recent years. The majority of interventions carried out in the past set out to restore instruments' functions at the cost of their historic qualities, resulting in much tampering.

From the 1960s, two factors contributed to an increase in damage done to instruments and to conflict between the various positions in the conservation debate. The first was a revival in tastes for historic music. The second was the opportunistic and questionable conviction – upheld even by musicians – that playing old instruments aided their conservation, both physically and in terms of sound.

The idea that historic instruments would come to us in their original condition were it not other than for time's wear and tear (and the interventions of transformation, assimilation to music tastes, and repairs) is impossible. Granted, it is easy to deduce that regular and extended playing of old instruments for preservation purposes nevertheless submits their material structures to physical and mechanical stress that they cannot always bear.

The most prevalent and popular controversy was, in fact, 'conservative' versus 'functional' restoration. The latter claimed to return an instrument's function, or even its yearned-for 'lost' voice. The divide in intervening time exposed such a goal as utopian. It was also pursued, in many cases, through structural sacrifices

made in invasive interventions. These compromised the integrity of the material artefact and/or as much of it as had survived the passing of time and treatment of humans.

This occurred in museums, too. From the moment musical instruments began to be musealised, their restoration was closely associated to their conservation as functional objects. Thus, many European and Italian museums hired luthiers to carry out restorations, often with the purpose of bringing instruments into working order, so as to continue to be played. Damage resulting from constant use and the loss of original materials made it necessary to graft musical instruments into the field of modern conservation studies. Beginning in the 1960s, various European programmes were devised to train professional musical instrument conservators academically. The first was in the German Democratic Republic, in response to cultural heritage losses incurred during World War II. A distance-education programme was established for musical instrument restorers, with three learning locations: the Deutsches Museum in Berlin (for the programme's general section), the Museum für Vorgeschichte in Weimar (for its specific section), and the Musikinstrumentenmuseum in Leipzig for (its professional section). After an extended preparation stage, the first matriculation occurred in 1976. There were five students. Due to the political shifts sparked by 1989, however, the ex-GDR's education system was placed under discussion and that particular experience closed out.[11]

Other programmes were later instituted in Germany (at the Germanisches Nationalmuseum in Nuremberg), Austria, and Italy. The Academy of Fine Arts Vienna (whose first course was instituted in 1972) and the University of Pavia (2016), are currently the only training centres in Europe where musical instruments restoration can be learned to an academic level.

Before the discipline was specially introduced to public-facing Italian institutions, they followed principles consolidated for other forms of cultural heritage. They extrapolated from Cesare Bandi's restoration theories and international cultural property documents, as well as intervention practices that translated into ad hoc, case-by-case evaluations of an instrument's particular condition and factors conditioning project decisions. These included the needs an instrument might have stemming from its history, aesthetics, or sound. Its need to be conserved to fulfil the function of reaching future generations was a priority that remained frozen, however.

[11] Sebastian Kirsch, Massimiliano Guido, Roland Hentzschel, *Education programs for the restoration-conservation of musical intruments in Europe – history and current situation*, cit., pp. 102-112., *CRBC,* n. 40, 2023, pp. 102-112 (ARAAFU), https://araafu.com/wp-content/uploads/2023/12/1576.pdf.

Figure 3 | Rome, National Museum of Musical Instruments, Gaetano Vinaccia (Naples, c. 1759 - after 1837), Six-string guitar, 1804, inv. 5.

Figure 4 | Rome, National Museum of Musical Instruments, (school of) Donato Filano, Neapolitan guitar originally a five-stringed instrument, later modified to six strings, second half of the 18th century, inv. 335. 5.

Figure 5 | Rome, National Museum of Musical Instruments, Vendelino Tieffenbrucker, Lute Body, c. 16th-17th century, inv. 2715.

Nevertheless, even in now-distant 1985, *European Music Year*, a desire was being advanced in Italy to have a European restoration charter defined as soon as possible. A charter for the conservation, restoration, and reuse of historical musical instruments was indeed attested by the acts of a homonymously titled Venice conference, held between the 16th and 19th of October that same year at the Ugo and Olga Levi Foundation. Reinterpreting the theoretical interventions made here, the difficulty of adapting musical instrument protection to models appropriated from art-historical (especially architectural) heritage is striking. In the ambivalence between conservation and reuse, public and private interests, they were unable to find an alternative vision, one that could speak to instruments' specificities and sound functions beyond allegedly philological concepts with fetishistic or commercial qualities.[12]

Critical here are several claims from the conference's opening speech. They spotlight the scientific positions of the time, as well as an absence of answers to several of the pressing urgencies raised:

> When I say 'musical instrument' I refer to the *mechanical means* invented and used by humans to produce sounds known as music. Instruments' peculiar quality as a *means* of expression and as a *document* endows them with the content and properties of *heritage*. By 'heritage' I refer to cultural assets that should be safeguarded in their original individuality. […] Musical instruments are machinery created to produce sounds. Thus, the object of our safeguarding must be sound. Any restoration intervention that provokes alterations in sound should be out of the question, severely. […] 'Safeguarding' is realised firstly through knowledge […]: this plays out as scientifically correct and rigorous cataloguing, […] adopting correct museum conservation methodologies, […] and a strict restoration code of conduct. […] Ensuring that all of this comes to pass should no longer be the task only and exclusively of master instrument-makers. Instead, teams of professionally specialised technicians should be employed […]. A specific regulatory discipline should thus be instituted for safeguarding cultural heritage, and organisations concretely capable of eliciting different behaviour should be set up.[13]

[12] See in particular the work of Marco Tiella, *Criteri attuali nel riuso degli strumenti storici e Didattica del restauro*, in *Per una carta europea del restauro. Conservazione, restauro e riuso degli strumenti musicali antich*i, Atti del Convegno Internazionale (Venice, 16-19 October 1986) E. Ferrari Barassi, M. Laini (editors), Florence, Leo S. Olschki Editore, pp. 243-253 and pp. 347-355; as well as, in the same volume, M. Tiella, *Aspetti del restauro di strumenti musicali di interesse etnomusicologico*, pp. 79-83 and Febo Guizzi, *Per la conoscenza, lo studio e la conservazione degli strumenti della musica popolare,* pp. 9-29. Further work by F. Guizzi includes *La conservazione e il restauro degli strumenti musicali della tradizione popolare, in* Atti del convegno "Conservazione e restauro nei musei etnografici lombardi", tenutosi a Pescarolo (CR) nel 2010, Pescarolo, Edizioni Museo del Lino, 2011 - https://rebel.lombardia.it/wp-content/uploads/2012/12/Febo-Guizzi.pdf.

[13] Gianni Milner, president of the Fondazione Levi, opening speech, in *Per una carta europea del restauro. Conservazione, restauro e riuso degli strumenti musicali antichi*, cit., pp. 2-3.

It is worth undertaking a comparison between the reflections Franca Falletti, then-director of the Gallerie dell'Accademia in Florence, would later make (2007). These were recorded in an interview titled "What Restoration for Musical Instruments?" (Quale restauro per gli strumenti musicali?) in an issue of the magazine *Kermes* themed to "Historic Musical Instrument Restoration and Conservation:"

> Provided that it seems no valid proposal can be said to exist in any current state for a 'restoration charter' about musical instruments, […] I asked myself whether the 1972 Restoration Charter couldn't be applied, especially its 1987 update. […] The Restoration Charter is, of course, composed of one part that gives general theoretical principles and another that goes into specifics on the various object types. So it talks about artistic objects in archaeology, architecture, painting, and sculpture. […] But it does not include musical instruments and this, to my mind, is a necessary supplement. […]

In the seventh paragraph, acceptable operations are listed:

> […] A limited number of exceptions can be admitted (completion not permitted) in the field of architectural restorations (the same goes for musical instruments, which in some cases truly have architecture-esque structures) where similar components, even if reduced to bare bones, show themselves necessary to the static defense of their construction. […] Nevertheless, it is extremely important to underline, even for musical instruments, that additions should always be discernible to the naked eye, although not in a way that defaces their aesthetic usability as objects. Furthermore, "Demolitions or removals" are forbidden "that erase evidence of the object's passage through time, unless these have been limited alterations that deface or are incongruous to the historic value of the object or completions in style that falsify the nature of the object." […] The 1987 version broadens the 1972 version's understanding of an art object beyond painting and sculpture, and musical instruments could easily be added to the objects it mentions. […] Technical, scientific and labour-related instruments are discussed […] that attest to uses and customs of anthropological interest […] etc. […] "In no case should restoration programs be separate from a program of maintenance and prevention." Of further importance, from two perspectives, is the way it introduces the concept of *environment*. On the one hand, there are physical and chemical environments. On the other (more important) hand, there are cultural environments. […] Considering an object's cultural environment is fundamental. It opens an entire discourse about music's philological recovery in addition to that of instruments. […] Instruments have aesthetic value, functional value, and a kind of mechanical, technical value too. […] I believe that all three of these musical instrument elements should be taken into account, and should be balanced. Above all, one should not transgress the others in a way that causes harm.[14]

[14] See Franca Falletti, *Quale restauro per gli strumenti musicali, Restauro e conservazione degli strumenti musicali antichi. La spinetta ovale di Bartolomeo Cristofori*, G. Rossi Rognoni (editor) in «Kermes, La Rivista del restauro», April - June 2007, XX, Florence, Nardini Editore, pp.18-21.

Falletti's reflections prompt the realisation that, more than twenty years after the Venice conference, new theoretical models had not been created, though greater emphasis was placed on the importance of environments, socio-cultural contexts, and musical performances.

Indeed, once the concept of intangible musical heritage conservation and protection had been extended to the intangible side to music heritage (musical instruments being the tangible side), the scientific and ethical horizons of restoration interventions adjust perspectives and expectations ever so slightly. The need emerges more and more here to pose a series of queries and reflections around what an intervention's objectives might be – around the weight the dimension of sound might hold within the scope of valorising a musical instrument, or a collection, or even a museum, whose survival ultimately determines the conservation of the heritage it holds.

In light of the above (and if Manichaean distinctions between *conservative* and *functional* as a programmatic and operative prerequisites are put aside) an alternative approach seems possible. In bibliography on the topic, these distinctions are a recursive polemic often paired with diverging interests whose expression is the public or private ownership of instruments. Nevertheless, a more dynamic approach could recall affinities with the well-structured discipline of preserving works of cinema, in addition to strengthening calls for artistic and architectural restoration.

Film theories and methods of restoration, too, became more established in the late twentieth century. Models drawn from other scientific areas (textual philology and art restoration) contributed. These theories and methods tackled contradictions, polarities, tensions, and linguistic impediments, even in terminology (*preservation, restoration, conservation, reconstruction*, their meanings used ambiguously; e.g., the problematic notion of an item's originality), in a territory of inquiry distinguished by strong interdisciplinarity. Even this situation involved constructing a method and identifying an object and/or material for cinematic restoration. A film's celluloid or digital substrate was the principal but non-exclusive vehicle for its image and memory but so, especially in early cinema, was its projection-space's architecture, its narrator, its sound, its live musical accompaniment, etc. (in other words: the object and its relationship to its cultural, historical, and social dimensions). Indeed, performance data multiplied with silent films and early cinema. The text in need of reconstruction was no longer just the film but all its entertainment components.[15] Even in this field, it became urgent to define ethical and procedural principles for selecting the identity of the specialist who oversaw the restoration. The inescapable issue finally posed itself: duplication for the purpose of conservation versus for the purpose of public use.

[15] As underlined by Michele Canosa, *Immagini e materia. Questioni di restauro cinematografico*, in the journal «Cinema & Cinema», n. 63, 1992, pp. 45-46.

A particularly fascinating reflection on cinematic restoration of those at the time is a text by Ségolène Bergeon.[16] It contains a section compatible with musical instruments, in which Bergeon argues that, given all the alterations brought on by time and human interference, every act of restoration is an act of interpretation, and that this entails a share of subjectivity. Critical analysis reveals the way an object of an intervention is placed under different lenses: a restorer can opt to privilege the purity of its aspect as a document, or to retain one altered section, or to recreate its functions. The lens is informed by the aims of the restoration and its committee. Regardless of aims, it is absurd to argue that a restoration could recover an original state. This is neither possible nor desirable, since restoration will not truly take away an object's age. It cannot wipe away the time that has passed between an artefact's creation and use and the moment it lands in the restorer's hands: "Restoration is subtler: the balancing act between what is hidden and what we want to make seen." And, we could add, in the case of musical objects and their sound, to make heard.

> The way we use cultural heritage (whether a building, item of clothing, or film) either conserves it or alters it. […] Even in the specific case of reinstating an original function [...] it cannot be denied that time has passed. The arrangements that have to be made to facilitate reuse can change a building or historic object […] But use is simultaneously a saviour, because it almost always authorises regular maintenance. Every act of interpretation is legitimate, as long as it does not seek to make something pass for what it isn't […] Normally, when it comes to cultural heritage, a double polarity emerges between a work of art's aesthetics and its history (as theorised by Cesare Brandi). But the more a field of heritage widens to include cultural assets that are increasingly distant from artworks, such as decorative arts, scientific and industrial heritage items, and books […] the more ideas of use become vital. This is why it is perhaps more relevant to call on a theory of values developed last century in Vienna by Alois Riegl, when he was charged with working on the Monument Protection Act. […] Any type of heritage will have its own percentage for four values: aesthetics, history, age, and use. A specific restoration proposal is informed by the balance between these different cultural heritage values. Paintings, a more contemplation-based art form, generally hold a very high aesthetic value percentage but a low use value percentage. On the other side of the scale, an ethnographic item presents a low aesthetic value percentage and a very high use value percentage […].[17]

[16] Ségolène Bergeon, *La restauration des films*, "CinémaAction", vol. 97, 2000, reproduced in S. Venturini (editor), cit., pp. 115-121.

[17] For restoration theory, see the leading thinkers in this discourse: Cesare Brandi, *Teoria del Restauro*, Turin, Einaudi, 2000 (1st ed. 1963); Alessandro Conti, *Storia del restauro e della conservazione delle opere d'arte*, Milan, Electa, 2002 (1st ed. 1973); Alois Riegl, *Der Moderne Denkmalkultus. Sein Wesen und seine Entsehung*, Braumeller, Wien-Leipzig 1903, Italian translation *Il culto moderno dei monumenti: il suo carattere i suoi inizi*, Bologna, Nuova Alfa, 1985.

Figure 6 | Rome, National Museum of Musical Instruments, Bartolomeo Cristofori's piano, original instrument from 1722, inv. 2780; copy from 2010.

Figure 7 | Rome, National Museum of Musical Instruments, Girolamo Acciari, Barberini Harp, 1633 inv. 2824; ENEA X-ray 2016.

Nevertheless, with film restoration as with musical instrument restoration, predetermined targets are influential in determining different intervention approaches. Indeed, restorations in the abstract do not exist. Each is the result of a given historical moment and each pursues specific ends. Additionally, restorations are interpretation-based operations that project from the present moment into the future, modifying the way alteration processes could develop later. This last detail merits particular attention – it implies reducing any manipulatory action to the indispensable. We have been taught this by restorations that were revealed in retrospect – in the light of new technologies and ideas – to have been damaging and inappropriate. The starting point of intervention decisions is at times a scientifically-minded public that demands particular answers from a restoration. Or a sponsor who might place conditions over choices of what and how to restore. Or an exhibition context or a theatrical event into which the restoration is inserted. Varying circumstances influence agreements and/or expectations that have bearing over judgements and decisions. Nevertheless, it is fundamental to respect foundational principles, and the first of these is the accurate documentation of an intervention in a way that evidences implementation and responsibility: the subject promoting the restoration; objectives; project; intermediate and final relationships; research and investigations undertaken; studies of materials; data gathered; technical, scientific, and historic consulting; graphic and photographic documentation; judgements and choices; descriptions of intervention stages; technical details; perspectives; and modes of valorising.

To my mind, it should not be assumed that "museified" musical instruments lose all possibilities for use. In contrast, use can be maintained by museums that conserve uninterrupted organological tradition. Given the impossibility of enjoying a "historic sound" – the often mythologised "lost voice" – future attempts to reinstate musealised instruments' phonic functions will concern themselves with a (possibly technologically reconstructed) sound that is part and parcel of modernity and its attendant expressions of performance – which differ from those it had in the past. This is engendered by a somewhat spectacular, truly museum-esque, communication style whose staging occurs through curator interpretations, the collection itself, readings provided throughout the twists and turns of the exhibition experience, user participation, and the subjective sensibilities of each visitor.

In view of a flexible yet ever-rigorous approach to methodological preconditions, traditional material-versus-sound antitheses are liable to collapse. Material can be conserved and its testimony conveyed to future generations. Sound can be conserved in new experiential modes offered by the original instrument, scientific copies, or reproductions obtained through new modelling systems.

In European museums, different positions have materialised regarding the musical reuse of instruments in collections. At the V&A in London, the Musée des Instruments de musique in Brussels, and the Musée de la musique in Paris, sound

is accessed chiefly via audio guides and recordings. Specific occasions for playing instruments take the form of concerts and other situations where conservation is monitored. The museums of musical instruments in the Karl Marx University campuses of Leipzig and Berlin and the Deutsches Museum in Munich publicly demonstrate how their instruments sound. In Italian museums, however, conservative options prevail. Large swathes of instruments tend to be removed from handling for playing or reuse-targeted restoration (a partial exception is Cremona's Violin Museum, whose bowed string instruments are played in its purpose-built auditorium).

Sound's production is conditioned by four factors: the instrument, the musician, the place, and the audience. It is a subjective phenomenon, implicating a listener's experience, an interaction between musician and instrument, and the science, too, of materials and acoustics. Sound can be listed as a form of intangible heritage, while musical instruments belong to material heritage. An instrument is made of physical and sound materials, each with its own history and temporality. This multiplicity of dimensions indicates the complexity inherent in approaches to music heritage in a museum context.[18] Preserving an instrument's physical and acoustic integrity is essential, too, for an authentic music experience. Musical instruments convey an abundance of information not only through music but in all the areas that make up their socio-cultural context. Cultural values associated with a musical instrument are thus numerous: research-related, technical, artistic, social, historical, religious, and practical. An instrument reflects its era and bears witness to its passage through time, simultaneously conveying praxes and artistic or technical leanings.

The question of recovery or maintenance for instruments in playable condition concerns all museums with musical instrument collections. The choice is normally subject to discussion between curators, diagnosticians, restorers/luthiers and, at times, also musicians. Once an instrument has been restored and made playable, a rigorous protocol must be defined to maintain and monitor its state of conservation. Risks of damage to an instrument during performance vary according to its particular characteristics. For string instruments (struck, plucked, or bowed), mechanical aspects dominate due to elevated tensile stress and the vibrating

[18] For further information, and for illustrations of the specific protocols adopted by the Musée de la Musique (Cité de la Musique-Philharmonie de Paris), see Marie-Anne Loeper-Attia, *Maintenance et conservation – restauration su des objets patrimoniaux avec un fonction d'usage: le cas particulier des instruments de musique,* ARAAFU CRBC No 40 – 2023, https://hal.science/hal-04448577/document - https://araafu.com/wp-content/uploads/2023/12/Livre_CRBC_40_2023.pdf; see also Almanza V., Vaiedelich S., Placet V., Cogan S., Foltête E., Serfaty S., Le Conte S. (2020), *Conserver l'instrument de musique en état de jeu : contraintes d'origine et origines des contraintes mécaniques au sein de l'instrument de musique à cordes*», «Technè», No 50, p. 63-71: https://doi.org /10.4000/techne.7838.

that string tension causes. For wind instruments (crafted with organic materials), humidity inside their bodies during playing repeatedly corrodes their metal parts and forms fissures or splits in their wood. Instruments that are played should be subjected to monitoring protocols and tests so that the mechanical behaviour of their structures can be understood in richer detail. Digital technologies now allow simulations to be run. Until these models are reliable, accurate information must be furnished regarding: geometry (since an object can in general be deformed), construction materials, and the external forces acting on its structure (such as string tension or climate variations). The resulting model would provide data with differing degrees of precision around static mechanic (stress) and dynamic (vibratory) states. For instruments conserved in museum conditions where they are played, it is fundamental to arrange maintenance programmes that are preventative (humidity and temperature checks, inspections, cleans, lubrication, string replacement, etc., according to the calendar or a historian) and predictive (continual humidity monitoring, vibration and sound analyses, visual and thermographical inspections, data analyses, etc.).

Vibration measurements can be used to select the conservation or restoration intervention that least alters the instrument's vibrational response. 3D scanning and photogrammetry can monitor deformations and structural shifts. It is even possible to monitor an instrument mid-play with a very high-velocity camera. Nor is climate monitoring neglected during performances, rehearsals, or the instrument's transport from storage. Recording helps conserve an instrument's acoustic traces and allow comparison between the different settings applied to a single instrument. A numerical simulation can foresee historic musical instruments' static and dynamic behaviour in order to optimise their conservation and maintenance in performance condition as well as to measure the impact of various parameters (such as string tension and the quality of pasting during stages of assembling).

The variety of the above-described approaches must be paired with exhaustive documentation to keep track of actions undertaken (such as a maintenance log book). The decision to make an instrument playable therefore has far-reaching consequences and requires the kind of monitoring that extends beyond the moment of performance. It spans both the preceding and subsequent periods. Furthermore, harpsichords and pianos maintained in usable conditions and exhibited in permanent displays require the addition of specific climate monitoring, especially when their strings are not loosened after a performance, to retain continual structural tension. Non-destructive examination tools aid in the decision-making process around functionality upkeep because they improve the tracing of an instrument's condition after the strain of performance events.

Another conservation issue found in musical instruments museums (whose collections shift the needle of their chronological horizons closer to the contemporary period) is how to conserve twentieth-century instruments. Intervention

methodologies and techniques must be developed that are attuned to the particular nature of these works and the materials that compose them. Since the beginning of the century, mechanical and acoustic instruments have been placed side by side and, in many production and performance contexts, supplanted by electroacoustic instruments. This created new possibilities for sound production.

Incorporating industrial production materials and techniques, they are designed for time-limited functional applications. The previously unknown issues they present require new processes of study and conservation. A conservator must thus avail themselves of the knowledge and expertise held by scientists, musicians, electrical engineers, chemists, luthiers, and restorers. Organic or non-organic traditional materials, metals or alloys, recycled materials, and industrial or industrially-produced plastic materials can be found in these instruments. The characteristics of their constitution and their use must be identified, as well as their ageing and degradation, in order to prepare intervention protocols. The principle of reversibility to an original state is even more relevant here than with historic heritage where protocols have already been reinforced. Although industrial products live short lives, their endurance depends on environmental conditions and possible detrimental factors. These considerations of the future necessitate effecting preventative conservation. We know that ultraviolet rays must be avoided, humidity and temperature levels reduced, and environmental fluctuations averted. These standard parameters have been studied and scientifically approved in several countries.[19]

Finally, the specific characteristics peculiar to ethnographical and popular musical instruments should not be forgotten when action is considered toward their preservation. Restoring them means converting not only the instrument's substance but also the 'memory' of its use and role in cultural and anthropological contexts of belonging. This ushers in peculiar issues that differ from those faced by traditional instruments. An approach is therefore necessary that combines knowledge of instrument-making, ethnomusicology, anthropology, and the science behind materials – an instrument is not only a physical object but a 'system' that includes social functions. Holding institutions can classify their items from 'non-European' or 'ethnographical' collections as musical instruments, ethnographic objects, ethnomusicological study material, or even curiosities. Often information about these items is scarce (beyond the writings of ethnomusicologies, which do not always take all aspects of construction into consideration). Information is also often absent from object records, because archives have not documented the complete

[19] See Marie-Anne Loeper-Attia, Sylvie Ramel, *Conservation-restauration des matériaux constitutifs des instruments de musique du XXe siècle*, Actes de la journée d'étude Patrimoine musical du XX e siècle - Cité de la Musique - 6 avril 2009, Cité de la musique - Philharmonie de Paris, Apr 2009, Paris Cité de la musique - Philharmonie de Paris, France. (hal-04469150).

Figure 8 | London, Royal College of Music Museum, 3D models of wind instruments from the collection.

Figure 9 | Larli Davies, a student at the Royal College of Music, plays a replica of the ivory alto recorder by Jacob Denner (Nuremberg, early 18th century).

conditions of their heritage at its moment of entrance into their collections. Wide varieties of geographical points of origin impose their own limit, too, as curators and restorers find themselves face to face with the impossibility of developing expertise specific to every region. Decisions relating to these highly functionally valuable instruments' conservation and restoration treatments are therefore taken case by case, and based upon more extensive studies and investigations.[20]

Rome's National Museum of Musical Instruments holds the best-known national collection, with the highest number of items (more than 3,000) and most important examples from diverse periods and cultures. It pursues a politics of instrument conservation that does not deny possibilities for restoring functions – following technical investigations and diagnostics to support the sustainability and pursuability of a given direction.

The collection, developed around an original 1949 acquisition from the tenor Gennaro Evangelista Gorga (1865-1957), counts musical instruments and objects relating to their history (plastic and painted) with a gamut of times, places, and types that runs from archaeological, ethnographic, and folk musical instruments to the piano owned by composer Giovanni Sgambati (displayed with furniture from his studio, acquired in 1994); from Roman sistrums to the guitar and Ciac Ciac belonging to Giacomo Balla, and the collection of 59 electric basses acquired as a loan for use from painter Pablo Echaurren in 2017. Some of the more prominent examples for the history of organology are the 1722 piano made by Bartolomeo Cristofori, the instrument's inventor; the oldest surviving German harpsichord (1534), owned by Hans Müller; the Barberini Harp (1633), an extremely rare piece and the museum's icon, commissioned by Cardinal Antonio Barberini from the crafter Geronimo Acciari and carver Giovanni Tubi for Marco Marazzoli's court music. The harp was acquired in 1970 from Princess Henriette Barberini, the widow of Enrico Urbano Barberini, after a ministerial provision blocked her foreign sale to the Metropolitan Museum di New York. Lastly, the famous violin known as *Il Portoghese* made by Andrea Amati, forefather of Cremonese violin-making, was purchased in 2017.[21]

[20] See Febo Guizzi, *La conservazione e il restauro degli strumenti musicali della tradizione popolare,* cit; see also *Guide pour le traitement des biens de collections issus de contextes coloniaux*, Association allemande des musées (Berlin, Deutscher Museumsbund), 2018 https://msw.be/wpcontent/uploads/2018/11/DMB_Guide_contextes_coloniaux_2018.pdf; Esther Jorel, *Les instruments de musique non européens dans les collections muséales conserver et restaurer des objets fonctionnels,* ARAAFU CRBC No 40 – 2023, pp.84-101 https://araafu.com/wp-content/uploads/2023/12/1574.pdf.

[21] The main printed catalogue for the collection was created by Luisa Cervelli, *La Galleria Armonica. Catalogo del Museo Nazionale degli Strumenti Musicali di Roma*, Rome, IPZS, 1994.

One of the more significant conservation interventions this national museum has carried out in the past decade[22] was the 2018 restoration of an elegant harpsichord and its painted and gilded cassa levatora, dating between the seventeenth and eighteenth centuries (inv. 2821). Its rich decorations are ascribable to two distinct periods due to updates that reflect transformations in taste. They were recovered through pest control, cleansing, reinforcements, and calculated reintegrations. The harpsichord's structure bore signs of tampering throughout its existence (substitutions were made to the side strips and nameboard, and modifications to keyboard extent by increasing and removing keys). To deal with this, a purely conservative intervention was put into motion, with the agreement of harpsichord conductor Andrea Di Maio. Assessing the possibility of a future reinstatement of the instrument's sound function was postponed until more accurate diagnostic tests could be undertaken.[23] The following conservation interventions occurred at the hands of master constructors. The restoration that recovered the functions of an exquisite six-string violone (inv. 765) crafted at the end of the sixteenth century by Gasparo da Salò (Salò c1542-Brescia 1609) and subsequently transformed into a three-string double bass. Master instrument-maker Luigi Ottaviani identified the instrument and attributed its paternity to the celebrated Lombard luthier (active in Brescia from 1563) in 1999. He was also the man who, in 2018, led a delicate intervention to conserve the instrument's original parts, including its scroll and harmonic components. He limited the scope of his work to cleansing, strengthening, and removing rough and invasive marks that testified to acts of tampering across its life before the nineteenth century, which included reducing the soundbox and transforming the instrument into a three-string double base. As a result, the initial violone is no longer recoverable. Consequently, Ottaviani retained its nineteenth-century handle and an addition to its soundboard. Removing the latter would have meant further alterations to original sections of the scroll and belly. The original varnish was preserved and cleaned, while its synthetic varnish was removed and substituted with a composition close to the original. Woodworm holes were sealed and beneficial assimilations effectuated. The instrument's nineteenth-century mechanics were left alone, a new endpin was built, the damaged and non-original keyboard was substituted, a new nine-

[22] Between 2016 and today approximately one hundred conservation interventions on art, ethnographic, and folk musical instruments have been counted (information kindly provided by the museum's current director of the museum, Sonia Martone).

[23] See section n. *58 Clavicembalo. Manifattura romana*? edited by me, *La Fragilità della Bellezza*. Eighteenth edition of *Restituzioni*, Tesori d'arte restaurati, C. Bertelli, G. Bonsanti (editors), Intesa San Paolo, Guida e Catalogo digitale alla mostra della Reggia di Venaria, Torino 29 marzo – 16 settembre 2018, Venice, Marsilio Editori, 2018; pp. 206-207 (guide); pp. 543-546 (digital catalogue), http://www.restituzioni.com/opere/clavicembalo.

teenth-century-style tailpiece was installed, the soundbox's internal chain system was rebuilt, a new soundpost was inserted, purfling was reconstructed, a new bridge was modelled, and three gut strings were mounted. Discovered and reattached inside the soundboard was the instrument's precious original cartouche with the signature *Gaspar Da Salò in Brescia*.

Entrusted to master luthier Leonardo Petrucci in 2022 was an intervention with two guitars from the Gorga collection (inv. 5 e inv. 335)[24] each of Neapolitan manufacture. The first was an 1804 six-string guitar by Gaetano Vinaccia (Napoli, c1759-post 1837), a renowned exponent of the enduring dynasty of Neapolitan luthiers and considered the inventor of the Neapolitan mandolin, whose prototype he built in 1744. In the restoration's early diagnostic, investigative stages, several alterations made to the instrument across its existence were revealed. These had caused damage to the soundboard's internal structure, loss of original parts, and spurious additions. As restoring sound functionality was impossible – and would have come at the cost of radical, substantial alterations – Petrucci's exclusively conservation-oriented restoration aimed to strengthen and repair original elements, removing signs of clumsy upkeep interventions, old resins, and dust sediments. Petrucci then worked on legitimate and congruent reconstructions and integrations, right up to the final varnishing and polishing that restored luminosity and transparency to the instrument's surfaces. The second guitar was a five-string specimen that had been modernised to six over the course of its life. Its form, enriched along the profile of the soundbox, soundhole, and ornamental fretboard inlaid with mother of pearl in a raceme pattern of flowers and leaves, recalls the tradition of prestigious Neapolitan lutheria between the eighteenth and nineteenth centuries. More particularly, it recalls the work of Donato Filano (c1740-post 1783). Filano came from a family famous for crafting sought-after mandolins, guitars, and lutes, and he most likely made this particular instrument. During the conservation-centred restoration intervention, a decision was made to recover as much as possible of the original. This was done by cleansing and reinforcing, recreating lost parts, and eliminating additions resulting from previous manipulations, assimilating the fretboard's marquetry and tortoise-shell plaquettes, treating the varnish, and mounting gut strings. Leonardo Petrucci also led the restoration of two mandolins and a mandola by late-nineteenth-century Palermian luthier Camillo Di Leo (inv. 3121; 3125).[25] Di Leo was likely a student of Antonio Sgarbi

[24] Sandra Suatoni, scheda n. 72a, *Manifattura napoletana, probabile scuola di Donato Filano – Chitarra napoletana a cinque corde;* scheda n. 72b, *Gaetano Vinaccia, Chitarra a sei corde, 1804*; in*, 2022 Restituzioni – Tesori d'arte restaurati – diciannovesima edizione,* catalogo della mostra Gallerie d'Italia – Napoli, 21 maggio 29 settembre 2022, Milano, Skira Editore, 2022, pp.280-281; pp.282-283.

[25] See https://museostrumentimusicali.cultura.gov.it/rassegna/il-restauro-dei-due-mandolini-e-della-mandola-di-camillo-di-leo/

and the brother of fellow luthier Domenico Di Leo. In 2016, as a gift from one of their heirs, the museum acquired five instruments made by the Di Leo brothers and a violin made by Antonio Sgarbi.[26]

More noteworthy elements are present in the later intervention made upon the remains of a renaissance lute (inv. 2715), dating most likely between 1587 and 1621. This instrument was missing its soundboard and had an open body and a shoddily-constructed, nineteenth-century pegbox. It was probably transformed into a mandola during the later phase of its existence. The doer of this deed, Vendelino Tieffenbrucker, came from a famous line of luthiers in Fűssen who were active across Europa, particularly in Lyon and Italian cities such as Venice and Padua. This is suggested by the paper slip glued into the instrument's body bearing the wording: "*In Padua Vendelinus Tieffenbrucker*".

This restoration project is an exemplary case study due to the multidisciplinary comparison upon which its actions were based. It was led by Riccardo Angeloni, the first graduate in the sixth professional training pathway for musical instruments and scientific and technical instrumentation instituted at the aforementioned Department of Musicology and Cultural Heritage at the University of Pavia. This work shed light on previously unknown details in the material history of artefacts and the passage through time which imbued them with their current state as relic/remains. The absence of the soundboard meant that textual fragments found could be paleographically analysed. They were found in the stratigraphy of parchment and paper strips usually employed by luthiers to strengthen the slats inside an instrument's shell. This discovery allowed conservators to align them with two points in time. One was from the second half/end of the fifteenth century, preceding the instrument's fabrication. The other was from the eighteenth century, in the artefact's 'restoration' stage. In the oldest parchment manuscripts, allusions to hagiographical, documentary, and theological texts were identified. The texts on eighteenth-century paper seem to come from a single document concerning a civil lawsuit. Other scientific and technical contributions collected in the volume that documents the project[27] illustrate lute-related music repertoires and performance practices, techniques of construction, hypotheses around the original's configuration, and each stage of the restoration, from preliminary imaging assessments undertaken at the Arvedi Laboratory of Non-Invasive Diagnostics at the University of Pavia to the study and description of the artefact, its constitutive materials, earlier interventions, and the current restoration intervention's criteria, technical dimensions, and outcomes.

[26] (Decreto di accettazione Direzione generale Musei - Rep. Decreti del 22.12.2016, n. 853).

[27] *Il restauro del Liuto di Vendelino Tieffenbrucker del Museo Nazionale degli Strumenti Musicali*, Studi e restauro, Sonia Martone and Massimiliano Guido (editors), Rome, Gangemi, 2024.

Figure 10 | A recorder from 1770 made by Thomas Cahusac, with a footjoint created by Sina Shahbazmohamadi using 3D printing (Photo by Sean Flynn/UConn).

Figure 11 | A saxophone mouthpiece, created by researchers at the University of Connecticut using 3D printing technology, fitted to a B-flat tenor saxophone made in 1867 by Adolphe Sax, the instrument's inventor. (Photo by Sean Flynn/UConn).

The restoration and the in-depth study it constitutes of an instrument that has been irreparably silenced have revealed the cultural values it witnessed and delineated the complex network of relationships it affected – a glob of artisanal techniques, cultures, and social norms. Acquisitions' stories can be told for the first time in museum spaces, provided they are in a condition to be interacted with by users, with possible aid from adequate technological strategies for cultural mediation.

Our journey from the craftsmen who built instruments to the professionals who restore them – although they indicate the point we have arrived at today – should not obscure the importance of workshop practices and knowledge about the construction techniques that guarantee correct conservation. The remainder of this essay better highlights the ways in which scientific imaging can provide investigative data that is incredibly useful in approaches to heritage. That data, however, must be interpreted under the light of material experiences. Ultimately, construction and restoration are two complementary activities that enhance heritage understandings and the success of conservation programmes.

## 3 | New Frontiers: From Instrument Restoration to Sound Reconstruction

Lacking playable instruments, Rome's national museum began to create philological copies. They began with Bartolomeo Cristofori's piano. Displayed beside the original, this copy was realised in 2010 by Kerstin Schwarz.[28] She had already made a facsimile of the Cristofori piano in Leipzig (1726, Musikinstrumenten-Museum der Universität Leipzig), as well as the same luthier's oval spinet that is held at the Museo degli Strumenti Musicali del Conservatorio "L. Cherubini" (in Florence's Gallerie dell'Accademia).

Scientific copies of instruments give museum visitors the chance to experience their sound through promotional initiatives like concerts, recordings, conferences, masterclasses, and other learning activities.

Practices creating facsimiles (strengthened by makers) are increasingly requested by musicians, thinking of their repertoires. These practices can take advantage – for the purpose of product quality in philological terms – of important current techniques and radiographic tests that provide knowledge of internal structures. Such information would in many cases otherwise be impossible to glean. Added to this are possibilities of endoscopic, ultrasonic, magnetic-resonance, and other non-invasive tests (microscopic, spectroscopic, X-ray-fluorescent, UV-fluorescent, VIS, etc.) that can recognise essences that are wooden, metal-alloy, varnish pigments, the painted decorations that often cover old instruments,

[28] See Kerstin Schwarz' preliminary report, *Pianoforte Bartolomeo Cristofori 1722, Museo Nazionale degli Strumenti Musicali di Roma* November 2009 report, https://www.animus-cristofori.com/files/cristoforipiano1722.pdf.

organic binding agents such as glue or resin, etc. Each time they are employed, these examinations prove useful for fine-tuning conservation interventions on originals, for their scientific study, for functionally restoring via methodologically and operatively advantageous precautions, and for creating replicas that absolve the double function of protecting an original and enhancing it through musical performance.

Thus, the National Museum of Musical Instruments allows instrument makers to execute evaluations (if they give the museum a copy) with the goal of creating an archive for the use of later applicants without having to further manipulate the same heritage. In addition to this, the museum drew up a 2016 agreement to collaborate with Enea and use radiography on their collection. The early results of this (a batch of 52 examples) were developed and assembled for publication.

Fundamental among these was the investigative work conducted in connection with the radiography and 3D scanning of the Barberini Harp (1633). This formed part of the "Barberni Harp Project." Supported by the Austrian Historical Institute in Rome, this interdisciplinary European research project is geared toward historic, musical, and organological understandings of the precious baroque instrument.[29]

At this point, we should recall the 1985 standards formulated by the International Council of Museums' (ICOM) International Committee for Museums and Collections of Musical Instruments (CIMCIM). These standards regulate access to musical instruments in public collections: (http://museostrumentimusicali.beniculturali.it/index.php?it/100/servizi).

At the rate of current recognition, comment cannot be withheld regarding the rising phenomenon of recent years. This phenomenon saw the activation of several poles of interest concerning the possibility to technologically reproduce instruments – to the point that the debate on scientific, analogue, or digital copies seems, currently, to eclipse debates around restoration.

When it comes to 3D reproductions of musical instruments designed for multiple uses, the research done by the Royal College of Music Museum in London is distinctive. They have a project led by Gabriele Rossi Rognoni (Professor of Material Culture and Music at the Royal College of Music and Curator of that institute's Museum as well as, from 2025, Professor of Musicology at the Sapienza University of Rome), in collaboration with Professor Gabriele Ricchiardi (University of Turin). This falls within the remit of the research activities conducted by the Wolfson Centre in Music and Material Culture.[30]

[29] I summarised outcomes of these investigations in *scheda IV 27 Gerolamo Acciari, Giovanni Tubi. Arpa Barberini* in, *L'immagine sovrana. Urbano VIII e i Barberini*, Maurizia Cicconi, Flaminia Gennari Santori, Sebastian Schütze (editors), Rome, Officina Libraria, 2023, pp. 234-235.

[30] See the webpage: https://www.rcm.ac.uk/research/projects/3dprintedmusicalinstruments/.

The project explores recent developments in modelling technologies and 3D printing. Its goal is to create philological copies of historic musical instruments for use by expert musicians and professionals. Wind instruments reproduced were selected from the London museum's collection. Five instruments were made from ivory, a particularly fragile material (two treble recorders by Jacob Denner and Paul Villars, a clarinet by George Heinrich Scherer, a flute by Ignaz Scherer, and a renaissance cornet) as well as two boxwood instruments (an oboe by Jacob Grundman and a recorder by Johann W. Oberlender).

The first part of the study focused on X-ray microtomographically (Micro-CT) scanning the instruments, digitally restoring them and 3D printing them using a variety of materials and techniques. The copies, in ceramic resin, had their physical and acoustic properties tested by comparison with the originals. Musicians' and audiences' reactions were observed. The aim was to better understand the potential of such reproduction techniques for performances of historic music, as well as to preserve old instruments from this collection while also rendering them widely accessible.

A copy designed in this way does not become a candidate for substitution, nor is it considered equal to the original instrument. However, it can provide an alternative mode of engaging with music in conservation- and enhancement-focused museums. Further, these copies are widely available to musicians, and at lower cost. This has the result of spreading knowledge, generating performances, and engendering appreciation for historic music very broadly and very democratically.

An analogous undertaking was trialled at the University of Connecticut's School of Fine Arts in 2014. Robert Howe, a doctor specialising in endocrinology in East Longmeadow, Massachusetts, with a PhD from the School of Fine Arts, together with his music theory professor in the Music Department, Richard Bass, put together a team of musicians and engineers at the university. Their objective was to use microfocus X-ray computer tomography technologies to explore the composition of eighteenth- and nineteenth-century wind instruments. They also aimed to realise 3D printed replicas. One team member, Sina Shahbazmohamadi, Associate Professor in Biomedical Engineering at Manhattan College in the Bronx, New York, developed a new method for using microfocus X-ray computer tomography to examine historic wind instruments and their segments made from wood, metal, brass, leather, and other materials. Precise 3D images could now be rendered of rare original pieces such as the mouthpiece of one of the first saxophones constructed by Adolphe Saz in the nineteenth century.[31]

[31] See the pages: https://www.usatoday.com/story/tech/2014/07/28/uconn-3d-copy/13260771/ and https://www.wired.it/play/musica/2014/11/26/gli-antichi-strumenti-musicali-rivivono-grazie-stampa-3d/.

A symposium was held on this theme at the Royal College of Music, on the 18th of March 2024, entitled "3D PRINTING AND MUSICAL HERITAGE" and hosted by the RCM Museum and Wolfson Centre in Music and Material Culture.[32] Different projects that used 3D printing for music heritage were compared. Particular attention was paid to the reproduction of historic and traditional musical instruments for museum performance, documentation, and accessibility. Speakers described the challenges and opportunities that emerged from these European- and US-institution-supported experiments. Their goals were to capture the art's status within an innovative and rapidly expanding industry.

This is attested, in even clearer-cut terms, by their focus upon remarkable transformations in the course of instrument preservation, enhancement, and use activities in the recent international conference *Music, Technology, and Historical Instruments* (*Musica, Tecnologia, Strumenti storici*). The event was supported by Il Saggiatore musicale, the ERC-Synergy Project REM@KE, and ERC-Starting Grant Project NEMUS, in collaboration with the Fondazione Golinelli and International Museum and Library of Music in Bologna, where it was held on the 24th and 25th of March 2026.[33]

Various interventions tackled – with interdisciplinary critical approaches and perspectives that were not unequivocal and not fully resolved – the relationship between music heritage, scientific research, technological innovation, and present-day artistic practices. They did this with particular reference to historic instruments, music experience spaces, and new methodologies for documentation, conservation, and promotion.

This served to kindle opportunities for scholars, researchers, conservators, restorers, instrument makers, musicians, and officers of cultural institutions to compare their work. It highlighted the outcomes of international projects carried out through the European Research Council (ERC) and Horizon (a European Union framework programme for research and innovation), facilitating knowledge transfers for scientific communities and specialised audiences.

The conference demonstrated ways in which the rapid development of advanced digital techniques such as numerical modelling, digital twins, extended reality, and multisensory simulations are profoundly reworking our methods of studying, restoring, reconstructing, and using musical instruments, historic sound contexts, and music spaces. The European and international research projects presented testify to the complex and ever more sophisticated dialogue between musicology, engineering, acoustics, computer science, architecture, restoration, and cultural management.

[32] The online programme: https://www.rcm.ac.uk/media/Conference%20programme_2024.03.22.pdf.

[33] See the programme on the page: https://www.unipv.news/eventi/musica-tecnologia-e-strumenti-storici.

Figure 12 | Brescia, Civici Musei di Brescia, Giovanni Francesco Antegnati, *Arpicordo (pentagonal spinet)*, "Opus Iohannis Francisci Brixiani MDLIV", 1554.

Figure 13 | Milan, La Scala Theatre Museum, Giovanni Francesco Antegnati, *Arpicordo (pentagonal spinet)*,1544.

Areas discussed were: research and technological innovation; conservation, restoration, and documentation; artistic research and heritage enhancement. An advanced conservation example was presented by the University of Pavia. This institution stood out for its *REM@KE34/NEMUS* project,[35] which placed digital 3D reconstruction results in conversation with their original instrument – Gianfrancesco Antegnati's (1480/90-1560/61)[36] arpicordo (pentagonal spinet) from 1554 – and its rigorous material restoration. The restoration had been carried out by student Alberto Bonza during his single-cycle graduate degree in Conservation and Restoration.[37] The project's research included examining the instrument's use contexts in sixteenth-century Brescian music environments. His physical-digital hybrid approach preserved historic material by virtually reactivating the instrument so that it could be further studied and accessed.

This intervention formed part of a series of important 'restitution' initiatives and organological studies supported or engaged in by the University of Pavia. Another of their interventions was carried out by Augusto Bonza (restoration instructor) and Alberto Bonza, on another arpicordo by Giovanni Francesco Antegnati dating to 1544 and held in Milan's Museo Teatrale alla Scala (inv. MTS-TP/02). A rare specimen signed by the famous Brescian maker, this instrument's inlaid decorations render it critical for renaissance organological heritage. It was heavily damaged, however, by a climate that was too dry. Its structure showed cracks, disjointedness, and fissuring. It was also altered by the tampering of previous interventions, and had lost part of its decorative array. Its restoration was thus founded upon conservation criteria that respected this history. First, diagnostic investigations were carried out to understand these vicissitudes and calculate the most appropriate intervention modes. These turned out to be photos in visible and ultraviolet light, X-ray fluorescent spectrography to distinguish metal sections,

[34] https://remake.unipv.it/ REM@KE is an interdisciplinary research project that centres on a new approach integrated with study and musical instrument experiences and the people connected with them. Based in Cremona (Italy), York (United Kingdom), and Göteborg (Sweden), the principal researchers and their teams will develop a global network to connect experts in diverse disciplines in a single collaborative and inclusive environment. This project received funding from the European Council of Research (ERC) as a research and innovation program in the European Union's Horizon.

[35] https://site.unibo.it/nemus-numerical-sound-restoration/en NEMUS - *Restauro Numerico di Strumenti Musicali Storici.* This project was financed by an ERC (July 2021-June 2026) for numerical non-functioning musical instrument restoration. The project, funded by the ERC SH5 panel Culture e Produzione Culturale, unites music acoustics, numerically advanced simulations, and elements of sound synthesis.

[36] Conserved in Brescia (Ateneo di Scienze, Lettere ed Arti, in storage at the Civici Musei di Arte e Storia).

[37] See section 28 by Massimiliano Guido and Alberto Bonza. *Gianfrancesco Antegnati, Arpicordo pentagonale, 1554,* in *Il Rinascimento a Brescia. Moretto Romanino Savoldo 1512-1552,* R. D'Adda, F. Piazza, E. Valseriati (editors), Brescia, Skira Editore, pp. 90-91.

fourier transform infrared spectroscopy (FTIR) to distinguish the surface finish, endoscopic imaging on the inside of the body.[38]

Remarks were made about traditional skills at this conference by instrument-maker Roberto Livi that I consider very significant. Livi constructed a facsimile of a 1547 Alessandro Trasuntino harpsichord in the Tagliavini Collection at San Colombano, and recalled the doubts, uncertainties, and unexpected discoveries that occurred during this experience. These sprang from questioning the original with the intention to faithfully replicate its structure, looking beyond all the static and structural preconceived convictions within his profession and knowledge of conservative museum prototypes (whose inaccessibility, due to widespread curatorial resistance, he lamented).

Deserving of attention, too, is the *MusicSphere* project,[39] which is funded by the European Commission as part of the ECCCH (European Collaborative Cloud for Cultural Heritage) initiative managed by the ECHOES project. With the target of protecting European music heritage through modern technologies, the project introduces an innovative approach to the study and conservation of traditional and historic musical instruments (such as pipe organs and the historic Hydraulis) by combining advanced 3D technologies, acoustic analyses, and immersive digital experiences. Unlike traditional methods that record only static surfaces, *MusicSphere* develops dynamic cultural heritage digitising technologies with moving parts, airflow behaviour, and mechanical complexity. *MusicSphere* thus aspires to bring past sounds back to life by digitally reconstructing ancient musical instruments such as the historic Hydraulis, Aulos, or Tibia.

Thanks to virtual and augmented reality, users can immerse themselves in historic contexts and architectural spaces, exploring instruments up close and even playing them. This keeps historic traditions alive and accessible. At the same time, *MusicSphere* works to bolster artefact protection by offering restorers understandings of ageing processes. This facilitates their identification of the best intervention methods. Their system allows for degradation risks to be noticed, environmental factors monitored, and predictive models developed (digital twins and simulations) that link the age of materials with the quality of sound. In this way, *MusicSphere* intends to revolutionise musical instrument conservation concepts that risk extinction, furnishing sustainable methods for preserving their sound and performance and guaranteeing their accessibility to future generations.

[38] See n. 33 by Augusto Bonza in *Restituzioni, Tesori d'Arte restaurati 2025*, G. Bonsanti, C. Di Francesco, C. Bertelli (editors), Allemandi, Turin, 2025 (PDF online), pp. 340-347. https://restituzioni.com/opere/arpicordo-spinetta-pentagonale/.

[39] https://musicsphere-eccch.eu/.

The project's solutions will be tested and certified by industry experts and end users. The *MusicSphere* platform will be interoperable with ECHOES platforms, too, creating a unified ecosystem for culturally valuable instruments.

Other interventions aired at the two-day symposium (under "*Music, Technology, Historic Instruments*") explored the in-progress concept of "*Performative Heritage.*" This involves ways in which the intangible dimensions of sound heritage can be restored through physical experiences with musicians and audiences. This encompasses multisensory encounters with virtual reality (VR) and augmented reality (AR), which immerse visitors in a world that is simulated or enriched with digital elements. Illustrative in this sense are the experimental models recorded by the Danish Music Museum in Copenhagen, where, as its website reads:

*Everyone can become one with the Magic of Music: Blow the french horn, embrace the harp and give it a go on the gong. In the museum's activity space The Sound Box, the whole family can try out some of the historical instruments and fun musical instruments of today. Try out viola, harp, trombone, gong, rainmakers, timpani and much, much more.*[40]

Visitors to the museum are given free digital guides on tablets. Through these, they can immerse themselves in virtual reality and experience unusual instruments such as the glass harmonica. A portrait of its inventor, Benjamin Franklin, comes to life and explains the instrument to the viewr. Visitors also have the option to actively participate in sound art performances. Further, the museum's website informs readers that they can download technical designs with measurements of instrument parts from the collection for free.[41]

## 4 | Conclusion

Other examples in the field could be given and reflections made on the topics dealt with here, were I to surpass the limits of my essay.

What emerges, in general, is a transgression of traditional boundaries between conceptual categories.

Today, creating copies means providing visitors with a chance to discover the history of the original and contribute to its protection. Digital models are a source of information and reflection about physical and acoustic elements.

Under the enduring and widespread conviction that historic musical instruments are better, experiments that involve musicians shed light on previously unthinkable possibilities enabled by copies and sound reconstructions – partially debunking old myths in which dominant culture is still prevalent.

[40] https://en.natmus.dk/museums-and-palaces/the-danish-music-museum/.

[41] https://en.natmus.dk/museums-and-palaces/the-danish-music-museum/instrument-drawings/.

If a museum's goal is to experience music, it is perhaps desirable to think about creating simple, accessible, easily maintainable and updatable devices/apps. For each solution a museum wishes to adopt, it is essential that they involve experts to evaluate the qualities of the perception and experience. Technologies can support and generate alternatives to using original artefacts. They facilitate interactions that are based in the senses, emotions, and perceptions, in a new performance whose objects encounter users.

My work in 2019[42] outlined preoccupations concerning protection from juridical and praxis-based lenses. I observed, too, Italy's delay in eliminating silence from our museum displays, in the face of international experiences in the same period (several of them groundbreaking, as demonstrated by the 2017 Louvre-Lens show *Musique! Échos de l'Antiquité*).[43]

Important forward steps have been taken in the restoration discipline, although Italy still lacks long-awaited juridical recognition of music heritage from our main source of legal codes around cultural heritage, as mentioned in the first section of this discussion.

Progress has been recorded, too, regarding promotion and use, witnessed by the new museum experiences whose updated frameworks are described by Andrea Zanella in his introductory essay.

Many perspectives have opened up for new experiments, founded across transversal networks of expertise that surpass traditional organology, sparking new challenges that issue from technology and artificial intelligence whose future outcomes are hard to predict.

[42] *Gli strumenti musicali – dallo spettacolo al museo spettacolare,* cit.

[43] See, in particular, Sibylle Emerit, Hélène Guichard, Victoria Asensi Amorós, Anita Quiles, *L'apport des nouvelles technologies à la connaissance des sonorités du passé*, in *Musique! Échos de l'Antiquité*, S. Emerit, H. Guichard, V. Jeammet, S. Perrot, A. Thomas, C. Vendries, A. Vincent, N. Ziegler (sous la direction de), catalogue de l'exposition Musée du Louvre-Lens, 13 septembre 2017 – 15 janvier 2018, Gand, Snoeck Publishers, 2017, pp. 360-361.

# MUSIC MUSEUMS AND THE DIGITAL
## Calling for a Digital Museography

*Marco Negroni*

### 1 | The Musical Instrument as an Object with Power

Museums famously must supply their visitors with some kind of apparatus that mediates between objects they see on display and the understandings they have of these objects. The quantity and the nature of such mediation, however, vary considerably by object type. From this vantage point, musical instrument museums occupy a wholly peculiar position.

Looking at the total landscape of museums, a spectrum can be pictured whose extremes hold two opposite situations. At one end is the contemporary art museum, or at least its most extreme version, where a work claims to speak on its own and any mediation is reduced to the bare minimum. This is the condition Brian O'Doherty described in his essays in the *White Cube*, published in 1976: a neutral, ideally context-free exhibition space where the visitor is placed directly in front of a work without filters or devices.[1] At the other end of this spectrum we find science and natural history museums, where an artefact communicates little on its own. Captions, diagrams, and reconstructions are constitutive elements of exhibitions here. Without them, the visitor would see a bone, a stone, or an inert specimen, and draw very little inference. Between these extremes, a series of art galleries and archaeological, applied art, and history museums are spread along different grades on the spectrum: each with their own dose of mediation calibrated by the relationship between what is self-evident about an object and what is necessary context for understanding.

A musical instrument in a display case is in a position on this spectrum that is not simply one of the possible gradations along the line. It has a situation apart, for a reason tied in with the very nature of the object itself.

A musical instrument has, in and of itself, two aspects. On the one hand, it is an object of artistry and workmanship like any other: it possesses a form, material,

[1] Brian O'Doherty, *Inside the White Cube. The Ideology of the Gallery Space*, originally published as a series of essays in "Artforum" in 1976, then collected into a volume.

craft, decoration, provenance, and a maker, when known. It has, in other words, a material history. From this point of view it could appear behind glass in an applied art museum without any objections. On the other hand, however, a musical instrument is an object whose reason for being lies in producing something outside of itself: sound. If visitors do not hear how an object sounds when played – do not hear its voice – they see only half of what they have in front of them. The other half – the dimension for which the object was conceived, fabricated, tuned, and safekept – remains inaccessible.

It should be noted immediately that this is not a simple matter of decontextualisation. All museum artefacts are in some measure decontextualised: an altarpiece has been ripped from a church, a ritual mask removed from its ceremony, a scientific tool taken from the lab in which it was used. Museums work to restore items' lost original contexts, at least in part, with interpretative equipment. The situation for musical instruments is different, however, and more radical. Here, context is not lacking. What is lacking is the completeness of the object itself. An object's function is not corollary to what it is. It is, rather, a constitutive element of its being.

This problem is not new. It has been reflected deeply upon by Andrea Zanella earlier in this volume. Thinking along these lines began with Curt Sachs, in fact, who addressed the question in 1934 when he wrote that "an inaudible instrument has almost the same level of non-sense as an invisible painting."

Such theorising, philosophically and musicologically, has occurred predominantly in French thought. Bernard Sève, in a 2013 study on the ontology of the musical instrument, argued that an instrument is not wholly itself when not played, just as a piece of music is not wholly itself when not being performed. Sève distinguishes, to this end, the instrument's *physical body* (corps physique) – capable of producing any kind of noise – from its *musical body* (corps musical), which produces only the sounds desired within a system of socially recognised norms. From this distinction, he gleans what he calls *music's organological condition* (condition organologique de la musique): music, unlike other art forms, begins with the use of instruments, and continues to depend upon them for the entire length of its existence. A painter, once a canvas has been completed, no longer has need of a brush. A musician, however, once a score has been completed, has more need of instruments than ever before.[2]

A conceptual proposal can be added to this line of thought, one that garners substance from museographical perspectives and formulates this in a way that seems useful to our discourse: a musical instrument on display can be understood

[2] Bernard Sève, *L'Instrument de musique. Une étude philosophique*, Seuil, Paris 2013. His argument about the constitutive incompleteness of unplayed instruments, along with the notion of the *condition organologique de la musique* are developed throughout his volume.

as an *object in power*.[3] An instrument is an object whose full meaning depends on some kind of actualisation – performance, sound – that in a museum context by definition cannot happen, or can only in an exceptional form. Museums, paradoxically, are places where instruments are at once protected and silenced.

A consequence unfolds from this: if the object being displayed is structurally incomplete, an interpretative apparatus can no longer be envisaged as totally accessory to the exhibition. It must instead be envisaged as the means by which an object regains its other half. And today, in 2026, such an apparatus cannot but be in large part digital.

Digital interfaces in musical instrument museums, therefore, are not trendy tech accessories. They are the condition of possibility for a museum experience that would otherwise remain incomplete. Sandra Suatoni, moreover, reaches the same conclusion in this volume, though she arrives at it by a different route. The remainder of my contribution moves from this premise to investigate two questions. What kind of content such interfaces should offer? And how should they be designed to offer it?

## 2 | What Should the Digital Reveal? A Taxonomy of Content Levels

Recognising that digital interfaces are constitutive components of musical instrument museums is only a starting point. We must ask ourselves, too, what exactly they should be providing for a visitor, and in what order. Over the course of this project, we visited various musical instrument museums whose traditions and dimensions differed greatly. We elicited several examples of good practices from this experience, and have organised them into a taxonomy with progressive levels, from sound to storytelling.

The first (lowest) level is letting visitors hear how the instrument in front of them sounds when played. This possibility is particularly important for instruments with recognisable individuality – instruments that are not purely examples of a type but items with their own identity. These could include a historic piano, a signed violin, or an organ from a specific church. With objects like these, the visitor's first question is always the most elementary: what sound does it make? Approaches vary, from concert recordings to specially-composed excerpts or even systematic sampling.

The second level answers a slightly different, just as legitimate, question. This question is most often asked when a musical instrument on display is more representative of a type than unique. In such cases (which are more typical of ethnographic

[3] The phrase 'object in power' (oggetto in potenza) converges with the *potentiel de musique* described by Hervé Lacombe in his discussion of unplayed instruments, «L'instrument de musique: identité et potentiel», *Methodos* 11 (2011).

museums), hearing that one specific instrument is no longer essential for a visitor. What takes precedence is hearing how that type of instrument sounds – its characteristic timbre, chromatic range, and musical gesture. This level is more crucial than would commonly be believed. There are instruments whose workings are not deducible by pure observation. A requisite factor for comprehending a globular flute, hang, mbira, or berimbau, for example, is hearing the sound they produce.

The third level folds an instrument's sound into its expressive context: the music it is part of. An effective and now classic example of this choice is from the Brussels Museum of Musical Instruments. Visitors viewing a bandoneón can listen to a clip of Piazzolla playing the very instrument on display. The instrument ceases to be an isolated object and accrues, through recognisable music, cultural, historical, and geographical weight – and this is where the strategy draws its force. The same approach can be applied to ritual drums in Oceania, griot chordophones, and historic organs using their recordings. When a visitor comes in range of a tradition they know little about, this level becomes decisive. It becomes their pathway from organological knowledge (what the object is) to cultural knowledge (what meaning it holds, where it is found, for whom it was created).

The fourth and final level is storytelling, and concerns an instrument's history. Say a museum displays the Barberini Harp (Suatoni discusses this in detail in this volume). That harp has a life story. It has been painted into a picture, it has undergone its owners' life events, it has passed through historic upheavals. It is part of a broad, transcendent storyline. If a museum displays, instead, an instrument type, then its story becomes one of typology: how these instruments originated, how they spread, the moments when they were loved or forgotten, geographical transfers that altered their form or use. Both cases involve restoring a cultural contour that the object alone cannot put on show.

A clear example of how these levels can be combined into a uniform experience is Paris' Quai Branly Museum. Some of its display sections pair musical instruments with sonic pathways. Starting out from the noises they originally made, anchored in their traditional contexts, the visitor moves through time to ultimately hear demonstrations of how the same instrument is used in contemporary music and, sometimes, international pop. The results might seem alienating: a visitor's immersion in an original context is brusquely interrupted when sounds are relocated to contemporary contexts. Remembering that the Quai Branly is an ethnographical museum, not a musical instrument museum, we might look beyond this side effect. The idea at the strategy's heart remains intriguing: seeing an object as the starting point for a cultural playlist of sorts that metamorphoses, from original use, across successive transformations.

These four levels are not compulsory stops on a journey. They are levels of depth a visitor can freely select. Someone seeking quick answers stops after the first level, but someone wishing to truly understand continues to the fourth.

## 3 | Digital Interfaces: An Architecture of Possibilities

We have defined the content levels that a digital interface should provide, but the concrete problem remains of how it all should be designed. For this, we propose not an original model but a set of practical choices guided by the values of simplicity and long-term sustainability.

The first bridge to cross is the device itself. Materially, what the visitor needs is a fully-developed audioguide that can also reproduce visual content when necessary. Possible solutions run the gamut from museum-owned devices to audio forms of augmented reality. We apply the design principle by which, results being equal, the simplest solution is always most preferable. The choice that in this light seems most reasonable to us, in the present moment, is a web application visitors can use directly on their phones. For people who do not own phones, or who happen not to have headphones with them, the same system can be installed on a portable device made available by the museum. Requisite features are easily attained by any modern smartphone, and reading can take place in the browser with no need to install new apps.

We should clarify here that our choice is rooted in the present moment, technology's current phase of evolution. We are writing in 2026, and in five or ten years the best fitting solutions will most likely be altered. What won't alter will be our underlying principle: visitors should be able to access – via a personal, portable, minimally-invasive device – an audio and video interface that lets them explore content related to the object in front of them. The technical means of realising this condition will change, but the condition itself will not. Access to a single object can happen through an interactive museum map or, more directly, through a QR code placed next to the object's display case.

A device has now been defined. The next most fundamental aspect in this system is the object's catalogue record. Its record entry is the atomic unity around which all else revolves. On the scale of interface, this is the same relational logic discerned by Zanella (in this volume) in Italy's shift from ICCD to the new cataloguing system CLIO-SCN. An instrument's record entry should have a series of progressive levels, corresponding with a certain degree of similitude to the previous section's taxonomy.[4]

We could term the first level: identification. Visitors access a photo of the instrument and check that it matches with the real object in front of them. In the second level, visitors hear how it sounds when played. In the third, a short descriptive

[4] MIMO (Musical Instrument Museums Online), European-domain aggregator of musical instruments aggregatore di dominio di Europeana per gli strumenti musicali, ha elaborato in proposito il *MIMO Digitisation Standard* e le *Specifications for the Common Data Model for the Description of Musical Instruments* (mimo-international.com).

introduction is provided as a text and also, if useful, narrated in audio. In the fourth level, visitors can listen to the instrument in a context of expression: an important performance, classic song, a landmark clip. Lastly, in the fifth level, visitors access narrative material. This includes the object's history, the history of its type, its geographical shifts, and its cultural connections, in accordance with the museum's priorities and vocation.

The visitor can access these levels in separate experiences or integrated in a single document. Each level adds a dimension that the physical item alone cannot convey. Their sum total refreshes the auditory and cultural elements borne by the object in power.

Once the structure of individual entries has been built up, they must be linked to one another within larger storylines. A museum can, for example, encourage visitors to follow a topic pathway concatenating a series of objects into one narrative chain. In an ethnographic museum, this could be African diasporas in the Americas. In a European museum, it could be the history of the piano. In an ethnomusicological museum, the geography of drums across a continent. These storylines, written with the building blocks of individual entries, steer visitors from an encyclopedic logic to a narrative logic. This is achieved with no infrastructural shifts: visitors who intend to explore would use the same files as visitors who prefer to be told where to go.

A final observation regarding scalability: the model just described may seem unwieldy to realise. It does, indeed, take consistent work to build content, record sounds, and edit texts. This process does not, however, require sophisticated tech, nor specialist resources. Above all, it does not necessitate that everything be ready from the get go. The most sensible approach is to ensure that the data foundations on which the system rests can be increased and nuanced over time. Start with an essential core, limited perhaps to a small number of particularly key objects, and proceed by progressively adding. Even in affluent museums, ten thousand instruments are never ten thousand unique objects: many are variants of the same type, and can share their entry. The system thus grows symbiotically with the museum with no need to be redesigned every step of the way.[5]

[5] This is the way MIMO was developed: it originated as a European project with an end date, but subsequent participation enabled it to continue on to include institutions in China, Argentina, Burkina Faso, Congo-Brazzaville, and Latvia.

# MUSICAL INSTRUMENT MUSEUMS ACROSS THE WORLD. PROFILES

*Massimo Negri, Laura Diamanti, Eric Brennan*

## Main Museum Types Identified and Selection Criteria

This section of the book has a dual aim. On the one hand, furnishing a broad, informative survey regarding the presence of musical instruments in museums all over the globe. On the other, enhancing analysis via select, emblematic cases. These studies are useful both for understanding the current state of music musealisation and for identifying several important trends in the development of heritage-promoting practices.

Musical instruments are some of the most commonly found objects in museum collections across the world. To better understand such variety, we propose to divide the main situations we encountered into type classifications that reflect the array of cases treated in this volume:

1. Museums that only contain musical instrument collections, historic and/or contemporary.
2. Music museums, whose objective is to spark interest and passion for music through miscellaneous materials (written documents, images, sound recordings), including, at times, discourses on music genres as social and cultural phenomena or technical and scientific deep-dives into how instruments function as 'sound machines.'
3. Museums about music personalities, often house museums, where musical instruments are displayed alongside scores, manuscripts, personal objects, original furnishings, and other biographical materials.
4. Music sections within history museums, art museums, or applied art museums, often housing extremely important instrument collections (e.g., the Kunsthistorisches Museum and the MET).
5. Museums about the musical cultural traditions of particular areas, documenting popular music practices and their instruments, with strong value anthropologically and for identity.
6. Museums about other aspects of performance – voice, dance, musical theatre – where musical instruments are one element within, and not the main subjects of, a wider exhibition.

7. Museums and cultural centres for religious or civil rituals, in which instruments are inextricable from the ceremonial practices that generated them and keep them living.

A more recent addition to these consolidated types, and one that would cover many newly founded museums, including some in this volume, is the experiential, interactive museum. Here, the elements of sound, touch, and participation are designed to be central elements in an exhibition. Engaging with music heritage occurs through listening, experimenting, and performing, not just through visually contemplating.

We have selected 35 case studies, spread over different continents. They comprise a mixed yet complementary set of approaches to valorising musical instruments in museums. Cases have been selected based on general criteria – geographical distribution, variety in size and collections, diversity of institutional traditions – as well as specifically museological criteria: museum type, quality of exhibition design and interpretation, effectiveness of collection management styles, scientific interest in pieces conserved. In some cases weight was held by recognition received through awards or mentions in the museological and museographical industry, or by museums' ability to represent a music tradition that was otherwise unevidenced in our selection.

For the locations and a census of musical instrument collections in public museums across the world, indispensable empirical resources are constituted by MIMO – Musical Instrument Museums Online (mimo-international.com) and Grove Music Online (https://www.oxfordmusiconline.com/grovemusic).[1]

*These profiles have been compiled by Massimo Negri, Laura Diamanti, and Eric Brennan. Each has signed their work with their initials.*
*We would like to thank Andrea Zanella for the information sheet on the National Museum of Musical Instruments in Rome.*

[1] These two resources are presented later in this book, at pages 236.

1 | Kunsthistorisches and Haus der Musik, Vienna, Austria
2 | Salon Stolz, Graz, Austria
3 | Musical Instruments Museum, Brussels, Belgium
4 | Museum of Musical Instruments of Bolivia, La Paz, Bolivia
5 | Baoji Bronzeware Museum, Baoji, China
6 | Shanghai Symphony Museum, Shanghai, China
7 | Audeum Audio Museum, Seoul, South Korea
8 | Museum of Bećarac, Pleternica, Croatia
9 | Carl Nielsen Museum, Odense, Denmark
10 | Musée du quai Branly – Jacques Chirac, Paris, France
11 | Museum of Music, Paris, France
12 | Musical Instrument Museum, Berlin, Germany
13 | Museum of Musical Instruments of Leipzig University, Leipzig, Germany
14 | Hamamatsu Museum of Musical Instruments, Hamamatsu, Japan
15 | Museum of Musical Instruments, Milan, Italy
16 | Santa Cecilia Organ Museum, Massa Marittima, Italy
17 | Violin Museum, Cremona, Italy
18 | International Museum and Library of Music, Bologna, Italy
19 | National Museum of Musical Instruments, Rome, Italy
20 | Museum of San Colombano. Tagliavini Collection, Bologna, Italy
21 | Ringve Music Museum, Trondheim, Norway
22 | Museum Speelklok, Utrecht, Netherlands
23 | Ashmolean Museum, Oxford, United Kingdom
24 | St Cecilia's Hall Concert Room and Music Museum, Edinburgh, United Kingdom
25 | Horniman Museum and Gardens, London, United Kingdom
26 | Royal College of Music Museum, London, United Kingdom
27 | Pau Casals Museum, El Vendrell, Spain
28 | Swedish Museum of Performing Arts, Stockholm, Sweden
29 | Swiss Museum of the Organ, Roche VD, Swiss
30 | Centre for Arab and Mediterranean Music (CMAM), Sidi Bou Saïd, Tunisia
31 | House of Music, Budapest, Hungary
32 | Metropolitan Museum of Art (MET) New York City,United States
33 | Musical Instrument Museum (MIM), Phoenix, United States
34 | Music Museums in Memphis, Tennessee, United States
35 | Smithsonian Institution, Washington D.C., United States

# Kunsthistorisches and Haus der Musik

**Kunsthistorisches Museum (KHM)**
Maria-Theresien-Platz, Vienna, Austria
**Haus der Musik**
Seilerstätte 30, Vienna, Austria

Connecting the Kunsthistorisches Museum Wien (KHM) to the Haus der Musik entails observing, in a single city, two complementary ways of bridging heritage with public audiences, and with music. The first institution was created as a monument, a 'machine' of imperial European visual and material culture, and the second as a museum-cum-workshop space where sound becomes an experience in which the visitor can directly participate. Their two institutes' most interesting connection is not only thematic (Vienna as 'music capital') but museographic: the way an object's contemplation passes to a sound's perceptual practice, and the way institutions translate this ambition into spaces, stories, and devices.

**Kunsthistorisches Museum (KHM)**
The KHM is chiefly symbolic, as a building in the Ringstraße and a late-nineteenth-century Hapsburg cultural project. Inaugurated in 1891 by Emperor Franz Joseph I, it was designed as a 'public house' for the vast imperial collections the Habsburgs accumulated across more than four hundred years. Today, it is an independently-managed, not-for-profit federal scientific institution (Vollrechtsfähige wissenschaftliche Anstalt öffentlichen Rechts).
Its musical instrument collection is not, however, displayed in the same building as its main gallery. The Sammlung alter Musikinstrumente (Collection of Historic Musical Instruments) is instead located in the Neue Burg wing of the Hofburg in Heldenplatz. This collection sprouted to what it is today from two primary seeds. The first is from the second half of the sixteenth century. Archduke Ferdinand II of Tirol (1529-1595) created a prestigious at Ambras Castle, which counted among its treasures a very refined musical instrument collection. Largely crafted at his Tyrol court, over eighty of these items survive to us today. The second nucleus comes from the Obizzi family collection at the Castello del Catajo. First documented in 1669, it was expanded in the eighteenth century by Tommaso degli Obizzi (1750-1803) and then inherited by Archduke Franz Ferdinand. In 1914 it was moved to Vienna and incorporated

into the imperial collections. From these two sources' convergence emerged a renaissance and baroque instrument collection of international importance.
First exhibited at the Neue Burg in 1916 and then endowed with a catalogue in 1920, the collection became administratively autonomous in 1939, when part of it was presented at the Palais Pallavicini alongside loans from the Gesellschaft der Musikfreunde. After World War II, it returned to the Neue Burg. The collection has remained in that building to this day and, after a 1993 reorganisation, is exhibited across twelve rooms and supported by restoration activities, research, publications, and concerts.
The KHM's collection of historic instruments is considered one of the most important centres in the world for the study of renaissance and baroque instruments, many of which are connected to prominent musicians and composers. Some particularly important core examples are the extraordinary collection of Viennese fortepianos, Jacob Stainer's bowed string instruments, and a substantial number of renaissance wind instruments. Through these objects, the collection reconstructs European sound history in close rapport with court practices, rituality, virtuosity, and transformations of technique. It is thus not a marginal section of the great art museum, but an independent chapter of its narrative that foregrounds sound objects as historical and technological evidence to different periods' materials, mechanisms, ergonomics, and forms of listening.
Its exhibition style is traditional: instruments with keyboards are positioned on platforms that add volume to their presence, while smaller-dimensioned instruments – in particular wind and string instruments – are exhibited in individual display cabinets.
The visit experience is enriched by an audioguide system, allowing access to in-depth historical and organological analyses, in conversation with short captions beside the objects.

**Haus der Musik**

Vienna's House of Music museum opened in 2000 and flows over four floors that total approximately five thousand square metres. It offers exhibitions that challenge the limited sense of the word music to tackle the broader meanings of sound as a phenomenon. The narrative it develops begins with noises from nature and the human body, passes next through those produced by humans in our self-made environments, and ends with the idea of music as a complex form of culture. The House of Music was created with an explicitly experience-oriented mission: it is a museum where music not only has its history told, but is experienced and lived through our bodies and the act of hearing. Numerous hands-on installations and tactile, interactive devices render acoustic and musical concepts accessible to non-specialist audiences, inviting visitors to grapple with how sound is created, transmitted, and perceived.

Its exhibitions open with the "Sound Gallery," an immersive space where visitors hear a mosaic of miscellaneous sounds – particularly noises from the human body and from nature – immediately invoking the senses to introduce the museum's themes of acoustics and perception. From there, the visitor's trajectory centres progressively upon music, with specific attention to Vienna's traditions and the great composers who made their mark in the city's history.
The rooms reflect very diverse approaches on the level of aesthetics. The building itself, the old Palace of Archduke Charles, has an atmosphere of history, with its cabinets displaying original archival documents, historic models, costumes, and some musical instruments. Juxtaposed with this are immersive, multimedia spaces, virtual theatres, and rooms for audiovisual activities. Something central to the House of Music's identity is its structural connection with the Wiener Philharmoniker. The museum devotes exhibition space to the orchestra's history, starting with archival material, objects, documents, and multimedia devices that reconstruct how it evolved as an institution and as a place of artistry. This history-saturated beginning is followed by didactic, interactive installations that translate several principles of music practice into direct experience: among these, a virtual conductor feature encourages visitors to intuitively feel their way through the cause and effect of directing gestures, orchestral interpretation, and the resulting sounds.
The House of Music is managed by Wien Holding, a corporate group fully endorsed by the city of Vienna. It corrals approximately 75 active businesses in different strategic sectors of civic economic and cultural life, with activities that extend from real estate management to logistics, digital services, event organising, and culture. It is in this latter sphere that the House of Music finds itself, configured to be a more representative cultural project for the group.
In Puebla, Mexico, a similar museum was established by permit agreement, and a collaboration was launched in China to build a sound museum in 2023. The House of Music is also an ambassador and partner with the Lang Lang International Music Foundation, bringing music to children by facilitating instrument access. The House of Music's honorary president is the famous orchestra director Zubin Mehta.

Read together, the Kunsthistorisches Museum (with its instrument collection in the Neue Burg) and the House of Music provide a rare diptych. On the one hand, instruments' material histories are presented as the objects of lofty cultural and social techniques, heirs to the glorious Habsburg past. On the other, sound translates into devices that activate attention, play, listening, and sensory awareness. There is no overlap. There is instead a division of tasks: the KHM builds authority and historic depth through objects, while the House of Music generates access and participation through experience.

*L.D.*

## Salon Stolz

Theodor-Körner-Straße 67, Graz, Austria

Among the music-centred museums designed in recent years, the Salon Stolz at Graz represents a rather unusual example.
Robert Stolz (1880–1975) was one of the twentieth century's most famous Austrian composers and orchestral directors. An author of operettas, cinematic soundtracks, and songs with broad, international appeal, his activity unfolded between Vienna, Berlin, and Hollywood. Stolz was born in Graz and always maintained strong ties with his native city, which in turn steadily promoted the memory of his artistry. It is these dynamics of identity that ushered in the Salon Stolz, created as a space to celebrate this man and his musical legacy.
The project's specificity resides mostly in its social set up. Indeed, the museum is located in a newly built nursing home for the elderly, a condition which from day dot informed its conception and modes of functioning.
The Salon Stolz is part of the KIMUS Graz GmbH, a society wholly endorsed by the city of Graz and thus configured as a municipal institution, the society's management controlled by the commune's administration. It opened to the public on the 15th of July 2023, inside the entrance zone of the Senior:innenresidenz Robert Stolz, a nursing home in the Graz-Puntigam neighbourhood.
The architectural work was done by Austrian studio architektursalon (architects Andreas Salfellner and Andreas Mayer), while KIMUS Graz GmbH led curatorial concept development and project implementation.
The museum defines itself as an inclusive, intergenerational space – conceived of as an open gathering place for diverse audiences and founded on the idea of permanent learning. Its collaboration with the nursing home was very intentional: the museum organises regular workshops for guests, guarantees residents free entrance, and formulates subsidised offers for relatives. In this way, the museum institution integrates itself in the daily life of the community hosting it, assuming an ongoing cultural function.

Its location inside the residential structure entailed particular attention both to architectural accessibility and to the planning of the exhibition experience, developed in a way that resulted in usability for visitors with special needs also.
The exhibition space spans distinct but integrated environments: the Study Room (40 $m^2$), Music Pavilion (85 $m^2$), Life Stage (55 $m^2$), and Ballroom (115 $m^2$), for a total surface area that makes for a modest, albeit very clearly thematically-delinated, experience.
Unlike many traditional biographical museums, the Salon Stolz was not founded via a formal or official collection. Nor are its displays organised around permanent heritage objects. They are instead built around narrative devices, documentary materials, constellations, and multimedia content that revive the figure and artistic production of Robert Stolz with a focus on his experience.
The programming is just as calibrated toward visitors familiar with the figure of Robert Stolz as towards audiences without specialised music knowledge, welcoming enthusiasts and the simply curious. In addition to its usual activities, the museum creates workshop cycles conducted by specialists. One day each week is themed to introductory dance experiences, as well as to elementary music composition and direction exercises. These are open to audiences across the board but particularly geared towards families with children. Another day each week instead hosts low-threshold, inclusive laboratories on music, rhythm, song, and movement, aimed at adults, school groups, and people with different forms of disability.
Regarding exhibition design, the Salon Stolz is organised as a strongly interactive space. The entrance, conceived of as an "activation area," plunges the visitor immediately into a participation environment. The visitor next enters the Music Pavilion, which is arranged into a series of game tables and stations that prompt visitors experiment directly with the principles of music creation: building soundscapes, inventing short acoustic stories, testing themselves with melodic memory games, composing rhythm sequences, or intuitively exploring the physical aspects of sound.
Standing next to these installations are virtual reality devices for orchestra direction and info stations about musical instruments, infusing aspects of play into lessons on the basics.
A central characteristic of the experience is a show put on by Dance Theatre "Melodia." In this interactive performance of circa an hour, two dancers guide audiences through Stolz' life and music. Their nonverbal communication, along with the direct relationship between performers and spectators, are the heart of this device, translating musical biography into embodied, participatory experience.
The Salon Stolz is explicitly configured to be an inclusive museum. Exhibition areas are designed for intuitive use, with a reduced need for textual mediation or accompaniment.

Accessibility is not a sideline strategy but a principle underpinning the entire project. From its inception, audiences with special needs have been engaged as co-planners in defining content and mediatory instruments. The result is an integrated system that spans tactile texts printed in block letters and Braille, audio and audiovisual content in Austria's sign language (Austrian LIS), audio-texts at exhibition stations, induction systems for users of hearing aids, height-adjustable tables, tactile objects, haptic components designed for diverse levels of motor ability, tactile floor guide systems, elevators, accessible bathrooms, and dedicated staff. QR codes offer in-depth and gamified content with reading mode. The Salon Stolz collaborates regularly with associations and regional networks committed to inclusive processes, including Graz' InTakt festival.

In 2025, the Salon Stolz received an international DASA Award. Conferred by the European Museum Academy Foundation, this award recognises quality learning opportunities offered by museum institutions. These are evaluated from a broad perspective, and cover the museum's concept, the robustness and clearness of its storytelling, the creativity of its exhibition design, and the consistency of its educational programmes. The jury underlined the way the Salon Stolz is a high-profile professional institution dedicated to the playful discovery of music and dance. They identified the project as a model of urban development rooted in culture, able to contribute to the character and life of the neighbourhood that houses it. In a survey of European music museums, the Salon Stolz is a prime example of an institution where universal accessibility and intergenerational vocation are not only goals the museum has achieved but the very reason it exists.

*L.D.*

# Musical Instruments Museum

**Musée des Instruments de Musique – MIM**
Rue Montagne de la Cour 2, Brussels, Belgium

The Musical Instruments Museum (MIM) is a Belgian federal, public museum. It was founded in 1877 as the Royal Conservatory of Brussels' instrument museum, but from 1992 became part of the Royal Museums of Art and History (RMAH). Its current location is the Old England building, a masterpiece of Art Nouveau designed in 1899 by architect Paul Saintenoy alongside an adjacent Neoclassical building. The museum was transferred there on the 10th of June 2000, after its 1989 restoration was brought to a close. The collection boasts almost 10,000 instruments, of which circa 1,200 are on permanent display. Approximately 114,000 people visit the museum each year (116,316 in 2023, 112,222 in 2024).[1]
The MIM is one of the oldest and most important musical instrument museums in the world. It came about when three extraordinary holdings converged. First, the collection of Belgian musicologist François-Joseph Fétis (1784–1871), the first director of the Royal Conservatory, was purchased by the Belgian government in 1872. Second, circa 100 Indian instruments were gifted to King Leopold II by Rajah Sourindro Mohun Tagore in 1876. The third is the private collection of the museum's first curator, Victor-Charles Mahillon (1841–1924). Mahillon is a founding figure, too, of the MIM: in his almost fifty years in charge (1877–1924), he raised the collection from a few hundred to 3,666 pieces. He achieved this through systematic purchases including, in 1886, the Contarini-Correr collection (121 sixteenth–seventeenth-century Italian and German instruments) and, in 1877, part of Adolphe Sax's private collection, purchased at auction after the company's bankruptcy – 33 instruments are still in the collection today. Mahillon opened the museum's first restoration lab and promoted concerts with historic instruments, anticipating practices that are today central in music museology. He also published a five-volume descriptive catalogue (1880–1922) that is still fundamental today.

[1] Source: Annual Report 2023-24 published on the museum's official site https://www.mim.be.

His classification system was based on the better-known Hornbostel-Sachs classification (1914).

The museum's building, a masterpiece of Art Nouveau architecture, was the first great commercial edifice to be built entirely of metal in Belgium. Its structure – cast iron and steel, with wrought-iron flourishes, majolica friezes, and wide expanses of glass – is one of the most renowned examples of Brusselian architecture. In 1978, the Belgian government purchased the complex. The building was in such a state of disrepair that its restoration, begun in 1989, lasted over ten years.

The collection embraces instruments from the medieval period to twentieth century, with particularly rich holdings of historic European instrument sections, traditional Belgian lutes, mechanised music, and non-European instruments. Exhibitions are organised into circa thirty thematic sections distributed across four floors, with a design that promotes the instruments and their sonic resonance. The "Histoire des instruments de musique en Europe" section[2] presents a chronological journey from Ancient Egyptian music to historic nineteenth-century experiments and reconstructions. Redecorated in 2020, it now includes a section for Adolphe Sax's instruments. The "Claviers" room[3] tells the organological history of the keyboard and the western world's passionate relationship with it. The "Traditions dans le monde" pathway[4] begins in Belgium, moving through European music traditions and then extending out to other continents. The basement room, "Musicus Mechanicus," collects mechanical, electric, and electronic instruments, as well as a collection of bells.

The strong suit in these exhibition spaces is their mediation of sound. Every visitor receives IR headphones at the entranceway, which automatically activate when they approach instruments, letting them listen to almost thirty music excerpts. The museum's motto, *Vous allez voir ce que vous allez entendre* (*You'll see what you hear*), reveals a listening-centred exhibition philosophy.

More significant pieces in the collection include: the world's oldest surviving saxophone, a baritone sax from 1846 – the year Adolphe Sax patented his invention – with serial number 2686 and the inscription "Saxophone baryton en mi b breveté, Adolphe Sax à Paris", which entered the collection in 2020; a vast collection – one of the most complete in the world – of instruments from the Sax family: saxophones, saxhorns, saxtrombones, and more; history's first unintentional musical instrument, Winkel's Componium (1821), a huge orchestrion that can generate unrepeating variations (it is no longer working today, but the principle behind it inspired the Museum Speelklok in Utrecht to build a Mini-Componium, which it lent to the MIM in 2021); the luthéal, a mechanism patented in 1919 by Belgian

[2] trans. "History of musical instruments in Europe."

[3] trans. "Keyboards."

[4] trans. "Traditional instruments."

Georges Cloetens and applied to a grand piano in 1922 to increase its range with nail and felt stops, transforming the instrument's timbre (this inspired Ravel, who wrote his *Tzigane* and *L'enfant et les sortilèges* for it); and Rottenburgh's famous alto recorder, one of the most admired pieces in the collection.

From a museographical lens, the instruments are displayed in thematic windows with a select number of pieces for each, enhanced with individual lighting and full descriptive labels.

The MIM maintains a strong scientific calling. The museum is part of MIMO (Musical Instrument Museums Online), a European network enabling shared cataloguing for musical instruments in public collections, which collaborates with international institutions with research, loans, and short-term exhibitions. Notable among MIM's active research programmes are: the MUSIM project (launched in December 2023), which reconstructs the history of the museum and its network between 1877 and 1992 using the Royal Conservatory's archives as basis; the Be-MUSIC project, developing a digital platform and new thesaurus of instrument names; and international research on eighteenth-century Flemish harpsichords, led by nine other European and American museums through a complete catalogue of all specimens preserved in public collections.

The museum's library is accessible to scholars and preserves the institution's iconographical and audiovisual collections. Complementing its permanent exhibition, the museum organises concerts, conferences, and short-term exhibitions. A concert hall and workshop space complete their offerings. Particular attention is paid to younger audiences, too: their ZooBingo play exhibition (for children 4 years and older, included in the ticket price) invites families to search among the instruments on display for ones with animal details, combining listening with watching and playing.

The MIM does not bound its activities within museum walls, however. It develops multi-channel cultural and scientific programming. On the digital publishing front, its project *Sous les projecteurs*[5] gives monthly deep-dives into a single instrument or research theme via universally accessible content on their home site; its podcast series hosts experts and enthusiasts, telling the stories of their favourite musical instruments; and its YouTube documentary series, which the museum has been publishing since 2017 for conservation and archivisation purposes and completely subtitles in English, outlines Belgian music traditions. Their official site contains a virtual tour of the collection with in-depth information about particular instruments and sound recordings, in addition to the institution's annual reports and a catalogue of scientific publications available to the public.

*L.D.*

[5] trans. *In the spotlight.*

# Museum of Musical Instruments of Bolivia "Ernesto Cavour Aramayo"

**Museo de Instrumentos Musicales de Bolivia "Ernesto Cavour Aramayo"**
Calle Jaén 711 esq. Indaburo, Casco Viejo, La Paz, Bolivia

The Bolivian Museum of Musical Instruments – as of 2022 the Museo de Instrumentos Musicales de Bolivia Ernesto Cavour Aramayo – is a private institution. It was founded in 1962 and transferred to its permanent location in 1997: a colonial house known as the "Casa de la Cruz Verde" in Calle Jaén, part of La Paz's historic Casco Viejo district. Its collection boasts over two thousand instruments, distributed over seven themed rooms across two floors.

This museum is a product of collector's zeal. Ernesto Cavour Aramayo (La Paz, 1940 – 2022) – self-taught musician, composer, researcher, and instrument inventor, universally known as the greatest charango virtuoso in Bolivia – began collecting musical instruments during trips across Bolivia in the 1950s, purchasing low-cost objects that farmers in the Andes relinquished without knowledge of their value. "There were flutes of all sizes, of every colour, and every material," he recalled in a 2018 interview. "There were incredible things that just aren't around anymore." In 1962, he founded, in his own home, the Primer Museo del Charango. It represents the first public collection dedicated to this instrument. In 1984, the collection had already grown so large it needed to be refounded: at this point, the museum took its current appellation as the Museo de Instrumentos Musicales de Bolivia. In 1997, it moved to its permanent Calle Jaén space, obtaining the La Paz government's official recognition as a 'city museum.' At Cavour's death, the museum assumed its new name to commemorate its founder.

The museum's positioning in the Calle Jaén is an integral element of its identity. The best-conserved colonial street in La Paz was selected, a major artery whose eighteenth-century houses form a tiny universe of city museums – including the Museo Costumbrista, Casa de Murillo, and Museo del Litoral – and one of the most cohesive uptown historical centres. The Casa de la Cruz Verde, where the museum sits today, is a spacious colonial villa with an inner courtyard, whose architecture makes an effective contrast with the varied quality of its objects on

display: the space is small but much traversed, the physical proximity of the instruments one of the most immediate experiences the museum offers.

The collection is organised into seven themed rooms, each sensor-activated: lights and music switch on automatically at the visitor's entrance, creating a sound setting contextual to the instruments displayed. The collection embraces the entire music story of the Andean continent, from its prehistory to the contemporary era. This includes: prehispanic instruments, volcanic rock *flautas*, ocarinas, and instruments carved from bones, seashells, and tortoise shells. Coming from cultures in the Andes, there are sections for aerophones (*quenas*, *zampoñas*, *sikus* of various sizes and materials); chordophones (*vihuela*, *guitarra*, *charango* in all their regional variants); and membranophones. There are also sections for instruments from cultures beyond the Andes, across the world, and for instruments invented by Cavour himself, fruits of his mind that included guitars, *charangos*, and *zampoñas*.

Exhibition design does not follow contemporary museographical display criteria. In an effect more reminiscent of a *Wunderkammer* than a modern museum, instruments are spread densely throughout the small rooms, filling them up, hung from walls and placed on supports. Cavour's museum feels less like an institution and more like a collector's home that opened to the public. It is visited as such: with the feeling of being ushered into a private space rather than herded through a planned itinerary. One room is notable for its educational value. It brims with miniatures of every instrument in the collection, accompanied by a map of Bolivia and South America so that each item can be geographically pinpointed to its region of provenance – an orienting instrument that restores a sense of how crucial land is to the collection, reminding visitors that every object on display comes from a specific place, a specific community, and a music practice rooted in a precise landscape.

The museum's hybrid nature – at the midpoint between ethnographic gathering, organological collection, and laboratory for exploration – reflects its founder's personality: a researcher in the field, a man who was at once both virtuoso performer and instrument-maker.

This museum was never just a conservation space: it has always been a space, too, for the living practice of music. Until his death, Cavour held concerts every Saturday evening with other Bolivian musicians in the Charango Theatre inside the museum. The museum houses an art gallery, too, as well as a specialist library and a workshop where charango and wind instrument lessons are offered. These learning activities represent a key aspect of the project's structure: Cavour also authored numerous educational methods for the *charango*, *quena*, *zampoña*, and guitar, and in 2010 published a book on musical instruments in Bolivia, which he followed up in 2011 with an encyclopedic dictionary on the same subject.

In the varied landscape of world music museums, the Museo de Instrumentos Musicales de Bolivia occupies a special position. It is a private institute with a restricted size and no public funds or advanced museographical frameworks. It was built entirely from the passion and dedication of a single man in the span of sixty years. This origin story itself – the collection of a musician who travelled the country to gather instruments from farmers and miners, moved by love and by an urgent need to document them before they disappeared – confers upon the museum an authenticity that a public institution would have difficulty replicating.

*L.D.*

## Baoji Bronzeware Museum

**宝鸡青铜器博物院**
Shaanxi, Baoji, Weibin District, Baoji, China

The Baoji Bronzeware Museum is one of the most important archaeological museums in China for bronze-age culture. It looms up from a large urban park in the city of Baoji, province of Shaanxi, a crucial area for the formation of the state in Ancient China and for the development of ritual metallurgy between the Shang and, especially, the Zhou Dynasties (12th–3rd centuries BCE). The museum was created in the 1950s, but gained its current configuration with the opening of a new museum building in September 2010. The complex takes up approximately 500,000 square-metres. Access is accentuated by a sweeping, majestic set of steps that lead to the museum and highlight its commemorative and institutional character.

The institution functions to safeguard, study, and enhance archaeological heritage of outstanding importance, closely tied to many excavation sites in the Baoji region. Its collection contains over 480,000 archaeological finds, of which ritual bronzes constitute its most celebrated, identity-defining core – historically valuable and culturally significant.

The museum has a solemn, majestic atmosphere befitting bronze's symbolic role in Ancient China as an instrument of political, religious, and ritual power. Exhibition spaces are modern and spacious, abounding in large volumes and well-considered use of natural light. They prompt the visitor to notice bronze not only as an artistic object but as a cultural and political medium, a conveyor of cosmological, genealogical, and institutional meaning. Despite its monumentality, the museum sustains a clear didactic arrangement targeted toward diverse audiences, from scholars to nonspecialist visitors.

Exhibitions are organised mostly chronologically and by theme, set up to illustrate the evolution of bronze-age civilisation in northern China, particularly the western Zhou period. Windows present large ritual vessels, weapons, musical instruments, and ceremonial objects. These are accompanied by explanations of essential details, condensed to the minimum necessary to orient the reader.

This curatorial choice centres and thus privileges the object itself, giving stark prominence to its symbolic and aesthetic worth and to the quality of its artisanal mastery.
Ritual objects were fundamental for the symbolic, political, and musical organisation of the ancient state as it existed in bronze-age China. Particularly, bronze occupied a central place in the ritual and musical systems (*li yue*) regulating ceremonial life, relationships with ancestors, and mechanisms that legitimised power. Music did not constitute a discrete sphere in all this. It was one structuring component within wider social and cosmic order, rigidly codified and integrated into official rites.
This dimension emerges with clarity in the Baoji Bronzeware Museum section dedicated to interconnections between ritual bronze artefacts and ceremonial music culture. Here, bronze is interpreted as a medium for sound and performance. Bronze ritual vessels and musical instruments are presented as cogs within a unique ritual system. Sound, gesture, and object co-construct collective experiences of high symbolic value, founded on principles of harmony, hierarchy, and stability.
A particularly significant role is thus played by bronze musical instruments, exemplarily evidencing deep bonds between music, rituality, and political power. The collection includes ritual bells (*zhong* e *nao*), elements from sets of chime bells (*bianzhong*) and other sound devices employed in aristocratic and courtly ceremonial contexts.
From a technical and acoustic perspective, the collection's instruments document a highly advanced level of metallurgical and musical knowledge. They reveal sophisticated understandings of bronze's sound properties, as well as the possibilities offered by fusion and assemblage techniques. Furthermore, several large bronze items from the transition between the Zhou and Qin (3rd century BCE) Dynasties demonstrate a crucial evolution occurring on the level of aesthetics and function: next to austere, sacred forms appear more dynamic, decorative solutions that evince new artistic and cultural sensibilities.
This museum's exhibition experience does not feature musical instruments as isolated objects. Rather, they are placed in constant dialogue with ritual vessels, weapons, and other ceremonial objects, highlighting music's integrated function inside of ritual. The design of display spaces does not aspire to theatrical approaches in the western sense either. Models, reconstructions, and animations are employed in moderation, in ways that help the viewer visualise the ceremonial contexts and social structures associated with bronze use, and thus better grasp the instruments' sonic, social, and symbolic roles.
Frequent employment of very precise lighting, concentrated almost exclusively on the exhibits, reinforces the museum's visual focus and contributes to building a concentrated, almost reverential experience of observation.

Through bronze musical instruments, this museum makes intelligible a lost soundscape founded on balance, hierarchy, and symbolic control, demonstrating ways music heritage can be reconstructed and interpreted even in the absence of living sound. In this sense, the Baoji Bronzeware Museum offers a particularly crucial contribution to the study of archaeological music museums: musical bronze is a tangible witness to intangible dimensions that are still legible through form, weight, inscription, and ritual contexts, recentring music's conceptual heft for understandings of the Zhou dynasty and Chinese cultural history.

*L.D.*

## Shanghai Symphony Museum

**上海交响乐团音乐厅 - 上海交响博物馆**
3 Baoqing Lu, near Huaihai Zhong Lu,
Xuhui District, Shanghai, China

The Shanghai Symphony Museum is a modest institution that documents how China has gradually received, developed, and assimilated western symphonic languages, and places Shanghai squarely at the centre of this historic and cultural process. The museum's location – a historic early-twentieth-century villa in the Xuhui district – contributes immensely to its character. The visitor seems to enter a domestic space, elegant and slightly outside of time, whose rooms tell the long story of a century and a half of cultural encounters, migration, cosmopolitanism, and musical creativity. Indeed, the museum is housed in a classic garden villa from the time of the Shanghai International Settlement, developed over two floors and restored in a way that respects the original architecture. The space retains a house's typically intimate, light-filled atmosphere.

The museum belongs to the Shanghai Symphony Orchestra, China's oldest symphony orchestra, and is supported by Shanghai's municipal authorities. It was fitted out gradually, over the course of the 2010s, as part of ongoing redevelopments building up a music zone around the orchestra's new concert hall (2014). In this sense, the museum is not an autonomous exhibition space. It is the historic memory of a music institution that remains pivotal today for the city's cultural life.

Exhibition design does not seek to generate spectacles. Calmer storytelling is prioritised, unspooling in episodes as the visitor travels through Shanghai's music memory. This pathway is predominantly chronological, narrating symphony music's development in Shanghai from the late nineteenth century – the 1870s and 1880s – until today. Themed sections are included for important figures in Chinese music, and for the orchestra's recent history.

This collection favours documents and archives above instruments. Displayed are historic photographs, orchestral documents, and archives, sound and video recordings, historic albums – including 1920s vinyls – and memorabilia around directors and musicians, in addition to materials illustrating the development and

circulation of symphony music in China. Some musical instruments are present, but they are not a principal focus for the exhibition.

On a thematic level, the museum tells a clear cut tale: western music arriving in Shanghai after its port opened in 1843, the first European orchestral bands forming under the Shanghai International Settlement, a municipal ensemble evolving into the Shanghai Public Band (founded in 1879) and then transforming slowly into a modern professional orchestra. Introductory panels clarify a central point right off the bat: symphony music was created in Europe and entered China as a cultural import, but in just over a century put out such deep roots that it became an integral feature of the urban cultural landscape. Shanghai here plays the role of a crossroads, in which traditions, repertoires, and artists of diverse contexts found fertile terrain. Displayed in one of the opening rooms is a famous North China Herald advertisement from the 8th of January 1879 – the oldest documentary evidence of the ensemble's existence – followed by a sequence of panels reconstructing, decade by decade, how the orchestra experienced each transformation the city underwent: from its 1900 municipalisation to its early-twentieth-century reforms, from war difficulties to republican and then socialist eras. More at the heart of this story than any other figure is Italian pianist and orchestra director Mario Paci, who arrived in Shanghai in 1919 and led the ensemble for over twenty years, transforming it into a true modern symphony orchestra. The museum's story eventually ends with illustrations of how China progressively trained its own directors and composers, endowing them with the skills to integrate western languages with local traditions.

The museum's technological and interactive elements provide effective tools for understanding the workings of an orchestra: videos showing the maestro's movements, immersive installations playing single orchestral sections, and documentaries about historic tours and recordings.

The general atmosphere is intimate: visits are by booking, groups are small and the exhibition pathway unwinds in uncrowded silence. Facilities mirror the museum's cosy aspect: a subtle entranceway, a modest welcome desk, and no bookshops or indoor cafes.

In sum, the Shanghai Symphony Museum constitutes an important case study for analysing how a western symphonic repertoire is interpreted and historicised in a non-western context. The museum's use of technology allows it to surpass the limitations presented by its less extensive instrument collection. Its choice of a villa location imbues the stories it tells with a private yet nonetheless cosmopolitan mood, perfectly in line with Shanghai's 1920s history as well as its contemporary international vocation.

*L.D.*

## Audeum Audio Museum

6 Heolleung-ro 8-gil, Seocho District, Seoul, South Korea

The Audeum is a private museum. It was founded by Chung Mong-jin, president of the industrial KCC Corporation, as a tribute to the memory of his father, KCC founder and late honorary president Chung Sang-yung. The museum is also associated with the activities of Silbatone Acoustics, a high-quality valve amplifier brand that Chung himself founded. The museum's opening ceremony was held on the 30th of May 2024, its Grand Opening on the 5th of June 2024. Its architecture was designed by Kengo Kuma & Associates in collaboration with YKH Associates and it is located in Seoul's Seocho-gu (Gangnam) neighbourhood.

The Audeum is the first audio-only museum in the world, with audio understood not only as a sound-reproducing technology but as a complex sensory experience. The collection grew largely from private collections of historic audio equipment that were progressively set up in publicly accessible display spaces. These origins have a direct effect on the museum's identity: more than telling the story of music history in a limited sense, its ethos focuses on the evolution of listening devices and audio cultures, reflecting the intersection between technological innovation, design, and sound heritage.

This institution deliberately distances itself from traditional museum models. It was not conceived of as a place to conserve, nor simply even to display, objects. Instead, it was designed to be an experiential space in which sound, listening, and sensory perception become the centre of a cultural project. The museum houses an important collection of sound-reproduction machines from the nineteenth century to today – phonographs, gramophones, historic radios, record players, amplifiers, loudspeakers, and Hi-Fi systems – including exceptionally rare pieces like the 12-A and 13-A Western Electric systems, the world's first great cinematic audio systems (used at the advent of sound films), and the Edison phonograph. The collection contains wind-up musical instruments, too, such as record music boxes and orchestrions.

The creation of the Audeum was not arbitrary, but one moving part in a particularly fertile cultural context. South Korea boasts a ubiquitous audiophilia, in which

listening to music is lived as a high-level aesthetic, sensory experience. In this landscape, audio objects – amplifiers, loudspeakers, record players – are commonly treated as works of art whose fabrication quality, design, and artisanal care should be appreciated. This sensibility finds expression in the widespread presence of listening salons, spaces for listening where historic systems coexist unhierarchically with those of recent generations. The Audeum transforms this culture into a structured museum project that does not restrict itself to purely exhibiting technological devices. Rather, it presents them as testimonies to the history of sound, engineering, and aesthetics, recognising the cultural and artistic dignity of high-quality audio.

The museum's building is highly vertical, with five floors above ground and five beneath and a total surface area of 11,000 square metres. Its facade, composed of approximately 20,000 anodised aluminium cylinders arranged vertically in an apparently casual manner, generates a continuous play of light and shadow that morphs over the course of the day and with the seasons – reminiscent both of organ pipes and the filtering of light through forest trees (the Japanese concept of *komorebi*). Visitors enter by a staircase that descends into the ground, eliciting a slowing of pace and a feeling of distance from the din of the city. With each step, urban noises fade and attention to the body and its senses increases.

The dominant material in the building's interior is Alaskan cypress, used in Kuma's 'wood curtain' technique: wooden surfaces are bent, refashioned as if they were fabric. This engenders an impression of softness, movement, and organicness. Its contrast with the stiffness of the building's metal exterior is definite and intentional, controlling each degree in the visitor's physical and sensory transition between outside and inside. The mood is on the whole intimate, contemplative, and almost meditative: the Audeum's listening experiences are slowed-down and up-close, inviting deep perceptions of sound as a physical and cultural phenomenon.

Exhibition design here deliberately eschews traditional museum approaches. Objects are inserted into highly acoustically calibrated environments, where light, material, and sound co-construct an immersive experience. Listening rooms play visitors music from original historic technologies, promoting the sensory and physical dimensions of analogue sound. Some rooms are upholstered, to highlight the relationship between sound absorption and perception quality. Others alternate wood, glass, and metal surfaces, modulating reflections and resonances. The museum's communication style privileges direct experience above textual mediation: information about history and technology is present but discreetly integrated, keeping the act of listening centre stage.

One of the museum's most innovative details is its conception of architecture as an instrument for listening. Its building is not designed solely to house a collection, but itself produces a specific condition of sound by filtering noise and guiding experiences of perception. Just as meaningful is the museum's choice to foreground

the visitor – not as a spectator but as a body that thrills, listens, and feels. Attention to multisensory elements – sound, light, touch, wind, even the detection of aromas – propels the museum's conceptions of 'audio' to new dimensions. In a metropolis characterised by elevated sound density, the Audeum offers itself up as a place to rebalance the senses.

From a museological perspective, the Audeum triumphs over museums that understand instruments as objects for visual contemplation. Hhere, sonic technologies are very much alive, and work to produce sound and memory. The museum does not just tell the story of audio, it puts it into practice through listening – configuring itself as one of the most radical and contemporary sound culture museums.

The Audeum was selected as one of the Prix Versailles' "World's Most Beautiful Museums 2025"[1] and won the "Special Prize for an Interior" in the Museums category, an award for the aesthetic and functional qualities of interior spaces.

*L.D.*

[1] The Prix Versailles is an international architecture and design award instituted in 2015, awarded annually to particularly important contemporary projects in diverse spheres, including museums, business, and hospitality. Promoted in collaboration with UNESCO, this prize values spaces for their architecture, interior design, and contextual integration, making a selection across the globe every year (*World Selections*) and awarding main and special prizes.

## Museum of Bećarac

**Muzej bećarca**
Bećarac Square, Pleternica, Croatia

IThe Museum of Bećarac in Pleternica, Croatia, lives inside a purpose-built, contemporary building next to Bećarac Square, a central meeting place for local community and a space for events, celebrations, and collective action. This location reinforces the museum's role not only as an exhibiting institution but as an authentic civic and cultural centre for the city. The institution was founded by the city of Pleternica. It is managed by, and its cultural activities are coordinated by, Javna Ustanova Pleternica.[1] Inaugurated on the 17th of February 2023, it is among the more recent European folk music museums.
The museum's building was designed by Zagreb architect Andrija Rusan. Its permanent exhibition – and general concept – were managed by Muze/Muses studio (Zagreb). Its interiors were developed through a series of collaborations with various design studios, all situated in Croatia's capital. The museum's graphics were created by Šesnić & Turković, and its products and exhibition pieces by Clinica Studio.
The museum functions as a performance centre for the bećarac, a traditional Slavonian song registered on the UNESCO Intangible Cultural Heritage list. A short, lively, often teasing piece of music, the bećarac is traditionally executed in call-and-response form, accompanying festive moments, community gatherings, and convivial rituals in Slavonia's Baranja and Srijem regions. Lyrics are simple and at times provocative, not filtering the themes they deal with, which span love, desire, conflict, personal pride, and group belonging. The museum takes this scope as its starting point, constructing a tale that, rather than censoring the complexity of bećarsko language, valorises its social function as a space of shared expression and cultural identity.

[1] A local public authority in the city of Pleternica. Instituted in 2019, it works along the lines of a cultural administration institution, created by the government to manage several of the city's cultural and tourism infrastructures, including the Museum of Bećarac.

The museum came into being through broad-ranging, collaborative processes involving local communities, culture bearers, researchers, and creatives. Over a thousand collaborators contributed to the creation of its content and the defining of its visit experience, marking the institution out as an exemplary intangible-heritage museum founded upon participation. Its displays are divided into five themed sections, across which the visitor experiences the bećarac's different levels of meaning: from its historic and territorial beginnings to its contemporary variations, from the cycle of an individual life to the dynamic collectives of a community. This configuration is clearly reflected in the visit experience, which is devised for active, rather than reflexive, public engagement.

Its exhibitions were designed as a set of narrative environments in which objects, images, texts, and, above all, sounds, are integrated into over forty interactive experiences. The visitor is never just an observer: they can sing karaoke, play instruments, participate in sound games, take part in humorous 'duels,' or jump on a carousel evocative of festive folk contexts. These interactions are not isolated attractions but interpretive devices that translate the bećarac's performative, dialogic character into direct experience. The museum's communication style privileges direct, inclusive language, prioritising experience, listening, and interaction: videos, historic recordings, evidence from culture bearers, and modern materials coexist in a stratified collection that highlights the bećarac's continuity across time, avoiding crystallising the song in an exclusively folkloric dimension.

The collection has a predominately ethnographic character and includes traditional costumes, objects from daily life, historic photographs, and extensive digitalised content – photos, oral testimonies, and video recordings – which document the tradition and its social context. One section is specifically dedicated to the traditional instruments in the tamburitza ensemble[2] fundamental for the bećarac's execution: the bisernica (prim), brač (basprim), cello, bugarija (kontra), and berda (bass). Furthermore, the museum dedicates space to the performance of this heritage that has been recognised by UNESCO on a global level, placing the bećarac in dialogue with other world music and oral traditions. The song's ties to the land are reinforced by the museum's integration with the square outside of it, expanding the story it tells beyond the walls of its exhibitions, transforming Pleternica itself into a narrative device through events, festivals, and public activities.

A critical offering from this museum is its ability to generate recognition. Via narrative situations that speak of relationships, social roles, genres, periods, and

[2] The *tamburitza* is a family of plucked string instruments characteristic of traditional Slavonic and Balkan music, comparable to a small orchestra. In the museum, each instrument is shown with its official Croatian name followed by the alternative name by which it is traditionally known in different local practices.

communities, it builds bridges between local traditions and shared human experiences: the bećarac thus becomes a key for accessing universal themes, allowing even visitors who are not familiar with Croatia's context to wade into the emotions and conflicts staged by the song.

The Museum of Bećarac distinguishes itself in Croatia's museum scene through its radical application of participatory museological principles to intangible heritage. The museum demonstrates how an institution that hinges on a single tradition can become a space for contemporary dialogue, capable of forging connections between people, cultures, and experiences.

The museum has received various European gestures of recognition: in 2003 it won the BigSEE – Tourism Design Award and MUSE Creative and Design Award, and in 2024 it received an honourable mention in the Živa Award for the promotion of intangible cultural heritage and was a finalist for the Luigi Micheletti Award. That same year the Museum of Bećarac won the Museums in Short Award for its video *Carnival Masks*.

*L.D.*

# Carl Nielsen Museum

**Carl Nielsen Museet**
Claus Bergs Gade 11, Odense,
Denmark

The Carl Nielsen Museum is part of Museum Odense, an autonomous institution recognised by the Danish government. It is located over two floors of the Odense Concert Hall building in the city's music neighbourhood, between the Odense Symphony Orchestra and the Danish National Academy of Music. The museum opened to the public on the 2nd of June 2023, after a 2017 closure and complete reworking of its exhibition concept (more than a simple renovation, this was a radical refounding of its identity as an institution). Content was developed by Museum Odense in collaboration with the University of Copenhagen and the research of the *Carl Nielsen Project: European Composer*. The stories this research tells were translated into the language of exhibition in collaboration with Event Communications (London).

The historic collection dedicated to Carl Nielsen – one of the twentieth century's most important Danish composers – is composed of over seven thousand objects. It has been reinterpreted in the new museum through the sharp curatorial choice to shape displays around music, rather than a mass of artefacts. A limited number of items, only around fifty or so, accompany the museum's storytelling, serving as material anchors that illuminate aspects of the composer's character, daily life, and artistic journey.

Though the Danish institute falls within the tradition of monographic museums, it pulls off a radical gesture by inverting their usual approach, by which a composer's music is accessed through the lens of their life story. Here, the opposite occurs. It is the music that guides narration, shapes space, generates experiential rhythm, and presents pathways to familiarity with who he was as a person.

The museum thus holds up music as its primary source of meaning, a museologically courageousness choice that rejects the norms of traditional biographical museums – sequence, chronology, personal documents, autograph scores, the celebration of an author – to construct an immersive experience that must begin with sound before it can arrive at the person.

With music and sound as the principal 'objects' being exhibited, displays are based around digital recordings of Nielsen's works, coordinated to form the museum's soundtrack.

Six hundred and fifty lightbulbs – metaphors for the creativity of Carl Nielsen's musical genius – accompany the visitor as they move through the exhibition, which has been designed to portray different stages in the composer's life. This museum is a musical, sensory space: playful, tactile, and stimulating. Abandoning traditional linear narration, it spurs visitors to reconstruct the composer's biography as they listen to and interact with installations, experimenting with music as a living force.

Exhibitions of collections that are at once both intangible (music) and tangible would not fulfil their aims if an intermediate space did not exist between the two worlds. The digital becomes a bedrock upon which three-dimensional structures and physical space rest, a stratum that overlays content with direction and interaction, bedding their tangible elements into the layers of a coherent story and immersive musical experience.

The museum's display spaces have been constructed as a sequence with three main stages: 'Calibration,' 'Exploration,' and 'Immersion.' Each corresponds to a gradual approach toward Nielsen's musical universe. The first, 'Calibration,' is designed as a "tuning" moment: the visitor, viewing a clip that presents the sounds, places, and people that inspired the composer's creativity, is "harmonised" and introduced to the music experience that will materialise in subsequent rooms.

The second stage, 'Exploration,' is the conceptual heart of the museum. This exhibition presents original artefacts and musical instruments owned by Nielsen criss-crossed with bright, suspended wires. Reminiscent of taut strings or a giant harp, they function as metaphors for Nielsen's repertoire. Each string corresponds to a composition and can be touch-activated. This interaction produces sound, inviting selective listening and thereby constructing a personal itinerary. The installation – theatrical but also deeply musical – elicits a surprisingly valuable effect: Nielsen's music becomes a universe that the visitor actively enters, an explorer selecting their voyage. This room is organised in four themed clusters. Each imparts a narrative reading of Nielsen's works and creative and personal journey. The core theme 'Awakening' (1865–1895) evokes his formative years, years of discovery and of early poetic tensions. 'Struggle' (1896–1913) represents the phase in which he fought for unity amid internal contradictions. 'Crisis' (1914–1922) conveys the upheaval of the war years and the linguistic instability characterising many works he created in that period. "Reconciliation" (1922–1931) instead expresses his season of synthesis and maturity. This is an openly interpretation-heavy museography, one that renounces documentary objectivity in favour of direct contact with a musical imaginary. The original items displayed in this section help focalise narration and imbue the exhibition experience with a necessary sense of authenticity. Nevertheless, they are not sufficient on their own.

Each story presented to visitors is introduced and supported by music, the true structuring agent behind this storytelling.
The third section, 'Immersion,' is the climax of the experience. Here, music stands out as the dominating presence within an immersive space. Audiences, encircled by screens projecting fields of luminous pixels, are ensconced by their environment as they sit at the centre of the room and listen to Carl Nielsen's music. This curatorial choice wilfully eschews the figurative: an absence of recognisable images leaves space for an internal experience, allowing each visitor to construct their own personal emotional relationship to the composer's musical universe.
Museologically, what distinguishes the Carl Nielsen Museum is the continuity between its devices: each choice – from spatial design to audio quality, from set decoration to tactile elements – is guided by the idea that music does not need to be explained, but experienced.
The museum's writing thus succeeds at uniting accessibility with complexity, plumbing playful and emotional depths by offering a new model for music museums. Not by chance, the project was inspired by one of Nielsen's own quotes: "Music is life, and, like it, inextinguishable." It is upon this statement that the museum bases its identity: music as an inexhaustible life force, a form of knowing and relating, key for understanding an artist not through anecdotes but his very essence.
The museum won the Luigi Micheletti Award in 2024 and, that same year, was nominated as finalist for the European Museum of the Year Award (EMYA).

*M.N.*

## Musée du quai Branly – Jacques Chirac

37, quai Branly,Paris, France

The Jacques Chirac Museum of Quay Branly inhabits a building that was designed by architect Jean Nouvel to contrast radically from French museums' palais tradition. The elongated main building (*Bâtiment principal*) is approximately 200 metres long and 20 wide, raised on large pillars almost 9 metres above ground and extending over six levels.

The Quai Branly displays African, Asian, Oceanian, and American art and culture. It is a *public institution of an industrial and commercial nature* (EPIC: établissement public à caractère industriel et commercial) under the joint supervision of the Ministère de la Culture and Ministère de l'Enseignement supérieur et de la Recherche. It was created, by a July 1998 decree, as the Musée du Quai Branly, with the goal of gathering and promoting the French government's non-European collections. They had previously been divided between the Musée de l'Homme and Musée national des Arts d'Afrique et d'Océanie. The museum opened on the 20th of June 2006, its name conveying its connection to the vision of Jacques Chirac – a staunch supporter of the dignity of the *arts premiers* in the western cultural sphere.

The collection totals approximately 300,000 artworks and objects, of which approximately 3,500 are on permanent display in the *Plateau des collections* (5.300 sq.m.). Collections are organised by geographical areas: the *Plateau* is split into four large sections for Africa, Asia, Oceania and the Americas, spatial progression mirroring the points of the compass. Each zone places paintings, sculptures, ritual items, masks, fabrics, weapons, daily artefacts, and, naturally, musical instruments, in the contexts of their respective cultures. This museum is also home to an important media library (over 200,000 documents) and to photography and sound archives of international significance.

Despite not being specifically themed around music, the museum has one of the world's foremost collections of non-European musical instruments (approximately 10,000 items from different cultural contexts). In the context of such museography,

music becomes a lens through which the plurality of world cultures can be experienced and understood.

At the heart of the way this museum deploys its instruments is its *réserve des instruments de musique*: a musical instrument tower. A large clear glass cylinder, approximately 23 metres tall and 16 in diameter, has been installed at the centre of the building. Visible the entire height of the *bâtiment principal*, this structure vertically crosses the museum's six levels from the basement up.

The tower occupies a surface area of approximately 700 sq.m. and is considered one of the most famous "visible storehouses" of modern museology. Crafted in steel and tempered glass, its transparent walls allow the public to view the collection without physically entering the conservation space. Jean Nouvel described this structure as a window onto the museum's internal conservation processes, "une fenêtre sur les coulisses du musée." This architectural approach has proved itself a unique midpoint between strategies for storage, installation, and display. Seen from the outside, the tower gives the impression of a vertical column of instruments suspended in space. Organised by level and organological family, items alternate with areas of shadow where lighting is reduced to protect sensitive material like plant fibres, animal skins, and tropical timber.

The history of the Quai Branly musical instrument collection can be traced back to the 1878 opening of the Musée d'Ethnographie du Trocadéro, which had been built for that year's Paris Exposition Universelle. Approximately 150 musical instruments were installed in its ethnography section, mainly non-European items considered to be anthropologically interesting. In 1937, the Trocadéro's collections were transferred to the new Musée de l'Homme under the direction of Paul Rivet, where they remained for over sixty years. Here, the collection was systematically expanded through the work of ethnomusicologist Gilbert Rouget, director of the département d'ethnomusicologie from 1965 to 1985. Rouget incorporated instruments with important sound recordings from the field, helping transform the collection into one of the most expansive ethnomusicological archives for non-European music cultures.

This development was aided also by André Schaeffner. A theorist and organologist, his volume *Origine des instruments de musique* (1936) proposed a classification system with two overarching categories – instruments with solid vibrating bodies versus those vibrated by air – destined for lasting influence in organological studies.

Furthermore, approximately 500 of the Quai Branly's instruments come from the Musée national des Arts d'Afrique et d'Océanie, an institution founded in 1931 (initially as the Musée des colonies) and closed in 2003.

Instruments from Europe – approximately 300 artefacts irrelevant to the new museum's mission – were separated out and sent to collections that would later form the Mucem: Marseilles' Musée des Civilisations de l'Europe et de la Méditerranée.

The Quai Branly's musical instrument collection is spread principally across five large cultural areas: Africa (circa 3,850 instruments), Asia (circa 2,600), the Americas (circa 2,450, of which circa 900 are prehispanic), Oceania (circa 600), and the islands of south-east Asia (circa 500 instruments). Europe's music tradition is excluded by programmatic choice, due to being documented in France chiefly by the Musée de la Musique della Philharmonie de Paris and other national institutions.

Instruments' placement in the *Réserve des instruments de musique* follows a double criterion: geographical origin and organological family. This museographical system introduced a conceptual distinction to international museology debates that is still very cited today: that of "visitable" versus "visible" reserves. The Quai Branly thus contains a visible – unvisitable – reserve where conservation remains the primary function, but communication is achieved through architecture and parallel systems of mediation.

A digital app (available in loco on tablets and interactive totems) lets visitors 'navigate' the instrument collection by level, place of origin, and organological family. Each instrument's record can be viewed, and audio recordings played.

*L.D.*

# Museum of Music

**Musée de la Musique**
221 Avenue Jean Jaurès, Paris, France

The Musée de la Musique is a national French museum, part of the Philharmonie de Paris, a public body under the protection of the Ministry of Culture, and one of the world's most important museums for music culture and the history of musical instruments. It is located in a building designed by Christian de Portzamparc for the Cité de la Musique and inaugurated in 1995. Its architectural complex revolutionised the cultural face of the 19th arrondissement and, as of 2015, is in conversation with a new Philharmonie building designed by Jean Nouvel. The structure is not only an exhibition space but a dynamic point of cultural convergence that integrates concerts, learning activities, and scientific research within a single institutional ecosystem.

The museum's beginnings date back to the nineteenth century, when the Conservatoire de Paris began constructing a new organological collection for the study of music and its creation techniques. In 1864, it opened its first public exhibition, which was transferred and expanded over the course of the twentieth century. Only with the Cité de la Musique did the collection find a totally suitable location. In 1997, the current museum came into being. It holds almost 9,000 objects, of which 5,500 are instruments. Approximately one thousand items are displayed across circa 3,000 square metres over five floors.

On the 17th of May 2025, to celebrate the Cité de la Musique's thirtieth anniversary and the Philharmonie de Paris' tenth, the museum rolled out a redecoration of its permanent collection. This new visitor experience has evolved beyond reading music traditions in isolation, and sounds the dynamics between history and western music with instruments, materials, and images from other cultural contexts, showing how such heritage has been formed through exchange, circulation, and hybridising processes across time.

These new museological (and by extension museographical) conditions unfold within a debate that is central in western museums today: ways of displaying and enhancing non-European collections. There is a critical turn toward re-imbuing

instruments with better articulated historical and cultural complexity, going beyond rigid classifications and essentialising ethnographic approaches.
A meaningful point of reference here is the 2019 redecoration of the New York Metropolitan Museum of Art, which brought instruments from every continent together in a single timeline to show how music traverses different cultures, religions, and symbolic systems, generating continual intersections. The Musée de la Musique situates itself along this line of thought, going beyond traditional separations between European and non-European collections and building a hybrid narrative in which western traditions are constantly intersected by materials, practices, and references from other world cultures.
To effectively translate these conditions, the refurbished display spaces introduce a dozen *crossroads*, display cases scattered over different points in a timeline. These devices function as zones of contact between images, materials, and instruments from Europe and other cultural contexts. They render visible the ramifications between music worlds over the course of centuries and the contribution of African, Asian, and American societies to the history of music as it is understood in the west, by introducing new instrumental forms, unpublished materials, and shared images. Although the museum is founded from a predominantly western collection, it does not present European music traditions as closed-off history. Instead, it is located in wider dynamics of exchange and interaction. Exhibition design adopts a comparative approach, showing how European music was developed within enduring networks of exchange, circulation, and influence. The museum thus unspools a hybrid storytelling, in which western traditions are continually traversed by materials, practices, and references from other cultures across the world.
Particularly revelatory of this orientation is the seventeenth-century-focused *Music and power* section. This exhibition begins by reconstructing European court music from Mantua to Versailles through architectural models, instruments, and repertoires linked to the birth of opera and baroque language as a tool of social distinction and prestige. The museum complements this heavily western-canon-centric storytelling with comparisons to courts in Northern India and the Ottoman Empire, highlighting how ideas around refined music have been central components in different systems for legitimising power. The circulation of precious materials – ivory and ebony, mother of pearl and tortoiseshell – evident as often in European as in Mughal instruments, thus becomes a lens for interpreting and understanding the historic permeability of western instrument making, contextualised within enduring networks of economic, artistic, and cultural exchange.
The climax of the exhibition redesign comes in its last section, titled *Musics and Worlds*[1] (occupying the space of the former *World Musics* section), which signif-

[1] *Des musiques et des mondes.*

icantly updates its discourse on the instrument heritage of Asia, Africa, Oceania, and the Americas. Abandoning a purely geographical or ethnographical arrangement, displays are set up in a way that refocuses grand-scale narratives about music traditions into micro-histories of objects and the people who played, transformed, and circulated them. Instruments thus become access points for individual and collective life events tied to social practices, historic contexts, and imaginaries that remain profoundly interconnected today. This direction becomes most concrete in a series of themed tales that shed light on instruments' transcultural trajectories: from the history of the banjo, which connects Africa with the Americas, to the planet-wide spread of the Hawaiian guitar and the diasporic journeys of Gnawa musicians and west-African Griots.

The museum's mediation strategies hinge strongly on listening. A notably elevated percentage of instruments can be 'brought into play' through a smartphone-accessible video guide that provides music recordings alongside deep dives about historic and cultural content. In addition to this, musicians are in the museum every day, giving short performances that relate to information presented in particular exhibition areas.

The Museum of Music complements the happenings in its display spaces with structured educational and cultural programming, made possible by the museum's location inside the Philharmonie de Paris complex. The museum functions as a platform for active mediation, developing animated visits, workshops for children and adults, exhibition experiences for schools, events with musicians, and programmes for families. The museum is in constant conversation with the Philharmonie's programming, reinforcing its role as one node in a wider ecosystem where learning about instruments, playing music, and listening live are woven into a single cohesive experience.

*L.D.*

## Musical Instrument Museum

**Staatliches Institut für Musikforschung – Musikinstrumenten-Museum Berlin**
Ben-Gurion-Straße 1, Berlin, Germany

The Musikinstrumenten-Museum Berlin is one of Europe's leading musical instrument museums. It forms the exhibition section of the State Institute for Music Research (Staatliches Institut für Musikforschung - SIM). This body, in turn, regulates the Prussian Cultural Heritage Foundation (Stiftung Preußischer Kulturbesitz – SPK), which was instituted on the 25th of July 1957 by federal law with the task of preserving and enhancing the cultural legacy of the former State of Prussia. The foundation is led by the Berlin State Library, Berlin State Museums, Prussian Privy State Archives, Ibero-American Institute, and State Institute for Music Research.
The museum is located in the Kulturforum, a large museum hub developed in West Berlin after World War II, next to the Philharmonie designed by Hans Scharoun (1963) and the Neue Nationalgalerie designed by Mies van der Rohe (1968). The Musikinstrumenten-Museum was designed by Edgar Wisniewski, Scharoun's collaborator, and inaugurated in 1984.
The museum's mission pivots around conservation, science, and education: in addition to collecting, preserving, and restoring instruments, the institution produces musicological research activities, publications, demonstrative concerts, and didactic programmes. Its exhibition dimensions are thus inseparable from its academic dimensions.
Its collection is firmly anchored in an old Prussian musical instrument collection which was gradually expanded from its nineteenth-century beginnings via state acquisitions, private donations, and historic holding absorption.
The museum itself dates back to 1888, when musicologist Philipp Spitta (1841-1894) and violinist Joseph Joachim (1831-1907) founded the Sammlung alter Musikinstrumente ("Collection of Historic Musical Instruments") at the Königliche Akademische Hochschule in Berlin. Its core was initially 34 instruments from the Museum of Decorative Arts, mostly belonging to the Preußische Kunstkammer ("Prussian Cabinet of Curiosities"). To this the pair added 240 instruments

purchased from Leipzig businessman and music publisher Paul de Wit[1] (1852-1925). Partially destroyed during World War II, the collection was put back together and expanded in the post-war period, growing to become one of Europe's most extended organological patrimonies.

Today the museum conserves approximately 3,500 musical instruments, of which approximately 800 are on public display. Added to these are archival holdings, models, mechanised appliances, and iconographic materials. These materials span the sixteenth to twentieth centuries, with particular strength in European instrument sections.

Some of the museum's more valuable holdings are: its Naumburg wind instrument collection (documenting almost all the instrument makers at a central-German piffero workshop circa 1600), early-period harpsichords and spinets (among which feature some from Ruckers' workshop), and the harpsichord traditionally linked to Johann Sebastian Bach. Also on display are bowed string instruments by Stradivari, Gagliano, and Stainer; wind instruments by Hotteterre, Denner, and Quantz; Queen Sophie-Charlotte of Prussia's portable harpsichord; Frederick II's flutes; Carl Maria von Weber's fortepiano; an English church organ from John Gray's workshop; and the largest cinema and theatre organ on the European continent: the four-manual "Mighty Wurlitzer" (with pipes, percussions, and sound-effects), regularly used in concerts.

The exhibition is organised by type and history: in other words, instrument families and time periods. Extensive range is given to keyboard instruments, including harpsichords, clavichords, fortepianos, and historical pianofortes. Its wind instrument section, which documents the orchestra's technical evolution from the Baroque to the Romantic Era, is also notable.

Exhibitions integrate traditional organological presentation approaches with several technical mediation devices. Learning stations illustrate violin-making stages, for example, rendering its materials, assemblage techniques, and acoustic principles legible.

Most instruments are arranged by technique, ordered by type in a way that privileges comparative legibility. Large-sized instruments are instead displayed freely in the space. Each object is paired with a short identifying caption specifying bare essentials.

[1] It is worth noting that Paul de Wit is the same man who originated the Leipzig Museum: after selling part of his collection to Berlin, he opened his own private museum in Leipzig, but gave it over in 1905 to Wilhelm Heyer – thus disposing of the foundations of what would become the Museum of Musical Instruments of Leipzig University (for more on this, refer to the corresponding profile in this volume). A single collector has therefore made a decisive contribution to the creation of Germany's two main musical instrument museums.

Although this experience hinges strongly on musical instruments, some paintings and iconographic materials are also present and help contextualise music practices and production environments.
Exhibitions surround a great hall with doubly high ceilings, zenithally lit by skylights. A path around the perimeters of the upper floor faces onto this principal room, allowing majestic instruments to be viewed from high up and reinforcing a volumetric perception of togetherness.
The display spaces end with a section about modern updates to music production, where synthesisers, electronic keyboards, and electric drums find their place. A particularly critical feature is live sound performances: several instruments are regularly played in concerts, guided visits, and presentations, recentring acoustics in the museum experience.
The Musical Instrument Museum's ties with the Staatliches Institut für Musikforschung guarantee strong scientific activity. The museum has at its disposal specialised restoration labs, archives, libraries, and temperature-controlled storage rooms, and it constructs cataloguing programmes, organological research, and international collaborations.

*L.D.*

# Museum of Musical Instruments of Leipzig University

**Musikinstrumentenmuseum der Universität Leipzig**
Johannisplatz 5-11, Leipzig, Germany

The Museum of Musical Instruments of the University of Leipzig is a public academic museum, part and parcel of the university and housed in the GRASSI Museum building complex along with the Ethnography Museum and Applied Arts Museum. It is Germany's largest musical instrument museum. Its collection includes almost 5,000 European and non-European musical instruments, an iconographic collection, and a historic recordings collection that contains approximately 3,500 reels for automatic pianos as well as numerous phonographs. The museum's permanent exhibition has thirteen sections organised by theme and by timeline. Its systematic collection of world instruments – the Studiensammlung, inaugurated in 2008 – can be visited separately in the Henri-Hinrichsen-Saal.
The museum's origins date back to 1886, when Dutchman Paul de Wit (1852-1925)[1] opened a private museum of historic instruments in Leipzig. In 1905, after fruitless negotiations for its transfer to the city, he sold his collection to Cologne paper-maker Wilhelm Heyer (1849–1913), who augmented it with the collections of Florentine Baron Alessandro Kraus and piano-producer Rudolph Ibach di Barmen and opened the Musikhistorisches Museum Wilhelm Heyer in 1913 in Cologne. At Heyer's death, his heirs put the collection up for sale. It was music editor Henri Hinrichsen of C.F. Peters publishing who, together with the State of Saxony, financed the acquisition of the entire collection by the University of Leipzig in 1926. The museum opened on the 30th of May 1929, in the GRASSI Museum's new northern hall. The Studiensammlung room now bears the name Hinrichsen, and a plaque informs visitors of the tragic fate of the man who made the museum's creation possible: he was deported and killed in Auschwitz in 1942.

[1] As mentioned in this volume's Musikinstrumenten-Museum of Berlin profile, Paul de Wit is a central figure in the creation of both museums.

World War II inflicted devastating damage upon the museum. The night of the 3rd of December 1943, an air raid destroyed its building: the archive, library, and historic Ibach piano collection were all lost – including an extremely rare Ibachord, a metal-framed concert harpsichord which was the only extant example in the world. The collection, preventatively evacuated, suffered further losses from theft and bad conservation. In the 1950s, the process of rebuilding began, and the museum was systematically augmented with new acquisitions. Items from the De Wit, Heyer, Kraus, and Ibach collections survived and are on display today.

The museum's permanent exhibition is titled *In Search of the Perfect Sound* and gives an overview of European music history from the second half of the sixteenth century to the present day, with particular attention to music traditions in Leipzig. The thirteen themed sections include: the German Renaissance; a section for Heinrich Schütz; one for Bartolomeo Cristofori and Medici-court string instrument production; one for Bach; the Zimeliensaal (Treasure Room) for the collection's most valuable instruments; a nineteenth-century music section; Stein & Streicher piano manufacturing; Romanticism; Saxony as a great supplier of music and instruments; automatic instruments; and a last section about ancient instruments' twentieth-century return. All these display spaces are enriched by a new-generation, 3D audio system that plays visitors different music in different rooms, with no need for individual headphones. The Klanglabor (sound laboratory) allows visitors to play some instruments directly. The Studiensammlung in the Henri-Hinrichsen-Saal holds a systematically ordered world instrument collection, organised in accordance with the Hornbostel-Sachs classification and accessible to wider audiences, beyond the university's students and researchers.

From a museographical perspective, exhibition design is sober and rigorous, their spaces modern and neutral. Instruments are displayed predominately in large windows with detailed captions.

The most singular piece in the museum's entire collection is Bartolomeo Cristofori's 1726 fortepiano. Three of Cristofori's[2] pianofortes survive to today: the oldest is preserved at the Met in New York (1720), another in Rome's Museum of Musical Instruments, and the third has been in Leipzig University's Museum of Musical Instruments since 1726. Further significant pieces include three sixteenth-century clavichords; a broad selection of Saxon keyboard instruments dating to Bach's time; a collection of approximately 150 accordions and similar instruments produced in Saxon Vogtland; and a section of historic recording instruments.

[2] Cristofori (1655–1732), lutist at the court of Grand Duke Ferdinando de' Medici, invented the pianoforte: his instrument, which enabled volume variation for the first time ever through the workings of pressure keys, revolutionised western music history.

The museum's location in the GRASSI complex, around the corner from the Opera and Gewandhaus – one of Germany's most famous concert halls – situates it at the heart of Leipzig's music quarter. The Bach-Archiv, Mendelssohn-Haus, and Schumann-Haus are just around the corner. Leipzig is one of the cities with the highest density of music institutions in the world, and the university's museum is its organological and scientific hub. As an academic institution, the museum is structured not to neglect didactic functions. The international musical instrument museum landscape, this institution distinguishes itself for the outstanding quality of its keyboard section and for its unquenchable bonds between its own collection, its academic research, and the city's music life.

*L.D.*

# Hamamatsu Museum of Musical Instruments

**浜松市楽器博物館,**
**Hamamatsu Gakki Hakubutsukan**
Chu-o, Naka-ku, Hamamatsu-City,
Shizuoka Prefecture, Japan

The Hamamatsu Museum of Musical Instruments opened to the public in 1995, but its genesis should be read within a wider cultural strategy launched by the city of Hamamatsu as early as 1981, known as the "Creation of a City of Music." The museum, a municipally-owned public institution, was founded by, and is still managed today by, the city of Hamamatsu, one thread in the wider urban political fabric that makes up the territory's music and industry identity.

Indeed, Hamamatsu, in the Japanese prefecture of Shizuoka, is the place where two of the world's most important musical instrument makers originated: Yamaha and Kawai. The city's industrial history began in 1887, when Torakusu Yamaha, a medical appliance technician and repairer, fixed an American-made pipe organ in a local elementary school. Organ-making took wing from this episode, and in 1889 Yamaha founded the workshop that would become the Yamaha Corporation. In 1900, the first piano to be made in Japan was produced. Koichi Kawai, who trained under Yamaha, would aid in developing piano mechanisms before founding, in 1927, the Kawai Musical Instrument Research Laboratory.

After World War II, Hamamatsu saw manifold other acoustic and electric instrument makers come into being from these foundations and consolidate an ecosystem globally unique for its density, proficiency, and continuity of production.

This is the context within which the Hamamatsu Museum took up functions attuned not only to conservation but to identity and to culture. Protecting, studying, and exhibiting musical instruments means reflecting upon Hamamatsu's identity as a city of music within a fitting international contextualisation.

The museum feels like a musical journey around the world, with approximately 1,500[1] instruments from different continents, organised by type, geographical

[1] The museum's overall collection contains approximately 3,300 musical instruments, of which circa 1,300–1,500 are consistently exhibited.

area, and historic period. This finds expression in sections corresponding to Asia, the Americas, Oceania, Japan, Europe, European keyboard instruments, western keyboard instruments created in Japan, and electronics. Display spaces spread over the ground floor and basement.

The museum leveraged its March 2006 redecoration to clarify and reinforce its intent to present the world's musical instruments non-hierarchically, avoiding dividing 'art music' from 'pop music' and privileging a comparative, anthropological approach.

Instruments, particularly in the European section, are presented in alignment with the Sachs–Hornbostel[2] classification system, which organises instruments by the principle of their sound production (with subsequent formulations for style, date, form, and function).

A meaningful museological detail is the choice, applied to almost every piece exhibited, to display instruments outside glass cases, permitting materials, finishings, dimensions, and construction details to be directly observed. Listening is an integral dimension of the project's communication: over 100 examples of sounds are accessible through individual headphones or directional speakers, around 30 videos illustrate contexts of use and music practices, and a personal audioguide system offers in-depth information about circa 80 instruments.

Exhibition design is characterised, too, by an intentional accumulation of instruments, which are presented in large quantities, side by side, without explicit hierarchies. Captions are reduced to essential information and only rarely are instruments placed in relation to other contextual objects, such as works of art or documentary materials.

A central role in this museological project is played by its hands-on room, one of the museum's greatest strengths. Here, visitors can play instruments from all over the world – from African drums like the *djembe* to central-Asian instruments like the Mongolian *morin khuur*, the *koto*, the spinet, and instruments with historic keyboards. The museum, furthermore, provides visitors with instructions and scores, encouraging an active, conscious approach to practicing music. This direct experience is not an accessory to but a fundamental element of the museum's identity, concretely translating its *see, hear, and touch* principle.

The museum additionally hosts concert lessons, live performances and salon concerts even outside its normal operating hours. The concerts, performed with

[2] The Sachs–Hornbostel classification:

- Aerophones, such as the pipe organ or oboe, which produce sound via air-column vibrations.
- Chordophones, such as the pianoforte or string instruments, in which sound is generated by string vibrations.
- Idiophones, such as the xylophone or cymbals, which produce sound through their own bodies' vibrations.
- Membranophones, such as drums and tambourines, in which sound is generated by a membrane's vibrations.
- Electrophones, such as synthesisers, electronic or theremins, which produce sound via electronic processes.

historic instruments from the collection, are recorded and published as CDs as the *Hamamatsu City Musical Instrument Museum Collection Series* and used in pedagogical contexts. Particularly crucial is the primary school Satellite Museums program: small travelling exhibitions and educational workshops designed to bring the world's music cultures to children, a further extension of the museum's operations beyond their walls.

The Hamamatsu Museum performs a crucial training role, too, hosting academic interns, teaching programmes, orientation experiences for middle-school students, and professional development activities. Great attention is paid to preventative conservation. Instruments are regularly monitored to prevent infestations, mould, warping, or structural deterioration, and cleaning, maintenance, and specific treatments form part of the museum's systematic conservation programme. Lastly, each year, two or three short-term exhibitions are organised which deep-dive into specific themes related to the collection.

The Hamamatsu Museum of Musical Instruments is remarkable for its strong gearing towards direct experience and its large-scale comparative approach. It has opted to present a huge number of instruments with equal dignity and minimal textual mediation, privileging music objects' visual and – critically – sonic impact.

*At the time of this paper's writing, the museum is closed for renovation (December 2025 / July 2026).*

*L.D.*

## Museum of Musical Instruments

Castello Sforzesco, Piazza Castello,
Milan, Italy

The Museo degli Strumenti Musicali del Castello Sforzesco is located on the first floor of the Rocchetta – the oldest and best-conserved court in the Sforza Castle complex. This museum is a prime example of a collection thrown into motion by an act of private patronage and gradually consolidated by successive donations and public purchases.

Its holdings trace their origins to the possessions of Cremasco master Natale Gallini, which were purchased by Milan's government in 1958. The collection was initially kept in the Palazzo Morando, a location that soon revealed itself to be unsuitable as housing for all the heritage objects. In 1963, it was definitively transferred to the Rocchetta in Sforza Castle, where it was permanently arranged in fittings designed by Studio BBPR (Banfi, Belgiojoso, Peressutti, Rogers). which incidentally also worked on Milan's famous Torre Velasca (1956–1958). The collection was further broadened in 2000 – after a donation by Antonio Monzino brought the museum approximately eighty instruments produced by Milanese instrument makers between the seventeenth and twentieth centuries – and in 2008 with the addition of equipment from Italy's public national broadcaster RAI.

The museum is managed by Milan's government as part of the Castle's art collections. Its heritage holdings boast approximately 900 musical instruments from European and non-European traditions, from the sixteenth to the twentieth centuries. Its five exhibition rooms (34 to 38) are organised by type: bowed string instruments, plucked string instruments, wind instruments, and keyboard instruments. There is one section for the Monzino Collection, instruments produced by a Milanese luthier family. Another section contains a reconstruction of RAI's Studio di Fonologia Musicale, which was instituted in 1955 in its Milan location in the Corso Sempione at the initiative of Luciano Berio and Bruno Maderna, and active until 1983. The studio was frequented by composers such as Luigi Nono, John Cage, and Henri Pousseur, and is today the only remaining material testament to the experiments of that moment in time.

Among the collection's masterpieces are a double virginal by Flemish Joannes Ruckers (c. 1600), a viola by Giovanni Grancino (1662), a rare violin attributed to Andrea Guarneri (Cremona, c. 1650), a Bressan flûte d'amour, and a Giovanni Maria Anciuti oboe. Beside these pieces of exceptional organological value, the collection includes instruments from China, Japan, and Africa, in addition to a variety of harps, pochettes, hurdy-gurdies, and stick flutes that attest to the richness and variety of Europe's instrument production between the seventeenth and nineteenth centuries.

The museum's current exhibition design is substantially unchanged from its original early-1970s Studio BBPR development. Characteristically, it is a sober environment with instruments suspended inside display cases to permit visitors a close-up, 360-degree view of exhibited objects. The Rocchetta's rooms, light-filled and narrow, imbue the visitor's journey with a snug atmosphere, favouring attentive and concentrated engagements with heritage.

The museum complements its permanent displays with a learning activity programme aimed at schools and the general public. A virtual tour of the galleries is additionally available, its extra information accessible by QR code.

In the Italian music museum landscape, this institution is an essential point of reference for understanding Lombardy's luthier tradition and the history of musical instruments from the early modern period to the twentieth century.

*M.N.*

## Santa Cecilia Organ Museum

Corso Diaz, 28, Massa Marittima, Italy

The Museo degli Organi Santa Cecilia is located in the former church of San Pietro all'Orto, in the historic centre of Massa Marittima, a city in the province of Grosseto. The building, which dates to 1197, is the oldest church in the city and was gradually abandoned after an adjacent church, Sant'Agostino, was constructed. A renovation for the museum restored the building's architectural clarity and restored medieval fresco fragments (some of which Giorgio Vasari attributes to Ambrogio Lorenzetti) to the light of day.

The museum (named after the patron saint of music) was created in 2002 with the creation of the Fondazione Museo Santa Cecilia at the initiative of Lorenzo Ronzoni, a teacher and collector from Modena who moved to Massa Marittima. Ronzoni personally oversaw the building's restoration, and installed his own collection of historic keyboard musical instruments, opening the museum to the public in June 2003. The Foundation, which is non-profit, pursues the objective of understanding and promoting keyboard instruments (organs and fortepianos), particularly those produced in Italy between the seventeenth and nineteenth centuries. Ronzino has stayed on through the years as the institution's director and principal animator.

Exhibitions trace the evolution of keyboard instruments in terms of technology, style, and taste, from the seventeenth century to the early twentieth. The collection's vital heart consists of twelve Italian-made mechanical organs. Some of the oldest examples are a seventeenth-century organ of the Emilian School, an Umbrian organ of the same period, Liberatore Pallotti's Molisan organ, and Carlo Traeri's rare 1686 portative organ. Notable among the eighteenth-century instruments are Agostino Traeri's 1756 positive organ, Domenico Mancini's 1742 Neapolitan organ, a 1746 positive organ of the Emilian School, and Gaetano Platania's 1771 large Sicilian organ.

One of the museum's sections portrays the evolution of the piano through history, a visit path that runs parallel to the organ section deals just as much with

transformations in music taste and construction techniques. Notable presences here are a late-seventeenth-century, two-register Italian harpsichord and a mid-eighteenth-century Parisian Sounier hurdy-gurdy. Completing the collection are a series of seventeenth- to twentieth-century etchings, lithographs, and music prints, and a Roman antiphony published in Venice by Nicola Pezzana in 1718.

From a design perspective, instruments are presented inside the museum's medieval church spaces with no standardised exhibition supports. Organs and pianos are arranged to occupy the nave and side spaces in a way that prioritises their physical dimensions and scenic presence, restoring a sense of the mood in the liturgical and domestic settings for which they were created. The absence of any rigid barrier between visitor and object is a conscious choice, and the museum offers musicians the chance to practice on some of the restored instruments on display.

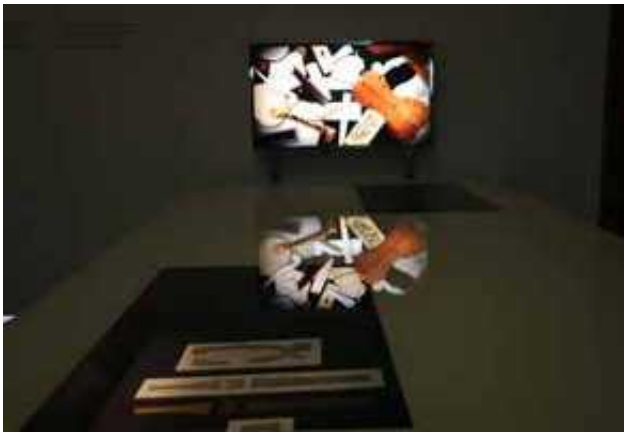
The museum's architecture contributes in serious measure to the quality of its experience. In particular, the church location restores seventeenth- and eighteenth-century organs with their original sense as objects of liturgy, as well as being objects of artistry and craftsmanship.

The Santa Cecilia Organ Museum is configured atypically for Italian music museums: a small-scale, highly specialised institution created at the initiative of a single collector and wholly founded on his direct abilities. Ronzoni had the know-how to transform a private passion into publicly accessible heritage, selecting as its location a historic space of rare architectural value.

*L.D.*

## Violin Museum

Piazza Guglielmo Marconi 5, Cremona, Italy



Cremona's Violin Museum is managed by the Fondazione Museo del Violino Antonio Stradivari and was instituted by Cremona's government, with the support of the Lombardy region. It is located in the twentieth-century Palazzo dell'Arte building in Piazza Marconi, which was completely restored through funding by sponsor Giovanni Arvedi, finalised to its current configuration on the 14th of September 2013. The museum unites within its overarching structure: a permanent display, the Auditorium Giovanni Arvedi, and scientific laboratories. Its collection spans over 700 of Stradivari's items (forms, models, designs, tools from his workshop), 10 instruments in "The Treasure Chest" and a modern violin-making collection.

The museum dates back to 1894, when Giovanni Battista Cerani gave the city of Cremona a suite of musical instruments and models belonging to great Cremonese luthiers such as Antonio Stradivari. This brought into being the Museo Stradivariano, which was enriched over time with the extraordinary collection of Count Ignazio Alessandro Cozio of Salabue – one of the first great historians of Italian violin-making, who had purchased all that remained of Stradivari's workshop – and Bolognese luthier Giuseppe Fiorini's 1930 donation of the entire Cozio collection, which he had bought in 1920 with the idea of founding a violin-making school. When he was unsuccessful, he decided instead to make a gift to the civic museum.

The museum was created and operates within a unique context. Cremona is famous internationally for being the capital city of violin-making: over 140 luthier workshops still enliven the Cremona today, and in 2012 the Cremonese artisanal tradition of violins joined the list as UNESCO intangible cultural heritage. The Museum of the Violin inhabits this continuum as more than a place of celebration: a space of interpretation. Instruments, materials, and techniques are read as outcomes of cultural, social, and productive practices that are still alive today. Every year, Cremona's International School of Violin Making trains young artisans from across the world, in close collaboration with the museum and its research laboratories.

Exhibitions take the visitor from the violin's beginnings and creation of the Cremonese school all the way to contemporary expressions of violin-making. These stories are told through specifically-themed rooms, with a logic that privileges gradual narrative construction and summaries. A central role is played by "The Treasure Chest," which houses the ten most important instruments in the great Cremonese school of violin-making: from the oldest – Andrea Amati's 1566 Carlo IX violin – to Antonio Stradivari's 1715 "Il Cremonese" violin, considered to be one of the best ever constructed, and Simone Fernando Sacconi's 1941 violin. The "Friends of Stradivari" room permanently displays instruments by the great Cremonese masters, which have been gathered from public and private collections across the world. The section containing Stradivari pieces allows the gaze to be shifted from an object to its process of construction, making the technical and intellectual complexity legible that enables quality of sound. The modern age is documented by twenty-one instruments crafted by Cremonese luthiers between 1777 and 1941. Contemporary violin-making is represented by the instruments that won Cremona's Concorso Triennale Internazionale, an international competition instituted in 1976 that is considered "the Olympics of violin-making." These are displayed in a permanent section.

Museographically, the Museum of the Violin's communication style hinges on concise, universally comprehensible language aimed at diverse audiences without assuming preexisting understandings. Texts, audio clips, and videos are adjusted according to their means and conditions of use, and displays with additional deep-dives are kept separate to avoid weighing down the main reading. The museum's multimedia project (developed by Crema's StudioBase2) does not try to theatricalise, but to elicit intellectual curiosity and support understanding. Sense of hearing is a unifying element in exhibitions: visitors experience sound in a targeted, selective way, as an interpretive instrument rather than simply as immersive effect. Display space design is deliberately sedate, engendering an atmosphere of respect and attention where light, distance, and silence lay the groundwork for listening to be the peak moment in the experience. This is evident right from the introductory room, where a complex narrative device connects the modern-day piazza to its layers of history, using projections, sound localisation, and directing that consciously employs theatrical references so as to engage visitors without taking the place of historic content.

A distinctive aspect of the museum is the way it structurally integrates exhibition with performance. An integral component of the museum project is the Giovanni Arvedi Auditorium in the Palazzo dell'Arte's great hall, whose acoustic and architectural quality received an award from the Associazione per il Disegno Industriale (Industrial Design Association, ADI). Each weekend, at noon, historic instruments from the collection – including Stradivari's violins – are entrusted to expert performers for public auditions. Additionally, inside the

museum, two high-level science labs are in operation: the University of Pavia's non-invasive diagnostic laboratory and the Politecnico di Milano's acoustics laboratory, which study instruments' materials, varnishes, and states of conservation, putting the museum in direct dialogue with contemporary violin-making and international research.

Cremona's Violin Museum is one of the most successful European examples of monographical museums that centre on a particular type of musical instrument.

*M.N.*

## International Museum and Library of Music

Strada Maggiore, 34, Bologna, Italy

The Museo Internazionale e Biblioteca della Musica is a civic institution in the city of Bologna and part of its Settore Musei Civici. Its location is the Palazzo Sanguinetti, a renaissance-era building donated to the city in 1986 by its final heir, Eleonora Sanguinetti, in memory of her father Guido. The building's restoration, undertaken by Panstudio (arch. Cesare Mari), was brought to a close in 2004, and the museum opened to the public that year. Display spaces' surface area is approximately 1,200 sq.m., across nine rooms decorated with frescoes by Antonio Basoli and Pelagio. The choice of the Palazzo Sanguinetti relates to the city's desire to reassemble civic music collections, enabling instruments to share a representative space whose majestic details could better enhance them. The restoration retained the noble residence's original room configuration, adapting spaces' functions to exhibiting without replacing their furnishings: for both the building's architectural exterior and decorative interior, state of conservation is excellent.
This museum tells the history of European music in the modern age, with particular attention to Bologna's music heritage. Bologna was honoured in 2006 with the UNESCO Creative Cities title City of Music, a gesture of recognition that valorised a plurisecular tradition: home to the Accademia Filarmonica (1666), the Conservatorio G.B. Martini – one of the oldest in Europe – and a crossroads for figures such as Mozart, Padre Martini, and Rossini. The museum's mission thus becomes dual: conserving, studying, and promoting the city's music heritage, at the same time as recentring Bologna, for the public, as Europe's music capital.
The value of the word *library* in the title International Museum and Library of Music is not ancillary. It reflects the institution's original nature, created by an integration of material heritage and book heritage. The library is, in fact, one of the historic centres upon which the museum is constituted. It was itself founded from collections linked to Bologna's music traditions, which were embedded between the eighteenth and nineteenth centuries through public acquisitions, the concentration of convent assets, and private bequests.

A central figure in the formation of this heritage is Padre Giambattista Martini (1706–1784), a Franciscan friar, theorist, composer, and one of eighteenth-century Europe's most influential music scholars. Chapel-master, educator, and international academy member, Martini was a tireless collector of music sources: over the course of his life, he assembled a specialist library of outstanding breadth, consisting of theoretical treatises, manuscripts, scores, librettos, letter collections, and printed works from all over Europe, used for both his own didactic activities and for drafting his monumental *Storia della musica*.[1] Upon his death, the collection was purchased and absorbed into Bologna's public assets, becoming the generative core of the current Music Library. Further contributions were made to this base in the form of documents left by city institutions, ecclesiastic collections, and donations from musicians and scholars. These were enough to establish a conservation and research centre that fully justifies the double identity of Museum and Library.

Exhibitions are reminiscent of historic museums in their design, traditional glass displays integrated with subtle graphic supports respecting the majesty of the palazzo's ornamentation. Explanatory materials include panels, detailed captions, and iconographic devices, with a balance between scientific deep dives and easily accessible information. Interpretations are mediated predominately via traditional means, with the museum's marginal implementation of multimedia instruments complementing its historical-document-oriented museographical setting.

Visitors work their way through European music history, and information about composers' biographies is interspersed with information about developments in instruments, performance practices, music institutions, and aristocratic commissions. Instruments, archival documents, and pictorial works are in constant dialogue across all the rooms: portraits of musicians; keyboard, string, and wind instruments available between the sixteenth and nineteenth centuries; manuscripts and autograph scores in rotating displays. Instruments are never presented in isolation, but always juxtaposed with sources contextualising their use, commission, and historical background.

Among the pieces of greater significance are: Vito Trasuntino's *omnitonum* harpsichord (1606), the only microtonal instrument in the world; Manfredo Settala (1650)'s armonia di flauti, truly unprecedented in Italian violin-making; and Ottaviano

[1] *Storia della musica*, a monumental work by Giambattista Martini, was published in three volumes in Bologna between 1757 and 1781: vol. I, Bologna, Lelio dalla Volpe, 1757; vol. II, Bologna, Lelio dalla Volpe, 1770; vol. III, Bologna, Lelio dalla Volpe, 1781. Conceived of as a systematic treatment of the origins and development of music from ancient civilisations to the modern age, the work was not completed and breaks off midway through discussion of the ancient world. Based on wide-reaching research from manuscript and printed sources collected by Martini himself, this book represents one of the first European examples of music historiography undertaken with scholarly methods and documentary comparison.

Petrucci's famous Harmonice Musices Odhecaton (Venice, 1501), widely known as the first polyphonic music book printed with moveable type. This last object constitutes a momentous step in the history of music reproduction, and prefigures the birth of the European music publishing market (of which Petrucci was a pioneer, even if his printing methods, expensive and involuted at the time, gave more of a glimpse than a reality of that possibility).

Beside the Museum are the publicly accessible Library and a room for concerts, lessons, and meetings. Cultural activities include concerts, conferences, class cycles, themed guided visits, and concerts using the museum's collections.

The Bologna International Museum and Library of Music possesses a rare quality: it does not divide music heritage into compartments (instruments in one box, books in another) but builds an ecosystem where images, documents, and objects are of reciprocal support to one another. Its strength lives in its precision museology, its ability to draw music out as a historic, social, and material deed.

*L.D.*

## National Museum of Musical Instruments

Piazza Santa Croce in Gerusalemme 9,
Rome, Italy

Among Italian music instrument museums, Rome's Museo Nazionale degli Strumenti Musicali takes a first-row seat: a unique national institution entirely dedicated to its sector, it is also the richest in terms of the number of its pieces and the amplitude of its timeline, with a visitor pathway that stretches from archeological finds to late-twentieth century electric basses.

The museum's origins are fused to the figure of Gennaro Evangelista (Evan) Gorga (1865–1957). In his brief but brilliant career as a tenor, he became best known for being the first to play Rodolfo in Puccini's *La Bohème*, in Turin's Teatro Regio on the 1st of February 1896 under the direction of Arturo Toscanini. Gorga, after retiring from the stage in 1899, dedicated his life systematically and obsessively to collecting. He accumulated more than one hundred and fifty thousand objects in thirty discrete collections – from musical instruments to archaeological finds, toys, and surgical tools – bankrupting himself in the process. His collection publicly debuted in 1911, with 280 instruments on show in Rome's International Exhibition of Art, which celebrated the 50th anniversary of the unification of Italy. Over one thousand exhibits were then mounted in the Museo storico musicale, inaugurated in 1913 in the Castel Sant'Angelo. The tenor, up to his neck in debt by 1929 and attempting to prevent a dispersal of his collections, urged they be administratively repossessed. Between 1931 and 1934, a technical commission conducted an inventory, resulting, in 1948, in a first catalogue. On the 27th of September 1949, the state purchased the lot, undertaking to settle Gorga's debts and remit him a pension. Gorga died in December 1957 without seeing the museum's inauguration.

In 1963, the instruments were relocated to the Palazzina Samoggia, part of the former quarters of the Prince of Piedmont and adjacent to the Basilica of the Holy Cross in Jerusalem. Luisa Cervelli, a pioneer of post-war Italian organology, was appointed by the Ministry of Public Education to oversee its reorganisation. Renovations, begun in 1971, ended with the museum's inauguration on the 27th of March 1974. In 1975, the institution passed under the then-incipient Ministero

per i Beni Culturali e Ambientali (Ministry for Culture), never acquiring autonomy. Cervelli directed the museum until 1984. Her scientific work culminated in a 1994 general collection catalogue, which remains a fundamental research reference today.

Standing out as significant pieces to enter the collection in the 1960s and 1970s are a 1722 Bartolomeo Cristofori piano – one of only three to exist in the world made by the instrument's inventor – and seven sixteenth-century crumhorns made by Joerg Weier, the richest homogeneous set of that type to survive today. The most famous piece is the Barberini Harp, commissioned in 1632–33 by Cardinal Antonio Barberini from manufacturer Geronimo Acciari and carver Giovanni Tubi for the musician Marco Marazzoli. Its column is carved, gilded, and decorated with putti, atlases, and the Cardinal's crest at the same time as being a masterpiece of baroque lutherie: an object whose sonic function and artistic merit are inseparable. Belonging to the same era is Hans Müller's 1537 harpsichord (Leipzig), the oldest surviving German example conserved in an Italian national museum. Figuring among more recent acquisitions are the Pleyel piano from Palazzo Torlonia, Andrea Amati's Il Portoghese violin, a progenitor of Cremonese violin-making (2016–17, dir. Suatoni), and a set of over fifty electric basses owned by Pablo Echaurren, exhibited by the current director Sonia Martone (2026), widening timeline horizons as part of a politics of increasing heritage independent from historic timelines.

Today the museum conserves approximately three thousand instruments spanning more than two thousand years of history. Over eight hundred of these are exhibited in the Palazzina Samoggia, an early-twentieth-century building adjacent to the Basilica of the Holy Cross in Jerusalem. The exhibition has fourteen–fifteen sections formulated in accordance with criteria derived from organology and cultural history: from antiquity to renaissance wind instruments, from organs to basso continuo, from bowed string instruments to harps, from percussion instruments to pianos and electric basses. The museum has also at its disposal an organology library and online scientific catalogue.

On a museological level, this national museum has responded to the issue at the heart of music museums – the relationship between silent objects and sound practices – through initiatives with diverse profiles. These include multimedia audiovisual stations spread throughout display areas and the project *Rediscovered Sounds*, which calls for the restoration of historic instruments and their public performance. In May 2022, the temporary show *Resonance: From the Gorga Collection to the National Museum of Musical Instruments* opened. It was created for visitors during the structure's restoration works, which began after an important section of museum property was alienated, substantially contracting exhibition breathing space. Partially compensating for this reduction was the 2026 opening of a new section, *Synaesthesias From the World*: an ethnographic, inclusive

exploration of ethnic-pop music from all five continents. This was achieved with immersive, interactive technologies linking visits to the instruments with listening-sessions to their sounds. The project falls within the remit of wider redecorations which entail reorganising historic collections.

An overall appraisal returns the image of an institution with well-developed exhibitions and wide time period coverage, effective enough multimedia integration – albeit without reaching the technological thoroughness of comparable European institutions – active storage, a robust scientific tradition, and didactic functions with school programmes and concert activities. Structural issues common to state museums in Italy remain unresolved, however: limited resources, long renewal timelines and a lack of juridical autonomy. The museum's history, from Gorga's assortment to Cervelli's catalogue, illustrates the difficulties as well as the possibilities of a journey from private collection to public institution. This path is never linear, and depends always upon resources and tenacity of the figures guiding it.

*A.Z.*

**Essential Reading List**

Cervelli, L., *La Galleria Armonica. Catalogo del Museo degli Strumenti Musicali di Roma*, Rome, Istituto Poligrafico e Zecca dello Stato – Ministero per i Beni Culturali e Ambientali, 1994.

*Evan Gorga. Il Collezionista*, exhibition catalogue (Rome, Palazzo Altemps, October 2013 – May 2014), Milan, Electa, 2013.

Suatoni, S., *Gli strumenti musicali*, cit., passim.

## Museum of San Colombano. Tagliavini Collection

Via Parigi 5, Bologna, Italy

*Foto di Elettra Bastoni*

The San Colombano complex is today the location of the Tagliavini Collection and other historic, predominately keyboard-based, musical instrument collections. It includes a church, a rectory, and an oratory, erected and reworked in different periods with a layering that runs from its high-medieval establishment all the way to the modern era. The restoration works, conducted between 2006 and 2009 by architects Roberto Scannavini and Francisco Giordano, brought to light a medieval crypt, a thirteenth-century tomb, and a thirteenth-century fresco attributed to Giunta Pisano.

San Colombano is a private museum owned by Bologna's Fondazione Cassa di Risparmio, within the remit of the cultural project *Genus Bononiae*, a broad system of museums whose goal is to recover and enhance historic locations by transforming them into active cultural hubs. The museum was inaugurated on the 21st of June 2010, on the occasion of Europe's Fête de la Musique.

Its exhibitions unfold across a surface area of approximately a thousand square metres, spread between the church and oratory environments and their annexed spaces. The Tagliavini Collection is made up of approximately seventy historic musical instruments. Keyboard instruments predominate – harpsichords, spinets, clavichords, pianos, and three organs – but the collection also includes wind instruments, mechanical instruments, and rare examples of special organological value from the sixteenth to twentieth centuries.

The collection's history begins with the figure of Luigi Ferdinando Tagliavini (Bologna, 1929 – 2017), organist, harpsichordist, musicologist, and composer of international fame, Professor of Musicology at the University of Fribourg (Switzerland) from 1965, and protagonist in the renaissance of interest in historic keyboard repertoires.

The collection began, in 1969, with the purchase of a sixteenth-century spinet in Bologna. On the heels of this came the purchase of a great, three-register harpsichord made by Luccan artisan Giovanni Battista Giusti (1679), with inner paintings

attributed to Giuseppe Zola (1672-1743). To this day it is considered a cornerstone of the collection. Tagliavini ended up gathering a substantial set of historical musical instruments, moved not only by a collector's zeal but a profound scientific drive: learning instruments' histories meant understanding their *authentic voices*, an indispensable condition for historically-informed performances. The collection gradually expanded until it became one of the most important in Europe. In 2006, Tagliavini decided to donate this heritage en masse to the Carisbo Foundation by modal legacy. This constrained the foundation to respect precise clauses about conservation and promotion, obligating them to – among other things – maintain active music programming and guarantee instruments' use for concerts and scientific activities. Through this move, Tagliavini went beyond safeguarding the collection from future dispersion. He protected its deepest identity: that of a collection created to be played, studied, and shared, not just conserved.

Some of the collection's most striking pieces are an extraordinarily rare 1746 Giovanni Ferrini harpsichord-pianoforte,[1] a 1685 harpsichord signed by Mattia de Gand, and several Emilian harpsichords. The museum also houses twenty or so musical instruments from other purchases and donations. Completing the display are several reconstructions of medieval instruments[2] and historic harpsichords,[3] in addition to three very old organs and a Mascioni chest organ.

San Colombano's atmosphere is the fruit of a rare equilibrium between the majesty of architecture and the living presence of music. The first floor of the oratory houses an important fresco cycle on the Passion and Triumph of Christ, painted by Carracci's best students – Albani, Domenichino, Massari, Garbieri, Brizio, and a young Guido Reni – in what art historian Carlo Cesare Malvasia in *Felsina pittrice* labelled a glorious competition in painting.

The museum's interiors, originally designed by Professor Mario Brattella,[4] reflect the complexity of its edifice. Exhibitions unfold across five staggered floors, following the historic buildings' irregular structure. Instruments are grouped on wide, pale-wood daises with retractable wheels. These serve as physical protection, allow performance seating, and can be shifted during concerts. In more recent years, the interior design has been refreshed in order to increase accessibility

[1] This is the only instrument signed by Ferrini to survive to us today intact. Further, it is the oldest instrument conserved with completely functional integration between the harpsichord, plucking, piano, and hammer mechanics, which work together exemplarily and uniquely.

[2] Two portative organs, a clavisymbalum, and a clavichordium.

[3] These reconstructions, the Mattia de Gand and Nicolò Albana harpsichords respectively, were both created by the technician and restorer Graziano Bandini.

[4] Professor of Design at the Bologna's Academy of Fine Arts between 2000 and 2012, the year of his death.

and inclusivity.[5] Exhibition criteria have been redefined, too, in favour of themed rooms. The most important instruments are still in the most prestigious environments – the church and oratory – which are also the only spaces that can facilitate seated audiences.

The museum's most innovative quality resides in its conception as a collection whose instruments are regularly played – a live harmonic gallery, as Tagliavini loved to term it. The project "Sound Heritage No Limits" has been active since 2025, financed by the Ministry of Culture and a PNRR grant. It introduced refreshed explanatory panels, tactile maps, an interactive app, 3D models of instruments, and an expanded keyboard that plays historic instrument sounds – intended particularly for people with impaired vision or hearing.

Topping off San Colombano's cultural project is a specialist library for musicology and organology. It is composed of approximately ten thousand pieces – including texts on organ art, monographs, journals, albums, and concert programmes – donated by the sister[6] of Oscar Mischiati, an organologist and musicologist who has long been active protecting and restoring organ heritage. The museum additionally hosts a restoration lab.

The Museum of San Colombano presents a wholly singular case in the music museum landscape: created through a largely specialist and collectionist trajectory, it nevertheless manages to generate strong visitor engagement through a convergence of factors that would be difficult for other museums to replicate. Its architecture's stratified character – from its high-medieval bones to the oratory's seventeenth-century fresco cycle – is in dialogue with its exceptionally valuable keyboard instrument collection, positioned in the space with great sensibility and a physical proximity rarely conceded to this type of object. To this can be added its performative aspect, which accompanies the public in discovering instruments' technical and artistic dimensions, reinstating the collection's nature as a living organism.

*L.D.*

[5] The redesign was the result of collaboration between Studio Bettini Architetti Associati, the Istituto dei Ciechi Francesco Cavazza, and the architect Fabio Fornasari. It was undertaken as part of a PNRR project discussed at greater length later in this profile.

[6] Marilena Mischiati by donation in 2007.

# Ringve Music Museum

**Ringve Musikkmuseum**
Lade allé 60, Trondheim, Norway

The Ringve Music Museum, founded, 1952, is Norway's national museum for music and musical instruments. It falls under the umbrella of national institution Norsk Musikk Museum (Norwegian Museum of Music) along with Rockheim, Norway's national museum for pop and rock music, which was inaugurated in 2010 and is also located in Trondheim.
The Ringve Music Museum is part of the historic Ringve Farm, on the Lade peninsula just outside Trondheim with a view over the Trondheimsfjord. The complex includes three exhibition areas: the Manor House, the Barn, and a new, recently-built wing in the shape of a golden cube – inspired by musical instruments' sound boxes – which houses short-term exhibitions, a media library, a shared entranceway, a shop, and a cafe. The complex is surrounded by 13 hectares of botanical gardens, managed by the Norwegian University of Science and Technology (NTNU). These include an arboretum, floral maze, renaissance medicinal herb garden, and nineteenth-century English-style garden. The collection counts approximately 2,000 instruments, a hundred or so of which are stored by other museums and privately.
The Ringve Music Museum owes its existence to the extraordinary figure: Victoria Bachke (1896 –1963), a musician, a collector, and the museum's first director. Born into an educated, bourgeois family in Moscow – her father was a senior engineer with the Russian state railway, and three of her siblings became professional musicians – Victoria fled Russia after the 1917 Revolution, joining her sister Valentine in Trondheim. In 1920, she married Christian Anker Bachke (1873–1946), who owned Ringve Farm. The Bachkes began to collect musical instruments together during their trips around Europe. They arranged in their wills to give the farm, with its buildings and furniture and the entire collection, to a public foundation. With the support of the governments of Norway and Trondheim, Victoria made her community project a reality, and the museum opened on the 29th of May 1952. Victoria was its director until her death in 1963. She continued to seek out musical instruments until

her final years: in May 1953, after a nine-week trip to Italy and France, she returned with her suitcases filled with instruments, among which was the famous Versailles Harpsichord, a magnificent eighteenth-century example found in Paris.
The Ringve's exhibitions are formulated across three hubs, each with a very different character to the next. The visit begins in the Manor House, an eighteenth-century edifice original to the Bachke farm whose interior has been restored and decorated to evoke the daily life and music life of the family between 1875 and World War I. After closing for an important restoration, it reopened in June 2018 and hosts guided visits for whose entire duration guides play live music. Visits are held in small groups and included in the price of an entrance ticket. In the Manor House, visitors do not walk among glass cases, but enter the rooms of a lived-in home with the atmosphere of a late-nineteenth-century bourgeois salon. The Barn – converted into an exhibition space that opened in 1999 – is instead fitted out with modern and interactive features in deliberate contrast to the Manor House's domestic character. In the Barn, visitors explore key events in music history: the development of public music activities, nineteenth-century bourgeois chamber music, the invention of the piano, the growth of jazz in the 1920s and 1930s, and the first decades of rock and pop. Lastly, the new, box-shaped wing houses short-term exhibitions and a media library with a view over the botanical gardens.
The collection of circa 2,000 instruments embraces diverse places and times. Among its most precious pieces are a 1612 violin made by the Amati brothers – Hieronymus and Antonius, sons of Andrea Amati and founders of the Cremonese School – along with a viola da gamba from the workshop of Tielke (Hamburg, ~1700) and an Eberle viola d'amore (Prague, 1755). Their keyboard collection includes an anonymous Italian virginal (~1600), eighteenth-century clavichords, a Jacob Kirkman harpsichord (1767), a J. A. Stein fortepiano (1783), and a Conrad Graf fortepiano (1826). The Norwegian section gathers an important set of traditional historic instruments, and the display spaces close out with a 1968 Subharchord synthesiser and a 1952 Gibson Les Paul.
One of the Ringve Music Museum's most distinctive traits is its mediation model: guides play instruments. This choice is not incidental, but a foundational principle inherited straight from Victoria Bachke, who every day would welcome visitors by playing the instruments herself. Today, too, guides are trained musicians performing songs on originally exhibited instruments, telling their stories through sounds. This approach – uncommon among other international museums – transforms visits into performances: an instrument is not a silent object but a living, sounding presence. This salon dimension – a place in which music is practiced, not just conserved – is the most precious bequest the Ringve received from its founder, and the heart of its identity.

*L.D.*

## Museum Speelklok

Steenweg 6, JP Utrecht, Netherlands

Museum Speelklok – whose name literally means “musical clock” – is a private non-profit museum controlled by the Stichting Museum Speelklok, an independent cultural foundation that owns and manages the collections. Created in 1956 as the temporary exhibition *Van Speeldoos tot Pierement* (visited by more than 14,000 people in only eight days), it became a permanent museum in 1958 in the Catharijneconvent complex. In 1984, it found its long-term home in the Buurkerk, a medieval church in Utrecht’s centre, and was officially inaugurated by Queen Beatrix on the 23rd of November 1984. Its current name, Museum Speelklok, was adopted in 2010.

Long before the advent of sound recordings, humans had developed devices capable of producing music independent of a performer’s in-person presence. With the advent of the modern era (and particularly intensely from the eighteenth century onwards), a vast family of mechanical instruments was developed. These were designed to generate sound through systems of automatic activation and control: nailed cylinders, discs, perforated boxes or ribbons, powered by movements of the hand, by mechanisms, or by air. It was mostly between the eighteenth and nineteenth centuries that these instruments experienced extraordinary levels of dissemination. They took on vastly different forms and scales, from music boxes and home-use carillons to hulking automatic organs made for fairs and collective entertainment.

Mechanical musical instruments occupy a central niche in music reproduction prehistory, sharply delineating themselves from late-nineteenth-century sound recording devices. Unlike phonographs or gramophones, mechanical instruments had no need for real-life players to execute their function. The music they made was ‘programmed,’ the result of a score’s mechanical transcription. Performance was not recorded, but produced anew each time by the machine itself. Even from the perspective of timbre, these instruments defined an autonomous sound universe, with an instantly recognisable aesthetic produced by metal plates, reed

pipes, bells, and drums. Their history is not circumscribed to popular entertainment, however: from the eighteenth century mechanical music had attracted the interest of composers such as Händel, Haydn, Mozart, and Beethoven, as well as, in the nineteenth and twentieth centuries, Cherubini, Saint-Saëns, Stravinskij, Casella, and Hindemith. To no small extent, this sphere constituted fertile ground, too, for experiments in the composition of art music.

Mechanical musical instruments are today conserved in several museums and specialised collections across the globe. European points of reference are Sainte-Croix's Musée d'automates et de boîtes à musique and Seewen's Museum für Musikautomaten, both in Switzerland and both connected to strong traditions of mechanical music manufacture, as well as Haute-Savoie's Mechanical Music Museum and the UK's Mechanical Music Museum. Outside Europe, very important collections have merged in institutions like the Morris Museum in Morristown, USA, which contains one of the world's largest mechanical and automaton music collections. Even in Italy, important hubs exist, among which are the Marini Collection of mechanical musical instruments, which is today conserved in the Riola di Vergato and can partially be seen in the Rocchetta Mattei spaces.

In this landscape, Utrecht's Museum Speelklok is a European museum with one of the oldest and strongest traditions for mechanical musical instruments. Its collection includes pieces from different centuries, from tower carillons, street organs, pianolas, musical automatons, noise-making clocks, and large orchestrions, and it focuses on traditions of automation in European seventeenth- to twentieth-century music. Almost all of its instruments are kept in working condition and routinely turned on during guided tours. Its display spaces are organised around a wide nave with high gothic ceilings whose natural acoustic reverberation amplifies the strength of larger instruments' sounds. This is particularly the case in the Main Hall, where orchestrions and street organs are displayed.

The upper-level galleries accommodate, instead, more delicate objects: music boxes, singing bird automatons, and miniature machinery. Notable among the museum's more suggestive environments is its Dance Palace, a dark-walled hall where grand, richly-decorated ballroom organs are displayed to great effect with theatrical lighting and are played. The museum's restoration lab, internationally recognised as a landmark in the sector, can be viewed by the public.

The *Music Machines & Me* project, inaugurated in 2025, is the museum's most critical recent refurbishment. It is a permanent design feature that transforms part of the space into a hybrid museum environment: a workshop, a hands-on area, and a performance space. It was created to place the museum's historic collection in conversation with contemporary learning and sound programming practices, to clarify the principles that power how mechanical music works, showing how sound derives from an interaction between project, mechanism, and movement, even when its execution is entrusted to the machine.

In recent decades, sound museology has faced the challenge of providing access to a heritage that is inherently process- and time-based, rather than relegating visitors – as many museums do – to predominately visual and silent engagement. It is the mechanical musical instrument in particular that poses complex questions around conservation, active functioning, and sound mediation. It is an object designed to execute a function, but whose implementation involves material risks and specialised knowledge. *Music Machines & Me* enters this debate, suggesting an exhibition model that combines physical interaction, digital experimentation, and performance meditation, and interrogates the boundary between musealised object and active sound-making machine.

From a methodological perspective, decoration choices have been based on three conceptual axes. The first is experience-based museology and inquiry-based learning, which engage the visitor as an active subject in knowledge production. The second is sound studies, which conceive of sound as a cultural phenomenon inseparable from the technical devices producing it. The third is maker culture and digital craftsmanship, understood as practices of learning by doing, which ensure continuity between historic music machine artisanry and contemporary computational technologies.

The Speelklok's exhibition space was designed as an open workshop where visitors interact with mechanised and digital devices to put music "in motion," shedding light on the relationship between human movement, mechanics, and the production of sound. Furthermore, the museum's hands-on approach transmits tacit knowledge – associated with motion, listening, and control – that is scarcely able to be communicated by panel texts or audiovisual media.

Visitors are additionally encouraged to build, modify, or program their own music machines, inspired by the models held in the museum. In this sense, heritage is treated not as a static index, but as an operative archive, capable of fomenting applied research processes and creative experimentation.

*M.N.*

## Ashmolean Museum

Beaumont Street, Oxford,
United Kingdom

The Ashmolean is an academic museum belonging to the University of Oxford, recognised as the world's first public academic museum. Its founding dates to 1683, when Elias Ashmole (1617–1692) donated his collection.

Elias Ashmole had acquired his collection from two gardiners: a father and son named John Tradescant. In the employ of the rich Earl of Salsbury, the Tradescants had travelled across parts of the known world, bringing back new and foreign plant cuttings for the Earl's gardens. In the course of their voyages, they acquired a remarkable collection of botanical, geological, and zoological objects in addition to man-made objects.

In 1643, the Tradescants founded a museum themselves, to house their own collection. It was in Lambeth, South London, and it was known as 'The Ark.' A visitor to this original museum commented that "a man might in one daye behold…more curiosities than hee would see if hee spent all his lifetime in Travell." The collection contained treasures such as the 'mantle' (actually a wall hanging) of Powhatan, Pocahontas' father, and the embalmed body of a dodo. The Ashmolean today houses huge collections stretching from archaeology to the applied arts, natural history, and visual arts. The instrument collection is only one component in the larger spectrum of the exhibition complex, but it nevertheless reflects the museum's mission to conserve and present objects that are representative of all corners of human creativity and of the natural world.

The Ashmolean is by law a public academic institution (instituted by Royal Charter) with free entrance. Its neoclassical building on Beaumont Street was designed by Charles Robert Cockerell (1788–1863) and constructed between 1841 and 1845 (it is classified as a Grade I Listed Building). Between 2006 and 2009, the entire museum was renovated by Rick Mather Architects (to the tune of 60 million pounds). It reopened in October 2009 with 39 galleries across four floors: approximately 9,000 sq. m. of exhibition space. The Music and Tapestry Gallery, which houses the music collection, occupies a first-floor room and contains approximately 140 pieces (the Hill Collection).

Despite its limited dimensions, the Ashmolean Museum's musical instrument collection holds exceptional value for the history of instrument making and European music. It was founded in 1939, when brothers Arthur and Alfred Hill of the distinguished London firm of violin-makers and vendors, W.E. Hill & Sons, gifted the museum its first assets: 19 extremely prestigious string instruments, selected to meet the standards of excellent conservation and quality craftsmanship. Further donations followed in 1946 and 1948, and the music room was inaugurated in 1950. This donation included violins, violas, violicellos, guitars, and citterns fabricated by the most renowned Italian, French, and English luthiers.

Among the collection's most illustrious pieces is Antonio Stradivari's 1716 "Messiah" violin, considered one of the world's most important instruments for its state of conservation. This violin remained within the artist's workshop until his death, and then passed through different hands. For many scholars it is considered an ideal example of Stradivari's art. An explicit condition of Hill's donation was that the instrument never be played: it is still in a temperature-controlled display case today and direct physical access is severely limited.

The collection also contains the earliest dated violin, fabricated by Andrea Amati in 1564, as well as violas, violoncellos, and violas da gamba by masters such as Gasparo da Salò and Giovanni Maria da Brescia; intricately decorated baroque guitars (including a Stradivari), and Italian, French, and English seventeenth- and eighteenth-century citterns. Furthermore, bow selvedges made by famous European craftsmen in the eighteenth and nineteenth centuries are on display, documenting the evolution of bow construction and playing techniques. Some of the collection's most special pieces are a rare English virginal by Adam Loosemore (1670), a ceremonial silver trumpet by William Bull (circa 1700), and, last but not least, a double manual harpsichord by James Kirkman (1772).

Modes of exhibition in this themed gallery are aimed at promoting the instruments' artistic elegance as much as their historic context. They are grouped chiefly by type, with windows for each instrument family and sections underlining violin-makers' facility with woodworking, marquetry, and ornamentation. In particular, the guitar displays show finely wrought mother-of-pearl and intricate inlay work, while one of the room's walls displays the process and components involved in making a violin, furnishing the visitor with technical understandings that go beyond aesthetics. Historic tapestries and embroideries are integrated into the furnishings, enriching the visual narrative by evoking European courtly music environments. The room's current look is the result of different successive interior redesigns implemented from 2017 across the entire museum.

The Ashmolean has also launched a digital humanities project creating high-resolution 3D models (with photogrammetry) of its renaissance instruments, facilitating their study and conservation without physical risk to the originals.

*M.N.*

## St Cecilia's Hall Concert Room and Music Museum

Niddry Street, Cowgate, Edinburgh, Scotland, United Kingdom

St Cecilia's Hall, property of the University of Edinburgh, holds the university's musical instrument collection. Identified by the Scottish government as a Recognised Collection of National Significance to Scotland, this museum counts over 6,000 instruments, of which approximately 500 are displayed in its four galleries. The Hall, renovated in 2017 with an investment of 6.5 million pounds financed by the National Lottery Heritage Fund, Edinburgh World Heritage,[1] and private donors, encompasses the four museum galleries, a concert hall, a restoration lab, and a learning room. At the time of this volume's publication, the museum is temporarily closed for improvement works to its thermal insulation and its collection's conservation conditions.[2]

St Cecilia's Hall is the first purpose-built concert hall in Scotland. It was commissioned in 1763 by the Edinburgh Musical Society (founded in 1728) and designed by Scottish architect Robert Mylne, who would later create London's Blackfriars Bridge. The heart of the building is the oval concert hall on its first floor, the *Sypert Concert Room*: a space perfectly proportioned for chamber music, with original eighteenth-century acoustics preserved intact. Cowgate declined after the South Bridge was built in 1787 and musical gatherings shifted to New Town. The Edinburgh Musical Society held its last concert in 1798, dissolving in 1801. The building then went through different uses, until it was purchased by the University of Edinburgh in 1959 to house the historic keyboard instrument collection that organologist Raymond Russell (1922–1964) was donating to the university. It reopened as a museum in 1968, with an inaugural concert by

[1] Edinburgh World Heritage (EWH) is an independent Scottish charity organisation founded in 1999 and dedicated to the conservation, promotion, and enhancement of Edinburgh's historic heritage.

[2] The museum closed in January 2026 and is slated to reopen in July of the same year.

Gustav Leonhardt (1928-2012)[3]. Its current configuration came about with the abovementioned 2017 restoration works.

The University of Edinburgh's collection is among the oldest in the world to have an explicitly educational purpose. It was created in around 1845 by Reid Professor of Music John Donaldson (1789–1865).[4] He bought historical instruments to illustrate their lessons in acoustics, gathering circa 200 items that included 31 Chinese instruments, revealing incredibly early interest in non-European music.

Over time, these nineteenth-century roots were augmented by private donations of extraordinary quality. The abovementioned Russell Collection remains its most famous nucleus. Further donations have been added in more recent years, including the Mirrey Collection – twenty-two historic keyboards donated by Rodger and Lynne Mirrey in 2005 – and the Anne Macaulay Collection, which contains plucked string instruments like lutes, guitars, harps, and citterns. Taken together, these collections make Edinburgh one of the two most complete centres for historic keyboards in the world.

The music museum is divided into four galleries, each with distinct characteristics. The two upper galleries house the keyboard collection: the Binks Gallery introduces the spectrum of instrument types and phenomenon of false attributions, and the 1812 Gallery displays harpsichords as luxury items and status symbols, their lids opened to display decorations and landscapes.

The other two galleries are located on the ground floor. The Wolfson Gallery houses bowed instruments, wind instruments, brass instruments, and percussion instruments, with interactive discovery drawers that open to present touchable objects, playable instruments, and videos about how instruments are made. It also contains unusual juxtapositions: a 1772 William Gibson English guitar has been placed beside a Fender Telecaster two centuries distant in time. Lastly, Laigh Hall explores music as a form of universal communication.

St Cecilia's Hall has modern, clean interiors with coherent visual choices. Harpsichords and keyboard instruments are displayed on open pedestals, creating natural corridors that invite the visitor to move freely between the items, from one to another, following their evolution. Smaller instruments – wind, bowed, percussion, and string instruments – are instead organised in large well-lit glass cases, with captions indicating their date, country of manufacture, and historic and cultural significance. Each room uses different interpretive techniques:

[3] Gustav Leonhardt was a Dutch harpsichordist, pipe organist, and orchestra director.

[4] The title of Reid Professor of Music denotes the University of Edinburgh's music chair, instituted in 1839 by bequeathment of Scotsman General John Reid (1721–1807), who was a general in the British army and an amateur flute-player. He left the university a substantial sum of money with the mandate of founding a chair of music theory and holding a concert in his memory every year – a tradition maintained to this day in the form of the Reid Memorial Concert every 13th of February.

narrative panels; interactive, openable drawers; videos on techniques of construction; and instruments to be played.
The museum offers a free digital guide via Bloomberg Connects, with over 150 instruments with audio clips and more than 50 videos. A restoration lab, visible through glass, allows visitors to observe restoration work being undertaken.
For younger visitors, a specially constructed *Discovery Trail* offers a tactile and play-based approach to the collection.
Among the most exceptional pieces are: a Pascal Taskin 1769 harpsichord; a Ruckers double-manual harpsichord (the only in the world to survive unaltered); a Johann Adolph Hass harpsichord (Hamburg, 1763) made with tortoiseshell, mother of pearl, rosewood, and ivory; and the Bassano family's sixteenth-century violin, which was crafted before violin shapes were standardised.
In an international survey, St Cecilia's Hall occupies a wholly unique position: it is simultaneously a historic concert hall, academic museum, and ongoing workshop with historically informed execution practices, as well as one of the world's most important historic keyboard collections.

*L.D.*

## Horniman Museum and Gardens

100 London Road, Forest Hill, London, United Kingdom


The Horniman Museum and Gardens is a public body independently funded by the British government's Department for Culture, Media and Sport (DCMS), which guarantees its functioning via an annual contribution but leaves its management fully independent. At the same time, it is registered as a charity. Founded in 1901 by Frederick John Horniman, it is situated in Forest Hill, South-East London, inside 16 acres of garden. Its full holdings amount to over 350,000 items, with internationally relevant anthropological collections, natural history collections, and musical instrument collections. The Music Gallery displays over 1,300 instruments, from a total collection of approximately 9,500 musical instruments from 500 different cultural regions.

The museum came into being through Frederick John Horniman (1835–1906), a Victorian tea trader, Liberal member of parliament, and philanthropist. His father, John Horniman, had founded Horniman's Tea Company. Frederick inherited a business that by 1891 had become the biggest tea company in the world. The wealth he accumulated allowed him to indulge his passion for collecting, which had begun around 1860 with items relating to natural history, cultural artefacts, and musical instruments gathered across his myriad travels. His wife Rebekah, exasperated by the invasion of objects into their home, told him: "either the collection goes, or we do." He purchased the adjacent property to create space for his collection. In 1890, Horniman opened this collection to the public as the Surrey House Museum, and it was immediately well attended. In just its first year, it received over 42,000 visitors. It became rapidly over capacity, and in 1898 he commissioned architect Charles Harrison Townsend to design a new building in the Arts and Crafts style that was ultimately inaugurated on the 29th of June 1901. That same year, Frederick formally donated the museum and its gardens to the London County Council as a gift "for the recreation, instruction, and enjoyment" of Londoners. Following Frederick's death in 1906, his son Emslie financed a new wing with library and conference room (also designed by Townsend).

Frederick's 1901 donations constitute the music collection's humble beginnings. It was Otto Samson – the ethnomusicologist named director in 1947 – who scientifically and systematically reconfigured it, implementing a post for ethnomusicology and initiating new, internationally-sought-after acquisitions. That same year, composer Adam Carse donated his collection of 350 wind instruments, which he had collected over decades of research into the history of orchestral instruments. He dedicated the gift to the memory of his son Edward, who was killed in Germany in February of 1945: a plaque in the Music Gallery keeps this gesture alive today. Director David Boston (1965–1993) further expanded the collection through his work in curatorship and support from the Emslie Horniman Scholarship Fund. Today, the collection has Designated Collection status, recognition from the UK government bestowed upon collections of national and international significance.

The Music Gallery is furnished with modern, themed, strongly participation-oriented displays. It contains four sections. "The Ideal Sound" explores how instruments are made and developed across three practical tales: the invention of the English concertina by Charles Wheatstone; Boosey & Hawkes' instrument manufacture style; and the transfer of musical instruments from Africa to the Americas through diaspora. "Listening to Order" groups instruments from all over the world according to the way they produce sound, following the Hornbostel-Sachs classification. It houses the Carse Collection, which traces the evolution of wind instruments from the eighteenth to the twentieth century. "The Rhythms of Life" demonstrates how music accompanies rites of passage in different cultures – from Yoruba ceremonies to weddings in Uzbekistan and funerals in Cameroon. Lastly, "At Home With Music" explores the story of domestic keyboard instruments with over 40 items on permanent loan from the Victoria & Albert Museum. Instruments are displayed by theme in individually illuminated windows next to panels filled with historical and cultural information. Some keyboards have been left open to show their inner workings. The Music Gallery's Hands-on Space allows visitors to touch and play original and replica instruments.

The collection ranges from historical western musical instruments – keyboard instruments, bowed instruments, and string instruments from the renaissance to the 1800s, documented with depth and continuity – to an incredibly broad ethnographical section that embraces many continents and traditions: ritual drums from sub-Saharan Africa, string instruments from central Asia, aerophones from Indigenous American cultures, and idiophones from Oceania.

The Horniman is not a specialised musical instrument museum. It is, instead, an encyclopedic, Victorian museum in which music shares its home with anthropology, natural history, and the environment. This positioning sparks immediate comparison between musical instruments and cultural objects from the same societies

that produced them. Added to this is a particularly interesting museological practice: each new instrument purchased is documented with audio and video recordings of original-context performances – from the museum's recent Indian luthier collections to street bands in Rio de Janeiro – with the result that an item does not arrive at the museum separated from the music it produces nor the community it is played by.

In 2022, the Horniman Museum and Gardens received the prestigious annual Art Fund Museum of the Year prize, awarded by Britain's national charity for art.[1]

*L.D.*

[1] The jury praised their efforts to tackle the climate emergency, collection decolonisation (the Reset Agenda project), and strong bonds with local community, making the museum a model for modern and socially responsible approaches.

## Royal College of Music Museum

Prince Consort Rd, South Kensington, London, United Kingdom

London's Royal College of Music Museum lies in the heart of the South Kensington Museum Quarter, a zone of culture and science nicknamed Albertopolis after receiving funding from Prince Albert in the form of proceeds from the 1851 Great Exhibition. The Royal College of Music complex stands directly across from the Royal Albert Hall (inaugurated 1871), in one of Europe's densest points of cultural melee: a stone's throw away are the Victoria and Albert Museum, Natural History Museum, Science Museum, and the Imperial College London campus.

The museum does not occupy a stand-alone building. It is, rather, an integral component within the building complex of the London conservatoire, founded in 1882, known as the Royal College of Music. The museum's spaces are located in a new wing, completed in 2021 under the extension and upgrade project *More Music*, which almost doubled the edifice's surface area (from approximately 13,000 to 24,000 square metres) after a 40 million pound philanthropic campaign received a 3.6 million pound contribution from the National Lottery Heritage Fund. Entrance to the museum is free.

The Royal College of Music was founded in 1882 and opened in 1883 by Royal Charter, on the initiative of the Prince of Wales (the future Edward VII), who had the aim of creating a national conservatoire that could elevate the level of music training in Britain. The institution opened under the direction of engineer and writer on music Sir George Grove.

The museum's current Prince Consort Road location was inaugurated in 1894 in a building designed by architect Sir Arthur Blomfield. Its construction owed to a donation from industrialist Samson Fox. That same year, too, the museum was created when art dealer George Donaldson donated his musical instrument collection to the conservatoire, laying the foundations for its holdings.

The museum grew through a series of subsequent donations. The first, in 1884, was a collection of instruments from the Indian subcontinent, gifted by Raja Sir Sourindra Mohun Tagore. Donaldson's aforementioned large collection followed in

1894. Successive years' bequests and donations augmented this heritage: Alfred James Hipkins (1826–1903), musicologist and the museum's first honorary curator, willed his instrument collection to the College. The museum was opened to the public in a purpose-built gallery in 1970.

A visceral transformation occurred in the twenty-first century with the abovementioned *More Music* project (2017–2021), which brought about the creation of a new museum designed by London studio ZMMA[1] as well as the reorganisation of its exhibition spaces. The renovated museum today represents one of the United Kingdom's premier historic musical instrument collections.

The museum's display spaces are spread across its two main floors, around a double-height atrium that houses part of the permanent exhibition as well as chamber music concerts played on historic instruments. At the centre of this space hangs an installation by Scottish artist Victoria Morton, commissioned specifically for the museum and intended as a visual interpretation of the moment in which music transforms into performance.

The museum includes a permanent gallery that exhibits a selection of 58 instruments chosen from over 14,000 collection items; a space for short-term exhibitions; the Weston Discovery Centre for family and school education activities; a digital area with tablets furnished to explore the online collection; a musical performance hall; and a bookshop.

The RCM Museum collection spans musical instruments, paintings, manuscripts, printed texts, and documentary materials. Archives and library included, its total heritage holdings surpass 45,000 units. The collection has been recognised by Arts Council England as a Collection, a status reserved for collections of exceptional importance for national cultural heritage. Furthermore, the museum participates in various international digital cataloguing projects, like MIMO (Musical Instruments Museum Online) and MINIM-UK, platforms that make thousands of instruments in European and British collections available online.

The most famous corner of the collection consists of approximately 1,000 musical instruments datable between the late fifteenth and mid-twentieth centuries, many of which are extraordinarily rare. Some are kept in playable condition and used for concerts, research, and educational activities. Among the most important pieces figure a clavicytherium from Ulm (c. 1480), thought to be the oldest surviving keyboard instrument; a Belchior Dias guitar (Lisbon, 1581), the oldest known dated guitar; Alessandro Trasuntino's Venetian harpsichord (1531); and one of the most important English collections of violas da gamba, with instruments made by John Rose, Henry Jaye, Richard Meares, and Barak Norman.

[1] ZMMA is the creator, among other projects, also of the Victoria and Albert Museum galleries *Europe 1600–1815* and V&A Dundee's Scottish Galleries.

The collection additionally includes numerous historic instruments constructed by violin makers such as Giovanni Celestini, Magnus Tieffenbrucker, Joachim Tielke, and Jacob Denner. Beside their organological collection, the museum conserves a collection of over 130 paintings featuring music and musicians.
In recent years, the collection has been enriched, too, by more recent instruments that testify to how far contemporary music culture has evolved. One of these is the 1959 Martin D-18E guitar used by Kurt Cobain in Nirvana's famous 1993 MTV Unplugged performance, which was donated to the museum in 2025.
Exhibition spaces are organised into three themed permanent sections that reflect, in the vision of the museum's curators, the main phases in a musician's creative process.
The first section, "Music is Creation," deals with the advent of a song idea and the composition process. It displays manuscripts, scores, and works of art that evoke music's generative moment, accompanied by audiovisual materials.
The second section, "Music is Craft," takes the angle of craftsmanship. Some of the rarest and most resonant pieces in the collection are shown in this area. A film made in collaboration with the Natural History Museum further deepens the impact of the information in this room about instrument construction.
The third section, "Music is Performance," investigates its theme through individual listening stations that play historical recordings, portraits of musicians, and instruments used in the museum's live concerts. Short-term exhibitions alternate throughout the year.
Functioning alongside these exhibition spaces is the Wolfson Centre in Music & Material Culture, which was inaugurated in 2021 as a centre for research and conservation. Its structure includes temperature-controlled storage for instrument conservation, restoration labs, and spaces for study and academic learning. The centre represents the main point of collection access for scholars, conservators, and students, supporting research and training activities connected to musical instrument history, instrument manufacturing history, and performance practices.

*L.D.*

# Pau Casals Museum

**Museu Pau Casals**
Av. Palfuriana, 67, El Vendrell, Spain

This museum is located in the villa that the great cellist Pablo Casals (1897-1973) used as a holiday home. It sits by the seashore in his native area of Sant Salvador (El Vendrell) in Catalonia. Casals is considered to be a founding figure in modern cello technique. Beyond music, however, he represents an explicit political undertaking against Franco's dictatorship and in support of the Catalan nationalist movement. His famous 1971 speech at the United Nations began with the words "I am a Catalan…". The museum's United Nations hall is one of its most touching spaces, with a recording of his famous 1971 speech and performance of *El Cant dels Ocells* in the UN Secretariat Building.

The museum is managed by the Fundació Pau Casals, instituted by Casals himself along with his wife Marta Montañez with the aim of preserving the villa and its heritage. Since 2020, it has been recognised as a museum of National Interest for the importance of its heritage. Conserved initially as a house museum with original furnishings intact, the museum reopened in June of 2022 with fully updated interior design that fuses the historic sea-facing villa's architectural restoration with modern museum technologies. The result is very effective, maintaining the evocative force wielded by the place itself and by the cellist's furnishings and decoration. It does so by adroitly reconciling these details with multimedia interventions that bolster levels of information as well as levels of emotion. The museum's design respects the architecture of the original house Casals built in 1910. Its rooms conserve furnishings, artworks and original period collections, and personal objects such as concert agendas and travel diaries offer an intimate view of the artist's daily life.

The new design's museographical programme aims at surpassing traditional conceptions of house museums as purely commemorative spaces. An early salient element is its commitment to advanced technologies: multimedia devices, immersive installations, and digital supports accompany the visitor, recounting Pau Casals' life story. This facilitates knowledge not only around

his stature as a musician but also the complexities of his human side, intellectually and politically.

This theatrical role assumed by technology does not function as an end in itself, however, but as a tool for deeper understanding and for mediation, one able to amplify exhibited materials' documentary and emotional value.

A second central axis for the project concerns the way it reinforces a thematic focus upon the figure of Casals as intellectually active – a pacifist and a humanist. The exhibition foregrounds his consistent political and moral activity, which he developed over the course of his exile and which culminated in the public positions he took against Franco's regime. He favoured values of peace, democracy, and freedom for the people. In this sense, the museum's storytelling goes beyond celebrating a virtuoso. It restores a complex portrait in which music, ethics, and civic responsibility intertwine profoundly.

Lastly, particular attention has been paid to themes of accessibility and inclusivity. The museum was redesigned to guarantee its use by people with motor disabilities, and offers special tours for people with visual impairments. This aligns with the humanistic values Casals himself embodied.

The museum's goal is based on a clear-cut vision. At its heart is the desire to transmit Pau Casals' human and musical legacy with a strongly educational vocation, in spirit with the Fundació's management. This arrangement translates as a choice to consistently meld tangible with intangible heritage: personal items, musical instruments, archival documents, and scores are in conversation with audiovisual content and multimedia installations, constructing a story that goes beyond simple heirloom displays. Through these moves, Casals' individual experience gains a universal magnitude. The events of his life become vehicles through which wider themes can be confronted relating to peace, human rights, and civic activity. All of this is integrated organically throughout the museum.

One of the design's most important aspects is its abandonment of chronological narration in favour of a discourse that hinges from two thematic axes: Casals as a musician – a player, a director, a composer, and a maestro – and Casals as a public figure engaged in defending peace and human rights.

The journey through the rooms thus follows the story's progression rather than a timeline. After a first section about the house and the figure of Casals, in which private life and art intersect, the visit concentrates on the "world of the cello," exploring his first musical experiences, his discovery of the instrument, and his critical relationship with Bach's cello suites. Original domestic spaces – the bedroom, dining room, and environments of his daily life – then become locations where the artist's human dimension is deepened. This is evoked, too, through projections and images connected to nature and the landscape. The following section deals with Casals' social activism and wider vision, with multimedia content about his public deeds and international career. The

exhibition pathway ends with a reflection on the musician's universal legacy, through awards, medals, and documents that testify to the enduring impact of his work.

One further aspect of particular significance is represented by the garden. During the summer season this space becomes a place for chamber music concerts, reinforcing the bond between place, the practice of live music, and the artistic inheritance we have received from Pau Casals.

*M.N.*


## Swedish Museum of Performing Arts

**Scenkonstmuseet**
Sibyllegatan 2, Stockholm, Sweden

The Scenkonstmuseet is a Swedish state museum, placed under the protection of Sweden's Ministry of Culture. It is located in Stockholm's Östermalm neighbourhood. Its building, the Kronobageriet (Crown Bakery), is one of the oldest Northern European industrial spaces preserved today, dating to the seventeenth century. Founded in 1899 as the Musikhistoriska museet (Music History Museum, later renamed the Music Museum), it opened to the public in 1901 and gained state museum status in 1932. The Music Museum, Swedish Museum of Performing Arts, and Puppet Museum merged into a single institution in 2010. Its current name, Scenkonstmuseet, was adopted in 2017. Its total heritage holdings comprise approximately 60,000 items, over 6,000 of which are musical instruments.
The Swedish Museum of Performing Arts represents a unique example of transformation from specialist music instrument museum to complex cultural institution. Music, theatre, and dance heritage in Sweden speak to one another, and all within the realm of a single museum experience.
The museum's primary core remains its instrument collection: instruments from different world areas, with attention just as much upon "classics" as upon pop, and electronic instruments not excluded. Its current configuration is oriented toward performing arts, nurturing the collection in the direction of objects and materials connected to theatre and dance. Part of the instrument collection can be consulted online through MIMO (Musical Instrument Museums Online).
The museum's most influential phase can be located between the 1970s and 1980s. It peaked when the museum received the 1981 Council of Europe Museum Prize for a project that seems still ongoing today: beyond basic instruments-on-display approaches, building an education around listening to and understanding the mechanisms of sound. The museum's introductory area themed on "tone" and acoustic phenomena is especially meaningful: an environment in which the visitor can try out their own voice, explore sound waves and resonances, and directly test devices created to render sound projection *verifiable* – not just explicable

– right up to synthesisers and electronic technologies. This arrangement, which takes up sound as a primary phenomenon to investigate (even before 'music' in its historic and stylistic sense) was at the time profoundly innovative. It was decades ahead of trends that are today central in contemporary music museology, as a comparison with House of Music Hungary (2022) and the South Korean Audeum shows. Having crossed this early threshold, the historic and musicological exhibition then leads visitors from the sixteenth century to the present day. Every step is grounded in the principle that instruments are not autonomous objects but the outcomes of social practices.

It is important to specify that the museum that won the 1981 Council of Europe Museum Prize no longer exists in that same form. However, the institution's transformation – set in motion in 2010 and finalised, as mentioned, in 2017, with the adoption of the name Scenkonstmuseet – intensely redefined its identity. The organological, scientific, and didactic arrangements that had made the museum famous gave way to a thematic storytelling centred on performative arts in their totality. Music, theatre, dance, and figurative arts coexist today in exhibition spaces that privilege interactivity and the plane of experience. Indeed, the vast majority of the museum's 6,000 instruments are in storage, with only a selection appearing in the galleries. These do not take centre stage in a themed, organological exhibition. Rather, they are one element among others inside a wider story about the history of performance in Sweden.

Today the museum is integrated within the Statens musikverk, a state agency responsible for the conservation, study, and promotion of Sweden's music, theatre, and performance heritage. It contains five departments: the Scenkonstmuseet, Music and Theatre Library of Sweden (Musik- och Teaterbiblioteket), National Archive for Swedish Folk Music and Jazz Research (Svenskt visarkiv), Caprice Music, and Elektronmusikstudion EMS, a centre for electroacoustic music and sound art. This institutional location positions the museum within a composite public ecosystem. The functions of museums, sound archives, research, and support for contemporary music production organically interlace.

It is at the very centre of this system that the institution's profoundly contemporary nature should be read. The question comprising its theoretical trajectory – "how can the ephemeral nature of the performing arts be preserved?" – represents an issue that is deeply current, in syntony with international debates around the protection of intangible cultural heritage. The museum's mission, "Preserving the art of the moment,"[1] is not a slogan but an operative principle: the conservation

[1] The expression plays upon a paradoxical tension: the performative arts – music, theatre, dance – exist by definition only in the moment in which they are being performed. As soon as a concert, a play, a dance, is over, nothing remains but the memories of those present. The art form is consumed the exact second it is realised.

of performance arts requires an infrastructure that correlates material collections, sound and audiovisual archives, research, documentation, and support for contemporary production.
This mission translates into an extended conception of what constitutes a collection: a gathering together that spans not only objects but also processes, technical knowledge, and document-traced performances. Musical instruments, costumes, props, working materials, memorabilia, and the personal items of artists and actors become substrates across which things can be made intelligible that, by definition, cannot be fully fixed.

*L.D.*

## Swiss Museum of the Organ

**Musée Suisse de l'Orgue**
Route du Grand-St-Bernard 5, Roche VD, Swiss

By the medieval period, canonical residents in the Great St Bernard Pass had littered the access path to their monastery with post houses. These were intended especially for pilgrims. Horses were swapped and nourishment could be had. The post house at Roche, which dates to the fifteenth century and preserves the same form it had in the eighteenth, is today their last witness and is classified as a Historical Monument for Swiss heritage.
In 1983, the idea came about to install the organs of passionate collector Jean-Jacques Gramm (1926-2022) there, thus inaugurating the museum that exists today. The exhibition begins with a life-size reconstruction of the *hydraulis*, an instrument created in Alexandria, Egypt, in 246 BCE and believed to be the oldest ancestor to the organ. At the opposite extreme of this historic account appears, instead, an imposing 1943 Tschanun organ whose 39 registers and approximately 2,700 pipes express neoclassical tastes.
Cropping up between these two extremes is a rich sequence of instruments documenting the evolution of the organ and its cognate forms: a historic Italian organ, a regal, an Emmental house organ, one of the earliest extant pneumatic organs in Switzerland, various harmoniums, a piano-pédalier, large consoles, and exposed instruments created in a way that made internal mechanisms visible. Completing the timeline are imposing organ cases, some as tall as six metres, including the one created in Morges in 1778 by the organ-builder Samson Scherrer (1698–1780).
To this, and for educational purposes, the museum mixes in specially designed devices for hearing and understanding acoustic phenomena. The visit ends with a section on automatic instruments, including mechanical organs, musical clocks, Serinettas, and Barberia organs. All are still functioning without a hitch.
The exhibition is spread over two levels with a usable height of approximately six metres, allowing large-scale instruments to be displayed. This is a strength not to be taken for granted, since monumental artefacts rarely find easy positions in museum contexts.

The introduction of organs to liturgical practices and western culture can be traced to the late ninth century, when the instrument began to be regularly present in churches as an integral element of celebrations. A telling piece of textual evidence is a quote from Pope John VIII who, shortly after his 872 election, asked the Bishop of Freising (Bavaria) "to bring or send a very good organ with a craftsman who can play it well, to instruct in the art of this music." In medieval christian thought, the organ became a symbol for the excellence of liturgical music: a complex but homogenous instrument capable of translating *harmonia mundi* (the harmony of the celestial spheres) into sound. Its mixture stop,[1] compact and indivisible, was created not to accompany singing but to symbolically represent cosmic totality. Its elevated location over the choir bolsters the idea of a sound that "descends from on high." In combination with this symbolic dimension is its extraordinary aesthetic valence: historically, the organ contains within itself an assembly of musical, architectural, sculptural, and pictorial aspects, originating monumental case-choir combinations that visibly and sonically celebrate divine glory. It is from this synthesis of theological, musical, and artistic meanings that the organ wins its statute as *king of instruments* in western liturgical tradition.

Just as the organ occupied elevated and dominant positions in churches, it affirms itself in the museum, too, as a vertical presence. Both seen and heard, it cannot be reduced to a simple window item. This way, visitors are better able to grasp the true nature of "sound architecture" – more a synthesis of further arts than a musical instrument.

The museum is founded upon a strongly participation-oriented management model. This is supported by the Friends' Association of the Swiss Museum of the Organ (MSO), which has been active since 1974 and is today composed of approximately three hundred members.[2] The association holds a pivotal role not only in supporting the Museum Foundation but also in its cultural animation as an institution. Indeed, in addition to the museum's activities, they organise summer concerts, excursions, themed travel, short-term exhibitions, and publishing initiatives. This nexus of relationships between the museum, the foundation, and their community of supporters reinforces the institution's roots in the local area and underlines its social, educational, and musical vocation.

The MSO Association's most recent annual report (2024) confirms the Swiss Museum of the Organ as a highly specialised reality, one that is small in size but nonetheless capable of maintaining lively and expert museum activities. Its annual

[1] A mixture stop (an organ's register and acoustics) is the result of overlap between registers in the Principale family, tuned on the basis of successive harmonic sounds in octaves and fifths. *Definition drawn from the specialist glossary presented on the site www.campanologia.it.*

[2] Data drawn from the association's 2024 annual report, where the total number of 296 members is recorded (264 individuals and 32 juridical entities) at the close of the relevant year.

number of visitors (617) reflects its character as a place that can be experienced only by booking. The museum continues, nevertheless, to wield a meaningful role in the conservation and promotion of organ heritage: its collections have been subject to continual maintenance and restoration works, among which figure the addition of a carillon register to a Radio Lausanne organ, the loan of a 1780 Emmental organ for display, and the purchase of a 1902 polyphonic Debierre organ, testifying to a regular politics of safeguarding, studying, and enriching collections.

*L.D.*

## Centre for Arab and Mediterranean Music (CMAM)

**Centre des Musiques Arabes et Méditerranéennes (CMAM)**
**Palais Ennejma Ezzahra**
Rue du 2 Mars 1934, Sidi Bou Saïd, Tunisia

The Centre des Musiques Arabes et Méditerranéennes is a public, culture-first institution (an EPNA, Établissement Public de l'Action Culturelle) operating under the authority of the Ministry of Culture and Heritage Conservation of the Republic of Tunisia. It was legally instituted and inaugurated in 1991 by presidential order. Its location is the Ennejma Ezzahra Palace in Sidi Bou Saïd, 17 km north of Tunis. The palace was the first classified historic monument in Tunisia after its independence (by a 1989 decree). It has a total surface area of approximately 3,300 sq. m., of which 1,800 are annexed, and is surrounded by a five-hectare park organised across three terraced levels.

The Centre for Arab and Mediterranean Music (CAMM) is located inside the Ennejma Ezzahra ("Star of Venus") Palace, one of the most extraordinary dwellings in the entire Mediterranean for its historic value, aesthetic harmony, and refined architecture. The palace was built by Baron Rodolphe d'Erlanger (1872 – 1932) between 1912 and 1922 with a view all across the Sidi Bou Said promontory. An example of Arab-Islamic architecture with Andalusian influence and Maghreb decorative motifs (reinterpreted with a modernist eye), the building is notable for its abundant combinations of materials and techniques: intricately sculpted stuccos (naqsh hadida), marquetry woodwork, marble columns, zellige mosaics, and painted ceilings, in dialogue with the terraced gardens overhanging the Gulf of Tunis.

Since 1991, this palace has been the home of the CAMM, an institution for the research, conservation, and promotion of Arab and Mediterranean music heritage. The museum's collection has been built up within this framework, organised into a permanent exhibition with four principal rooms in the former servants' quarters. The first, the Ahmad al-Wafi room, contains the largest collection of Tunisian musical instruments: over 250 pieces belonging to the four overarching organological families (aerophones, cordophones, membranophones, and idiophones). Part of the collection since 1992, this room pays particular attention to instruments that are

rare or were in the hands of prominent musicians. The Manoubi Snoussi room displays a selection – approximately 13 – of the Baron's personal instruments. These are Eastern, European, and African, representative of their leading role in the rediscovery and documentation of Arabic music in the first half of the twentieth century.
The collections, formed today from over 2,600 inventoried items, span musical instruments, manuscripts, photos, iconographic documents, painted works, and decorative objects. A significant segment retains direct ties with the Baron's studies, particularly his six-volume *La Musique Arabe*, and his participation in the 1932 Cairo Congress of Arabic Music. Other holdings come from institutional gifts (Egypt, Kuwait, Mauritania, Spain) and a transfer of materials from the former Museum of Popular Arts and Traditions.
Further, the CAMM integrates the Tunisian National Sound Archive, which was instituted in 1994 and is now fundamental for the protection of historic Tunisian recordings, some of which are listed in the UNESCO Memory of the World International Register.
Visiting the CAMM means entering a universe suspended between Mediterranean aesthetics, music memory, and architectural splendour. Interior spaces, enlivened by the play of light across polychromatic ornaments, evoke the Baron's Orientalist ideal that he transformed into personal, cosmopolitan poetics. Each room, retaining its original furnishings, wooden panellings, and segmented ceilings, weaves harmoniously into Tunisian music history. This engenders a visiting experience that is at once evocative and contemplative.
The terraced gardens and sea views contribute to the visitor's feeling of openness and airiness. The whole complex emits a sense of *tarab*, the state of aesthetic ecstasy conceptualised within Arabic music. Here, *tarab* seems to surface impulsively from the meeting of architecture, landscape, and sound.
The permanent exhibition is remarkable for its capacity to integrate instruments, documents, and images in consistent and accessible storylines that respect the complexity of the music contexts represented.
The museum's communication style is focused on simplicity and immediateness, in line with a desire the Baron articulated in his writings: rendering Arabic music comprehensible and accessible to wider audiences. Guided visits of approximately 45 minutes in Arabic, French, and English, often spilling over with background music, are available.
The CAMM is a 'living' museum, an institution that does not limit its efforts to conserving items but brings them to life through dynamic cultural programming. Its strong innovation lies in its ability to marry tangible collections with intangible heritage: regular concerts playing Arab and Mediterranean repertoires, systematically digitalising historic recordings, musicological research activities that nurture an archive in continual growth. The International Music Council (IMC) UNESCO Music Prize awarded to CAMM testifies to this mission's global recognition.

A critical element is its constant enrichment of its collection via documented donations, loans, and purchases, with donors publicly recognised. The choice to embed instruments in the palace's decoration or depict them in wall panels highlights a museographical approach that melds architecture and object, transforming the palace itself into a narrative device.

Recently, restorations made by the Baron's painting atelier allowed the museum's creative dimension to burgeon. This move restores the complex, fascinating vision provided by a baron who was also an artist, patron, and scholar.

The complex includes a restoration lab, creative activity pavilion, and a small cafe and gift shop, managed by a young local organisation. The CAMM is a model for how a historic residence can be transformed into an international centre for music heritage. Its balance between architectural valorisation, scientific rigour, cultural activities, and contemporary event planning tag the museum among the more important realities of the Mediterranean in the field of musicology and music museology.

*M.N.*

# House of Music

**Magyar Zene Háza**
Olof Palme stny. 3, Budapest, Hungary

The House of Music Hungary is a national public institution, entirely financed with public government funds. It represents one of the more critical operations in the Liget Budapest Project's large-scale urban transformations. This project, launched in 2013 to restore the role of the Városliget (the capital's historic City Park area) as cultural precinct and pivotal landscape for the life of the city. The site – which across the centuries garnered institutions such as the Museum of Fine Arts, Budapest Zoo, Municipal Grand Circus, Palace of Art, Vajdahunyad Castle, and famous Széchenyi Medicinal Bath – slowly deteriorated during the second half of the twentieth century. The House of Music, designed by Japanese architect Sou Fujimoto, forms a cornerstone in the current urban transformation process, next to the new Museum of Ethnography (Napur Architect, inaugurated in 2022) and future New National Gallery (designed by studio SANAA, set to open before 2030). Construction began in 2018 and ended with the museum's inauguration on the 23rd of January 2022.

The House of Music is noticeable immediately for its iconic architecture. Its undulating roof covering, drilled in 145 irregular openings, gives the appearance of a vibrating surface suspended above the tips of the park's trees. Its sweeping glass walls eliminate the distinction between interior and exterior, favouring a visibly uniform osmosis: nature does not just surround the building, it passes literally through it. Several centuries-old trees in the Városliget were integrated within this project, and grow through the covering's openings, making the architecture an intrinsic element within the landscape.

Luminous openings take on the function of pools of light, allowing natural light to reach even the basement floor, and transforming the exhibition spaces into environments visibly connected to the surface. The interior spaces are mercurial: airy and open on the ground floor, then cosy and welcoming in the permanent exhibition, where dark tones and low lighting create an almost theatrical mood, devised with immersive installation use in mind.

The museum thus presents itself as a place where architecture, nature, and sound make up a single system of sensory perception.

The edifice takes up approximately 9,000 sq. m., spread across three levels. The ground floor contains welcome points: the ticket office, a bookshop, a large cafe, and two concert halls, the larger of which seats 320 people.[1] The first floor contains a library, as well as a specialised media library, educational spaces, offices, and a creative studio where visitors can try out acoustic and digital instruments. The basement level contains the permanent display area, a space for short-term exhibitions, and the famous Sound Dome, a room in the shape of a half-sphere, equipped with over thirty loudspeakers to generate immersive experiences.

The museum did not come into being as an institution founded from a collection. Indeed, it does not even possess a permanent set of heritage objects. Instead, it builds the stories it tells through multimedia installations and loans, predominately from the nearby Museum of Ethnography. It is thus set up to be a narrative- and experience-based museum that hinges on music history, creativity, and the potential that technologies wield for such expression. Its mission is attuned to bringing heterogeneous audiences to music of wide-ranging genres and traditions. It goes about this with programming that integrates concerts, immersive exhibitions, interactive conferences, and learning activities, paying particular attention to promoting Hungarian music heritage, experimentation, and supporting young artists.

Its permanent exhibition, which covers approximately 1,000 sq. m., tells the story of music in strongly interactive terms. Rather than a sequence of objects to observe, the museum offers the visitor an immersive journey that moves from nature's primordial sounds, across folk traditions, gregorian chants and the invention of notation, the birth of classical music and opera theatres, right up to twentieth-century experiments and the contemporary era.

For the entire experience, the visitor wears a pair of personal headphones integrated in a three-dimensional audio system (USOMO) that work through spatial position sensors: the device live-detects movements and modulates its music, voiceovers, and audio material in accordance, constructing a dynamic individual experience from the relationship between body, space, and sound.

The museum's multimedia installations vary. Some are interactive, with the visitor able to edit visual or sound elements. Others are contemplative, based on immersive video projections or reconstructions. The museum's few physical objects – musical instruments, ethnographic artefacts, documents – are inserted into a set design that privileges evoking cultural contexts over illustrating organological taxonomies.

[1] The acoustics of this main concert hall were designed by Nagata Acoustics, one of the industry's famous Japanese studios.

The permanent display spaces focus, critically, on Hungary's music history, with special attention dedicated to figures such as Liszt, Bartók, and Kodály. These men are presented as protagonists of national culture and points of reference in European music history.
The itinerary ends with a section on the twentieth-century avantgardes and contemporary language, with stations for experimenting with digital sound creation.
Beside the main exhibition, short-term shows occupy a similar-sized space and allow content to be constantly updated.
In 2024, the House of Music recorded 202,156 total visitors:[2] 79,266 to the permanent exhibition, 58,512 to the short-term, 52,409 to the Sound Dome and Creative Sound Space, and 11,969 participants in guided visits and educational programmes. This data highlights the way presence was distributed across the different components offered.
The House of Music represents a case for international study through its combined use of contemporary architecture, immersive technologies, and multimedia storytelling. In a very short time, it has become a new international cultural landmark, not only for its architectural value but for its ability to produce an unusual museum model: no longer collections to conserve, but experiences to generate. In this sense, it represents one of the most interesting contemporary expressions of the music museum, one in which material heritage leaves space for stories to be told, for sound to be produced, and for visitors to be immersed.
In 2025, the House of Music Hungary received the EMA Audience Award, given by the European Museum Academy (EMA) and instituted in 2024 with the support of the A. G. Leventis Foundation in Nicosia (Cyprus) in memory of one of the EMA's founders, Wim van der Weiden[3] (1948–2023). The prize is aimed at promoting museum institutions that can distinguish themselves through quality experiences and visitor engagement.

*L.D.*

[2] Data provided by the Casa della Musica in its candidature for the European Museum Academy's 2025 DASA Award.

[3] Wim van der Weiden was an important figure for European museums and a founder of the European Museum Academy (2009). He was also one of the pioneering creators of the Museon and Naturalis museums. He received high-level appointments in international museum organisations, including presidency of ICOM in the Netherlands and the European Museum of the Year Award. He contributed, too, to the Dutch Museum Pass foundation.

## Metropolitan Museum of Art (MET)

1000 Fifth Avenue, New York City, United States

The musical instrument collection at the Metropolitan Museum of Art in New York is one of the most complete and prestigious in the world. It includes approximately 5,000 items from six continents and covers a time span from prehistory to the current era.
Although the museum already possessed several old instruments from 1880, the foundational core of its collection arrived in 1889 in the form of a donation by Mary Elizabeth Adams Brown (known as Mrs. John Crosby Brown).
The Crosby Brown Collection was initially composed of 270 pieces, but Mrs. Brown continued to acquire instruments until her 1918 death, bringing the total to approximately 3,600 objects. Her vision was groundbreaking: she sought not only European rarities but aimed to represent music's development across every culture in the world, including non-western instruments largely unknown to wider audiences or specialists in the field.
After an important renovation that lasted several years, the galleries displaying this collection (today known as the André Mertens Galleries for Musical Instruments) reopened with an exhibition presenting approximately 600 instruments. The experience winds its way through five rooms: two main spaces – Mapping the Art of Music (681) and The Art of Music through Time (684) – and three smaller spaces – Fanfare (680), Instruments in Focus (682), and The Organ Loft (683).
Gallery 683, The Organ Loft, houses an 1830 Thomas Appleton organ, a remarkable example of early-nineteenth-century American organ-making. Pipe organs such as these historically played a central role in sacred and civic music. They were valued for their ability to produce a broad spectrum of tone colours and a remarkably dynamic power. The Organ Loft's gallery design allows visitors to appreciate the instrument's artisanal refinement as well as its architectural presence, reflecting the organ's long-lasting role as one of the most complex and monumental instruments in western music.
Gallery 682, Instruments in Focus (inaugurated in 2019), functions as a rotating exhibition space with temporary installations drawn from the museum's collection. In

Gallery 684, visitors encounter *The Art of Music Through Time*, a display that arranges instruments chronologically to illustrate how "people worldwide have simultaneously created extraordinary music and instruments for millennia." One of the most important pieces displayed here is the Cristofori piano, the oldest surviving piano in the world, made by Bartolomeo Cristofori in Florence in 1720 and still playable today.

"Fanfare" is a spectacular brass-instrument installation in the entranceway that covers 2,000 years of history. "The Art of Music through Time" and "Mapping the Art of Music" are the two main rooms that explore the evolution and circulation of instruments in the world. Multimedia experiences offered to the public are a mixed bag: visitors can listen to the sounds of instruments at digital booths and with audioguides, breaking the barrier of 'silent beauty' in glass display cases.

The museum's current display space design is thus divided into two themes. Its concept goes beyond the limits of rigid geographical and chronological divisions: instruments from different cultures are often placed side by side to highlight affinities in their processes of creation and in the workings of their sound. A certain number of the collection's instruments are still playable and are used in special events and educational activities.

The new galleries contain examples of bowed string instruments from the Met's permanent collection, among which are violins by Antonio Stradivari and Andrea Amati, in addition to loans such as the 1714 "Batta-Piatigorsky" cello made by Stradivari, part of a private collection.

The recently renovated "Mapping the Art of Music" gallery (681) includes over 250 musical instruments of various types – percussion, bowed, wind, keyboard, and more – dating from 200 BCE to today. These are augmented by works from other museum departments, among which are seven paintings, a music box, a jade imperial sceptre, and an Indonesian shadow theatre puppet. This gallery includes a 2.1 x 7.6 metre exhibition platform, designed to double as a stage, in addition to audio-video equipment that allows the space to be used for performances and recordings.

To enrich the visit experience, two multimedia stations are present with information about triangular trade routes and the Silk Road. This gallery is subject to continual update, particularly the Native American and First Nations instrument sections, as the museum works to adapt to contemporary norms regarding exhibiting such artefacts.[1] The museum's audioguide now includes approximately 40 new stations throughout the experience.

*E.B.*

[1] The areas that focus on the Silk Road and its triangular commerce are right next to the Native American culture area, which today lies almost totally empty as the museum works to obtain the necessary permissions to exhibit or acquire materials, conforming with legislation in effect.

## Musical Instrument Museum (MIM)

4725 E. Mayo Blvd., Phoenix, Arizona, United States

The Phoenix Musical Instrument Museum is one of the most ambitious musical instrument museums on the planet today. Inaugurated in 2010 as a private, non-profit institution, the MIM has built its identity around one clear principle: presenting music as a universal cultural phenomenon, one that is legible through instruments, use contexts, and performance practices, and one that eschews hierarchies between 'cultured' and popular traditions. The museum is housed in a large modern complex with circa 18,000 sq. m., in the city's uptown area. It is characterised by ascetic architecture whose use of glass, stone, and wood speaks visually to the surrounding desert landscape.

At the heart of the institution is an impressive collection: over 7,000 instruments from more than 200 countries, chiefly organised by geographical area. Each section has been devised as a cultural microenvironment in which instruments, costumes, images, and videos restore music's social and ritual context. Display space design avoids spectacle and accumulation, achieving instead a consistent legibility that is built through clear glass, concise texts, and a well-dispersed audiovisual system that covers the entire visit area.

One of the most identifiable elements of the MIM is its systematic use of wireless intelligent audioguides. These automatically activate in front of displays, synchronising sound and image without requiring any manual action. Such a solution enables a continuous sound experience that is personalised in terms of time and rhythm, rendering listening an essential facet of the visit rather than an optional layer. Music 'follows' each visitor, fading when they move away. This creates a direct relationship between items viewed and sounds perceived.

Beside this geographical strategy, several sections introduce thematic variations and differing participation levels. The Experience Gallery offers visitors the chance to play instruments from different parts of the world, rendering the physical dimensions of sound production tangible. The Artist Gallery instead focuses on iconic music in different periods and genres. These are presented through

original instruments, archival videos and records that contextualise their cultural role. In both cases, interaction is calibrated and geared toward understanding, not simply recreation without function.

In addition to its permanent, global-scale exhibition, the museum has developed a series of largely monographical short-term displays for specific instrument families or transversal themes that bisect different periods and cultures. These deep-dives allow attention to be shifted from collections' geographical organisation to thematic narratives. Here, instruments' historic, symbolic, and technical dimensions are explored with greater interpretative density. In this way, the MIM succeeds at broadening their collection without renouncing the intercultural perspective that constitutes their very foundation.

A further structuring axis for the institution is its integration between museum and live experience. The MIM Music Theater, an inner concert hall, hosts over two hundred shows each year, with programming that stretches from jazz, world music, and folk to pop, funk, and non-western traditions. Concerts are created not as auxiliary activities but extensions of the museum's itinerary: instruments on display can come back to life on the stage, and the theatre's audiences become one with the museum's, creating constant circulation between informed listening and performance experience. Part of this logic, too, are collaborations with local music institutions, such as the Phoenix Symphony, particularly in the educational sphere.

On the level of organisation, the MIM functions as a structured cultural institution capable of supporting a long-term, complex programme intersecting the permanent collection with temporary displays, educational activities, and moments of scientific discussion.

All in all, the Phoenix Musical Instrument Museum is hybridly configured: an encyclopedic collection, a themed exhibiting platform, a performance space, and a learning centre coexist inside one coherent system. The visit experience quality is engendered by balance between the rigour of information given, the centrality of sound, and a moderated use of technologies. More than putting forward an unequivocal model for imitation, the MIM demonstrates how the story of music can effectively be told by keeping global expanses paired with specialist depth. In this, a richly intriguing reference point is offered for contemporary music museums.

*E.B.*


## Music Museums in Memphis

Tennessee, United States

Memphis is one of the most intensely symbolic cities in the world for the history of American popular music: a crossroads between blues, soul, rock 'n' roll, and rhythm & blues, where artistic trajectories that influenced fashion, style, and culture on a global scale intersect. The city's music museum scene reflects this abundance, offering extremely diverse museographical models – from recounting histories to multisensory experiences – and tracing exhibition pathways that combine storytelling, sound, emotion, and cultural reflection. Three institutions, in particular, embody these approaches: the Memphis Rock 'n' Soul Museum, the Stax Museum of American Soul Music, and the Blues Hall of Fame Museum.

**Memphis Rock 'n' Soul Museum**
Just South of Beale at FedExForum, 191 Beale St, Memphis, Tennessee, United States

The Memphis Rock 'n' Soul Museum presents itself as an institution that encapsulates history and culture. It tells the story of African American music: its roots and its growth in and beyond Memphis, from the transformations of the Great Depression to the global conquest of rock and soul in the second half of the twentieth century. Founded in 2000 as a project tied to the Smithsonian Institution (it constituted, in fact, the Smithsonian's first permanent exhibition outside of D.C. and New York), the museum subsequently changed location to the FedExForum, burrowing into the heart of the city's urban sprawl.
The museum employs on-demand audioguides with over 300 minutes of content. These abound in original recordings, interviews, and themed deep-dives, and accompany visitors through seven galleries. Storytelling is chronological and thematic, combining the contexts of social dynamics, music, and documents to show how forms of sound created through rural work, and in Beale Street blues clubs, evolved and spread.

The museum's approach balances the immediacy of sound with the depth of history: interactiveness is an instrument for understanding the role played by different scenes and artists in the construction of America's music heritage. Over thirty exhibits include instruments, costumes, and audiovisual materials, but it is the audioguide that structures the visit's sense, configuring a history integrated with music, social identity, and cultural innovation.

**Stax Museum of American Soul Music**
926 E McLemore Ave, Memphis, Tennessee, Tennessee, United States

Located in Soulsville U.S.A. at the historic address of 926 East McLemore Avenue, the Stax Museum of American Soul Music celebrates the history of the legendary Stax Records label, which platformed artists such as Otis Redding, Isaac Hayes, Booker T. & the MG's, and Sam & Dave. Inaugurated in 2003, the museum is managed by the Soulsville Foundation and today constitutes one of the world's most important soul music institutions in terms of culture and performance.
The experience of Stax's exhibitions is strongly immersive and multisensory: the museum combines historic records with reconstructed spaces – such as their replica of Studio A, which includes the original slanted theatre floors and their special acoustic properties – an authentic 1906 Delta church through which they tell the story of gospel roots, iconic cars such as Isaac Hayes' personalised Cadillac Eldorado, archival film clips, costumes, original instruments, and interactive listening stations.
Display rooms, which alternate between permanent galleries and temporary spaces, employ stage settings and sound (with original Stax music and contemporary soul, R&B, and rhythm & blues artists) to recreate the intensity of the period's music and social life: the physical and sonic environment brought to life conveys not only information but also the energy and feeling of Memphis sound.
The museum's closeness to and integration with the Stax Music Academy and other educational and community programmes run by the Soulsville Foundation is very distinctive, and creates active bridges between the community and live music practices.

**Blues Hall of Fame Museum**
421 S Main St, Memphis, Tennessee, Tennessee, United States

The Blues Hall of Fame Museum, inaugurated in 2015 and managed by the Blues Foundation, is a space that is compact yet content-rich regarding the history and impact of blues, the foundational genre that gave origins to many forms of modern music. Situated at 421 S. Main Street, in the centre of Memphis, the museum represents the evolution of the Hall of Fame. Instituted in 1980, it transformed into

a physical place celebrating, educating, and preserving the memory of over 400 artists, recordings, and literary contributions that have made their mark on the history of blues.

Structurally, the museum offers a series of themed galleries with touch screens, digital archives, listening stations, photos, historic instruments and costumes, and memorabilia – such as the guitars and personal objects of artists like B.B. King, Muddy Waters, and Etta James. Albeit in a relatively contained format, the museum emphasises the historic and cultural importance of blues through individual and collective storytelling, offering deeper perspectives on the genre's role in American music.

The space does not stop at celebrating famous names. It employs databases, audiovisual materials, and educational content to explain how blues transformed and travelled, from its origins in the Mississippi Delta right through to its global urban expressions.

*E.B.*

# Smithsonian Institution

**National Museum of American History – Division of Musical History**
1300 Constitution Avenue NW,
Washington D.C., United States

The National Museum of American History (NMAH) in Washington D.C. is one of the main museums in the Smithsonian Institution, a United States federal body founded in 1846 from a bequest by British mineralogist James Smithson.[1] Rather than its own autonomous museum, its musical instrument section is an internal division – the Division of Musical History – of an encyclopedic museum that covers the political, cultural, scientific, and military history of the United States. In all of the collections spread across the Smithsonian's various museums, the total number of musical instruments tallies to approximately 16,000 pieces, ranking the collection as one of the largest in the world.

The Smithsonian's musical instrument collection was officially recognised in 1879, when George Brown Goode, Ph.D., the institution's assistant secretary, embarked on a systematic reorganisation of its existing resources (these had been augmented by materials from Philadelphia's 1876 Exposition on the occasion of the United States' constitution's first centennial anniversary). For decades, however, the collection remained largely in storage. Only with the opening of a new building in 1964 did the collection acquire a stable location. At the end of the 1970s, an anonymous donor consigned, on long-term loan, over a dozen Cremonese bowed string instruments, and this initiated a new chapter for the collection. From the second half of 1980s, Herbert and Evelyn Axelrod became the institution's main benefactors, donating a broad range of instruments and bows. These included two complete quartets of Cremonese instruments – one by Antonio Stradivari and one by his master Nicolò Amati – in addition to works by Jean-Baptiste Vuillaume and Jacobus Stainer and two nineteenth-century pianos by Conrad Graf and

[1] The Smithsonian Institution today comprises nineteen museums, twenty-one libraries, nine research centres, a zoological garden, and several collections spread across Washington DC, New York, and other sites.

Sébastien Érard. The Axelrods also instituted generous funds for instruments' conservation and use in concerts.
65% of the Smithsonian's instruments – those that represent western classical traditions and popular American music – are conserved at the NMAH. The remaining 35% is spread between the ethnographic collections in the National Museum of Natural History, National Museum of the American Indian, and National Museum of African Art. Beside instruments in the strict sense of the word, the museum's archive conserves documentary resources of primary importance, such as the Duke Ellington Collection, Ella Fitzgerald Collection, and Sam DeVincent Collection of Illustrated American Sheet Music, which gather images, sheet music, and lyrics of American music between 1790 and the 1980s.
Instruments and memorabilia relating to American pop music are presented in the "Culture Wing", which is organised along themes pertinent to the entertainment industry, with all its social, aesthetic, and performance-related implications. The crux of this section is the Nicholas F. and Eugenia Taubman Hall of Music, a large hall that opens onto the National Mall with a view over the Washington Monument. The room serves simultaneously as exhibition space and concert hall: a double function that constitutes the most characteristic and meaningful element in the museum's aesthetic programme.
The Smithsonian Chamber Music Society uses the collection's historic instruments for its concerts in Taubman Hall.
Its most exceptional piece is a 1701 Stradivari cello known as "Servais," considered one of the best conserved Stradivari cellos in the world. Next to this is the 'Axelrod Quartet' decorated by Antonio Stradivari. Out of only eleven cellos in the world decorated by the Cremonese that survive, the instrument quartet comprises the "Ole Bull" violin (1687), "Axelrod" viola (1695), and "Greffuhle" violin (1709). The collection also includes a complete Nicolò Amati quartet (1656–1677), a 1620 Ruckers virginal, and two historic Graf and Érard pianos. The Smithsonian inventories among its musical treasures Louis Armstrong's trumpet and Grandmaster Flash's turntable, instruments that testify to the collection's focus on American music history in its totality, from classical traditions to twentieth-century African American popular music.
A stand out among the Smithsonian's projects is Folkways Recordings, a recording label it owns. This project manages the historic catalogue of legendary Folkways Records, founded by Moses Asch, with over 2,000 albums of ethnic, folk, and experimental music, with a politics of perpetual availability that guarantees the accessibility of all titles. While not exhibited at the NMAH, Folkways is nonetheless an integral element in the institution's music heritage and one of the primary ethnomusicological labels in the world. The digital platform Smithsonian Music amalgamates the music resources of every museum within the institution, through online exhibitions, educational materials, and audiovisual content.

Collection digitisation is not neglected by the NMAH, which participates in MIMO (Musical Instrument Museums Online), a European and international network of shared public collection instrument cataloguing. On the Smithsonian's site there are 18,000 images accessible of instruments, documents, and other materials relating to music.

Ultimately, it is valuable to remember that the Smithsonian's Cremonese collection – with two complete quartets, one by Stradivari and the other by Amati – is among the most important in the world, rivaled only by the collections of the Royal Palace of Madrid and Library of Congress.

*M.N.*

## Online resources for further reading

**MIMO – Musical Instrument Museums Online** is an international digital platform dedicated to the documentation, study, and knowledge-circulation of musical instrument collections conserved in museums across the globe. Created as a project funded by the European Commission between 2009 and 2011 (at the initiative of a consortium of large European museums), MIMO progressively expanded its network. It is now a global consortium with over 33 partners in three continents and a database counting over 64 thousand instruments – furnished with images, metadata, approximately 1,250 audio files, and 300 videos of historic performances. Its content is accessible in ten languages. Through the MIMO portal, scholars, musicians, students and enthusiasts can look up tens of thousands of instruments from public and private collections. These can be navigated by type, geographic area, historical period, materials, techniques of construction, and systems of sound production. One of MIMO's most critical aspects is its attention to the scientific quality of its content: the instrument pages include accurate descriptions, organological data, provenance information, and links to multimedia resources.

**Grove Music Online** is a premier international reference resource for the study of music and musical instruments. Created as a large, encyclopedic print project (the famous *Grove Dictionary of Music and Musicians*, whose first edition dates to the late nineteenth century), Grove is today a regularly updated digital platform edited by Oxford University Press and collects thousands of entries reviewed by specialists across the world.
Inside this vast corpus, the selection dedicated to musical instruments (often referred to as *Grove Musical Instruments*) constitutes an essential resource for organological and musicological research. Its entries provide in-depth descriptions of instruments, analysing their structure, the fundamentals of their sound production, their historic and geographic variants, their technical evolution, and their cultural use contexts. Unlike platforms such as MIMO, which place objects at the centre of collections, Grove is configured as an interpretive and theoretical instrument. Its value resides in its capacity to systematise knowledge, produce historic and conceptual frameworks, and link musical instruments to their performance practices, repertoires, composers, and social contexts.

# A SURVEY OF MUSIC MUSEUMS IN THE UNITED STATES

*Eric Brennan*

The United States is possessed of incredible geographical and cultural diversity from place to place and this extends clearly into its museums. Approximately 4,400 kilometers pass between its south-east corner, where California's Mexico border meets the Pacific coastline, and its north-east corner in Maine. The same distance would take a voyager from the tip of Portugal to the Volga, about 400 km east of Moscow. Given this figure, an overview of music museums in the United States cannot but present lacunae, nor can it remain general except in certain situations. This essay focuses on several experiences (either very recent or yet to come) that can enhance understandings of a series of emerging trends. I make particular reference to US-specific traditions representative of 'popular culture.' This concept, in the Anglo-Saxon world, refers to mass behaviour models. Among these, the performative arts assume particular importance. So, too, does music.

Generally speaking, United States museums, as with any other kind of museum, can assume extremely varied forms. There are heterogeneous pieces gathered by a single collector and open to the public a few days a week in the style of roadside attractions, and there are highly formalised collections more easily associated with the institutional concept of a museum. The portal Museums.us lists over sixty music museums, but is not at all exhaustive. As might be imagined, these institutions tend to burgeon in places with strong local ties to their predominant theme, whether the house of an eminent figure (like Louis Armstrong House in Corona, New York), a hub within the music industry (like Nashville or Memphis in Tennessee), or more specific contexts (like the kazoo factory and museum in Beaufort, South Carolina) or places with a strong cultural identity (like the Hip Hop Museum opening soon in the Bronx).

Some museums began life with great individual, genre-spanning collections with centuries-long historic arcs and worldwide relevance. Such is the case for the Metropolitan Museum of Art in New York, the Museum of Musical Instruments (MIM) in Phoenix, and the Smithsonian Institute in Washington DC. These true encyclopedic museums are discussed in this volume (each is allocated a profile) although finite publishing space prevents us from dedicating the necessary attention to other internationally significant institutions. One of these is the National

Music Museum in Vermillion, South Dakota. It houses a collection of approximately 15,000 musical instruments spanning fifteen centuries of history, from Amati and Stradivari to celebrated pop performer Myron Floren's (d. 2005) recently donated archive and accordion collection.

A considerable number of US music museums enter the ranks of the Hall of Fame, institutions geared toward nominating eminent figures as model examples of their art. The city of Nashville, Tennessee, for instance, houses the Country Music Hall of Fame as well as the larger Musicians Hall of Fame. These museums collect objects tied to honoured celebrities – stage costumes, records, and instruments – even when a figure is not directly connected to the city. Nashville, naturally, is a vital node in the country music industry, which makes the presence of the Country Music Hall of Fame particularly appropriate. Founded in the 1970s, the Hall of Fame has blossomed over time into a striking urban attraction.

Outside the hall-of-fame type, Nashville is also home to the National Museum of African American Music. This museum honours African American contributions to music history and their music's stylistic development. Themes addressed range from spiritual music to regional articulations of hip hop. The project was conceived in 1998 and intended to be erected on Jefferson Street – a historic African American hub of economic activity and night life. However, it was later relocated by the city's administration to an ex-convention-hall zone, before finally opening in 2021.

Metropolitan Museum, New York.

At the opposite extreme size-wise is the National Jazz Museum in Harlem. This institution explores the history of jazz and its roots in the historic African American Upper-Manhattan neighbourhood of Harlem. The museum's reduced dimensions put a physical limit to its collection, but it employs creative strategies to take best advantage of available space. It exhibits a small selection of objects and instruments, in addition to reconstructing a home parlour replete with piano, phonograph, and vintage furniture. Its walls are hung with infographic panels currently detailing the history of Latin Jazz, realised in collaboration with the Bronx Museum for the Arts and enhanced by audio and video elements.

What this museum lacks in collection size it compensates with strong community vocation. Many concerts and weekly events are organised with local musicians and international guests. Its space, furthermore, can be leased for different occasions, giving visitors closer contact with musicians. To this is added a wide educational programme that engages schools across all of New York, as well as external outreach activities. The institution is seeking partners and funding in order to further expand.

New York will soon be home to another important music institution: the Museum of Hip Hop is expected in the Bronx for the end of 2026. The hip hop genre was created this very neighbourhood in the 1970s, part of minority areas' block party culture[1]. It evolved rapidly, spreading first across the United States and later across the globe. The Museum of Hip Hop intends to tell the tale of the genre's development, from its roots in disco to its evolution in performance and technology. Display spaces will incorporate a tunnel entrance that leads to a central installation dedicated to hip hop's origins. Galleries will branch out from there.

The museum has promised a hands-on exhibit, along with possibilities for visitors to make their own music. These will be made possible partly through a collaboration with Microsoft FlowScholar software, an AI-assisted music production programme. The Museum of Hip Hop will also include a hall for concerts and guest artist programmes. While its construction is underway, the organisation manages a temporary space, the Culture Lab, that is open four days a week as a place of gathering and community rootedness. Parallel to this, educational programmes have been developed in collaboration with the New York Public Library System, whose widespread network is a powerful tool for circulation. The museum will also collaborate with the future Hip Hop High School, whose opening is also expected in 2026.

A key institution over on the west coast is Seattle's Museum of Pop Culture (MoPOP). It lies in the city's downtown area, next to the Space Needle, in a Frank

[1] Block parties are neighbourhood celebrations held outdoors, typically on a residential street that is temporarily closed to traffic to allow for communal activities.

Gehry building straddled by the monorail. This museum was created as the Experience Music Project, and only evolved later into the MoPOP. Its mission expanded beyond music, too, and the institution now includes sci-fi, horror, fantasy, and video games. Music has remained, however, at this museum's core.

In its display spaces, collections of guitars can be found that belonged to musicians in different genres. There is a gallery dedicated to Jimi Hendrix, and exhibitions like *Never Turn Back* (devoted to African American music history) and *Beats and Rhymes* (devoted to hip hop). Galleries have incorporated video screens, loudspeakers pinpointed to an environment, and numerous listening stations.

Its Sound Lab is particularly significant. This is a space on the top floor where visitors can play instruments, sing, and experiment with mixing. Instruments are displayed in a cluster, with localised sound employed to avoid acoustic overwhelm. Each station is flanked by interactive screens with tutorials and guides. Also present are recording booths and jam rooms equipped for group sessions.

# MUSIC MUSEUMS IN THE MIDDLE EAST AND NORTH AFRICA

## Encyclopedic Museums and the Conservation of Musical Instrument Collections

*Ahmed Emad Elshabrawy Ibrahim*

In recent decades, music museums and musical instrument exhibitions in large Middle Eastern and North African encyclopedic museums have emerged as privileged sites for the negotiation of heritage, identity, and historiography. In these spaces, Arabic music is not simply conserved as a set of objects. It is articulated as an intangible cultural system mediated by instruments, archival recordings, and storytelling. The challenge for museums in this region lies in reconciling their instruments' materiality with music's inherently performative, ephemeral nature. This is a tension that has made itself felt both in models for interpreting and strategies for exhibiting, as well as broader institutional missions around the protection of intangible cultural heritage and the translation of traditions of sound into spaces for experience accessible to diverse audiences.

The historiography of Arabic music in the museum sphere cannot be wholly excised from earlier European research. This particularly applies to the work of Baron Rodolphe d'Erlanger, whose six-volume *La Musique Arabe* (though marred by its Orientalism) remains a foundational reference framework in the study of Arabic music traditions. The baron's residence at Sidi Bou Saïd is today a branch of the Centre des Musiques Arabes et Méditerranéennes. The building represents a symbolic bridge between early-twentieth century erudition and modern museological praxes in the region. Despite the institution's exile from the main sphere of this essay, its presence marks a longer genealogy for the storytelling, documentation, and institutionalisation of Arabic music. This genealogy continues to make its mark on curatorial approaches today, particularly around ways sound archives and instrument collections are inserted into national and transnational narratives about cultural identity, Mediterranean exchange, and the postcolonial reinterpretation of heritage.

## Two examples: the Sharjah Heritage Museum in Sharjah and the Umm Kulthum Museum in Cairo

In the United Arab Emirates, musical instruments' integration into wider museum storytelling reflects a national strategy that positions music within frameworks of intangible heritage and cultural memory.

A particularly relevant institutional model is the Sharjah Heritage Museum, where musical instruments are integrated into an ethnographic exhibition design that recreates aspects of daily life in the Gulf. Here, instruments such as the oud, rebab, and various percussion ensembles are placed in relation to one another through social practices and ritual: pearl-fishing, seafaring work, marriages, religious celebrations. Such a curatorial approach privileges narrative immersion and social history above classifications by type. Visitors can experiment with music as a cultural practice deeply rooted in collective life, the environment, and community identity. The museum thus functions as a dynamic space of conservation and interpretation, where musical instruments act as mediators for memory and continuity rather than as isolated objects.

In Egypt, music museums occupy a peculiar position in the cultural and museological landscape, one that reflects their role in the country as a crucial point in the development and circulation of Arabic music. These institutions present a rich, embedded music heritage that has been moulded by court traditions, popular performance practices, religious expression, and the twentieth-century advent of modern media. Rather than simply storing instruments, Egyptian music museums often adopt narrative and archival approaches that centre artists, recordings, and performance histories as their principal interpretive lens.

The Umm Kulthum museum in Cairo follows a model that zooms in on one of the most influential figures in twentieth-century Arabic music. Biography forms its main interpretive device: instruments, recordings, manuscripts, costumes, and personal objects are presented as integral elements in Umm Kulthum's[1] (1898-1975) artistic and cultural legacy. Musical instruments thus form narrative elements within wider storytelling that reflects both individual creativity and collective cultural production.

Exhibitions that match instruments to their performances through archive recordings and film documentation offer visitors engaging access to the sonic dimensions of this heritage. By highlighting the performance history and development of radio culture, the museum sheds light on key moments in the formation of Arabic musical modernity, creating a congruent and immersive environment in

[1] Umm Kulthum was the pseudonym of Fāṭima Ibrāhīm al-Biltāgī, an Egyptian singer, musician, and actress who was the object of vast fame and affection across Egypt and the Arab world.

which music, memory, and media intertwine. The museum thus reflects a strong regional commitment to preserving music heritage through figures of enduring cultural significance. This offers visitors a clear outlook to explore the corners and continuities of Arabic music traditions.

## Considerations

From these two examples emerge thematic recurrences that illuminate music's evolving museological condition in the region. The first is the relationship between sound and object. In other words: between intangible and tangible cultures. Musical instruments, once gathered in a museum context, do not lose importance simply because they have been removed from their performance. On the contrary, they acquire new layers of meaning as visual, historic, and symbolic artifacts. The Sharjah Heritage Museum and Umm Kulthum Museum tackle this transformation with remarkable sensitivity. They have developed interpretive strategies that reconnect instruments with their social, cultural, and sound aspects through audiovisual materials, immersive scenery, and carefully constructed storytelling.

The second theme concerns the compatibility of curatorial approaches. At the Sharjah Heritage Museum, musical instruments are integrated in reconstructed environments that evoke daily life in the Gulf, emphasising the collective, community, and performance facets of musical traditions. The Umm Kulthum focuses instead upon telling a biographical story, privileging the artistic bequest of one of the most influential figures in Arabic music. This serves to stress the role of individual creativity, media circulation, and historic memory in the formation of music's modernity. Together, these institutions demonstrate how diverse curatorial methodologies can productively coexist, each offering distinct but equally important perspectives on the complexity of Arabic music heritage.

Just as relevant is the lasting influence of interpretive frameworks developed through historic research – in particular, the work of Rodolphe d'Erlanger. His broad investigation in *La Musique Arabe* supplied one of the first systematic approaches to the theory and practice of Arabic music, laying the foundations on which both academic research and museum interpretation continue to be constructed. Museums in the region confront this inheritance today increasingly cogently, integrating historical research with local perspectives that reflect contemporary cultural priorities. Such dialogue between past and present enriches the interpretative depth of displays and reinforces the role of institutions as active participants in the continual construction of knowledge.

Ultimately, music museums and instrument collections in the Middle East and North Africa can be understood as dynamic, evolving spaces where conservation

and innovation are closely interwoven. The Sharjah Heritage Museum and Umm Kulthum exemplify ways in which music heritage can be rigorously curated – when it comes to science – and engaging – when it comes to experience. Through multimedia technologies, storytelling, and immersive environments, these institutions open new pathways of access to music. Museums, in this sense, no longer simply represent object storage. They are a vital cultural space in which Arabic music is continually reinterpreted, celebrated, and placed in conversation with contemporary society.

# MUSIC MUSEUMS IN ASIA AND OCEANIA

*Shaw Hong SER*

## Brief Overview

Music-themed museums naturally centre their visions and missions around celebrating the universal language of music as a form of heritage and cultural expression. They aim to inspire audiences of all ages and backgrounds to explore, appreciate, and safeguard the rich diversity of musical traditions across continually evolving times, cultures, and technologies.

In Asia, music museums exist in numerous countries. In China, for example, the Chinese National Musical Instrument Museum (inaugurated 1986 in Shanghai) is widely considered the largest and most distinctive national museum for musical instruments in the country. The Hamamatsu Museum of Musical Instruments (founded 1995) was Japan's first public musical instrument museum. South Korea's K-Pop Museum, a private institution dedicated to the history of Korean pop music, opened in 2015. Then, in 2019, the Seoul Museum of Korean Folk Music was inaugurated, the first museum exclusively devoted to Korean pop songs. The Indian Music Experience Museum in Karnataka (2019) was India's first interactive music museum. It centres on the conservation and promotion of Indian music heritage through immersive design and educational programmes.

In addition to these music-only museums, many cultural institutions in Asia bring music and instruments to the fore as key elements for identity and cultural expression. Numerous museums house galleries themed specifically to musical traditions. For example, Lanzhou City University's museum, in China, has a gallery just for the study and exhibition of rare Chinese musical instruments. The National Museum of Malaysia holds musical instruments from Malaysian, Chinese, and Indian cultures, while the Bangkok National Museum in Thailand displays a rich collection of traditional Thai musical instruments. In Vietnam, the Vietnam Museum of Ethnology (Hanoi) and Ba Ria-Vung Tau Museum contain galleries for traditional musical instruments, placing on show the huge range of musical instruments that belong to different ethnic groups beyond traditional Vietnamese music. These galleries reflect this region's diversity of

musical heritage and its deep cultural significance. In sum, music-themed museums and musical instrument exhibits are widespread throughout Asian museums.

In Oceania, music museums promote the region's rich culture and intangible heritage. In Aotearoa, for example, the Waiheke Musical Museum (founded 1996) conserves an extended collection of ancient instruments. The musical instruments on display in the Papua New Guinea National Museum and Art Gallery include ceremonial tambourines of profound importance for indigenous cultures. The Australian Music Vault (2007) at the Melbourne Arts Centre intends to open a permanent exhibition around the history of contemporary Australian music. The Fiji Museum includes a space for musical instruments that reflect the country's music heritage, and the Kiribati National Museum contains sections centred on traditional music and national dance arts that fall under the umbrella of wider storytelling about traditional histories, cultures, and lifestyles.

In short, museums with music exhibitions that shed light on the art form's historic and cultural significance are present in many Asian and Oceanic countries. Whether for-profit or non-profit, whether private or public, these institutions nestle music at the core of their identities. They preserve and promote both the tangible and intangible dimensions of music culture, serving as spaces that provide education as well as entertainment for visitors.

Figure 1 | Folk Instruments Room in the Min-On Music Museum (Japan).
© Image sourced from https://www.min-on.org

## Concepts, display methods, and museological approaches

The concept of a music-themed museum in Asia and Oceania can be widely divided into two categories: (A) conserving music heritage; (B) engaging communities and cultural exchange. These categories are often interconnected, overlapping organically as museums seek to fulfil their vision and mission.

### A. **Music Heritage Conservation**

*(traditional exhibition methods and live performances)*

Music museums have been instituted to protect and preserve music heritage. Their collections generally include musical instruments, recordings, manuscripts, and other items related to one or more music traditions. Their role consists in conserving both tangible heritage (such as instruments and sound devices) and intangible heritage (such as performance traditions and oral histories).

The museums which adopt a traditional exhibition approach generally have permanent and short-term displays that present the visitor with musical instruments, images (photos and illustrations), documents, and audiovisual archives. The central element of such exhibitions is made up, in the majority of cases, by the authentic objects themselves, promoted for their historic and cultural significance. Visitors interact with displays as they move between set ups that accurately present musical instruments. To further enrich these experiences, live performances and demonstrations of traditional instruments are often integrated. These constitute an effective strategy. Mini concerts (included in a visit itinerary or programmed as special events) help give life to the instruments, transforming a visit into a richer and more multisensory experience. Furthermore, these museums offer workshops, conferences, guided visits, and educational programmes geared towards expanded audiences, which highly augment visitors' music knowledge and cultural appreciation.

Storytelling in such displays is usually concentrated upon cultural representation and identity for an ethnic group, community, or region. Visual aspects (objects and modes of display) and accompanying texts highlight the ways in which music expresses ethnic, social, and national identities at the same time as it shapes and reflects cultural history. This curatorial approach tends to balance exhibiting physical objects with presenting contextual information.

For example, Shanghai's Museum of Oriental Musical Instruments (founded 1987) conserves a collection of over 500 instruments. These are organised in four display areas: ancient Chinese instruments, folk instruments from Chinese ethnic minorities, modern Chinese instruments, and foreign national instruments. Visitors can explore a vast array of traditional instruments from cultures in China as well as other Asian regions. The museum offers a rich experience for those interested in Asian music and cultural heritage. These items include, among other instruments,

Figure 2 | Museum of Oriental Musical Instruments.
© Image sourced from SmartShanghai.com

Figure 3 | The Vadya Vithika Museum of Musical Instruments.
© Images sourced from https:shop.museumsofindia.org

Figure 4 | Waiheke Musical Museum.
© Images sourced from https://musicalmuseum.org.nz

Indonesian gamelans and instruments from South Korea, Japan, Thailand, India, and other places.

This museum's approach to exhibiting follows a standard traditional format composed essentially of an object-focused display supported by short descriptions and images. Visitors can examine instruments' forms, structures, and materials, observing 'real objects' up close and reading labels to deepen their understandings.

In Kolkata, India, the Vadya Vithika Museum of Musical Instruments (founded 2016) displays more than 300 musical instruments organised into four sections: percussion instruments, string instruments, wind instruments, and solid instruments.

The museum displays tribal, folk, and classical instruments from different communities and regions in India, and is considered an important resource for documenting and understanding marginalised communities' cultural histories. In this case, too, exhibition approaches are chiefly object-focused: musical instruments are presented as central elements, accompanied by short descriptive tags. Overall, the authenticity and beauty of 'real objects' is promoted.

In Aotearoa, the Waiheke Musical Museum (founded 1996) offers visitors access to a unique collection of rare, ancient, and mechanical musical instruments. Beyond traditional exhibition storytelling, the museum works as a 'living museum' whose instruments are demonstrated during performances and guided visits. Seeing instruments played live helps visitors develop a more sensory understanding, enriching their museum experience through intangible aspects like rhythm and melody.

These three museums can be considered traditional from an interpretation and storytelling perspective. Their displays contextualise music and instruments through interpretive devices that explain their roots, evolution, techniques, artisanship, and meaning. Narratives focus on musical practices within their wider cultural, historical, and social contexts. In brief, these museums represent musical institutions founded on collections of authentic objects that promote instruments' beauty by linking them to their historic and cultural import. Live performances integrate education with entertainment, offering a more immersive, more interactive experience.

(B) **Community Engagement and Cultural Exchange**
*(interactive display methods)*

In addition to these traditional approaches, some music museums place greater emphasis on interactive, sensory experiences. Visitors can play instruments, mix audio tracks, explore immersive sound landscapes, or interact with digital installations. These options allow them a more dynamic and participatory encounter with music.

In such cases, experiences go beyond the straightforward display of 'real objects' to incorporate a spectrum of digital platforms designed to encourage active visitor participation. Museum storytelling increasingly frequently integrates technological innovations, combining advanced audio machinery with visual media to craft more immersive and interactive experiences. To boost public engagement, these museums often function as cultural hubs promoting participation, dialogue, and intellectual exchange. They collaborate with musicians and creatives to organise events that can bring together diverse audiences. In addition to their educational function, these museums offer fun, memorable experiences through concerts, themed shows, and interactive zones.

"Enjoying myself" and "being completely immersed" are the main impressions visitors report after visiting these museums. Particularly for younger audiences, these exhibitions are visibly compelling spaces that prompt them to produce their own photo and video content for social media. Interactive elements are encouraged throughout the exhibition experience, generating dynamic ways to attract and engage visitors (especially appealing to Gen Z).

An important example is the Indian Music Experience Museum (2019), India's first interactive music museum. It has seven exhibitions about the history and cultural significance of Indian music heritage, as well as online exhibitions and a 3D virtual visit. Its galleries are furnished with interactive screens, sound recording stations, karaoke stations, and multimedia projections, presenting visitors with numerous opportunities to participate. The museum also contains a Sound Garden, a space whose interactive music installations spark an engaging, memorable audio experience. This approach proves particularly compelling, especially for digital native generations and especially in contrast to traditional displays built around objects.

In North-East Asia, the Taipei Music Center, the first cultural complex wholly devoted to Taiwanese pop music, was inaugurated in 2020. Its displays narrate the history of Taiwanese pop music from the 1930s to today, and they do this through immersive installations, audioguides, iconic songs, and a vast array of artifacts. A 360-degree concert experience permits visitors to immerse themselves in sound and light effects, simulating a live concert. The museum's storytelling approaches are strongly digital and experience-centric, proving particularly attractive for younger audiences.

Figure 5 | Indian Music Experience Museum.
© Images sourced from https://indianmusicexperience.org

Figure 6 | Taipei Music Center.
© Images sourced from https://www.moc.gov.tw

Figure 7 | The Sound Art Museum in Beijing.
© Images sourced from https://www.globaltimes.cn

Figure 8 | Australian Music Vault.
© Images sourced from https://www.visitmelbourne.com

Figure 9 | Muuuse: Music Museum.
© Images sourced from https://www.tokyoweekender.com

In 2023, the Sound Art Museum opened in Beijing. Promising an immersive journey through the city's history via soundscapes, languages, and music, this museum employs sound as a principal narrative instrument. Its approach transports visitors to scenes and daily situations of old Beijing, showing how music and space can be integrated to create museum experiences that are theatrical and immersive.

In Australia, the Australian Music Vault (instituted 2017) in Melbourne's Arts Centre will introduce a permanent exhibition tracing the evolution of contemporary Australian music. Its design will combine traditional display modes with interactive elements, including immersive digital equipment that allows visitors to listen to interviews with musicians, promoters, and behind-the-scenes figures in dedicated engagement zones. The exhibition will highlight an expanded range of contemporary museum storytelling techniques, from multimedia installations and video displays to interactive touch screens. These aspects are aimed at offering visitors myriad modes of exploring and engaging with the history of Australian music.

Beyond the sphere of permanent museums, some creative spaces house short-term or pop-up music exhibits. In Tokyo, for example, the new creative hub Node (2023) presented *Muuuse: Music Museum* (November–December 2024), an experimental music experience grounded in multimedia installations and advanced digital production (including applications of AI).

Over the course of the past two decades, music-themed museums have emerged in several Asian cities, both as institutions devoted to conserving music heritage and as short-term or pop-up museums celebrating music culture through creative projects. They have become promising contributors to the development of cultural and creative industries in their respective regions. In addition to the museums mentioned above, diverse case studies can be identified in cities and countries across Asia. These encompass HYBE Insight in Seoul (2021-2023), Japan's Music Forest Museum (inaugurated 1999), the Singapore Musical Box Museum (2016), the Indonesian Music Museum (2017), the Music Museum of Nepal (1995) and the Isfahan Music Museum in Iran (2015).

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# ANNOTATED INDEX OF MUSICAL INSTRUMENT MUSEUMS AND MUSIC MUSEUMS

*by Laura Diamanti and Massimo Negri*

This index serves as an initial reference source in our survey of global music and musical instrument museums. Our selection of approximately 150 institutions seeks to provide balanced representation among different geographical and cultural macro-areas, although we have focused on music museums in the strictest sense of the term. We did not consider music collections nestled inside wider-themed museums, like encyclopaedic museums (several such situations are investigated in the Profiles section of this volume, however). This list does not claim to be exhaustive. It seeks, instead, to be a tool for navigation within the broad and connected world this volume documents. This holds true for Italy, too, which is a particularly important country in the world's music landscape (to the point that it contains three UNESCO Cities of Music: Bologna, Pesaro, and Bolzano).

It was not possible to list the websites for all museums present in this index, either because they do not have one or because—as occurs often in this field—their pages are subject to frequent updates. We apologise for any omissions. The websites listed here are functional at the date of this volume's publication.

## EUROPE

### *Austria*

**House of Music (Haus der Musik)** | Vienna
Music and sound; interactive multimedia exhibitions from prehistory to today
https://www.hausdermusik.com

**Schubert's Birthplace (Schubert Geburtshaus)** | Vienna
The house Franz Schubert was born in; the composer's documents, instruments, and personal items
https://www.wienmuseum.at/schubert-geburtshaus

**Johann Strauss Apartment** | Vienna
The composer's residence; original furniture, manuscripts, and personal items
https://www.wienmuseum.at/johann-strauss-wohnung

**Kunsthistorisches Museum – Musical Instrument Collection** | Vienna
One of the most important historical instrument collections in the world; harpsichords, fortepianos, and instruments belonging to the imperial family
https://www.khm.at

**Salon Stolz** | Graz
An interactive and inclusive museum dedicated to composer Robert Stolz (1880-1975); participation-oriented design; themed sections, intergenerational programming
https://www.salonstolz.at

**Mozart's Birthplace (Mozarts Geburtshaus)** | Salzburg
The house Mozart was born in; documents, instruments, personal items, and manuscripts
https://www.mozarteum.at

**Mozart Residence (Mozart-Wohnhaus)** | Salzburg
Mozart's second home in Salzburg; rebuilt after wartime damage
https://www.mozarteum.at

**Eboardmuseum** | Klagenfurt
The largest electronic keyboard collection in the world; over 2,000 items
https://www.eboardmuseum.com

### *Belgium*

**Musical Instrument Museum** | Brussels
Almost 10,000 instruments in an Art Nouveau building; organs, harpsichords, pianolas, and carillons; interactive headphones for listening
https://www.mim.be

**Harmonium Art MuseuM** | Klein-Willebroek
Housed in a former church; approximately 80 pump organs, of which 60 are still working; a rare 1872 two-keyboard organ

### *Croatia*

**Museum of Bećarac** | Pleternica
A centre for the bećarac, an Eastern Slavonian music genre recognised as UNESCO Heritage; instruments, costumes, and local music traditions
https://becarac.hr

### *Czech Republic*

**Czech Museum of Music** | Prague
Czech and European musical instruments from the fourteenth century onwards; the National Museum's collection
https://www.nm.cz/ceske-muzeum-hudby

**Dvořák Museum** | Prague
Composer Antonín Dvořák's residence; his instruments, manuscripts, and personal items
https://www.nm.cz/dvorakovo-muzeum

### *Denmark*

**Carl Nielsen Museum** | Odense
Dedicated to Danish composer Carl Nielsen (1865-1931); instruments, manuscripts, personal items, and documents on his life and work
https://carlnielsenmuseet.dk/en/

**Musikmuseet – The Danish Music Museum** | Copenaghen
Founded in 1898; part of the National Museum of Denmark; instruments from the sixteenth century to the present day, from all around the world; interactive listening stations and rehearsal studios; located in the Royal Danish Academy of Music

### *Estonia*

**Estonian Theatre and Music Museum** | Tallinn
Estonian musical instruments and theatrical materials; organs and historical keyboard instruments
https://www.tmm.ee

### *Finland*

**Sibelius Museum** | Turku
Centred on Jean Sibelius; the composer's instruments, documents, and personal items
https://www.sibeliusmuseum.fi

**Finnish Museum of Horology and Music Boxes** | Helsinki
Finnish and international musical clocks, carillons, and mechanical musical instruments
https://www.museokruunu.fi/

### *France*

**Musée de la Musique** | Paris
Over 5,000 sixteenth-century instruments; harpsichords, historic pianos, and wind instruments; concerts and temporary exhibitions
https://philharmoniedeparis.fr/fr/musee

**Palais Lascaris** | Nice
A seventeenth-century baroque palais; more than 500 instruments; the second most important collection in France

**MuPop – Musée des Musiques Populaires** | Montluçon
The first French institution to tell the story of popular music; 3,500 instruments and musical objects from the eighteenth century to today; interactive exhibitions around jazz, rock, bal-musette, and pop
https://www.mupop.fr

**Musée des Instruments à vent** | La Couture-Boussey
A village with traditions of crafting wind instruments; a collection of local and international instruments; the history of artisanal instrument-making in Normandy
https://www.lemiv.fr/fr/

**Musée de la Musique – Céret** | Céret
The second most important collection in France, with over 3,000 instruments; specialises in the hautbois family (largest collection in the world); traditional Catalan instruments and instruments from Africa, the Middle East, Asia, and the Americas; concerts, festivals, and workshops
https://music-ceret.com

**Musée du quai Branly – Jacques Chirac** | Paris
One of the most extensive European collections of non-European art and culture with musical instruments from Africa, Asia, Oceania, and the Americas
https://www.quaibranly.fr

***Germany***

**Bach-Museum** | Leipzig
Part of the Bach-Archiv; historical keyboard instruments (harpsichords, fortepianos, organs) from Bach's lifetime
https://www.bachmuseumleipzig.de

**Beethoven-Haus** | Bonn
Beethoven's birthplace; the composer's original instruments, manuscripts, and personal items
https://www.beethoven.de

**Germanisches Nationalmuseum – Musical Instrument Collection** | Nuremberg
An important organological collection of European historical instruments
https://www.gnm.de

**Museum of Musical Instruments of Leipzig University** | Leipzig
Approximately 5,000 instruments; a university collection of European instruments between the fifteenth and twentieth centuries
https://mfm.uni-leipzig.de

**Museum of Musical Instruments** | Berlin
Fortepianos and historical keyboard instruments; part of the Prussian Cultural Heritage Foundation
https://www.simpk.de/en/museum.html

**Museum für Mechanische Musikinstrumente** | Bruchsal
Mechanical musical instruments; mechanical organs, orchestrions and automated keyboards
https://www.schloss-bruchsal.de

**Richard-Wagner-Museum** | Bayreuth
Villa Wahnfried, Wagner's residence; documents, instruments, and items belonging to the composer
https://www.wagnermuseum.de

**Schumann-Haus** | Zwickau
Robert Schumann's birthplace; instruments, documents, and mementos belonging to the composer
https://www.schumann-zwickau.de

**Telemann Museum** | Hamburg
The life and work of Georg Philipp Telemann; his original instruments, manuscripts, and documents
https://www.telemann-stiftung.de/dasmuseum/the-museum/

**Organeum – Orgelakademie Ostfriesland** | Weener
A research centre and museum for historical keyboard instruments; collection of organs, harpsichords, clavichords, and fortepianos; valorising the profoundly rich landscape of organs in Western Frisia; concerts and international seminars
https://www.organeum.org

**Musikinstrumenten-Museum Markneukirchen** | Markneukirchen
Founded in1884, one of the oldest instrument museums in the world; over 6,500 instruments from all continents; Saxon Vogtland's instrument-making traditions spanning over 350 years; located in a late-baroque building constructed in 1784
https://museum-markneukirchen.de

### *Greece*

**Museum of Greek Folk Musical Instruments "Fivos Anoyanakis"** | Athens
Approximately 1,200 eighteenth-century Greek folk instruments; donated by musicologist Fivos Anoyanakis (1991)

### *Hungary*

**House of Music** | Budapest
A space devoted to Hungarian and international music; permanent and short-term exhibitions concerts
https://zenehaza.hu

**Liszt Ferenc Memorial Museum and Research Centre** | Budapest
Franz Liszt's house; the historical pianos, music manuscripts, and personal correspondence of the composer
https://www.lisztmuseum.hu

### *Iceland*

**Rokksafn Íslands – Icelandic Museum of Rock 'n' Roll** | Keflavík
Founded in 2014; tells the story of Icelandic pop and rock music; interactive Sound Lab with guitars and drums; exhibitions on Björk, Sigur Rós, and Of Monsters and Men
https://rokksafn.is/en

### *Italy*

**Casa del Suono** | Parma
Housed in the deconsecrated church of Santa Elisabetta (seventeenth century); approximately 400 devices that play prerecorded sounds, from Edison's phonograph to MP3 players; the history of sound's reproduction and transmission
https://www.lacasadellamusica.it/it-IT/Casa-del-Suono.aspx

**Rossini House** | Lugo di Romagna
Inaugurated in 2020; five-room exhibition; not a single item on display in the traditional sense, instead the music itself is a presence visitors can bring into being
https://casarossinilugo.it

**Luciano Pavarotti Home Museum** | Modena
The birthplace of tenor Luciano Pavarotti (1935-2007); stage costumes, photos, awards, and personal items belonging to the singer; original garden and rooms conserved
https://www.casamuseolucianopavarotti.it

**Casa Museo Spada** | Lecce
A private collection of more than 1,000 instruments between the sixteenth and twentieth centuries; new themed spaces
http://casamuseospada.blogspot.com

**Puccini Museum** | Lucca
The birthplace of composer Giacomo Puccini; his instruments, manuscripts, and personal items
https://www.puccinimuseum.org

**Organ Museum of Santa Cecilia** | Massa Marittima
Historical organs from the seventeenth to the nineteenth centuries in a deconsecrated church; a rare 1686 Carlo Traeri portative organ; harpsichords and fortepianos
https://www.museidimaremma.it/museo/museo-degli-organi-santa-cecilia/

**Museum of Musical Instruments** | Milan
Part of the city's Applied Arts Collection; historical keyboard instruments and an organological collection
https://www.milanocastello.it

**Museo degli Strumenti Musicali – Galleria dell'Accademia** | Florence
Instruments owned by the Medici and the Lorena families; renaissance and baroque harpsichords and fortepianos
https://www.galleriaaccademiafirenze.it

**Vintage Record Museum** | Sogliano al Rubicone
Collection of vinyl records, gramophones, and phonographs from the late nineteenth century to the 1980s; the history of music recordings and sound reproduction technologies
https://museodeldiscodepoca.com

**Museo della Musica** | Venice
A private museum in San Maurizio, a deconsecrated neoclassical church; exhibition storytelling around Venetian and Cremonese eighteenth-century instrument-making; historical string and keyboard instruments
https://www.museodellamusica.com

**Soundscape Museum** | Riva presso Chieri (Turin)
Created from the collection of Domenico Torta: musical instruments, game calls, noise-making objects and toys
https://www.museopaesaggiosonoro.org

**Violin Museum** | Cremona
Celebrating traditional Cremonese violin-making; historical violins made by Stradivari, Amati, and Guarneri; workshops and concerts
https://www.museodelviolino.org

**Museo di Pianoforti Antichi Bartolomeo Cristofori** | Arquà Petrarca
Eighteenth- and nineteenth-century fortepianos and pianofortes by German, English, French, and Italian fabricators
https://www.fondazionemusicale.it/museo/

**Museo Internazionale della Zampogna "P. Vecchione"** | Scapoli (Isernia)
A museum completely dedicated to the zampogna and bagpipes more widely; places regional Italian varieties in conversation with bagpipes from Europe and beyond; historical instruments, sound documentation, and multimedia equipment
https://www.museodellazampogna.it

**Museo Nazionale Rossini** | Pesaro
Centring on the life and works of Gioachino Rossini; ten rooms filled with the composer's mementos, original sheet music, librettos, set designs, and Pleyel piano; multimedia devices and short-term exhibitions
https://www.museonazionalerossini.it

**International Museum and Library of Music** | Bologna
Extensive music collection; historical keyboard instruments, harpsichords, spinets, and fortepianos; the history of music and instrument-making
https://www.museibologna.it/musica

**National Museum of Musical Instruments** | Rome
Wide array of historical and modern instruments; organs, harpsichords, and old pianos
https://museostrumentimusicali.cultura.gov.it

**Museo San Colombano. Collezione Tagliavini** | Bologna
More than 70 historical keyboard instruments in working order; harpsichords, organs, spinets, and old pianos; concerts and guided tours
https://genusbononiae.it/luoghi/san-colombano

**Museo Teatrale Carlo Schmidl** | Trieste
Theatre and music museum in Trieste; a room for non-European instruments connected to Trieste's commercial networks with the Levant and the East in the second half of the nineteenth century; musical instruments, scene sketches, costumes, and documents
https://www.museoschmidl.it

***Netherlands***

**Gemeentemuseum Den Haag – Musical Instrument Collection** | The Hague
One of the most important instrument collections in the Netherlands; harpsichords, fortepianos, and Dutch instruments
https://www.gemeentemuseum.nl

**Museum Speelklok** | Utrecht
Mechanical musical instruments; carillons, barrel organs, and pianolas; many instruments in working order with guided demonstrations
https://www.museumspeelklok.nl

### *Norway*

**Troldhaugen** | Bergen
Edvard Grieg's home; original pianos, documents, and personal items belonging to the composer
https://www.griegmuseum.no

**Ringve Music Museum** | Trondheim
National Norwegian music museum; circa 2,000 instruments; historical organs and keyboard instruments
https://www.ringve.no

**Rockheim** | Trondheim
National museum for Norwegian popular music from the 1950s to today; interactive and multimedia exhibitions; Norwegian pop and rock Hall of Fame
https://www.rockheim.no

### *Poland*

**Hammond Museum** | Krosno
61 original Hammond organ models; visitors can play the instruments
https://www.muzeumhammonda.pl/

**Fryderyk Chopin Museum – Instytut Fryderyka Chopina** | Warsaw
Dedicated to Fryderyk Chopin; music manuscripts, personal correspondence, and the final piano the composer used
https://nifc.pl/pl/muzeum

**Museum of Musical Instruments in Poznań** | Poznań
The only Polish museum to collect professional and popular instruments; over 3,000 items; the harpsichord played by a young Mozart, heirlooms of Chopin, a collection of 160 pianos
https://mnp.art.pl/en/oddzialy/muzeum-instrumentow-muzycznych

### *Portugal*

**Museu do Fado** | Lisbon
Open since 1998; themed around the fado, a UNESCO Intangible Cultural Heritage listed genre; instruments (Portuguese guitars, violas de fado), recordings, posters, and biographies of great players; audio guides included in the ticket price
https://www.museudofado.pt/en

### *Russia*

**The Glinka National Museum Consortium of Musical Culture** | Moscow
One of the largest musical collections in Russia; instruments, manuscripts, sound archives, and historical documents

**Sheremetev Palace — Museum of Music** | St Petersburg
The location of Russia's State Collection of Musical Instruments; one of the biggest collections in the world; baroque and classical instruments in an eighteenth-century aristocratic mansion on the banks of the Fontanka River
https://www.theatremuseum.ru

### *Slovakia*

**Music Museum SNM** | Bratislava
A national documentary and scientific institution telling the history of Slovakian music and musical instruments; located in Bratislava Castle; operational as an independent museum since 1991; manuscripts, instruments, sound recordings, and historical documents
https://www.snm.sk/en/museums/music-museum/

### *Spain*

**Museu de la Música de Barcelona** | Barcelona
Collection of 1,600 sixteenth-century instruments; historical guitars, harpsichords, pianos, and instruments from all over the world
https://ajuntament.barcelona.cat/museumusica

**Museo Pau Casals** | El Vendrell
Dedicated to cellist Pau Casals; original instruments, documents, and personal items
https://www.paucasals.org/

**MIMMA – Museo Interactivo de la Música de Málaga** | Málaga
Private collection of more than 1.000 instruments from across the world; interactive exhibitions with Please Play areas where instruments can be played; the physics of sound, the origins of music, and traditions from five continents
https://www.musicaenaccion.com/mimma

### *Sweden*

**Guitars – The Museum** | Umeå
Over 1,000 guitars; rare and historically significant instruments; the evolution of guitar design
https://guitarsthemuseum.com

**Swedish Museum of Performing Arts** | Stockholm
Dance, music, and theatre; 60,000 items, including 6,000 musical instruments; interactive exhibitions
https://scenkonstmuseet.se

**ABBA The Museum** | Stockholm
Interactive museum for the Swedish pop band ABBA; original costumes, instruments, gold records, and recreated spaces; visitors can do virtual performances with band members
https://www.abbathemuseum.com

**Avicii Experience** | Stockholm
A museum for the Swedish DJ and producer Avicii (1989-2018); original equipment, documents, and an immersive exhibition about his life and career
https://www.aviciiexperience.com

### *Switzerland*

**Stravinsky House** | Montreux
Igor Stravinsky's residence; the composer's documents, instruments, and personal items

**Musikmuseum** | Basel
More than 3,000 fifteenth- to twentieth-century instruments in a former prison; the Ab Yberg organ, a Tielke viola da gamba, and a 1572 virginal
https://www.musikmuseum.ch

**Museo Svizzero dell'Organo** | Roche
An organ and organ history museum; historical organs and models; concerts and guided visits
https://www.orgue.ch/

### *United Kingdom*

**Ashmolean Museum** | Oxford
Historical keyboard instruments; harpsichords and lutes
https://www.ashmolean.org

**St Cecilia's Hall, University of Edinburgh Collection** | Edinburgh
One of the world's most important keyboard instrument collections; harpsichords and fortepianos in playable condition
https://www.ed.ac.uk/visit/museums-galleries/st-cecilias

**Handel Hendrix House** | London
The residences of Georg Friedrich Händel and Jimi Hendrix; both musicians' instruments, documents, and personal items
https://handelhendrix.org

**Horniman Museum** | London
One of the most complete collections in the United Kingdom; instruments from all over the world; historical keyboard instruments and interactive exhibitions
https://www.horniman.ac.uk

**Royal College of Music Museum** | London
More than 14,000 items; historical keyboard instruments; craftsmanship and musical performance
https://www.rcm.ac.uk/museum

**The Musical Museum** | Brentford
Mechanical and automatic instruments; theatre organs, pianolas, and orchestrions
https://www.musicalmuseum.co.uk

**British Music Experience** | Liverpool
The only British pop and rock (from 1945 to today) museum in the United Kingdom; the original costumes and instruments of artists from Mick Jagger to the Sex Pistols and Spice Girls; interactive area with playable instruments and a sound booth
https://www.britishmusicexperience.com

**Eel Pie Island Museum** | London (Twickenham)
Dedicated to the history of Eel Pie Island, a historic crossroads for British blues and rock in the 1960s; keepsakes, photos, and documents from concerts by artists like the Rolling Stones and The Who
https://www.eelpiemuseum.co.uk

## AMERICA

### *Argentina*

**Museo de Instrumentos Musicales Emilio Azzarini** | La Plata
One of the first musical instrument museums in Latin America; a university collection of world instruments; pre-Colombian, European, and popular Latin-American instruments
https://www.unlp.edu.ar

**Museo Mundial del Tango** | Buenos Aires
In the Palacio Carlos Gardel; also houses the Academia Nacional del Tango; covers the history of tango from 1850 to the current day across instruments, photos, costumes, and documents

### *Bolivia*

**Museum of Musical Instruments** | La Paz
Musical instruments from pre-Colombian Andean civilisations and from contemporary Bolivia

### *Brazil*

**Ouro Preto and Minas Gerais Historical Organs** | Ouro Preto
Wide collection of baroque and rococo Portuguese and Brazilian organs from the eighteenth and nineteenth centuries in the churches of Ouro Preto (UNESCO Heritage); promoted through concerts and historic research
https://www.ouropreto.mg.gov.br

**Museu do Samba** | Rio de Janeiro
In the Mangueira neighbourhood (2001); over 45,000 items spanning instruments, carnival costumes, documents, and historical videos of samba musicians; its research led to the samba's recognition as Brazilian cultural heritage
https://www.museudosamba.org.br

### *Colombia*

**Colección de Organología Musical – Universidad Nacional de Colombia** | Bogotá
Founded in 1966; classic Colombian instruments from the country's different indigenous, folk, and regional cultures; Colombia's oldest systematic organological collection
https://patrimoniocultural.bogota.unal.edu.co/coleccion-museografica-de-organologia-musical/

### *Cuba*

**Museo Nacional de la Música** | L'Avana
Founded in 1971, traces the historic development of Cuban music and instruments between the sixteenth and twenty-first centuries; Afro-Cuban, mechanical, and folkloric instruments; original Gonzalo Roig and Amadeo Roldán scores

### *Mexico*

**Festival Internacional de Órgano de Morelia** | Morelia
One of the oldest organ festivals in the world; historical baroque and colonial cathedral organs; masterclasses and seminars on organ conservation

### *United States*

**Estey Organ Museum** | Brattleboro (Vermont)
The history of the Estey Organ Company; pump organs and pipe organs; an interactive museum where instruments can be played
https://esteyorganmuseum.org

**George Eastman Museum – Aeolian Pipe Organ** | Rochester (New York)
Photography and cinema museum with grand restored Aeolian pipe organ; regular organ concerts
https://www.eastman.org

**Methuen Memorial Music Hall** | Methuen (Massachusetts)
Concert hall built for the Great Organ at Methuen, one of the most famous concert pipe organs in the world; concerts, masterclasses, and tours

**Metropolitan Museum of Art (MET) – Musical Instruments Department** | New York City (New York)
Approximately 5,000 instruments from six continents (300 BCE – today); harpsichords, historical pianos, and portative organs
https://www.metmuseum.org/about-the-met/collection-areas/musical-instruments

**Memphis Music Museums (Memphis Rock 'n' Soul Museum, Stax Museum, Blues Hall of Fame)** | Memphis (Tennessee)
A complex of institutions for blues, soul, and rock in Memphis; African American music heritage from the south of the United States
https://www.memphisrocknsoul.org

**Musical Instrument Museum** | Phoenix (Arizona)
Over 15,000 instruments from all over the world; sections for each continent; historical keyboard instruments; interactive experiences
https://mim.org

**National Music Museum** | Vermillion (South Dakota)
One of the fullest collections in the world; two original Bartolomeo Cristofori pianos; sixteenth- to eighteenth-century harpsichords, virginals, and clavichords
https://nmmusd.org

**Smithsonian Institution – National Museum of American History, Division of Musical History** | Washington D.C.
American and international musical instruments; music history in the USA; a collection of over 16,000 instruments
https://si.edu

**Moogseum** | Asheville, North Carolina
Founded in 2019 by the Bob Moog Foundation; dedicated to the Moog synthesiser and its inventor Bob Moog; playable theremins and synthesisers; interactive timeline showing 100 years of electronic music
https://moogseum.org

## ASIA

### *China*

**Baoji Bronzeware Museum** | Baoji
Bronze musical instruments from China's Bronze Age; bianzhong bells and Zhou and Shang ceremonial instruments
https://www.bjqtm.com

**Beijing Central Conservatory of Music Museum** | Beijing
A collection of Chinese and western musical instruments from Beijing's Central Conservatory of Music
https://www.ccom.edu.cn

**China National Musical Instrument Museum** | Beijing
One of the largest collections of traditional Chinese instruments; guqins, pipas, erhus, and historical ceremonial instruments

**Chengdu Traditional Music Instrument Exhibition** | Chengdu
Traditional Sichuan instruments; instruments from Tibetan and Qiang minorities

**Dunhuang Research Academy Music Exhibition** | Dunhuang
Replicas of historical Silk Road instruments
https://www.dha.ac.cn

**Guangzhou Musical Instrument Cultural Exhibition Hall** | Guangzhou
Cantonese music traditions; instruments from Cantonese opera

**Gulangyu Organ Museum** | Xiamen
The largest organ museum in Asia; historical pipe organs from European churches

**Gulangyu Piano Museum** | Xiamen
A vast collection of historical pianos from all over the world; rare exemplars from the nineteenth and twentieth centuries

**Hangzhou Chinese Traditional Musical Instruments Museum** | Hangzhou
Popular Zhejiang musical instruments; managed by a local producer

**Nanjing Art University Musical Instrument Collection** | Nanjing
University collection of Chinese and western musical instruments
https://www.nua.edu.cn

**Shanghai Museum of Musical Instruments** | Shanghai
Popular Chinese musical instruments; guqins, pipas, and erhus; live demonstrations

**Shanghai Symphony Orchestra Museum** | Shanghai
The history of the Shanghai Symphony Orchestra; orchestral instruments and historical archives
https://museum.shsymphony.com

**Shenyang Musical Instrument Museum** | Shenyang
Manchu and north-eastern Chinese musical instruments

**Suzhou Museum of Musical Instruments** | Suzhou
'Silk and bamboo' traditions from the Jiangnan region; traditional ensembles

**Tianjin Musical Instrument Museum** | Tianjin
The history of piano and violin production in China; Chinese and western instruments

**Wuhan Conservatory of Music Instrument Museum** | Wuhan
Chinese and western instruments; historical and contemporary examples

**Xi'an Conservatory of Music Museum** | Xi'an
Silk Road instruments; replicas of Tang-era instruments

**Yunnan Nationalities Musical Instrument Museum** | Kunming
Yunnan ethnic minority (Dai, Bai, Naxi, et al.) instruments

***Georgia***

**State Museum of Georgian Folk Songs and Instruments** | Tbilisi
Founded in 1975; more than 4,100 items including Georgian and Caucasian folk instruments, eastern and European classical and mechanical instruments; folkloric music manuscripts; audio archives of Georgian polyphonic singing

***India***

**Indian Music Experience (IME)** | Bangalore
The first interactive music museum in India; nine galleries themed around classical, folk, Bollywood, and contemporary music; an outdoor Sound Garden with interactive installations; opened in 2019
https://www.indianmusicexperience.org

**Sangeet Natak Akademi – Musical Instrument Gallery** | New Delhi
Approximately 2,000 musical instruments, masks, and theatrical objects from traditional Indian performances; inaugurated in 1964 by violinist Yehudi Menuhin; the largest collection of its kind in India
https://sangeetnatak.gov.in/museum

**Vadya Vithika – Musical Instrument Museum** | Kolkata
Over 300 folk, tribal, and classical instruments from eastern India (Western Bengal, Assam, Manipur, Odisha, and other regions); the largest musical instrument museum in eastern India
https://www.ezcc-india.org/vadya-vithika.php

### *Indonesia*

**World Music Museum** | Batu, Giava Est
A museum specialising in musical instruments from every continent; three floors of exhibitions; beginning with cultural area Jawa Timur Park 3; traditional Indonesian and international instruments

### *Iran*

**Isfahan Music Museum** | Isfahan
The first private music museum in Iran (2015); more than 300 traditional Persian and regional instruments; guided tours in English and French that end with live performances; awarded the ICOM Iran prize for best private museum in the country

### *Israel*

**Hebrew Music Museum** | Jerusalem
A collection of instruments from Jewish, including diasporic (Yemenite, Moroccan, Iraqi, Ashkenazi, and more), communities; interactive content through tablets and earphones; live performances;

### *Japan*

**Hamamatsu Museum of Musical Instruments** | Hamamatsu
The first public musical instrument museum in Japan; approximately 1,500 instruments from across the world; electronic section
https://www.gakkihaku.jp/en/

### *Kazakhstan*

**Kazakh Museum of Folk Musical Instruments** | Almaty
The traditional instruments of Kazakh and other Turkish-speaking communities; the dombra, kobyz, and other Steppe instruments

### *Macau*

**Museum of Sacred Art and Crypt** | Macau
Historical church organs and traditional Portuguese and Chinese instruments
https://www.macaumuseum.gov.mo

### *Mongolia*

**Jonon Khar Morin Khuurin Museum – Mongol Khuur Centre** | Ulaanbaatar
Dedicated to traditional Mongol instruments, with a focus on the morin khuur (horse-head fiddle), a national symbol in Mongolia; exhibitions, demonstrations, and music shows

### *Singapore*

**Singapore Musical Box Museum** | Singapore
The first museum for mechanised musical boxes in Singapore (2015); more than 40 historical carillons from the nineteenth and twentieth centuries; the history of Singapore's role in the development of carillons in South-East Asia
https://singaporemusicalboxmuseum.org

### *South Korea*

**AUDEUM – Audio Museum** | Seoul
A museum for music recordings and audio tools; Korea's histories of sound reproduction
https://www.audeum.com

**National Gugak Center Museum** | Seoul
Instruments used in traditional Korean music (gugak); gayageums, haegeums, janggus, and other instruments that form part of this heritage

### *Taiwan*

**Chimei Museum – Musical Instrument Collection** | Tainan
One of the largest private western musical instrument collections in Asia; historical violins, bowed instruments, and chamber instruments from the eighteenth to the twentieth centuries
https://www.chimeimuseum.org

### *Tajikistan*

**Gurminj Museum of Musical Instruments** | Dushanbe
Traditional central-Asian instruments; Tajiki music culture

### *Turkey*

**Topkapi Palace Museum – Musical Instrument Collection** | Istanbul
Ottoman and eastern musical instruments; cymbals and instruments from the imperial Ottoman court
https://www.topkapisarayi.gov.tr

## AFRICA

### *Burkina Faso*

**National Museum of Music** | Ouagadougou
The first systematic collection of traditional musical instruments from Burkina Faso; aerophones, membranophones, idiophones, and cordophones from different communities within the country; instruments 5 to 200 years old

### *Egypt*

**Umm Kulthum Museum** | Cairo
Dedicated to the singer Umm Kulthum (1898-1975); instruments, recordings, manuscripts, costumes, and personal items; the history of modern Arabic music

### *Morocco*

**Dar Jamai National Museum of Music** | Meknes
In a historic 1882 palace, the former residence of the Grand Vizier and home to the National Music Museum since 2014; traditional Moroccan musical instruments, including the amazigh, andalusa, gnawa, and chaabi

**Mouassine Museum of Music** | Marrakesh
A restored riad in the medina; a collection of traditional Moroccan instruments; a themed exhibition exploring Berber, Andalusian, Gnawa, and Chaabi music; interactive listening stations
https://www.wonderfulmuseums.com/museum/museum-of-music-mouassine

### *South Africa*

**South African College of Music Museum** | Cape Town
African and western musical instruments; South-African and sub-Saharan music heritage
https://www.sacm.uct.ac.za

**Drum Café & Museum of African Indigenous Musical Instruments** | Johannesburg
A private collection of indigenous African instruments from all across the continent; the largest collection of African drums in South Africa; interactive tours with live music demonstrations
https://www.drumcafe.com

***Tunisia***

**Centre for Arabic and Mediterranean Music (CAMM) –Ennejma Ezzahra Palace** | Sidi Bou Saïd
Arabic and Mediterranean music heritage; national Tunisian sound archives; traditional and organological instruments; musicological research
https://www.cmam.tn

## OCEANIA

***Australia***

**Melbourne Town Hall Grand Organ and Museum** | Melbourne
The largest romantic organ in the southern hemisphere; a museum with 3D models, concerts, and tours of the pipes

**Museum of Applied Arts and Sciences – Powerhouse Museum, Musical Instrument Collection** | Sydney
An important collection of Australian and international musical instruments; Aboriginal and western instruments
https://www.powerhouse.com.au

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This volume was created in response to an unrealisable proposal, and the unexpected direction such an impossibility opened up. It began with the PNRR-funded JERUS-IT-ARTS project, which investigates artistic networks between Italy and Jerusalem. Logistical issues prevented us from delving further into our initial idea, but our thinking shifted in a direction that, over time, revealed itself the stronger one.
How can a musical instrument be musealised? The question seems simple, but raises issues that traditional museology has not yet fully resolved. An instrument carries a function, a voice, a history of use. Restoring objects, selecting cases, designing sound experiences: all of these situations become knots to unravel one by one.
This volume tackles such nodes in the form of a science-based and use-oriented collective manual. We move from the histories of collections to contemporary museology and restoration, with thirty-five essays profiling the world's museums. Our book is aimed at students of musicology, museology, and cultural heritage, but also at curators, restorers, and designers. A very real lacuna is filled by this updated Italian-language manual for a discipline that is still in formation.

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This volume was funded as part of the
PNRR Project: Strategic Partnerships / Initiatives to Innovate the International Dimension of the AFAM System
Codice Identificativo INTAFAM000_44
CUP E33C24000160006

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