MUSIC

ICOM international council of museums

ICOM MUSIC *Bulletin* September 2026

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DEADLINE FOR THE NEXT BULLETIN:09 November 2026 | Submissions to the editor: jonathan.smb@ed.ac.uk

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CHAIR'S MESSAGE

Dear ICOM MUSIC Community,

In 2026, the International Council of Museums is celebrating its 80th anniversary. This milestone will be marked throughout the year with a programme of events initiated during the ICOM Annual Meeting in Paris in June. ICOM was founded in 1946 in response to the destruction of cultural heritage during the Second World War. As heritage in museums and cultural sites, and human lives sadly remain at risk from armed conflicts all over the world, ICOM continues to serve a vital function.

As mentioned on the CIMCIM-L, ICOM's Official Statement of support for Ukraine was followed up by a letter of support and solidarity to the Chair of ICOM Ukraine, co-signed by several International Committees, including ICOM MUSIC. All the Chairs of the International Committees recognise the additional need to send letters of support and solidarity to the Chairs of the National Committees in places like Iran, Lebanon, and Sudan, and so work on the letters continues. However, letters need to be accompanied by action. Therefore, an initiative to strengthen collaborations between the International Committees, National Committees and Regional Alliances in affected countries and areas has been introduced. It strives to connect people locally and online, where possible, for advice sessions. ICOM CONSERVATION and SECURITY have kindly offered to act as stewards for the initiative.

Like other ICOM Committees, ICOM MUSIC has members who are affected by conflicts in their countries. On behalf of the ICOM MUSIC Board, I extend my heartfelt wishes for your safety and that of your loved ones, and for the safeguarding of cultural heritage in your countries and regions.

The ICOM Annual Meetings in June included the Advisory Council meeting, where all Committee Chairs have a seat, and the 41st General Assembly that was live-streamed on ICOM's Agora platform for all ICOM members to attend online.

An important item on the General Assembly agenda was the vote on the revised ICOM Code of Ethics for Museums that the ICOM Standing Committee on Ethics (ETHCOM) had been working on since 2020. 85.90% of ICOM's voting members approved the revision, and the revised ICOM Code of Ethics for Museums was officially adopted, updating the global framework that guides museums and museum professionals worldwide. I extend warm thanks to the previous and current ICOM MUSIC Boards for stewarding the process for our IC and to ICOM MUSIC's members who contributed to this important work during the four consultations and the final vote that the ICOM MUSIC Board held among our members prior to the ICOM voting process. Our five Board members designated to vote at the ICOM General Assembly voted "Yes" in accordance with our members' indicated wishes. The Code of Ethics reflects the worldwide museum landscape through the extensive contributions and insights from ICOM's members, which have been gathered through the global consultation process. The Code of Ethics is a living document and, as such, has seen regular revisions, the last in 2006, and is likely to undergo change in the future.

Some news regarding our own International Committee:

In alignment with the revised ICOM MUSIC By-Laws, it is no longer possible to co-opt Board members, but from the next Board elections onwards, we can elect a larger Board. It will still be possible to invite members to chair, co-chair, or join Working Groups, and thus contribute to our IC's work.

On that note, I am pleased to announce on behalf of the ICOM MUSIC Board that Arnold Myers (Co-chair of the Sigla and Classification Working Groups, and the ListServ), Manu Frederickx (Co-chair of the Conservation Interest Group and ICOM MUSIC's Liaison to RIdIM), and Giovanni Paolo Di Stefano (Chair of the International Directory and Deputy Ambassador of the Ambassador Network) will be continuing their work. Furthermore, it is a great pleasure to announce that Elizete Bernabé has agreed to co-chair the work on ICOM MUSIC's LAC Programme, which will expand to include Brazil and the Portuguese-speaking members and wider community. We look forward to working closely together.

ICOM MUSIC's Strategic Plan 2025-2028, which the Board is currently working to finish, will be presented as soon as possible at an online event to which you will be invited, hopefully in September. Our new strategic plan is built on the previous version for 2022–2025, as well as the ICOM Strategic Plan 2022–2028. Hence, ongoing projects will continue, and others will develop in new directions.

The online event will include presentations of the results of the Sustainability and Provenance strategic pillars that were carried out during the past term. Another online event that the Board is looking forward to is the presentation of the translated and edited volume *El cuidado de los instrumentos musicales históricos* (The Care of Historic Musical Instruments) as part of ICOM MUSIC's Special Project Grant 2025 "Bilingual Documentation and Outreach: Expanding ICOM MUSIC's LAC Impact". We look forward to sharing these important results, once completed, on the ICOM MUSIC website.

We regret that the above-mentioned presentations have been delayed due to ongoing technical issues with the websites of ICOM MUSIC, as well as other committees. Since January 2026, the Board has been in frequent contact with the ICOM Secretariat, which unfortunately has not provided much information as to how things are progressing. It is frustrating that the website has not been functioning for months because it is the official face of our committee and the place where we access important repositories and announcements. Recent news from ICOM's Secretariat suggests that the website should be up and running again soon.

The shift of the venue for our Annual Meeting 2026 from Tbilisi, Georgia, to Edinburgh, UK, was due to unexpected circumstances, and the members of the ICOM MUSIC Board extend our sincere gratitude to the management and colleagues of St Cecilia's Hall for welcoming us at short notice. For more information about the Annual Meeting 2026, please see the dedicated article on page five in this volume. We look forward to seeing many of you at the conference in Edinburgh and to contributing in this way to ICOM's eight decades of connecting museums, museum professionals and communities across the world.

Marie Martens
ICOM MUSIC Chair 2025–2028

Sarah Deters
ICOM MUSIC 2026 ANNUAL MEETING IN EDINBURGH

The 2026 Annual Meeting of ICOM MUSIC will take place in the historic St Cecilia's Hall, the home of the University of Edinburgh's musical instrument collection in Edinburgh, UK, 3–5 September 2026. The theme of this year's meeting, "Musical Instrument Collections in Digital Transformation: Research, Access, and Museum Ethics," examines the challenges and opportunities that digital technologies bring to musical instrument collections and will provide a timely opportunity to come together, share ideas, and engage in meaningful discussions within our shared field. To make the meeting as accessible as possible, those who cannot attend in person will be able to attend online.

The conference papers and panel discussions will be presented in the Sypert Concert Room of St Cecilia's Hall, the oldest purpose-built concert hall in Scotland. Throughout the conference and during tea and coffee breaks, participants will be invited to socialise in the Laigh Hall, the historic undercroft of the Concert Room, and to explore the musical instrument galleries, displaying more than 400 musical instruments from the last 500 years. In addition to presentations, the conference will include musical instrument demonstration sessions and a concert performed in the Sypert Concert Room.

The registration fee will cover all tea and coffee breaks, a welcome reception with a traditional Scottish fiddle performance, one concert ticket to a performance of 18th-century Georgian music featuring original instruments from the University of Edinburgh's collection, and the closing banquet. Additional tickets to the concert and for guests to attend the banquet can be purchased when registering for the conference.

St Cecilia's Hall is located in Edinburgh's Old Town, the medieval heart of the city and part of a UNESCO World Heritage Site. Edinburgh is a sought-after tourist destination known for its dramatic skyline, lively art, music and festival scene, and literary roots. As the capital of Scotland, Edinburgh is a small but cosmopolitan city that is well connected to the world via air and train transport.

The team at St Cecilia's Hall, the ICOM MUSIC Board, and the Conference Committee look forward to welcoming you to the 2026 ICOM MUSIC Annual Meeting in Edinburgh. We hope to greet many existing and new members, whether in person or online, at this exciting event.

Sypert Concert Room in St Cecilia's Hall.

Ana Ester Tavares
HARMONIA DAS VIRTUDES: ICONOGRAPHIC STUDY AND RENAMING OF A TAPESTRY AT THE MUSEU NACIONAL DA MÚSICA

A recent study by Ana Ester Tavares, affiliated with the Portuguese *Centro de Investigação Transdisciplinar Cultura, Espaço e Memória* (Transdisciplinary Research Centre for Culture, Space and Memory, CITCEM) of the *Faculdade de Letras da Universidade do Porto* (Faculty of Arts and Humanities of the University of Porto, FLUP), offers the first formal scholarly examination of tapestry MNM 1453, a piece that entered the collection of the *Museu Nacional da Música* (MNM) in Lisbon following a transfer from the Escola Artística de Música do Conservatório Nacional in 2019. The study was originally presented at the colloquium "Tec(S)endo Portalegre" in May 2025 and has since been expanded into a paper, coinciding with the inauguration of the MNM's new long-term exhibition in November 2025.

The research was prompted by the near-total absence of documentary information about the piece. Working from photographs and the conservation and restoration report produced during the intervention at the *Laboratório José de Figueiredo* in Lisbon, as well as from direct observation of the object during the installation of the MNM's new long-term exhibition, the author applied a transdisciplinary methodology spanning Art History, Musicology, and Musical Iconography, drawing additionally on specialised bibliography, comparative visual sources, and archival research at the Ministry of Education and Science.

The formal analysis established that the tapestry, measuring approximately 279 × 260 cm and incomplete due to a cut lower border, bears no

Tapestry MNM 1453.

manufacturer's marks – a significant limitation, as such marks, had they been present, could have provided a more precise indication of its provenance and date of production. Nevertheless, the structural, chromatic and figural parallels with 16th-century pieces from Brussels and Oudenaarde, including examples held by the National Trust (UK) and the Museum Oudenaarde (MOU), support the hypothesis that MNM 1453 originated in Flanders, most likely during the same century. The faded colour palette is, in itself, a possible indicator of Oudenaarde provenance, given that city's specialisation in lower-cost tapestry production for the retail market.

The iconographic analysis constitutes the most substantial contribution of the study. Ana Ester Tavares identifies the central figure of the composition as Justice, one of the Cardinal Virtues, flanked by Wisdom (Sapientia) and accompanied by a mixed consort of four musicians playing harp, lute, an aerophone, and tambourine. The gathering of instruments from different families – strings, wind, and percussion – is interpreted as a visual metaphor for Concordia, evoking the widespread Renaissance and Baroque concept of *Musica Discors Concordia Vocum:* the idea that, just as music arises from the harmony of discordant voices, a well-governed community depends on the virtuous accord of its members. This reading is further reinforced by a parallel with another Flemish tapestry depicting Music as one of the Seven Liberal Arts. Its border inscription, *Feras temperat, homines mitigat, superos placat* ("It tames wild creatures, pacifies men, reconciles the gods"), articulates with particular clarity the qualities of Music as an instrument of peace and civic harmony, lending additional weight to the allegorical interpretation proposed for MNM 1453. The border figures are identified as the Theological Virtues of Hope and Faith, alongside a partially preserved figure, tentatively identified as Fortitude or Minerva, guardian of the Virtues.

These findings led Tavares to propose a new title for the piece – *Harmonia das Virtudes* ("Harmony of the Virtues") – replacing the purely descriptive former title *Cenas de Música num Jardim* ("Music scenes in a garden"). The renaming reflects a deliberate museological choice: to offer visitors an interpretive framework that goes beyond the identification of instruments and performers, situating the tapestry within a rich tradition of civic and moral allegory in early modern European art.

Open questions remain, notably regarding the circumstances of the tapestry's acquisition by the Portuguese State, and whether it belongs to a broader narrative series. The author also raises the possibility that the piece may have formed part of an allegory of Good and Bad Government, or, alternatively, of the Five Senses. These avenues remain open as productive directions for future research.

The paper, extensively illustrated, is available in open access through the repository of the Universidade de Évora at http://hdl.handle.net/10174/42015

Mathias Østrem, Morten Haugdahl
HOW DO YOU COLLECT FANDOM? PUBLIC PARTICIPATION AND EXHIBITION DEVELOPMENT IN WE<3YOU

Popular music history is often told through artists. Museums collect instruments, stage costumes, recordings and photographs. Books focus on songwriters, performers and producers. Fans rarely occupy the spotlight. Yet popular music does not exist without listeners.

Fans buy records, attend concerts, build communities, create archives, produce fanzines, organise fan clubs, preserve memories and keep music alive long after its initial release. Despite this, the material traces of fandom have often been overlooked by museums and archives.

This observation became one of the starting points for WE<3YOU (We Heart You), a temporary exhibition at Rockheim – Norway's National Museum of Popular Music. Opened in 2026, the exhibition explores fandom as a cultural practice and examines the many ways fans participate in popular music culture, from collecting and organising to creating, sharing and building communities.

Located in Trondheim, Norway, Rockheim forms part of the Norwegian Museum of Music – Ringve and Rockheim. As Norway's national museum of popular music, it is responsible for documenting, preserving and communicating the history of popular music and popular music culture. While artists, recordings and performances have traditionally occupied a central place in museum collections and exhibitions, WE<3YOU emerged from a desire to explore another equally important part of this history: the audiences.

The project also emerged from questions raised by Rockheim's own collections. Over the years, the museum had acquired fan letters, fan club magazines, membership cards, scrapbooks and other traces of fan activity. Together, these materials raised a question that became central to the exhibition project:

How can museums document and represent fandom?

Ethical Questions and Existing Collections

The existing material in our collections also raised new questions, particularly concerning museum ethics. Much of the most interesting material turned out to have an unclear legal and ethical status. A good example was the museum's collections of fan letters, originally acquired as part of larger artist archives. For many years, letter writing was an important fan practice connected to popular music. At the same time, these letters were never intended for public circulation. They were written by private individuals not seeking public attention and were addressed to a specific recipient. Many were also written by young people or others in vulnerable positions.

Further investigation revealed that the fan letters were invaluable historical sources. They contained first-hand accounts of what music and fandom meant to people, offering unique insights into listening practices, emotional experiences and everyday engagement with popular music across different periods.

For ethical reasons, fan letters ultimately occupied only a modest place within the exhibition itself. Instead, they became the subject of a more substantial discussion in the exhibition catalogue. The catalogue also includes a series of essays exploring different aspects of fandom, written by both internal and external contributors.

For the exhibition, the solution was to initiate a new collecting campaign in which questions of consent, rights and ethical responsibility could be addressed from the outset.

The visual identity of WE<3YOU incorporates photographs, objects and stories contributed through Rockheim's public collecting campaign alongside items from the museum collection. Drawing inspiration from 1990s teen magazines and fan-made scrapbooks, the design mirrors the exhibition's collaborative approach to documenting fandom.

Very quickly, however, we encountered another challenge: How do you collect fandom?

One important source of inspiration was the work of the Museum of Youth Culture in London. Their approach to documenting everyday youth experiences highlighted the value of collecting personal memories, photographs and stories that often remain outside institutional archives. Rather than focusing solely on artists and musical works, we became interested in the places where music is lived: bedrooms, between friends, fan communities, collections and everyday practices.

Inspired by this approach, Rockheim launched a public collecting campaign in autumn 2025.

Collecting fandom

The campaign was publicised through several channels. A series of Instagram videos featured members of the exhibition team explaining the project and inviting the public to contribute. We also visited fans and documented their stories, including a Norwegian Hanson fan whose engagement with the American sibling trio had continued from the height of their global success in the late 1990s to the present day. Her story would later become part of the exhibition. The campaign was supported through local newspaper coverage, printed flyers distributed in Trondheim, and outdoor advertising featuring fan photographs and stories. At the centre of the campaign was an online portal where contributors could upload photographs and written memories.

We were particularly interested in photographs of teenage bedrooms, concert experiences, collections, friendships and everyday fan activities. We also encouraged contributors to contact the museum if they possessed objects, archives or other materials related to fan culture.

The campaign remained open alongside the exhibition development process and closed approximately one month before the exhibition opening. Following the launch of WE<3YOU, the portal was reopened as an ongoing channel for collecting fan-related material. Fan culture remains a priority area within Rockheim's collecting strategy, and the campaign continues to function as a tool for identifying potential future donations and contributors.

In quantitative terms, the campaign generated fewer submissions than we initially expected. In qualitative terms, however, it proved far more valuable than anticipated.

Rather than processing large quantities of material, we were able to spend time getting to know contributors, understanding their stories and building relationships. The campaign became less about gathering data and more about developing a network of people who cared deeply about music and wanted to share their experiences.

The campaign also reached beyond Norway. Through fan communities on social media, particularly Facebook groups dedicated to specific artists, the project attracted international participants. One example was the global fan community surrounding the Norwegian artist Girl in Red. Through the Facebook group World in Red, fans from several countries submitted stories and photographs documenting how music had shaped their lives, friendships and relationships.

The most significant outcome of the campaign, however, was not the material we collected. It was the way the collected stories transformed the exhibition itself.

During the early planning stages, the exhibition team explored several different approaches to fandom. How much space should be devoted to artists? Should the exhibition focus primarily on fan objects, fan communities, music history, or fan psychology? Various scenarios were discussed, tested and abandoned.

As contributions began arriving, the exhibition's central idea became easier to realise in practice. The project had always aimed to place fans rather than artists at the centre of the story, but the campaign demonstrated that diversity could be represented through fans themselves. Their experiences, relationships and activities became the exhibition's central narrative, providing a perspective that cut across genres, generations and musical tastes.

From Collection to Exhibition

One of the clearest examples can be found at the entrance to the exhibition. Visitors are greeted by a large collage wall composed entirely

Teenage photographs and personal stories submitted through Rockheim's collecting campaign. The collage wall introduces visitors to WE<3YOU and demonstrates how audience contributions became part of the exhibition's narrative framework. Photo: Hallvar Bugge Johnsen/Norges musikkmuseum - Ringve og Rockheim

of photographs and stories submitted through the collecting campaign. The images depict teenage bedrooms, concert experiences, friendships, collections and personal memories. By opening the exhibition with audience contributions rather than museum objects, the campaign material establishes the tone for everything that follows.

The campaign also reinforced an idea that had existed within the project from an early stage: the importance of the teenage bedroom.

The bedroom is often the first place young people can truly call their own. It is a private space where interests, emotions and identities can develop without interference from the outside world. Music plays an important role in this process, helping young people express feelings, experiment with identity and build communities of belonging.

Many contributors submitted photographs of their teenage bedrooms and described the role these spaces played in their lives as fans. Inspired by these submissions, the exhibition team developed an immersive teenage bedroom installation based on a

real Spice Girls fan's bedroom from 1997. Original posters, magazines, memorabilia and personal objects helped transform participant memories into a physical museum environment.

The submissions also revealed another important theme. While many stories centred on adolescence, many contributors described fandom as something that continued long into adulthood.

Based on photographs and memories shared by contributors to the collecting campaign, the teenage bedroom recreates a fan's personal universe in 1997. Original Spice Girls posters, magazines and memorabilia from an authentic Norwegian teenage bedroom were used to evoke the intimate spaces where many fan identities first took shape. Photo: Hallvar Bugge Johnsen/Norges musikkmuseum - Ringve og Rockheim

This insight directly inspired the exhibition section Fans 4 Life, which presents six fan portraits based on contributors to the collecting campaign. Among them is Trine Pernille, whose passion for Hanson led to lifelong friendships and an international social network built around concerts and fan gatherings. Ivy, a fan of the Norwegian artist Girl in red from the Philippines, met her future wife through the artist's fan community. Bjarne spent decades promoting Drama, a Norwegian pop group from the 1980s, through books, television productions and fan initiatives. Robin transformed a childhood fascination with Vazelina Bilopphøggers, a Norwegian rockabilly show band, into his own fan museum. Irene's lifelong commitment to heavy metal continues through concerts, collecting, volunteering at festivals and participation in music communities. Larissa from Germany ran her own fan club dedicated to A-ha. Her enthusiasm for the band developed into a lifelong project of collecting, documenting and writing, eventually shaping her academic career.

Together, these stories challenged the common assumption that fandom is simply a temporary phase of adolescence. Instead, they demonstrated how music can shape friendships, careers, identities and communities across an entire lifetime.

The final section of WE<3YOU explores fandom through a series of fan portraits and artist interviews, highlighting different perspectives on the relationship between artists and audiences. In the foreground is Robin Nikolaisen's portrait from the exhibition section Fans 4 Life, where contributors from Rockheim's collecting campaign share stories of lifelong fandom and the many ways music continues to shape their lives. Photo: Hallvar Bugge Johnsen / Norwegian Museum of Music – Ringve and Rockheim.

The project also highlighted the value of participatory collecting as a curatorial method. Rather than treating collecting as something that happens before an exhibition is developed, WE<3YOU allowed collecting and exhibition-making to occur simultaneously. Audience contributions were not simply added to a finished concept; they actively influenced the themes, structure and narrative direction of the exhibition.

The process reinforced another important lesson. Fan culture remains significantly underrepresented in museum collections despite its central role in popular music history. Many of the materials encountered during the project—scrapbooks, fan letters, homemade magazines, photographs and personal archives—exist only in private homes. Without active collecting efforts, much of this material risks disappearing before it reaches museums or archives.

For Rockheim, the campaign has therefore become more than a temporary exhibition project. It has become part of a broader effort to document fan culture as an important aspect of contemporary cultural heritage.

Although WE<3YOU opened in 2026, the collecting campaign did not end with the exhibition. The online portal remains active, allowing the museum to continue receiving stories, photographs and object donations. New material is still arriving, and the network created through the project continues to grow.

The public collecting campaign behind WE<3YOU did more than provide material for an exhibition. It changed the exhibition itself.

The photographs, memories, objects and relationships generated through the campaign became part of the exhibition's content, visual identity and curatorial framework. They helped shift the focus from artists to audiences and demonstrated how museums can work collaboratively with the communities they seek to represent.

In this sense, WE<3YOU became more than an exhibition about fans. It became an exhibition shaped by fans.

Zami Ravid
THE MUSIC BOX OF ZAMI RAVID. A PRIVATE MUSEUM, DESTROYED AND REBUILT

As a child growing up in Israel, I played the piano, but I was struck by the scarcity of early musical instruments in the country, even at the Abu Gosh Festival, which was dedicated to early music. In the absence of a musical instrument museum in Israel, I began building my own private collection. Over time, the collection grew to approximately 400 objects, encompassing European keyboard, string,

The exhibit in 2023.

wind, and percussion instruments, alongside instruments from 53 other countries. Highlights included a violin by Joseph Poussot, a harmonium by Alexandre Debain, an early serinette, music boxes, metronomes, and tuning forks.

The collection was displayed in my house in Metulla, close to the Lebanese border, as a small private museum known as The Music Box of Zami Ravid. From its opening, approximately 35,000 people visited it. Visits combined an introduction to the collection with demonstrations and short recitals on various keyboard instruments. The museum also produced booklets and CDs.

In September 2023, I presented the collection at the CIMCIM conference in Amsterdam. A month later, following the outbreak of war, the museum was closed.

Museum professional carrying out surface cleaning.

The exhibit after the bombing.

On 19 September 2024, the house in Metulla was struck and completely destroyed. Most of the instruments could subsequently be recovered, although some had sustained damage. With the assistance of Yad Ben-Zvi, they were transferred to the Eretz Israel Museum in Tel Aviv. Both institutions are members of ICOM.

There, a voluntary team of museum professionals from museums in Jerusalem helped to examin and clean the instruments and, where possible, to stabilise or repair damaged objects. The collection is now being reorganised and redisplayed. This work is still in progress.

The loss of the original museum setting cannot be reversed. Nevertheless, the recovery of most of the collection and the assistance provided by two Israeli cultural institutions have made it possible to preserve the instruments and return them to public view.

Milan Barbé

LOW-COST PHOTOGRAMMETRY FOR ORGANOLOGY: A REPRODUCIBLE WORKFLOW FOR 3D DOCUMENTATION OF HISTORICAL MUSICAL INSTRUMENTS

Introduction

The application of three-dimensional (3D) digital technologies has become an increasingly important component of organological research, complementing traditional approaches based on historical documentation, stylistic analysis, and the physical examination of instruments.[1] Techniques such as computed tomography (CT), structured-light scanning, laser scanning, and photogrammetry have demonstrated considerable potential for the documentation, analysis, and conservation of historical musical instruments, enabling researchers to investigate aspects of construction and morphology that are often difficult to assess through conventional methods alone. Recent scholarship emphasises that such technologies should serve organological questions rather than become ends in themselves, reinforcing the need for reproducible workflows accessible to researchers, conservators, museum professionals, and instrument makers.

Among these techniques, photogrammetry offers several practical advantages. Unlike many dedicated scanning systems, it requires relatively modest equipment, can be deployed directly within museum collections, and is well suited to fragile instruments that cannot easily be transported or subjected to extensive handling. Although numerous studies have demonstrated the value of 3D digitisation for cultural heritage and historical musical instruments, comparatively few publications describe complete photogrammetric workflows in sufficient detail to permit reproduction, validation, and critical assessment by other researchers.

This article addresses that need by presenting a reproducible markerless photogrammetric workflow for the digital documentation of the eighteenth-century lute SAM711, reconstructed using Agisoft Metashape (Standard, v2.1.2–2.1.3). Rather than

View of the set-up for close examination of the pegbox of a lute in the Kunsthistorisches Museum Vienna

proposing a new imaging technique, the aim is to document each stage of the workflow—from image acquisition and processing to scaling and metric validation—in sufficient detail to facilitate replication and future refinement. Particular emphasis is placed on documenting the practical decisions made during image acquisition in a museum environment, where conservation requirements, limited access, and handling restrictions frequently influence the recording process.

Beyond reproducibility, the workflow illustrates the wider potential of photogrammetric documentation within organology. High-resolution digital models can support morphometric research, comparative studies across geographically dispersed collections, conservation planning,[2] and the long-term documentation of fragile artefacts. They also offer significant opportunities for contemporary instrument makers, who can study historical construction techniques through detailed virtual models integrated into digital collection platforms, reducing the need for travel or direct handling of original instruments. By documenting the full workflow, this article aims to contribute to the integration of digital methodologies into organological research and their broader adoption in museum and instrument-making contexts.

Photogrammetric workflow and technical documentation

To ensure reproducibility, the following section documents the scanning environment, processing parameters, and validation procedures employed in the reconstruction of SAM711.

a) Imaging equipment and scanning environment

Image acquisition was carried out using a Nikon D850 camera equipped with a 50 mm lens (5504 × 8256 resolution, 4.35 µm pixel size). All images were captured at a fixed focal length of 50 mm, allowing intrinsic camera parameters to be estimated during bundle adjustment.

Computational processing was performed on a workstation equipped with an Intel Xeon Gold 6136 CPU (3.00 GHz), 127.65 GB RAM, and an NVIDIA GeForce RTX 2080 Ti GPU.

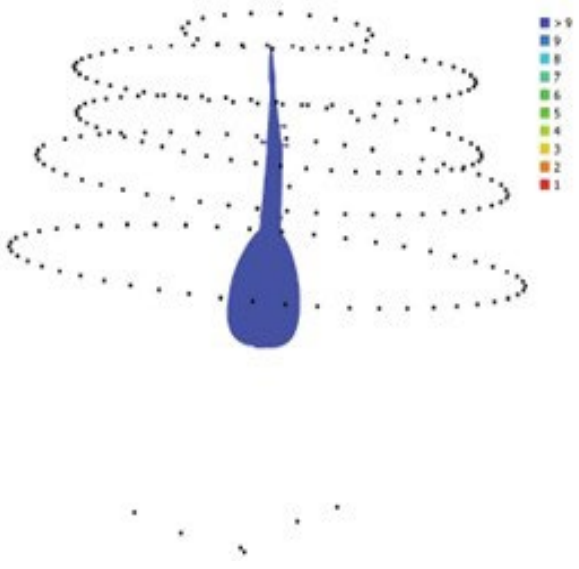
The photogrammetry sessions were conducted using a controlled imaging environment consisting of a fully adjustable turntable, a custom-built support rig made of carbon fibre and wood, three diffused LED lightboxes, a colour chart, and a MacBook Pro for monitoring and controlling the hardware. The support system allowed flexible repositioning of the instrument depending on its geometry and occlusion requirements.

Three LED light sources were used with variable angles depending on the area being documented, in order to minimise specular reflections on the instrument surface.

A white background was used instead of a black one, as many structural elements of the instrument (the pegbox, fretboard, and soundboard edges) are dark. Although this increases sensitivity to lighting variations, it provides better overall edge detection and reconstruction consistency.

No coded targets or scale markers were used during photography.

b) Image acquisition strategy



Camera locations and image overlap of SAM711. The colours indicate the confidence of the model as calculated by the software.

The dataset consists of 228 photographs taken at the Kunsthistorisches Museum Vienna. Image acquisition followed a hybrid orbital and targeted approach.

Four full 360-degree camera rings, each comprising 50 images, one image taken every 7.2° intervas, were used to document the main body of the instrument and the neck. An additional ring of 22 images was used to capture the head carving and pegbox details at higher resolution. A further six images were acquired to resolve a small occluded region near the endpin caused by the support structure.

The instrument was repositioned multiple times on the support rig in order to reduce occlusions and enable documentation of otherwise hidden areas, including parts of the underside. For these regions, the instrument was placed on a table and the camera was moved around the lower geometry to ensure sufficient coverage.

Front view of SAM711 on the support rig.

No internal imaging of the bowl was performed; only the external geometry was documented.

The overlap between images was not numerically defined but resulted from the dense, multi-ring photography strategy.

c) Image Preprocessing and Masking

All images were processed using a semi-automated masking workflow in Adobe Photoshop to remove the support structure and background elements. Masks were subsequently checked manually and corrected where necessary to ensure consistency across the dataset.

No further automated background removal or coded segmentation tools were used.

d) Photogrammetric Processing

Image alignment was performed in Agisoft Metashape using the highest accuracy setting with Guided Image Matching enabled. This resulted in 602,927 detected features, of which 341,462 were successfully matched as tie points.

The aligned dataset was used to generate a dense point cloud and subsequent mesh reconstruction. The final model consists of 4,092,127 vertices.

Processing required more than seven hours on the workstation described above, illustrating that high-resolution photogrammetric reconstruction remains computationally demanding even with modern GPU acceleration.

e) Scaling and Metric Validation

Because photogrammetric models are reconstructed in an arbitrary coordinate system, metric scaling was applied post-reconstruction using the vibrating string length of 724 mm as a reference measurement.

External validation was performed by comparing measurements taken directly from the physical instrument with equivalent measurements extracted from the scaled 3D model.

The resulting model shows strong internal consistency, with a reprojection error of 0.697 pixels.

f) Accuracy Assessment

Overall deviations between physical and digital measurements remain within approximately 1% across all axes. The x-axis (length) shows an average deviation of 0.34%, the y-axis (width) 0.65%, and the z-axis (depth) 0.8%.

Although absolute differences are small, their relative impact is greater for the narrower width and depth dimensions than for overall length. The largest absolute deviation measured is just over 2 mm on the full string length.

The observed differences between axes cannot yet be conclusively explained. While potential contributing factors may include variations in viewing geometry, residual lens distortion, or the increased complexity of reconstructing curved surfaces, these variables cannot be isolated within the scope of the present study. Further systematic research is required to determine whether these deviations reflect a general characteristic of photogrammetric workflows for similar objects or are specific to this case study.

g) Summary of Technical Performance

Despite minor metric deviations, the reconstructed model provides a reliable digital surrogate of SAM711 suitable for qualitative and morphometric analysis. The workflow demonstrates that markerless photogrammetry, combined with post-hoc scaling and careful masking, can produce high-resolution and metrically stable models of complex historical musical instruments in museum contexts.

Potential applications and long-term preservation of digital models

Beyond their immediate use for metric validation and comparative analysis, the resulting 3D models offer a range of potential applications within organology and museum-based research on historical musical instruments. Because the reconstructions preserve detailed geometric information that can be examined independently of the physical objects, they enable forms of analysis that are difficult or impossible to perform in situ, particularly where access is restricted by conservation requirements or institutional constraints.

In particular, the models provide a basis for systematic morphometric comparison across larger corpora of instruments, supporting questions of workshop practice, regional traditions, and maker-specific construction. Within this context, methods derived from geometric morphometrics, including cross-sectional analysis and thin-plate spline deformation techniques, offer additional possibilities for quantifying shape variation within a consistent and reproducible analytical framework.[3]

Beyond analytical applications, the models also have direct relevance for makers and practical organological engagement. When integrated into online platforms such as MIMO International, 3D models could improve access to historical instruments by allowing makers to examine constructional details, proportions, and geometries without the need for travel or repeated handling of fragile originals. Such models can become active resources for historically informed making, reconstruction, and education.

From a conservation perspective, digital models likewise offer valuable applications in both preventive documentation and intervention planning. High-resolution reconstructions provide detailed baseline records against which future condition assessments can be compared, allowing subtle structural changes to be monitored over time. They may also support virtual testing of restoration strategies before physical intervention, enabling conservators to evaluate alternative approaches while minimising risk to the original object. Furthermore, the accurate geometric information contained within these models can be used to design custom storage mounts, transport supports, or exhibition cradles that conform precisely to instrument morphology, thereby reducing mechanical stress during handling, storage, and display.

The long-term value of these applications, however, depends on the sustainability of the digital models themselves. As Koller, Frischer, and Humphreys have argued, 3D models should be regarded not merely as visualisations but as scholarly objects that require the same attention to provenance, documentation, and long-term preservation as more traditional forms of research output.[4] Their scientific value depends not only on the reconstructed geometry but also on the preservation of the complete documentation chain from which the model was derived.

For photogrammetric datasets, this documentation extends beyond the final mesh to include the original image archive, masking procedures, processing parameters, software versions, scaling methodology, validation measurements, and associated metadata. Preserving these interconnected datasets ensures that future researchers can critically evaluate, reproduce, and, where necessary, refine the reconstruction rather than treating the model as an isolated digital object. Recent work on the digital preservation of 3D cultural heritage has similarly emphasised the need to align such datasets with FAIR principles, ensuring that they remain Findable, Accessible, Interoperable, and Reusable throughout their lifecycle.[5] In practice, this requires stable formats, persistent identifiers, and comprehensive metadata to ensure reuse across institutions and software environments.

These considerations are particularly relevant within organology, where comparative research frequently depends upon material preserved in geographically dispersed collections. By combining reproducible image acquisition protocols with robust archiving practices, photogrammetric models become more than documentation products; they form part of a research infrastructure for analysing, comparing, and interpreting historical instruments across institutions. While demonstrated on a single case study, the workflow is intended as a reproducible framework applicable to broader organological research and digital documentation practices.

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Mimi Waitzman
MUSICAL BODIES AT THE METROPOLITAN MUSEUM OF ART, NEW YORK.

Immediately following the stimulating and collegial AMIS conference in Vermillion, South Dakota, I was enabled, by a generous grant from the UK's Art Fund, to attend the advance opening of the major new musical instrument exhibition at the Metropolitan Museum of Art in New York. Musical Bodies, as articulated by the Curator, Dr Bradley Strauchen-Scherer, in the weighty accompanying volume of the same name, 'explores the overlapping worlds and blurred boundaries between the human body and musical instrument. This profound connection manifests around the world and across time not only in music, but also in how instruments are deployed in the visual arts, literature, religion, pop culture, folklore, and mythology.' (p.15)

While issues of Diversity, Equity and Inclusion (DEI) are, quite rightly, central to museum discourse and display practice internationally, Musical Bodies appears to take those principles as a foundation rather than as its primary thrust. In so doing, it shifts the discussion towards a broader consideration of what connects us as human beings: how, across cultures and contexts, we shape, share and seek to understand the human condition through the arts. The Metropolitan Museum provides an exceptionally fitting context in which to foreground these perspectives. Its location in New York City, together with the institution's staff expertise, resources, wide collections and international profile, gives it considerable capacity to examine and communicate such ambitious ideas. It is greatly to the Museum's credit that it has chosen to do so using music and instruments as the primary vehicle.

I participated in the full programme of advance opening activities for the invited audience, beginning with the inaugural gala. Guests had been advised that the dress code was 'musical attire', and many rose fully to the occasion. Dr Strauchen-Scherer had designed and made her own dress adorned as a French horn, while others wore headgear evocative of string instruments; the less adventurous nodded to decorative styles such as chinoiserie, or incorporated clarinet key patterns into their suits and ties, and keyboards onto their socks and tights. The celebratory atmosphere was heightened by delicious hors d'oeuvres and live musical performances including flamenco dancing and beatboxing. A veritable feast of the senses!

Dr. Bradley Strauchen-Scherer (right) in a 'French horn' dress of her own design at the Gala opening of Musical Bodies, with Mimi Waitzman.

Nevertheless, the highlight of the occasion was indisputably the viewing of the exhibition. It divided what might have proved an unwieldy topic into two coherent sections of three chapters, each with a relatable and insightful narrative. The first section, Bodies, was subdivided into body/instrument, instrument/body and superhuman. The second section, Beings, was partitioned into diverse beings, passionate beings and transient beings. An astonishing diversity of instruments and relevant artworks fell naturally into these sections.

Fortunately, I was able to revisit the exhibition on a quieter day, allowing time to contemplate more fully not only the playful, but also the provocative and discerning aspects of the ancient and embodied relationships of people, with instruments and music that were captured in the displays. These featured not only overtly sexual images and instruments, but also those redolent of death and more abstract ideas of human transience, fragility, joy and community.

Overtly sexual instrument: Custom-made "legs guitar", 2005, Art Department, New Line Cinema

Later that week, a keynote address by Dr Strauchen-Scherer, encapsulating these themes, was followed directly by a demonstration by, and active engagement with, a Brazilian beatbox duo. These gifted body musicians had us all on our feet, clapping our hands, tapping our thighs, chests and tummies and generally attuning ourselves to the dynamic musical potential of our own corporeal being.

Shrouded Drums by Terry Adkins

This acted as an introduction to a day-long workshop on tailoring museum learning approaches to different age groups, using Musical Bodies as a point of departure. One of the sample educational exercises led by the Met's School and Music Education Programmer, David Freeman, asked participants to respond to one of the more conceptual exhibits, Shrouded Drums by Terry Adkins, an American sculptor, musician, filmmaker, printmaker and orchestrator of installations and experiences. (Musical Bodies, p.185). For some, myself included, the artwork conveyed unbearable sadness and overtones of death, but the sharing of impressions among participants brought forward more life-affirming interpretations including community memory and renewal. Such gentle, yet purposeful interventions, validated this approach and prompted ideas applicable to many types of collections.

Since returning to London, distance has sharpened my sense of the immediate impact of Musical Bodies and of the influence it may continue to exert, even after its closure in September 2026.

The exhibition points towards a confident and necessary direction for museums: one in which the distinctiveness of individual communities, identities and histories are recognised with care, while the shared expressive capacities of art and music are used to build deeper forms of connection. The work of acknowledging historical injustice, validating marginalised voices and confronting existential threats to creative expression is ongoing and essential, especially in the current political climate. Yet Musical Bodies also demonstrates that this work, at its best, can lead towards cohesion, empathy and mindful action. Together with the other collections and encounters I experienced in New York, the exhibition has reinforced my belief that musical instruments and sound cultures are exceptionally powerful tools for shaping narratives that can activate positive change.

Brazilian beatbox duo engaging the audience

Mimi Waitzman's study travel was made possible with Art Fund support.

Art Fund_

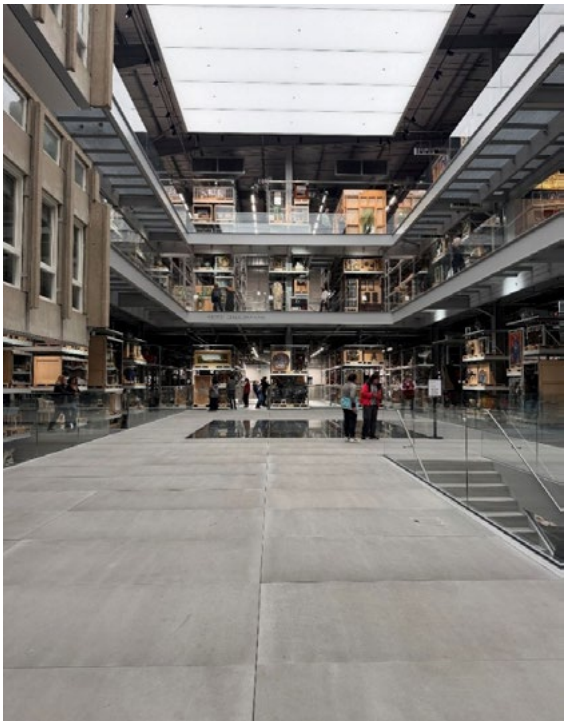
Full reference for Musical Bodies: Strauchen-Scherer, Bradley, Musical Bodies (New York: The Metropolitan Museum of Art, 2026).

Jayme Kurland
OLYMPIC-SIZED AMBITIONS AT THE V&A EAST STOREHOUSE

Many museums have come under public scrutiny over the ethics of having large parts of their collections inaccessible in off-site storage facilities, especially in light of issues of repatriation and looting. If museums are not willing to repatriate objects, especially those which are off view entirely, what is the point of maintaining such large collections which require dedicated staff and substantial financial resources to manage and store them?

In the last two decades, museums have begun to address some of these issues by showcasing their collections in storage. In the U.S., the Henry Luce Foundation has funded visible storage projects at the Smithsonian American Art Museum (DC), Brooklyn Museum, and The Metropolitan Museum of Art (NYC), and many other museums have begun showcasing their previously off-view collections in a similar vein. While many, if not most, museums utilize off-site storage warehouses for the majority of their collections, these spaces are almost always closed to the public, aside from researcher requests.

In May of 2025, the Victoria and Albert Museum in London opened its new public storage facility, called the V&A East Storehouse. In a repurposed press building from the 2012 London Summer Olympics, the V&A invites museum visitors into its large-scale storage facility. Guests drop their bags and coats in free lockers on the main floor and are directed into the Museum's visible storage building



New V&A East Storehouse

upstairs. Beginning on the second floor, there are 3 additional floors of visible storage. Guests can wander down halls with collection objects, some obscured by plexiglass, and others high enough to be unreachable. Large booklets are available for guests who want to know more about a particular object, and many objects have associated QR codes to learn more.

While the V&A closed their musical instrument galleries in 2010, I was pleasantly surprised to see musical instruments featured prominently on its storage shelves, albeit not displayed in particularly exciting ways. A 19th century English harp, the collection's 1521 Jerome of Bologna harpsichord, a giraffe piano by Van de Does, a beautifully carved 19th century British upright piano, and a vina donated by Tagore, among many other instruments were on view.

The storehouse is also the home of the David Bowie Centre, a comprehensive archive of instruments, documents, and costumes. Of note was the way the museum made this archive accessible. On the walls, small exhibits highlighted materials from the collection, but on the side of the space, surrounded by archival boxes and storage shelves, visitors were invited to sit at a long table and open a facsimile archival box, which had copies of the collection's archival holdings—really inviting guests to experience working with archives firsthand! While I was there, people appeared to engage deeply with these materials.

The most remarkable part of the V&A Storehouse was not necessarily the objects on display. Rather, the expansive and open space offers the public a glimpse into the museum world. Knowledgeable staff are stationed throughout the floors of the museum, answering questions not only about objects, but about how museums operate. Visitors see museum staff accessing these collections and are even able to see researchers working with archival collections. While I did not see staff moving objects while I visited, based on the floorplan, guests would be able to see how carefully art handlers work with industrial equipment to move objects. It is rare for people to see the variety of behind-the-scenes labour which takes place in museums. Perhaps this opportunity could have a waterfall effect, giving the public a greater understanding of what museum work looks like, which might help justify its public funding?

The Museum's "Giant" double bass can be identified in the booklets placed around the Storehouse

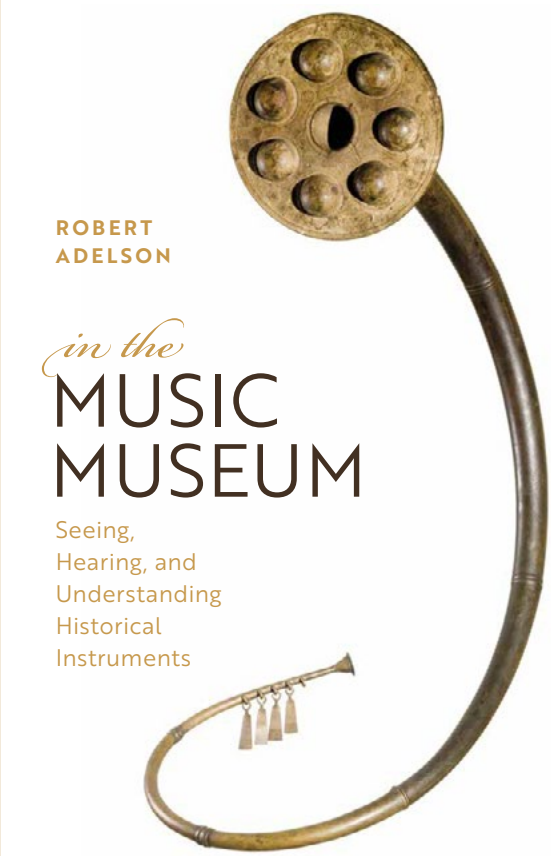
Having visited the Storehouse, I did wonder how the day-to-day operations of collections staff have changed, as working in museum storage was once a private experience, now made public. Is it harder to retrieve objects for conservation and loans? Do staff, especially those in the visible conservation lab, feel as though they are on view? Has their workflow changed? How productive do museum staff feel when they are on constant view? That said, I was impressed by the facility, and hope that this attempt at making the invisible visible may help our publics understand all that goes into museum work.

Robert Adelson
IN THE MUSIC MUSEUM: SEEING, HEARING, AND UNDERSTANDING HISTORICAL INSTRUMENTS

Oxford University Press, 2026. Hardback, 432 pages, 164 photographs. ISBN: 9780197804681; £91.00; also available as an e-book

Further information: https://global.oup.com/academic/product/in-the-music-museum-9780197804681?cc=gb&lang=en#

In the Music Museum presents an alternative view of Western classical music, as heard through historical instruments rather than musical works. It provides a fascinating guide to 150 instruments preserved in 80 collections around the world. The instruments include the earliest or most representative examples of specific models or shed light on musical practice in a unique way. Some tell a particular story through their connection with individual musicians, famous or otherwise, while others are controversial or difficult to interpret.



The chapters give readers the analytical tools needed to look at, listen to, and think about historical instruments and to understand how this knowledge can in turn help us better appreciate music. The analysis of each instrument begins, as in a music museum, by looking at it: noting how to relate what one sees with the sounds produced by an instrument, and how those sounds influenced the way music was played. From a prehistoric seashell horn to an eighteenth-century clavichord, historical instruments are the objects that produced the music of the past, and as such they are of fundamental importance. The extensive companion website has recordings and videos that showcase many of the instruments that are illustrated and discussed in the book.

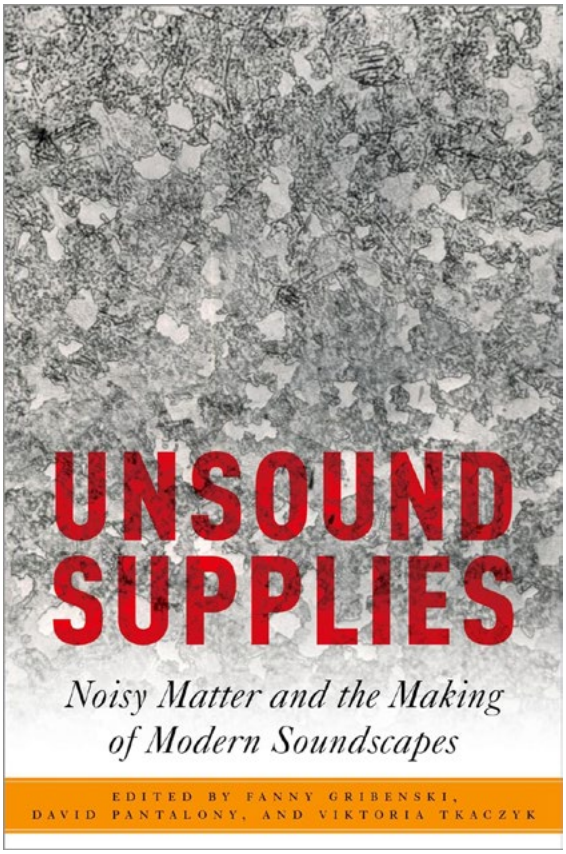
NEW BOOK: UNSOUND SUPPLIES: NOISY MATTER AND THE MAKING OF MODERN SOUNDSCAPES. EDITED BY FANNY GRIBENSKI, DAVID PANTALONY AND VIKTORIA TKACZYK.

The publication comprises ten chapters, each focusing on a specific material used in musical instrument making and the audio-communications industry from the nineteenth to the twenty-first centuries. Some of the various materials discussed in the book include steel, rubber, wax, paper, ivory, shellac, mahogany, and aluminium. Together, the chapters trace the geographically diverse and frequently colonial origins and extraction processes of these materials while also revealing their shifting values and meanings along supply chains.

As one of the contributors with a chapter on the use of mahogany in the manufacture of square pianos, I hope that this book will be interesting and useful especially for those working with musical instruments and sound in the context of material culture.

For more details see: https://academic.oup.com/book/61568

Panagiotis Poulopoulos



LANCE WHITEHEAD (1964–2026) IN MEMORIAM

Dr Lancelot Edwin Whitehead passed away in Edinburgh on 25th May 2026, aged 61.

Born on 29th September 1964, Lance grew up on his parents' dairy farm on the Isle of Wight: his delight in the natural world remained throughout his life.

He showed early promise in music, studying piano from the age of six and French horn at nine, later playing in the Isle of Wight County Youth Orchestra and Band; aged 13 he became organist of the local parish church.

Lance read music at Edinburgh University from 1983, gaining BMus, MMus and diplomas in French

horn performance and piano teaching. His PhD on 'The clavichords of Hieronymus and Johann Hass' (1989–1994) covered documentation and analysis of surviving instruments and identification of the design and construction methods used by Hamburg clavichord makers. Jenny Nex, a fellow student of Dr Grant O'Brien, became his research assistant, paving the way to their future collaboration; they married in Cambridge in 1994 and moved to London where Lance took up a school music teaching post.

In 1997, the part-time post of Assistant Curator at the Royal College of Music (RCM) Museum fell vacant and Jenny, having already given excellent help as a volunteer, was appointed: thanks to a change in government funding to Higher Education Institutions, research funds became available and in 1998 the RCM appointed Lance to a parallel post, each being half curatorial and half research. After years of very low funding and the threat of closure, this was a great gain for the Museum and an opportunity for Lance and Jenny. Together they presented and published their research, notably on the early Dolmetsch clavichords, Ferdinand Weber and the Sun Insurance Records (AMIS awarded the 2016 Densmore Prize for their 2014 GSJ article on the latter); they also made major contributions to the Museum's Catalogue Part II, Keyboard Instruments (2000), which received much praise in reviews and was short-listed by the International Association of Music Librarians for the CB Oldman Prize.

From 1998, Lance's post became Research Fellow in Organology. He continued to publish individually, also contributing to The New Grove and later, The Grove Dictionary of Musical Instruments. Other collaborations included acoustical analysis of harpsichords and wind instruments with Imperial College and the Open University and with Arnold Myers on the Köhler family.

In 2004 Lance took a break from musical instruments research and worked for the Metropolitan Police in forensic roles, also completing a BA (Open University). The RCM Museum was fortunate that he returned in 2008 as Curator (Maternity Cover) while Jenny, Curator since 2005, took leave for the birth of their daughter. Thereafter, Lance became her primary carer (his 'best job ever'). The family moved to Edinburgh in 2013, where he combined research with University teaching, an organ post and composition.

Most ICOM MUSIC members will know of Lance as Editor (Authors) of the Galpin Society Journal from 2010 until his resignation in 2025 due to ill-health. He had also edited the Newsletter and served as Vice-Chairman from June 2017 to 2022. Furthermore, during the last three years he wrote or revised most of the biographical entries (amounting to a 1,130-page dictionary) for the Boalch-Mould Online database, delivering his remarkable final blog just before being admitted to hospital.

Lance heard, in his last days, that he was to receive the 2026 Baines Prize from the Galpin Society in recognition of his outstanding contribution to the advancement of organology. His untimely passing is a grievous loss: as we honour his scholarship and achievements, our deepest sympathy goes to his family. His friends will remember his joy in discovery, making music, growing vegetables and baking cakes, his dedication, kindness, courage and humour. To the study of musical instruments and their makers which so fascinated him, Lance leaves a rich and enduring legacy.

Elizabeth Wells