CIMCIM ICOM international committee for museums and collections of instruments and music

THEORY, TECHNOLOGY AND METHODS

MUSEUMS' INTERPRETATION OF MUSICAL TRADITIONS

INTERNATIONAL COMMITTEE FOR MUSEUMS AND COLLECTIONS OF INSTRUMENTS AND MUSIC OF THE INTERNATIONAL COUNCIL OF MUSEUMS - 58TH ANNUAL MEETING

EDITED BY CHRISTINA LINSENMEYER,
MARIE MARTENS,
GABRIELE ROSSI ROGNONI

CIMCIM ICOM international committee for museums and collections of music

International Committee for Museums and Collections

of Instruments and Music

of the International Council of Museums

58th Annual Meeting

PROCEEDINGS

THEORY, TECHNOLOGY AND METHODS

MUSEUMS' INTERPRETATION OF MUSICAL TRADITIONS

Wuhan, Hubei Provincial Museum – Shanghai, Conservatory of Music
10–16 September 2018

Edited by Christina Linsenmeyer, Marie Martens, Gabriele Rossi Rognoni

About CIMCIM

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

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

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

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

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

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

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

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

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

Preface

As Chair of CIMCIM, I am particularly happy and proud to see the production of this volume of proceedings of the memorable conference generously hosted by the Hubei Provincial Museum and the Shanghai Conservatory of Music.

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

Since 1960 CIMCIM members have met in over 25 countries to discuss the changing world of music museums and to gain a better understanding of how each of these countries interpret, preserve and display their musical heritage through museums. Each year the CIMCIM conference is an occasion to visit institutions and workshops, share ideas with an energetic professional community, meet new people in a friendly and enjoyable atmosphere that has encouraged the development of some of the most relevant projects undertaken in our field. It is this sense of continuous growth that has supported the development of CIMCIM from its original 31 members to including today circa 250 colleagues, many of whom representing the main music-museums in 55 countries.

For this reason, it was particularly important for CIMCIM to meet for the first time in China, a country which is home of some of the earliest collections of musical instruments in the world. The conference marked in fact a milestone in the development of CIMCIM not only because of the 130 participants from 19 countries, but because it ended with the signature of a long-term memorandum of understanding between CIMCIM and CCMI which will support close collaboration over the years to come in training, documentation and research, and will support the growing appetite for cultural and material exchange between Chinese collections and the rest of the world.

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

Preface
序

2018 年 9 月 10 日至 16 日，湖北省博物馆和上海音乐学院东方乐器博物馆承办的国际博物馆协会乐器专业委员会（ICOM International Committee for Museums and Collections of Instruments and Music, ICOM–CIMCIM）年会在中国武汉和上海举行，会议以“ 理论 · 技术 · 方法：博物馆对传统音乐的诠释 ”为主题。这也是 CIMCIM 年会首次在亚洲地区召开，来自 19 个国家的 130 位学者、策展人参加了此次会议，从不同角度阐释了乐器作为一种独特的器物门类在博物馆语境下收藏、展示的意义与策略。

The annual conference of the ICOM International Committee for Museums and Collections of Instruments and Music (ICOM–CIMCIM) co-organized by Hubei Provincial Museum and the Oriental Musical Instrument Museum of Shanghai Conservatory of Music was held in Wuhan and Shanghai, China, September 10th to 16th, 2018, with the theme being "Theory, Technology and Methods: Museums' Interpretation of Musical Traditions". About 130 scholars and curators from 19 countries attended the conferences and, from different angles, illustrated the meaning and strategies for collecting and exhibiting musical instruments as a unique type of instruments in the museum context.

博物馆是为了社会和社会发展的目的而收集、保存、研究、诠释和展示人类及其环境的物质和非物质遗产的公共机构。近四十年来，国际遗产界对文化遗产的认识在不断地进化，其中最重要的进步之一，就是物质和非物质的遗产从来都是不可分离的有机的整体。而代表的人类对于自然与自身认识不懈追求的音乐和乐器，正是这样一种整体遗产观念的最集中的体现，并且以特殊的方式揭示了在全球化背景下不同的国家、不同的民族的文化认同和价值体系。也正是因为如此，CIMCIM 成为了国际博物馆协会所有的委员会当中，最具有活力也最充满激情的专门的委员会。主题“ 理论、技术和发展 —— 博物馆对传统音乐的诠释 ”更加具有了深刻的文化意义和艺术意义。

The museum is a public institution which collects, stores, researches, interprets and displays tangible and intangible heritage of mankind and their environment for society and social development. Over the past four decades, the international heritage circles have been constantly advancing their perception of cultural heritage. One of the most important developments is: they have come to realize that tangible and intangible heritage is an inseparable organic whole. Music and musical instruments, which represent the unremitting pursuit of mankind for knowledge of nature and itself, embody the most concentrated reflection of the latest perception, and in a special way, shed light on the cultural identities and value systems of different states and different nations in the context of globalisation. It is for this reason that CIMCIM has become one of the most vigorous, most enthusiastic committee among ICOM's committees and that the theme "Theory, Technology and Methods: Museums' Interpretation of Musical Traditions" has taken on more profound cultural and artistic significance.

湖北省博物馆有幸承担了此次会议的筹备组织工作。湖北省博物馆收藏了以曾侯乙编钟为代表的大量中国传统乐器。丰富的收藏和系统的展示使湖北省博物馆被誉为“ 全世界规模最大的出土乐器博物馆 ”。此外，湖北省博物馆在汉剧等音乐类非遗项目的保存、传承上也发挥着积极的作用。三十多年来，湖北省博物馆举办过多次音乐展览远赴欧洲、日本、美国、等国家和香港地区，向世界民众诠释和传播中国传统音乐文化的独特魅力。通过这次会议，我们通过与杰出的专家学者的对话中受益良多，日益频繁的国际合作交流互动将为包括湖北省博物馆在内的中国博物馆引入新的理念与方法，从而推动中国音乐文物收藏、研究和展示，为我们了解人类音乐文化的同与异打开更广阔的视野。

Hubei Provincial Museum has the privilege to participate in the preparation for and organisation of this meeting. As the collector of a large number of traditional Chinese musical instruments represented by the Chime-bells of Marquis Yi of Zeng, our museum has been reputed as "the world's largest museum of archaeological musical instruments" for its rich collection and systematic exhibition. Moreover, Hubei Provincial Museum has been playing a positive role in preserving and carrying forth musical heritage such as Han Opera. Over the past more than

thirty years, it has held multiple music-themed exhibitions in countries and regions including Europe, Japan, the United States, China Hong Kong, etc., illustrating and publicising the unique charm of traditional Chinese music. We have benefited a lot from our dialogue with outstanding scholars and experts at this meeting. The increasing international cooperation and exchange will enable Chinese museums, Hubei Provincial Museum included, to introduce new concepts and approaches, thereby advancing the collection, research and exhibition of Chinese musical instruments and broadening our perspectives of commonalities and differences in our effort to deepen our understanding of human music.

经过一年多的编辑，会议论文集已经以英语形式在中国出版，这也是中国博物馆走向国际化的重要一步。论文集所收录了30篇论文既有对具体博物馆乐器项目的个案分析,也有理论性的研究,还有对新技术的介绍,包括了从乐器学、博物馆学、人类学等不同面向对未来音乐博物馆发展趋势的探索，相信会为关心这一论题的读者带来启发与思考。

After more than one year's editing, the English-version paper collection of the conference has come out in China, which marks a major step of Chinese museums to go global. The collection consists of thirty papers, including case studies and theoretical studies of musical instruments collected by museums, introductions to new technologies, as well as explorations of the development trends of future music museums from the organological, museological and anthropological perspectives. We believe that it will enlighten and inspire the interested readers.

在编辑论文集出版的过程中，我们得到了CIMCIM 的资助以及 CIMCIM 主席、英国皇家音乐学院音乐博物馆馆长加百列（Gabriele Vittorio Rossi Rognoni）博士、CIMCIM 秘书长克里斯蒂娜（Christina Marie Linsenmeyer）博士等专家的指导和帮助。在此我代表中国博物馆协会乐器专业委员会、湖北省博物馆向 CIMCIM、中国博物馆协会、上海音乐学院东方乐器博物馆、全体论文作者以及为会议付出辛勤劳动的各界人士表示衷心感谢。

We must acknowledge the financial support from CIMCIM and the guidance and assistance from Prof. Gabriele Vittorio Rossi Rognoni, CIMCIM President and curator of the Royal College of Music Museum, UK, and Dr. Christina Marie Linsenmeyer, CIMCIM Secretary in the process of editing and getting this paper collection published. Here, on behalf of the Committee of Chinese Musical Instrument Museums and Collections (CCMI) and Hubei Provincial Museum, I would like to extend our heart-felt thanks to CIMCIM, the Chinese Museums Association (CMA), the Oriental Musical Instrument Museum of Shanghai Conservatory of Music, all the authors of the papers, and those from all walks of life who have made painstaking efforts to make the conference happen!

中国博物馆协会副理事长
中国博物馆协会乐器专业委员会主任委员
湖北省博物馆馆长
湖北省文物考古研究所所长
方勤博士

Dr. Fang Qin
Vice Chairman, Chinese Museums Association
Chairman, Committee of Chinese Musical Instrument Museums and Collections
Director, Hubei Provincial Museum
Director, Institute of Cultural Relics and Archaeology of Hubei Province

Preface
序

在过去的任何一个时代，对博物馆如何介入民众现实生活的要求都不似今天这般强烈。也许，这正是因应了全球文化变迁的速度。我们是谁？我们从哪里来？我们将往何处去？这一柏拉图在公元前提出的哲学命题，宛若宿命般的回旋曲，萦绕在人类时间进程的每一个瞬间。

Not in any past period have museums felt as strong a need to be involved in people's real life as today. Perhaps this is due to the pace at which culture is changing worldwide. Who are we? Where are we from? Where are we going? These philosophical questions posed by Plato before the Common Era are like a rondo of destiny, repeating and echoing at every moment of human history.

从古埃及和美索不达米亚的统治者以收藏掠夺之美物而建立一种帝国梦不同，博物馆收藏从诞生之日起，事实上就伴随着知识的探秘和生产，以至于成为许多科学领域的发源地。我们所熟悉的现代民族音乐学之乐器学及其乐器分类法，就诞生于乐器博物馆的收藏管理与陈列分类中。直至 20 世纪中叶，博物馆不仅作为人类文明之物的收藏圣地，同时也作为社会公益组织和机构的内涵得到了确定，如何为社会服务，如何承担研究、教育和欣赏的职能，如何更有效地完成“对人类和人类环境的见证物进行搜集、保存、研究、传播和展览”（参见国际博物馆协会第 11 届大会通过的章程，1974 年）便一直成为各个国家对博物馆职能的共识。

Unlike ancient Egyptian and Mesopotamian rulers who attempted to build a fantasy of an empire on beautiful things they looted and collected, museums, since their birth, have actually accompanied knowledge exploration and generation, even becoming the place of origin of many scientific fields. Organology of modern ethnomusicology and classification of musical instruments, with which we are familiar, have been born in the collection management and exhibition categorisation of musical instrument museums. By the mid-20th century, museums were not only shrines of artefacts of human civilisations, but also had established themselves as commonwealth organisations and institutions. How to deliver social service and effectively "conserve, research, communicate, and exhibit, for the purposes of study, education and enjoyment, material evidence of man and his environment" (see Statutes passed at the 11th conference of the International Council of Museums, 1974) has been a concern on the function of museums in every country.

进入 21 世纪，博物馆在其多重功能的实践中，如何由“重藏轻用”到“藏用并举”，甚至以“用”带动各自馆藏和展陈，直接决定了不同博物馆面对公众的策略和形象。而要完成这些任务，如何真正让文物活起来，如何拂去尘封的历史，伴随针对藏品的研究与阐释，让物质的存在复现其社群文化的语境，进而迸发出让历史的记忆融入当代的生活的隽永精神，都是各国博物馆行业所面对的挑战。尤其是在当代科技急速发展的今天，博物馆行业如何通过多元的展陈方式，参与新型的知识生产和教育，扮演人类走向未来不可或缺的角色，都是亟待交流和讨论的话题。

Since the turn of the 21st century, how museums shift from valuing collection over exibition to giving equal importance to both while performing its manifold functions has directly determined different museums' strategies and focuses. To finish these tasks, how to bring cultural relics back to life, to unveil history, to represent the context of community culture for material existence through research and interpretation of collected items and thereby to emanate a profound spirit integrating historic memories and contemporary life - a common challenge confronting museums in all countries. How museums participate in new types of knowledge generation and education through diversified forms of exhibition and play an indispensable role in mankind's march to the future, especially in today's world where science and technology develop rapidly, have been topics demanding communication and discussion.

2018 年 9 月 10 日 -16 日，国际博物馆协会乐器专业委员会（CIMCIM）以“理论、技术、方法——博物馆对传统音乐的诠释”为题，首次在中国的武汉和上海两座城市召开了国际学术研讨会，并有 40 多篇论文分别在“博物馆与收藏”“媒体的作用与使用”“技术的诠释”“音乐文物的收藏”“音乐博物馆的实践”等 7 个议题研讨发表。讨论的范围涉及到了 20 多个国家的数十个博物馆的探索和经验交流。这些论文既有观念的探讨，又有实际操作的个案；既有考古与音乐学学科理论的建设关系，又有数字时代媒体的多元、互联网教育以及互动博物馆论题；既有博物馆跨学科实践探讨，也有直面乐器变迁与藏品关系的理论分析，最重要的，是这些论文向我们报告了传统音乐如何通过博物馆的中介，在当代社会继续生存和发展，成为公众音乐生活中重要的一个部分。

From September 10th to 16th, 2018, the International Committee for Museums and Collections of Instruments and Music (CIMCIM) of the International Council of Museums held an international academic symposium in Wuhan and Shanghai with the theme being "Theory, Technology and Methods: Museums' Interpretation of Musical Traditions". Over 40 papers were presented at the symposium in seven categories including "museums and collection", "role and use of media", "interpretation of technology", "collection of music-related relics", and "practices in building music museums". These papers represent explorations and experience-sharing initiatives by dozens of museums in about 20 countries, integrating concepts with case studies of actual operation. Some deal with the constructive relationship between archaeological and musicological theories, others with diverse media, internet education and interactive museums in the digital era; some discuss cross-disciplinary practice of museums, others analyse the relationship between the evolution of musical instruments and collections. Most important of all, these papers brief us on how traditional music continues to survive and develop with museums as a medium and become an important part of the public's music life.

我个人在上海分会场的参与过程中，深切感受到音乐学在博物馆实践中的参与度仍有待进一步加强，而只有两者间的密切结合，才能真正将相关音乐藏品的文化诠释以及应用恰到好处地得以体现。而这一点，承担这次大会的湖北省博物馆与上海东方乐器博物馆无疑是这方面的范例。湖北博物馆基于曾侯乙编钟及其后系列的音乐考古学建设，已经在中国乃至全球形成了一个中心，并对中国音乐的乐律学研究起到了至关重要的作用；而上海的东方乐器博物馆是中国最早瞩目世界不同文化中的乐器，并直接将多元化的乐器收藏纳入音乐学院教学体系的博物馆。这也应该是国际博物馆协会乐器专业委员会（CIMCIM）之所以选中这两家单位作为中国首次举办该组织的学术研讨会的原因。

While participating the Shanghai session of the symposium, I keenly felt that the participation of musicology in practices of museums is yet to be strengthened. Only with the close connection between the two can we truly ensure the appropriate cultural interpretation and application of music-related collected items. In this regard, Hubei Provincial Museum and the Oriental Musical Instrument Museum of Shanghai Conservatory of Music, who organised the symposium, have undoubtedly set examples. Hubei Provincial Museum's efforts in archaeology revolving around the Chimes of Marquis Yi of Zeng and a series of later contributions have already set up a center in China and beyond, playing a crucial role in promoting studies on the tone-system of Chinese music. The Shanghai-based Oriental Musical Instrument Museum is the earliest museum in China focusing on musical instruments in different cultures and incorporating diverse musical instruments directly into the pedagogy of the conservatory. This is why CIMCIM chose these two museums to organise the symposium for the first time in China.

在此，我由衷感谢这次会议的参与者。你们的论文扩展了我们对博物馆于音乐学以及其他学科如何进一步合作和处理理论和时间问题的看法，提出了当今博物馆的音乐收藏所面对的任务和问题。我也期待国际博物馆协会乐器专业委员会（CIMCIM）的工作框架，将为我们提供进一步建立更广泛的网络之合作愿景。无论是技术的发展或各个国家因文化观念的不同带来的挑战，我们都将较之以往任何时代更需要彼此的支持和帮助。人类文明的历史器物需要我们的精心呵护，乐器的过去和未来，只能在心与音的对话中鸣响永恒。

Hereby I'd like to express my heartfelt gratitude to all the participants of this symposium. Your papers have expanded our perspectives on how museums along with musicology and other disciplines approach theories and temporality, and set forth the tasks and issues facing contemporary music-related collections in museums. I hope that the working framework of CIMCIM will lay down a vision of cooperation on building a more extensive network. Due to either technical advances or challenges posed by different cultural concepts of different countries, we need, more than ever, each other's support and assistance. Relics of human civilizations demand our scrupulous care. Musical instruments can only attain eternity in the dialogue between musics and minds.

国际传统音乐学会执委
中国传统音乐学会会长
上海音乐学院教授
萧梅博士

Prof. Dr. Xiao Mei
Professor, Shanghai Conservatory of Music
ICTM executive board member
President of the Association for Traditional Music in China

Introduction

The ICOM International Committee of Museums and Collections of Instruments and Music (CIMCIM) 2018 annual meeting took place between the 10th and 16th of September 2018 and was hosted by the Hubei Provincial Museum in Wuhan, and the Oriental Musical Instrument Museum in Shanghai. The theme of the conference was "Theory, Technology and Methods: Museums' Interpretation of Musical Traditions".

The CIMCIM Conference 2018 Organising Committee included:

- Zeng Pan (Hubei Provincial Museum, Wuhan);
- Zhang Xiang (Hubei Provincial Museum, Wuhan);
- Shi Yin (Oriental Musical Instrument Museum, Shanghai);
- Xing Yuan (Oriental Musical Instrument Museum, Shanghai);
- Peiyao (Chloe) Yu (Hubei Provincial Museum, Wuhan);
- Eric De Visscher (V&A Research Institute, London);
- Christina Linsenmeyer (University of the Arts, Helsinki);
- Ken Moore (Metropolitan Museum of Art, New York); and
- Gabriele Rossi Rognoni (Royal College of Music, London).

The Organising Committee focused the call for papers on museological perspectives and approaches to the interpretation, presentation, documentation, and conservation of music traditions through collections in the museum setting. Papers on the impact that museums can have in supporting and stimulating music traditions outside their institutions, and on how musical traditions can influence the way music is displayed were also welcomed. Papers were either 20 minutes in length with 10 minutes allotted for questions, or 10 minutes total in length.

The official conference languages were English and Standard Chinese (with simultaneous translation during all the sessions). A poster session was also held in Shanghai and proposals for standard size printed posters were invited. Further, the local organising committee recruited 13 volunteers in Wuhan and 10 in Shanghai to ensure CIMCIM members could communicate freely at the meeting, which we greatly appreciated.

Overall, there were 38 presenters (36 papers and 2 posters) from among a total of 70 ICOM-Member participants and 59 non-ICOM participants. Participants represented 19 countries: Belgium, China, Denmark, Finland, France, Georgia, Germany, Indonesia, Iran, Japan, Netherlands, Norway, Rep. of Korea, Russia, Switzerland, the UK, USA, Zambia, and Zimbabwe. We were fortunate this year be able to award a relatively large number of travel grants than in previous years – a total of nine, including three "young"-member grantees. Our funds this year came from not only the annual CIMCIM budget allocation and the ICOM SAREC fund, which was split between two "young" members, but additional generous support from the local organisers (for three awards), as well as the Global Challenges Research Fund in cooperation with ODA (Official Development Assistance) of the OECD (Organization for Economic Cooperation and Development) administered by the Royal College of Music. Travel grants were awarded to members representing Indonesia (Category 2), Iran (Cat. 2), South Korea (ICOM Cat. 1), Zambia (Cat. 4), and Zimbabwe (Cat. 4). The increased participation resulting from the travel grants enhanced the meeting and benefitted not only the grantees, but also the general attendance and CIMCIM community as a whole.

Contents

Where We Were, Where We Are Going: Respecting the Unfamiliar

Ken Moore, Curator Emeritus
The Metropolitan Museum of Art
New York, New York, USA

Theory, Technology and Methods: Museum's Interpretation of Musical Tradition, CIMCIM's 2018 conference theme, provides an opportunity to examine how museums have interpreted material culture from outside their own cultures; to review changing attitudes, discourse and display methods concerning unfamiliar traditions. Until the later part of the twentieth century, Western scholars remained limited by a vocabulary that frequently reinforced a colonial world view that expressed an attitude of superiority over the 'other'. To a certain extent, subtle vestiges of this continue in the use of terms like 'non-Western', 'extra-European', 'non-literate' or even 'primitive'. Similar attitudes were implied when referring to the fledgling early music movements as many felt that its music and instrumentation seemed as foreign as those of the distant countries. In both cases one stood removed, distanced from those cultures by time, place, aesthetic values, context and cosmologies associated with disparate musical making processes. Until recently this has led to misinterpretation, as curators lacked access to reliable first hand 'emic' sources and instead by necessity relied on available – sometimes accurate, sometimes prejudiced – 'outsider' reports.

Over the last fifty years, the situation has improved as a result of the impact of ethnomusicology, anthropology, archaeology and specializations in art history. Access to a growing number of printed and electronic resources and an increased awareness of culture-specific and cross-cultural issues has reshaped the point of view expressed by new generations of museum professionals. While there are some lingering or residual displays and outdated catalogue entries perpetuating inaccurate or misleading data, the current situation has increasingly made room for indigenous voices to be heard. Using the Metropolitan Museum of Art as an exemplar, the following is a personal and general reflection on where we were and where we are going in respecting and presenting the unfamiliar; a summary of how European-modelled museums have interpreted musical instruments of other cultures.

When my career at the Metropolitan Museum of Art began in 1970, I was an ethnomusicology student by day and a museum watchman by night. In the evenings, I had the Museum almost to myself and was privileged to experience the art in unpopulated galleries. I naturally drifted to the galleries for musical instruments, newly installed after years in storage. They were and remain the only place in the Museum representing a global perspective. Here, laid out before me, was an offering of instruments used for ritual, work, entertainment, military signalling, and court and courting traditions.

There were many unfamiliar objects that demanded one to imagine the context and the musician's movements to coax out the sounds made possible by skilled makers. Their display was beautifully designed but a bit dramatic, mysterious and exotic (Fig. 1).

The labels were limited to name, date, material, and donor and most instrument names were generic – drum, fiddle, or oboe – not vernacular ones like *ku*, *er hu*, or *suona*. It struck me that in 1970 it was outdated to Anglicise terms, a practice which stripped objects of regional individuality and thwarted attempts to compare the etymology and semantics of naming objects. To be fair, there were a few exceptions, like the koto or sitar, terms somewhat familiar to westerners. However, nothing indicated their use, be it to accompany opera, a ceremony,

dance or personal entertainment. Certain objects like a macabre row of skull lyres (Fig. 1) were bizarre, only labelled 'Africa' and seemed to reinforce negative stereotypes. When I reviewed their files, I realized the lyre's documentation and provenance were riddled with supposition, spurious information, and a cultural insensitivity indicative of the late-nineteenth century. Objects such as these, probably made for commercial purposes, exploited the preconceptions of the day which presumed that some societies were 'uncivilized', 'barbarian', 'semi-civilized' or 'savage'. As for the instruments, ten years later, I rearranged the case and the skulls were the first to go. They were not completely forgotten as they are now found in an educational blog that attempts to put them in their proper context.

Fig. 1. African Strings, MMA, c. 1974.

The 1970 galleries offered state-of-the-art technology. One could rent an audio device to augment their experience. This forward-thinking technology, the first of its kind, featured short musical examples extracted from field recordings accompanied by a brief narrative. The system's equipment consisted of concealed wires under the gallery's carpet that transmitted radio waves to a headset as the visitor approached the case. It was lauded by the public and critics alike and more advanced versions of it are installed in several other museums today.

Though, as a student/night watchman, I had some misgivings about the overall effect of the gallery, I had to acknowledged it was a huge improvement over presentations found in other museums and certainly much better than the Museum's previous installation, first organized in 1889 under the guidance of the donor, Mary Elizabeth Brown. In that display, the instruments were hung in the fashion of the day, crowded and pinned like specimens in an insect display. Some instruments were literally pinned to the walls like the Chinese musical butterfly kites pictured in upper left corner and centre of Fig. 2. Other instruments were fitted with eye hooks screwed into the instrument's back, making them easily hung or moved. This practice was discontinued after World War II as conservation practices were re-examined and organizations like ICOM began to set standards. In Mrs. Brown's display, the labels provided the barest information but in more than a few places the vernacular names, spelled as phonetically as possible, appeared. A few instruments were misidentified but this is somewhat understandable considering the information available at the time.

Fig. 2. Chinese Musical Instruments, MMA, c. 1916.

The technology for this early display included available photographs of performing musicians placed along the bottom of the case. However, there was an excellent catalogue published in 1888 of only the unfamiliar instruments, instruments not well-known in the European shaped world. Distributed a year before the instruments were gifted to the Museum, it was carefully researched by the donor, Mary Elizabeth Brown, and contained hand drawn illustrations, instrument descriptions and nine major sections of extensive essays on musical practices from around the world. This endeavour stands as the first attempt in the United States to summarize some of the world's music culture in one volume.

Both the nineteenth century and mid-twentieth century exhibitions separated the instruments into geographic regions as the main organizing principle and taxonomy as the second level. In the mid-twentieth century display, Europe received the larger portion of the floor space though the collection's greatest holding were from other places. For the time, this was a logical approach and in the twentieth-century version the attractive display represented a great achievement. This organizing principle has been a tried and true approach for over a century, is found in many places, and psychologically it fulfilled a need to appear more scientific, an important point of validation for decades of curators. It reflected the standards of the field which mostly centred on European instruments and their development.

The exhibition was a revelation to me and greatly appreciated by music specialists, but outside the scholarly community, the display functioned as an introductory course in organology. Such a specialist approach was, for the general public, didactic and repetitive; a one-note theme with a slight variation. In other words, our world music galleries were wonderful for studying instrument development and distribution, but if you, like many visitors, were not a music specialist who consumed music via popular music radio stations, it was merely interesting and did not engender significant enthusiasm.

This lack of appreciation may have been what caused the trustees – funders who direct Museum policy – to question the appropriateness of musical instruments in an Art museum. From the 1930s through the '40s they realized that this material culture, most of which was considered ethnographic, would easily fit in a number of institutions. In an ironic twist, they reached out to the Natural History Museum, the Juilliard School of Music, and the New York Public Library as possible homes for sections of the collection. For the Museum administrators, the collection had become the other, the unfamiliar. For instance, a conch-shell trumpet or *śankh* (Fig. 3) could comfortably reside in a number of museums as it demonstrates principles that apply to multiple disciplines. Qualifying as an art work, its iconography – the combined lingam-yoni, elephant-headed son of Shiva, Ganesh and Nandi, Shiva's vehicle – marks it as a Shaivite ritual instrument appropriate for an anthropological museum. The shell shape, a parametric formula with acoustical properties, makes it suitable among the natural sciences and mathematics. Since instruments have multiple associations and contexts (musical or non-musical) they potentially may be housed in institutions specializing in natural history, art, technology and acoustical studies, archaeology, and regional history, and historic homes, and universities; each emphasizing properties relevant to their fields and educational needs. This diversity and range of viewpoints and specialties compromises consistency in descriptions, instrument names, performance practices, and context and display approaches. For example, a 1970s display at a natural history museum labelled a koto, the Japanese long zither, as 'Japanese harpsichord', and in a newly installed exhibition of Oceanic instruments a Solomon Islands panpipe was exhibited upside down. One wondered why these errors occurred, was information on an ancient catalogue card perpetuated?

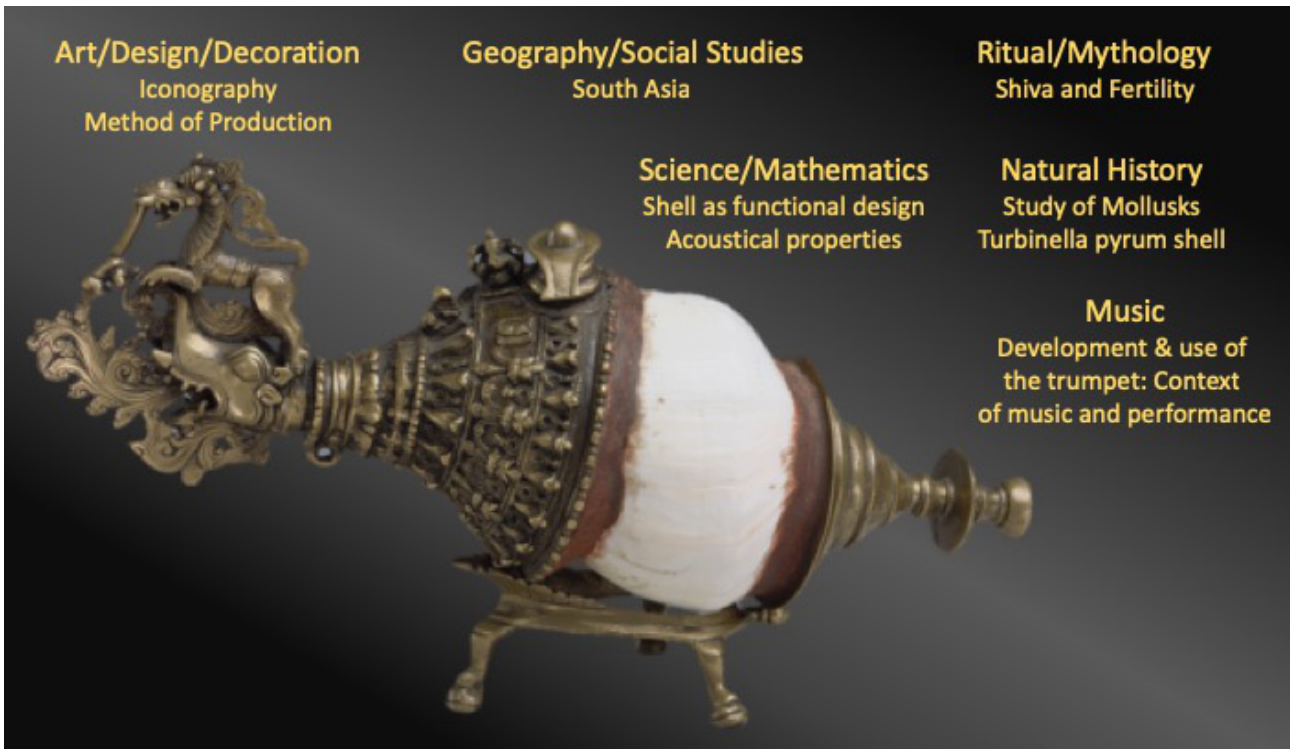


Fig. 3. *Śankh* (Conch Shell Trumpet), India, MMA 1986.12.

Returning to The Met collection, it was not dispersed but revitalized after World War II under its first curator, the newly appointed Emanuel Winternitz (1898–1983). Following European models, he raised its profile by introducing early music concerts, a novelty to American audiences, and by presenting small special exhibitions. Working with Paul Hindemith and the Yale Collegium, he presented concerts using selected instruments from the Museum's collection, a performance policy under perennial scrutiny and debate since the founding of CIMCIM. This was not a new idea as Victor-Charles Mahillon, Alfred James Hipkins, and Francis Galpin, among others provided instruments for performances starting in the late nineteenth century. In 1902, Galpin hosted a two-day Japanese Fête and Bazaar. Paradoxically of the 24 instruments shown in Figure 4 only nine are Japanese while the remainder are Chinese. One wonders if Galpin and his musicians knew how to perform on the instruments, could differentiate East Asian music traditions, or were only using the instruments as stage props. During the early to mid-twentieth century, playing unfamiliar instruments, whether from one's own culture or a distant shore, was an experimental undertaking and required performers to carry out extensive research as they struggled to discover likely modes of sounding them, repertoire, and contextual information. Curious audiences on the other hand, were then and today delighted by inaccurate but romantic ideas that they experience an authentic and accurate re-creation.

Fig. 4. Francis Galpin (back row, left) hosts *Japanese Fête and Bazaar,* Hatfield, England (1902).

Today, demonstrations, recordings, and concerts of traditional instruments from other lands are made available by working with local communities or organizations having contacts with culture bearers abroad. This has been a successful strategy at the Met since the beginning in the 1970s where musicians usually use their own instruments. Exceptions are sometimes permitted as with the limited use of previously conserved Museum instruments or the judicious use of an instrument after consultation and review of a conservator who is also available to monitor the performance.

This contrasts with previous practices when curators and collectors seemed nonchalant about irreversible damage or the loss of original elements during restoration; actions which would hinder efforts of future researchers. On the other hand, such activities helped lay the groundwork for and sparked interest in early music, performance practice, and eventually the emergence of music archaeology, musical iconography, and ethnomusicology. By extension, it also raised consciousness globally where, within the last three decades, countries, particularly across Asia, have fostered awareness of their own musical heritage by establishing early music programs and using replicas of their own historic instruments. Outside the confines of museums, in collections-affiliated music schools, instruments are lent to support student activities. For these lucky students of various music traditions, instruments help to develop musical skills and self-confidence. A student may even develop an interest in the study of the history of musical instruments.

Early conservation concerns were centred on playability issues and skilled craftsmen were, until the 1970s, typically employed to maintain many types of objects. A philosophical shift emerged in the '70s and by the new millennium conservators specializing in specific materials and techniques could clearly articulate playability recommendations particularly for those instruments that had not been altered. Non-invasive methods, using new technologies like radiography, CT Scans, and microcellular analysis, coupled with informed and reversible treatments, and augmented by historical research were prescribed and applied for aging, sick, and injured instruments. Instead of making old instruments functional, museums began to stabilize and preserve them as historical documents. Instrument makers were encouraged to produce accurate copies while museum professionals were prompted to considered an instrument's function at the time it was made and the potential roles it might serve within the museum.

One of the difficulties working with instruments from outside one's own culture is the absence of detailed documentation. Descriptions of instruments are most often sketchy and treated superficially. Multiple sources such as ethnologies, field reports, or art histories may be needed to determine the materials used to construct an instrument or that it is played at a certain ceremony. An author may not offer anything else other than the instrument's name, its status and that of its performer. How the instrument is held, if it is gender restricted, terms for its component parts, the construction and materials used, where a bridge is placed, and if there are any rituals involved in its making, among other relevant data, are often missing. For the researcher, gleaning this kind of information relies on keen observation and a trusting relationship with a musician, maker, or other insider, not from a description of a performance.

Detailed information may be catalogued and used later to compare similar traits on other instruments from other cultures. For example, a description of one of the Met's Turkish instruments incorporates the names of the parts from which one may derive insights into the zoomorphic, anthropomorphic, or poetic references the maker and player apply to refer to the instrument. With enough data compiled from other cultures we may find commonalities like a preponderance of horse metaphors used to describe stringed instruments.

> Qānūn: shallow wood trapezoidal box (Pers.: káseh), one end squared, the other oblique with attached overhanging pegblock containing on upper side 72 vertically aligned pegs (Pers.: goushi-e = 'ear'); table partitioned in 2 sections, wood soundboard & rectangular fish skin covered belly adjacent to squared end; 4-footed bridge (Pers.: Karak, Kar = 'donkey', ak = 'saddle'), triangular in cross-section rests on belly; 1 'leaf of life' and 2 oval sound holes (Pers.: panjaré sout = 'windows of voice') with floral pattern, mother-of-pearl rosette in table; 24 gut strings in triple courses wind around pegs, pass through grooves in a zig-zag shaped nut, nut placed on narrow platform directing strings above small metal fine tuning levers (Arab.: 'orab = 'carriage'; Turk.: mandal = 'that which supports'; Pers.: karak-e moteharek) 2 levers for 21 strings, 1 lever for 1 string and none for 2 bass strings, strings extend over table, through grooves in bridge and enter table at

squared end, strings tie in compartment concealed by sliding panel; tuning block angled downward from sound box and terminating at one end with flat scroll; decorated with small shells glued to scroll, ivory, ebony, mother-of-pearl inlay vegetal scroll work; gold foil inside body; brass tuning key (Pers.: kelied-e goushi, Kelied = 'key').

Our nineteenth-century forebear's goals in assembling musical instruments outside their own culture were to educate, preserve instruments from what were assumed to be vanishing cultures, illustrate musical advances, and to search for clues to music's origins. We have learned from their collections that societies continue their traditions with modifications, as nothing remains static and the usage, materials, repertoire, and means of amplification alter sound and performance presentation. While nineteenth-century collectors may have thought the instruments to be exotic, 'primitive', or props for their parties, we remain grateful to them for preserving them. Every year, their significance comes into clearer focus as documentation increases and the voice of the indigenous peoples within and outside the museum demystifies the instruments, provides a deeper cultural understanding and furnishes respectful interpretation and display of their objects.

The Art of Music: Renovated Galleries and a New Narrative for the Musical Instrument Collection at The Met

Bradley Strauchen-Scherer
The Metropolitan Museum of Art
New York, New York, USA

Abstract

The Department of Musical Instruments at The Met is nearing the end of the first major renovation of its galleries since the early 1970s. This work presents an opportunity to recast the typologically driven presentation of the galleries, which has been the prevailing narrative focus since the pioneering nineteenth-century collector Mary Elizabeth Adams Brown gave some 3,600 instruments to the Museum over 125 years ago.

Musical Instruments is one of the longest established collections at The Met and art relating to music can be found within all seventeen of its departments. Despite their potential to offer insight into music, culture, social history, performance practice, design, decorative arts and other allied disciplines, instruments have been a conundrum to directors of art museums, who have perennially questioned the relevance of instruments to their institutions. In recent years, the closure of instrument galleries in art museums has been a worrisome trend.

Considering the questions posed by this situation has been one of the more challenging and interesting elements of the gallery renovation project at The Met: should the modus operandi of The Met's instrument collection differ from that of a stand-alone musical instrument museum or a university collection? How do different modes of display impact on the way musical traditions of diverse cultures are perceived? How can the galleries be re-envisaged to enliven the perception of instruments in museums and engage a diverse audience? These queries have been central to the development of a new narrative and design. Through the theme of The Art of Music, the galleries will explore the artistry of instrument making and music across 5,000 years of history and around the globe in the context of The Met's encyclopedic collections. This paper will present the curatorial and design concepts behind the Art of Music and will discuss the public perception of the new galleries.

The Metropolitan Museum of Art is home to one of the world's most diverse and important collections of musical instruments. With over 5,000 examples from six continents, it is arguably unsurpassed in its scope and includes instruments from nearly all cultures and eras. Begun in the 1880s, its history is comingled with the development of musicology, anthropology, and organology.[1] Musical Instruments is one of the longest established collections at The Met, and art relating to music can be found within all seventeen of the Museum's curatorial departments.

Following a three-year long campaign of renovation and reinterpretation, over 600 instruments – including the oldest piano known to survive, pre-Columbian pottery drums, guitars that belonged to Andrés Segovia, instruments from Ming dynasty China, and an electrified version of the kora – can be seen in galleries devised to present a new perspective on the interwoven world of music, art, innovation and society through the theme of the Art of Music. In developing this new narrative, which departs from more typical typological and geographic displays arranged according to western classification systems, the curators and project team wanted to illustrate that music is central to nearly all aspects of human by harnessing the breadth of The Met's collections to explore the artistry of music and instruments across 4,000

years of history and around the globe. Acutely aware of the marginalisation and closures faced by instrument collections in large, generalist museums over the last several decades, the team also wanted to create galleries that would resonate with the broader mission of The Met and the diverse interests and identities of its visitors.

The appearance and feel of the galleries have been transformed by extensive construction work, redesign and redecoration. The restoration of the original herringbone parquet wood floor and stonework of the galleries resonates with the beaux-arts heritage of The Met's historic architecture and creates a timeless backdrop for the collection. This neutral canvas, combined with platforms and cases that can be moved and reconfigured, is important in enabling the permanent galleries to serve as dynamic and flexible spaces that can accommodate new acquisitions and displays. Custom-made mounts have been created to allow instruments to be perceived as multidimensional works of art rather than as specimens pinned to the case walls.

A new floor plan has opened up the gallery space to create sight lines and facilitate an interpretative dialogue between instruments, paintings, and other related works of art that have been lent by ten of The Met's curatorial departments. Although primarily intended to be heard, instruments also function as powerful vehicles of visual expression and are often prized as works of art in their own right. As such, their appearance frequently reflects contemporary style, and the production techniques and materials used to make them are shared with other art forms. This is manifested in related objects and paintings displayed in the galleries that illustrate the universal presence of music and instruments in art and society and the links between their production and use.

Fig. 1. Dung-chen trumpets and vase decorated with cloisonné enamel on display in the Art of Music Through Time, music galleries, Metropolitan Museum of Art. (Photo: Metropolitan Museum of Art)

Visitors are welcomed to the renovated galleries by Fanfare, an unconventional and eye-catching installation of 75 brass instruments spanning two millennia and five continents. Its layout and interpretation invite exploration of the artistry, diverse forms, and shared functions and heritage of brass instruments throughout time and place.[2] Conceived of as an artistic installation in its own right, Fanfare also inhabits the liminal space between sight and sound that fascinated artists and composers such as Wassily Kandinsky and Alexander Scriabin. Pairings of instruments that highlight cross-cultural and chronological resonances, such as Adolphe Sax's bass saxtuba and a historic facsimile of the Roman cornu that inspired its design, punctuate the display. A

vuvuzela made to commemorate the 2014 World Cup and a Boy Scout bugle strike a personal chord of recognition with many visitors and introduce them to the ways in which instruments are intertwined with identity, ritual, and status. Fanfare's position at the main entrance to the galleries casts it as an introduction to the Art of Music narrative, which is unfolded in two large galleries: the Art of Music through Time and Mapping the Art of Music.

Fig. 2. Fanfare, music galleries, Metropolitan Museum of Art. (Photo: Metropolitan Museum of Art)

The Art of Music through Time, which features instruments from across The Met's collections, is organized chronologically to show that people worldwide have simultaneously created extraordinary music and instruments for millennia. The scope of The Met's instrument collection offers the rare opportunity to illustrate this narrative from ancient Egypt to the present day. This is a dramatic departure from the former layout, where one of the two large galleries was devoted to western instruments and the other featured instruments from the wider world. Eliminating this schism and adopting a global perspective in the Art of Music Through Time enables visitors to identify underlying commonalities in the creation and function of the instruments encountered in this gallery. The narrative addresses the use of music and instruments to express status, identity, and spiritual practice. It also considers the impact of changing tastes and emerging technologies. These are shared motifs that span the sweep of time and geography. The chronological layout of the gallery presents a number of surprising juxtapositions that illuminate these common themes: a violin made by Andrea Amati with a religious couplet proclaiming the strength of the Catholic church painted on its ribs stands alongside a late Ming dynasty pipa decorated with ivory inlays depicting symbols of Buddhism, Daoism, and Confucianism. Beyond their musical function, these two great works of lutherie were chosen as canvases for conveying religious and political messages in their respective cultures.

The second large gallery, Mapping the Art of Music, also focuses on the centrality of music to nearly all cultures across time and place. It considers the impact of geography, trade

and travel on shaping music and the instruments used to play it. Historically, music and instruments, language, and cuisine have accompanied people on paths forged by global trade, war, enslavement, and migration. The adaptation of musical concepts and new materials along with belief systems and political structures is witness to the creative impetus of converging cultures, traditions, and history. The displays in Mapping the Art of Music focus on the development of regional styles, methods of transmission, adaptation and assimilation of musical instruments, as well as the dynamics between musical change and the continuity of cultural identity. The intersections of instruments and cultures along conduits such as the Silk Road and the Triangular Trade are illustrated. Displays also present the development and dissemination of technologies such as free reeds and the use of the bow. One of The Met's most iconic and visually opulent instruments awaits visitors to this gallery as well. The gilded harpsichord and figures designed by Michele Todini for the Macchina di Polifemo e Galatea featured in his Galleria Armonica, which was a noted stop on the European Grand Tour during the 1670s, represents another iteration of musical instruments and travel.

The suite of the five music galleries is completed by Instruments in Focus – a small, flexible space designed to accommodate rotating exhibitions, and the Organ Loft – the balcony gallery that features the 1830 pipe organ by Thomas Appelton.[3] The opportunity to hear instruments, both in performance and in recorded examples, is central to the galleries. The Mapping the Art of Music gallery incorporates a space for public performances and demonstrations. Built-in recording facilities will enable activities in the space to be easily filmed and streamed, so that performances on Met instruments can both be archived and shared with as wide an audience as possible. The audio guide for the galleries includes nearly 100 stops. The guide can be accessed free of charge on mobile platforms and computers, enabling visitors to access the content both in the galleries and remotely.[4]

Fig. 3. Violin, Andrea Amati, Cremona, c. 1560 and pipa, China, late 16th–early 17th century, on display in the Art of Music Through Time, music galleries, Metropolitan Museum of Art. (Photo: Metropolitan Museum of Art)

Music is one of the universal and unifying elements of the human experience. This major renovation and reinterpretation of The Met's music galleries strives to reconnect instruments with music and its central role in civilization and to engage with an audience as diverse and wide-ranging as The Met's collections. Indeed, there are few types of art so well suited to expressing a multifaceted and accessible microcosm of world history.

Notes

[1] For further information about the history of the collection, see Lindsey, Rebecca M. 'A Harmonious Ensemble: Musical Instruments at The Metropolitan Museum, 1884–2014'. Metmuseum.org.https://metmuseum.atavist.commusicalinstrumentshistory (accessed January 1, 2019).

[2] Additional information about the concept and narrative of Fanfare can be found in Strauchen-Scherer, Bradley. 2017. 'Fanfare: Brass Instruments at The Metropolitan Museum of Art', CIMCIM *Bulletin* (September 2017): 23–25. For further information about the installation process of Fanfare, see Strauchen-Scherer, Bradley.2018. 'Orchestrating Fanfare: A Backstage Pass'. Metmuseum.org.https://www.metmuseum.org/blogs/collection-insights/2018/musical-instrument-installation-fanfare (accessed January 1, 2019).

[3] As part of the gallery renovation project, the Appleton organ received extensive conservation and maintenance treatment from conservators Manu Frederickx and Jennifer Schnitker and consultant organ technician Lawrence Trupiano. Further details of this work can be found at 'The Appleton Pipe Organ: Related Content'. Metmuseum.org.https://www.metmuseum.org/about-the-met/curatorial-departments/musical-instruments/art-of-music/appleton-organ-related-content (accessed January 1, 2019).

[4] Audio guide content can be accessed at 'The Art of Music: A New Narrative for Musical Instruments at The Met'. Metmuseum.org.https://www.metmuseum.org/about-the-met/curatorial-departments/musical-instruments/art-of-music (accessed January 1, 2019). For further information about the Art of Music audio guide, see Voon, Claire. 2018. 'You Can Finally Listen to the Instruments at The Metropolitan Museum'. Hyperallergic.com.https://hyperallergic.com/437859/musical-instruments-metropolitan-museum-of-art (accessed January 1, 2019).

The Conservation of Musical Instruments at the Metropolitan Museum of Art

Manu Frederickx
The Metropolitan Museum of Art
New York, New York, USA

Abstract

The collection of musical instruments at the Metropolitan Museum of Art in New York originated at the end of the nineteenth century with gifts of several hundred European, American, and non-western musical instruments from Lucy W. Drexel and from Mrs. John Crosby Brown. Originally the collection was part of the Department of Decorative Arts and later of the Department of Renaissance and Modern Art. In 1949 it became a formal curatorial department with Emanuel Winternitz as its first curator.

During the first decades of the twentieth century, restoration at The Met fell largely to repair shops staffed by mostly anonymous craftsmen. Repairs carried out on musical instruments wer mainly focused on bringing the instruments into playable condition. It is not until the 1960s that specialised conservation departments organised by media get established and at the end of the 1970s the Department of Musical Instruments for the first time hires a full time specialist conservator. Today the position of Musical Instrument Conservator is embedded into the Sherman Fairchild Center for Objects Conservation which provides for the conservation of three-dimensional works of art in The Met collection. This department counts more than 30 conservators and conservation preparators and is equipped with a variety of imaging and analytical tools for the investigation of historic developments in the materials and technologies used in the creation of works of art, the documentation of their state of preservation, the specification of appropriate parameters for their safe storage and exhibition, and the development and implementation of treatments.

This paper will explore the evolution of the conservation and use of musical instruments at The Met throughout the history of the collection and focus on the role of conservation in the recent renovation of the André Mertens Galleries for Musical Instruments.

As one of only two institutions in the USA that have a permanent position for a specialist conservator of musical instruments,[1] the practice of Musical Instrument conservation at the Metropolitan Museum of Art has a history that dates back to the early twentieth century.

In the early years of The Met, conservation, or rather restoration, of musical instruments was a task performed by cabinetmakers and other craftspeople, focusing mostly on the aesthetics of the instruments or, especially in the case of western instruments, by outside specialized technicians and restorers whose main goal was to keep or make those instruments playable. Both often had little regard to preservation of original material or documentation of their work.

As conservation practice in museums evolved over the last century, the focus has gradually shifted towards a more careful approach, in which the preservation of original material and reversibility of interventions is essential. For instruments that are being displayed in an art museum, treatment is often still required from an aesthetic or preservation point of view, but unlike the crude restorations often seen in the past, treatment is kept to a minimum and not done without a complete understanding of materials. Today, a very small percentage of The Met's collection of musical instruments is being kept in playing condition and is, indeed,

occasionally played. Many publications and conferences have discussed the ethics of playing, or not playing historical instruments and this paper wishes not to replicate these discussions here. Instead, we will look at how the preservation of musical instruments at The Met was viewed in the past and how these views have evolved over the last century.

When Mary Elizabeth Adams Brown first donated two hundred and seventy-six instruments to the Metropolitan Museum in 1889, she wrote to the board of trustees that her collection 'is of value as a whole, as illustrating the habits and tastes of different peoples. It will become more valuable every year, as many of the instruments… are rapidly disappearing and even now some of them cannot be replaced'.[2]

Her words indicated from the very start of the collection the importance of conservation, not only as means of preserving the instruments as the objects they are but also of the cultures and musical practices they represent.

Very little is known about conservation practices in these early years but most restorations took place in repair shops staffed by local craftsmen, under the jurisdiction of the Buildings Department.[3]

In 1914, Frances Morris, the first curator of musical Instruments, wrote to The Met's Director:

> A number of the fine old keyboards of the Crosby Brown Collection are in serious need of attention and I append hereto a detailed list of the necessary repairs of those specified. (...) All of the pianos and other keyboards should be thoroughly cleaned by an experienced person and the woodwork of the cases renewed. (...) In the thirteen instruments enumerated the work should be done by some expert in antiques. In many the decoration is almost entirely lost by discoloration. The lutes and violins should also be looked over by Mr. Tubbs or some other responsible party, and in the Oriental exhibit, especially among the Chinese things, much of the lacquer and stucco is cracking badly.[4]

Not all treatments were carried out at the Museum, for example the Mr. Tubbs referred to in this letter is most likely Edward Tubbs, a successful New York instrument dealer, bow maker and violin repairer and member of the famous Tubbs family of bow makers.

Francis Morris' resignation in 1929 left the Museum without staff with any knowledge of musical instruments, eventually leading to the closing of the musical instrument galleries to the public in 1931 and turning them into storage space. At this point, the Museum had little interest in keeping the collection and agreed to cooperate with the New York Public Library to bring the eminent German scholar Curt Sachs to be curator of Musical Instruments for a proposed combined new Museum and Library of Music.[5]

Upon his arrival, professor Sachs reported that the condition of the instruments was 'wretched', and he started organizing a number of restorations, including some that are now viewed to have been extremely unfortunate. In July 1939, he wrote in a letter to the President and the Acting Director:

> The decision of the Metropolitan Museum a year ago to begin restoration of the Crosby Brown Collection of Musical Instruments causes me to submit a report of the first twelve months at this time. Three workmen have been employed eighty hours a week, one Mr. Schlesinger, 40 hours regularly, the others, Messrs. Staub and Markert,[6] dividing forty hours between them. (...) My first task was to save those instruments which were in the worst condition. Though playing was not required by the authorities of the Museum, it was necessary to make the restored instruments ready for performance, for that is, of course, the criterion of true reconstruction. (…) all instruments that have left the workshop have gone out in playing condition. The first principle in restoring an instrument is to preserve as many parts of the original as possible. No pains have been spared in mending, gluing, ribbing, and studding the innumerable parts worn by age, circumstances, or clumsy repair. Thus, it has been possible to preserve all soundboards except that of the Cristofori piano. (…) One of our workmen, Markert, is mending the broken skins of Oriental drums. (…) The painters' shop of the Museum is now restoring those Oriental instruments of high value on which the lacquer scales off as the wood shrinks. The cooperation received from the other Museum employees has been most helpful.[7]

Thus, in an overzealous attempt to 'save' the Cristofori piano, the original soundboard of the world's oldest extant piano was replaced, with only a tiny fragment of the original being kept as a reference. This fact seems emblematic for the restoration practices of those days and it is not hard to imagine the extend of some of the other restorations executed at that time. According to an interview with Wolfgang Staub in the late 1970s, the three men worked in the Museum in the carpenter shop under a non-humidity- and temperature-controlled environment. Because of temperature and humidity problems, much of the work undertaken was, unsurprisingly, not holding up.[8]

The practice of highly invasive restorations was by no means limited to the collection of musical instruments. In 1940, Francis Henry Taylor was appointed as the Museum's fifth director. Being part of the early conservation network centred at Harvard University's Fogg Museum, he soon requested a curatorial investigation into the Museum's restoration practices. According to the resultant report

> general repairs, including metal, stone, ceramics, and furniture, [were] carried out in various shops by men for the most part self-trained, having advanced from general services, (…) directed by the Building Superintendent on the same basis as house mechanics, such as electricians, plumbers, masons, carpenters, and machinists. (…) Quality of work generally satisfactory to curators. Working conditions poor. Technical direction, as distinct from mechanical supervision, practically non-existent.[9]

Following Taylor's concern, the Sub-Department of Conservation and Technical Research was established in 1942, combining the different existing repair shops, in which 'fifteen staff members were variously engaged in restoration work'. In the following years, the foundations for modern conservation practice at The Met were laid through the introduction of standardized 'request for treatment' forms, protocols for documentation, condition checks for outgoing loans, and proper handling guidelines.[10]

The Museum's plan of transferring the collection of musical instruments to a new Music Library never succeeded and the relationship with Sachs declined. In 1941 the care of the collection was transferred to the first official curator of the new Department of Musical Instruments and Concerts, Dr. Emanuel Winternitz.

Almost immediately after his arrival at the Museum, Winternitz started repairing instruments as well, with a view towards using them in his lectures on the history of musical instruments. With the old galleries still closed to the public, he continued to use them as a storage space, trying to improve the climate conditions by installing 'a primitive humidification system in the hope of better times'.[11]

Over the next few decades Winternitz organized a great number of very successful lectures and concerts, many of which using instruments from the collection, brought back into playable condition with the help of two restorers. In 1943 he wrote:

> This is the understanding concerning Mr. Moffat's and Mr. Simmons' work in the Instrument Collection, according to conversations with Mr. Taylor, Mr. Jayne, Mr. Remington and Miss Richter. (…) Mr. Moffat is supposed to work on in the Music department with the understanding that occasionally, whenever an urgent job turns up in another department, he leaves here for the time necessary or brings the object over to his work bench here in order not to interrupt completely the major repairs which demand permanent care (such as cracks or shrinkage).
>
> Miss Richter is not interested in Mr. Moffatt but very much so in Mr. Simons. Though she wants to use him steadily, she has no objections to his working here for a certain fraction of the time, whenever Mr. Moffat has piled up some repairs which need painting, or varnishing.[12]

Despite the success of Winternitz' concerts and lectures the display of Musical Instruments in the museum remained uncertain for the next few decades. In 1955, he asked for assistance for repair work and preservation:

> With the prospect of future exhibitions and with the imminent necessity of keeping up repair work (…) I should like to make a request for a full-time helper and a Technical assistant, who, in addition to repair and preservation work, would also help me in tuning, preparing for concerts, and keeping in shape the Rieger Organ in the Auditorium. (…) I have received several offers in this respect during the past years, among them one from the man who has been doing most of the repair work for the Mahillon Collection in Brussels, and I could, if granted permission, take up negotiations at any time.[13]

Although the Museum slowly evolved towards a professionalization of the discipline of conservation in the 1960s, much restoration work was still performed by various in-house craftsmen and women, as can be seen from a 'List of Keyboard instruments Suggested for Repair by an Experienced Restorer Outside the Museum' compiled by Winternitz in April 1960. This list ends with: 'The above estimates… naturally don't include the cost of transportation and insurance, or external repairs of the outside cases, stucco, etc. which, anyhow, should not be done by an expensive specialist, but by any good cabinetmaker in the house'.[14]

One such cabinet maker was Sidney Greenstein, who was appointed as a 'Cabinet Maker to restore musical instruments' in October 1960,[15] and got promoted to Senior Restorer in 1964.[16]

In the wake of the early music movement and the urge to make historic instruments playable, many of the instruments in the collection had suffered from numerous undocumented restoration campaigns. Internationally the awareness around restoration of musical instruments started to grow and in 1967 ICOM published its provisional recommendations on the Preservation and Restoration of musical instruments,[17] following the general conference at The Hague in 1960.

After four decades without a permanent exhibition, the new Musical Instrument galleries finally reopened in 1971 and for the first time both temperature and humidity were maintained automatically. Not much later Winternitz retired and Laurence Libin was appointed as the new head of the Musical Instrument department, a position he held until his retirement in 2006.

In the early 1970s specialized conservation departments, organized by media, were created and the Museum started to engage research chemists as well as specialized conservators, then still called restorers. Susan Caust Farrel, an instrument maker and restorer, was hired as a Senior Restorer for Musical Instruments until she was succeeded in 1976 by Stewart Pollens who was trained as a violin and keyboard-instrument maker. From that time on the Musical Instruments Department's restorer worked under the supervision of the Head of Musical Instruments and the focus shifted towards the study and documentation of the collection.

Pollens' thirty-year career at The Met coincided with a professionalization of the field and a transition from restoration to conservation practice. Consequently, upon his retirement in 2006, the primary responsibility for the physical care of the Musical Instruments collection was transferred from the Musical Instrument Department to the Department of Objects Conservation and Susana Caldeira was hired as a specialist Assistant Conservator of musical instruments in 2008.

The Department of Objects Conservation integrates various studios and laboratories, counting over 30 conservators with specialties ranging from glass, stone, ceramics, organic materials, wood, metal, Asian lacquer, sculptures, and furniture to musical instruments. Most of the Museum's scientists and analytical equipment were also part of this department until 2003, when the Museum established an independent Department of Scientific Research. Both departments still work closely together to study, preserve and conserve works of art from the Museum's collection. This wide variety of in-house specialists allows the conservator to guarantee a proper understanding of the endless range of materials and techniques encountered in musical instruments.

Over the past century, musical instrument conservation at The Met has evolved from a task being performed by carpenters and curators alike, with a focus on making old instruments playable again to a highly specialized profession embedded in a well-equipped, state-of-the-art Department with a strong focus on preventive conservation and preservation as well as

documentation and the study of materials and techniques. Even though some of the challenges related to preserving musical instruments remain the same as they were for our predecessors, we are now hopefully in a better position than ever to safeguard the preservation of this magnificent collection and the multitude of stories and values it represents.

Notes

[1] The other one being the National Music Museum in Vermillion, South Dakota. See Mary Oey, *Some problems in musical instrument conservation in museum collections* (New York: ANAGPIC, 2006).

[2] Letter from Mary Elizabeth Brown to the Museum's trustees, February 16, 1889. MMA archives.

[3] Becker and Schorsch, 2010.

[4] Letter from Francis Morris to Director Edward Robinson, January 9, 1914. MMA Archives.

[5] Lindsey, 2014.

[6] Frederick J. Markert was an established violin maker and restorer in New York. Both Wolfgang Staub and Ernest N. Schlesinger were German piano technicians hired by Sachs. See Pollens, 1989.

[7] Letter from Curt Sachs to the President and the Acting Director, July 6, 1939. MMA Archives.

[8] Pollens, 1989.

[9] Letter from A. Lansing to F. H. Taylor, May 5, 1941. MMA Archives.

[10] Becker and Schorsch, 2010.

[11] Memo from Winternitz to Taylor, 'Report from the Department of Musical Activities for the Year 1943.' MMA Archives.

[12] Letter from Winternitz to Mr. Wallace, May 5, 1943. MMA Archives.

[13] Letter from Winternitz to the Treasurer's Office, June 1, 1955. MMA Archives

[14] Letter from Winternitz to Mr. Rorimer, April 15, 1960. MMA Archives.

[15] Letter from Winternitz to Mr. Powers, December 7, 1962. MMA Archives.

[16] Budget request from Winternitz to Mr. Powers, March 2, 1964. MMA Archives.

[17] Berner, van der Meer, and Thibault, (eds). 1967.

References

Becker, Lawrence and Schorsch, Deborah. 2010. The Practice of Objects Conservation in The Metropolitan Museum of Art (1870–1942). *Metropolitan Museum Studies in Art, Science, and Technology I*, 11–37. New Haven: Yale University Press.

Berner, Alfred; van der Meer, John Henry; and Thibault, Genevieve, (eds). 1967. Preservation and Restoration of Musical Instruments. London: Evelyn, Adams and Mackay.

Brown, Sally B. 2018. A gift of sound: The Crosby Brown collection of musical instruments. *Metropolitan Museum of Art Bulletin*. New York: Metropolitan Museum of Art.

Hill Stoner, Joyce. 2005. *Changing Approaches in Art Conservation: 1925 to the Present. Scientific Examination of Art: Modern Techniques in Conservation and Analysis*, 40–57. Washington, DC: The National Academies Press.

Lindsey, Rebecca. 2015. A Harmonious Ensemble, Musical Instruments at the Metropolitan Museum, 1884–2014'. New York: Metropolitan Museum of Art. [Online]: https://metmuseum.atavist.com/musicalinstrumentshistory (accessed 14 April 2021).

Moore, J. Kenneth, Jayson Kerr Dobney, and E. Bradley Strauchen-Scherer. 2015. *Musical Instruments: Highlights of the Metropolitan Museum of Art*. New York: Metropolitan Museum of Art.

Pollens, Stewart. 1989. Curt Sachs and Musical Instrument Restoration. *The Musical Times* 130(1760): 589–594.

The Danish Music Museum, Part I: Should the 'National' Museum Be International?

Darryl Martin
The Danish Music Museum, National Museum of Denmark
Copenhagen, Denmark

Abstract

The Danish Music Museum is part of Denmark's Nationalmuseet, and as such has a particular – and specific – role to fulfil. Unlike a museum which focuses on a city, or a more historical or organologically-focused museum – a national museum has a responsibility to present and promote the country's own traditions, and also to bring objects and traditions from other countries to allow an understanding of other cultures. This should be considered against a background where the National Museum (as a whole) had almost two million visitors in 2017, of which approximately half of the general visitors to the main National Museum building, and to the Music Museum, are from countries other than Denmark.

There is a question about which "public" should be put "first" in regards to a museum display. Should a national-museum exhibition be aimed more towards those who live in Denmark, or to the visitors from abroad? And should the "European" display concentrate on Danish material, or focus on treasures from other countries, which include some of the most important and impressive instruments in the world, rather than Danish objects? If both, how should it address the relationship between the objects made in Denmark to those from other European countries? Finally, at what level should the information for the general public be aimed? Whereas a guided tour can be tailored to the specific audience, how much knowledge should one assume and present to the self-led museum visitor from both the home country and abroad?

Since 2006, what is now known as the Danish Music Museum has been part of the National Museum of Denmark. With that comes the obligation to follow the strategy and objectives of the National Museum, even while it remains in its own separate building. The purpose of this paper is not to discuss the various situations that led to the instrument museum becoming part of the National Museum of Denmark, nor to discuss the various considerations that led to the museum moving from its former home in Åbenrå, near Nørreport.

Although the move (completed in 2014) to the former Danish Radio Broadcasting House in Frederiksberg is not discussed, it is essential to describe the layout of the current museum display. From the entrance to the museum, the visitor can, in the first instance, take one of three 'strands'. A central passageway – dictated as much by the building's architecture as anything else – has a series of showcases in which instruments are grouped according to their form of sound production. These showcases, for idiophones, stringed instruments, wind instruments and so on, have instruments from many different traditions, countries, and musical-uses side-by-side.

To the right of the central passageway, when viewed from the entrance, is what may be described as the European strand, where instruments are displayed in groups arranged by both general type, and by time period. In here are many iconic instruments – the Hamburg instruments of Hass and Tielke, the London-made orpharion by Francis Palmer, a guitar dated 1785 by Antonio Vinaccia, which is possibly the oldest dated six-string guitar to survive, recorders by Bressan and Denner, trumpets by Haas of Nuremberg, early keyboard instruments from Antwerp and Italy, later pianos from Vienna, and so on.

To the left of the central passageway are Danish-made instruments, starting with bronze lurs dating to c. 1000 BCE, and going forward to instruments from near the present day. Again arranged in a similar fashion typologically speaking, there is also a greater emphasis on the playing of music, often as done by amateur musicians in a domestic environment.

The museum completes, in terms of its displays, with instruments from various traditions that form something of a *Kunstkammer* and then with instruments from South East Asia – instruments from China, Japan and Korea. Also, in the display area is a flexible space which can be used for teaching, small concerts, and other outreach events, and an essentially-soundproof 'play-it-yourself' room, where modern instrument of various types can be tried by visitors.

Although separated into the "European" and "Danish" sides, it should be pointed out that there are possibly Danish-made instruments in the European thread. A possibly-Danish unsigned recorder of transitional type, found in an antique shop in Aarhus, is alongside the Bressan and Denner instruments, and two earlier examples, both found in archaeological digs in Copenhagen, are on display. It should be said, however, that their position is probably best thought of in the same way as a surprisingly large number of other instruments from Europe in the display – as instruments which were used in Denmark, even though they originated elsewhere.

It probably goes without saying that there is no single type of museum visitor, even when it comes to museums of a specialized nature such as musical instrument museums. However, it is the view of the present author that museums do not attract those who are not interested in them. This does suggest that a musical-instrument museum visitor will be at least interested, and probably – to some degree – knowledgeable about instruments and music. One can also assume they will have some knowledge, or at least an active interest in, other related aspects of a museum, for example decorative arts and painting, history, music (rather than the instruments themselves), crafts, furniture, social history, pastimes, and so on. In an ideal world there can be enormous resources spent on interpretation to effectively cater for all audience types. Instrument-museum visitors are normally likely to have an enjoyment of music, but one might question if, for example, a museum needs to explain what a clarinet is, or the various ways in which it differs from a basset horn when the visitor can see both, usually side by side. On the other hand, the same visitor is probably not going to follow a discussion on which finger is used to play a particular key.

In any case, there appears to be a modern general tendency to use minimal text in displays, something that probably coincides with the use of other available forms of interpretation such as tablets and phone apps. And although a tablet or an app often has the facility to allow text and information to be tailored to one or more knowledge levels and interests, this is a facility that is probably not greatly used. Indeed, it can be pointed out that the average visitor has virtually unlimited knowledge (from a variety of sources) already available in their internet-connected phones.

For a country such as Denmark, and the collection in Copenhagen where half of the museum visitors are foreign, any interpretation starts with the very fundamental question of what language to write labels in. The decision at the Danish Music Museum has been to use Danish, but to have the text available, along with further description, in English on a tablet. Even without the tablet there are facilities such as Google Translate on the average phone to enable visitors to check on any specific meanings that might be unclear.

Perhaps the most fundamental question, and particularly one for an institution such as a National Museum, is that of the direction of the institution towards the public. Should a museum be showing visitors objects that give the visitor (from home or abroad) a greater understanding about the country – or city – they are in, or should it aim to show the very best objects, irrespective of the place of manufacture.

The 2017–2020 mission statement of the National Museum of Denmark (Nationalmuseet, 2017) can be translated as 'The National Museum strengthens storytelling and citizenship by illuminating the cultures of Denmark and the world and their interdependence', and the vision statement as:

> The National Museum is one of the world's leading cultural history museums.
> It offers museum experiences of international format for both the national and international audience
> It delivers research results at an international level
> It controls its collection effectively
> It is a valued partner in the Danish and international museum landscape

In a sense this does not – unambiguously – answer the question about the direction of the institution and whether the aim of its display is to concentrate on the visitor understanding (approach one) or finest objects (approach two).

The first approach is generally found in city museums – prime examples may be places like the Museum of London, which concentrates on the history and artefacts of that city. Indeed, their Statement of Purpose (Museum of London, 2016) is explicit on that:

> We aim to stimulate thinking and engagement with London in new ways, to be a part of every Londoner's life from an early age and to contribute to the city's international, educational, cultural, economic and reputational impetus.

This second approach can be perhaps seen best at an institution such as the British Museum where there is no attempt to portray anything of Britain, and any British objects on display in the museum are there due to an importance that places them at the same value as the Rosetta Stone, Mummies, Greek sculpture, and so on. In effect, a visitor to the British Museum is going there to see great objects from all over the world which have been collected together. Often, it must be said, by earlier collectors who travelled to foreign countries and had no issues with collecting materials from those cultures, often expressly so others in their home country could see these items. In essence it is a display in which 'iconic objects' have pride of place. It is a museum of spectacle and wonder. Their mission statement (British Museum, 2017) makes this clear:

> The aim of the British Museum is to hold for the benefit of humanity a collection representative of world cultures and ensure that the collection is housed in safety, conserved, curated, researched, exhibited and made available to the widest possible public.

To take a Danish Music Museum perspective we know that, as in the National Museum as a whole, about half of the general visitors are from other countries. Is the aim to educate both Danish and international visitors about the music and instruments of Denmark, with promotion of the country and its culture of primary importance, or is the role to show these visitor groups about the glories of music from all over the world?

The approach at the Danish Music Museum is to do both, as the two display streams suggests it might be. But what it actually shows covers more than just instrument from two locations. It is a perfectly-legitimate museological question to ask whether displays and interpretations should concentrate on what might be determined 'the normal' as exemplified by the question 'how did people like me play and hear music in the early-sixteenth, late-seventeenth or mid-nineteenth centuries', showing music and instruments in the context of the common and regular – that or the typical person or household; or whether we concentrate on the outstanding, showing the finest, the stuff of kings, queens, Bach and Beethoven, showing beautiful objects with the finest painting, carving, inlay and exotic materials, even though such things were the preserve of the very few.

Dividing the displays actually allows both to be presented. It allows the opportunity to get some insight into particularly Danish idiosyncrasies and popular folk instruments such as the langeleik, humle and accordion, or pop instruments which were generally European in origin,

into businesses which have great importance to the average Danish house such as the pianos of Hornung og Møller, or instrument types of which Denmark is – perhaps unexpectedly – a hotbed, such as the archtop jazz guitar. But it also shows that the vast majority of Danish-made instruments are, to all intents and purposes, identical to those from other European countries.

There are, of course, various regional characteristics that any foreign visitor can immediately compare to their own country, but generally things were much the same. Perhaps, in fact, the differences might be as great between Copenhagen and smaller Danish towns, as the differences between Copenhagen and Paris, Vienna or London. In fact, perhaps the one thing that is actually not conveyed anywhere near as strongly as it might be is that many of the iconic instruments – those objects which any museum would be delighted to have as part of their collection were, in fact, used and collected from Denmark itself, rather than by collectors in other countries.

References

British Museum. 2017. https://www.britishmuseum.org/about_us/management/museum_governance.aspx (accessed November 29, 2018).

*Museum of Londo*n. 2016. https://museumoflondon.org.uk/download_file/view/4434/289 (accessed November 29, 2018).

Nationalmuseet. 2017. https://natmus.dk/fileadmin/user_upload/natmus/nat_som_organisation/Nationalmuseets_Strategi_2017-2020_100117.pdf (accessed November 29, 2018).

The Danish Music Museum, Part II: Traditional Musical Instruments: Presentation, Interpretation, and Outreach

Marie Martens
The Danish Music Museum, National Museum of Denmark
Copenhagen, Denmark

Abstract

In addition to European and Danish displays, The Danish Music Museum holds a large number of traditional musical instruments from all over the world. This section will focus on the collection of traditional musical instruments and our thoughts and ideas about how these instruments are exhibited and explained in general.

Both Carl Claudius (1855–1931) and Angul Hammerich (1848–1931) collected the same type of objects at the same time in Copenhagen – but their priorities and methods were different. As a private collector, Claudius purchased according to his own taste and preferences, whereas Hammerich – as the founder of Musikhistorisk Museum – collected with respect to taxonomy. The East Asian part of the exhibition catches the visitor's eye immediately, partly because Carl Claudius often obtained very beautiful instruments, which is certainly true of the Chinese instruments in his collection – does the same apply for Hammerich's collection? The paper will address Claudius' and Hammerich's collecting of traditional musical instruments. What were their opinions on these instruments and the traditions and cultures related to them? Who were their contacts, and what was their inspiration? Does the current exhibition – re-displayed without any specific regard to the original collecting methods – reflect the approach of either Claudius or Hammerich?

With respect to interpretation, presentation, and outreach: special attention is given to the Asian musical instruments, the Chinese in particular, in terms of how they are used in the museum outreach and education programs. The Music Confucius Institute (MCI) in Copenhagen plays an important role in the museum's hands-on education program – The Sounding Museum. The purpose of the MCI is to facilitate musical and cultural exchange between China and Denmark. In other words: What will the museum audience learn from The Danish Music Museum's documentation and interpretation of the musical traditions of China?

The nucleus of the collection of the Danish Music Museum is the musical instruments collected by Angul Hammerich and by Carl Claudius. Carl Claudius (1855–1931) and Angul Hammerich (1848–1931) collected objects of a similar type at the same time in Copenhagen – but their priorities and methods were different. It is clear that Claudius as a private collector purchased according to his own taste and preferences, whereas Hammerich – as the founder of Musikhistorisk Museum – collected with emphasis on taxonomy.

At the time of the outbreak of World War I, Claudius – a successful textile manufacturer in Sweden – was appointed Danish consul of Peru and, in 1915, consul general. There is no evidence in the Claudius archive (held by the Danish Music Museum) that he ever travelled to Peru or outside of Europe for that matter and, indeed, it was an honorary title. In Danish and Swedish newspapers of the time, Claudius is quoted to have travelled far and to have found musical instruments in the strangest places (*Berlingske Tidende* 23(2), 1931). However, Claudius did not leave us many specific details about his travels.

In fact, Carl Claudius did not meticulously document his acquisitions – or at least he did not leave this information for future generations to look into, and only a small fraction of his correspondence has been kept. Claudius did keep a scrapbook with newspaper clippings, and

this scrapbook and some original letters provide evidence that he travelled to Germany, Italy, France, and Belgium on a regular basis (MMCCS Arkiv 84, 27).

On the other hand, Angul Hammerich's correspondence from 1896 to 1931 tells us that the founder of the Musikhistorisk Museum had an active exchange of letters in English, German, Italian, and French with private collectors and museums in Europe and America and that he, too, travelled frequently. Hammerich and Claudius were close friends and it seems reasonable to assume that they would have known the same people in Denmark and abroad. We know from articles in Danish and foreign newspapers and periodicals that the Musikhistorisk Museum and the Claudius Collection were well known and renowned, and that both collections were offered instruments on a regular basis (MMCCS correspondence archive; MMCCS Arkiv 84, 54).

It is clear that both Claudius and Hammerich looked to well-known collectors and important museums abroad for inspiration on which non-European instruments to collect. Claudius' collection of books includes catalogues from Wilhelm Heyer's collection in Cologne and the Crosby Brown Collection in New York, and in the Musikhistorisk Museum's library we find books and catalogues from among others Paul de Wit, Wilhelm Heyer, and from the museums in Berlin, Brussels, and Paris. Even though small of size, Denmark had had an immense influence for centuries as a colonial power in the West Indies, Africa, Asia, and the North Atlantic, and it would seem that both Claudius and Hammerich found it natural that their collections should include non-European instruments just like the Belgian, French, and German collections they knew and admired.

The museum archives give evidence that Claudius and Hammerich knew Danish ethnographers abroad, among others the leader of the Pamir expeditions, Ole Olufsen (1865–1929), and the administrator of a plantation in Sumatra, Frederik Lassen Landorph (1860–1923). Lassen Landorph had donated 48 musical instruments from South and southeast Asia to the Musikhistorisk Museum prior to its opening in 1898. Lassen Landorph's name is also found in the Claudius archives, and it does seem likely, though not provable at present, that Claudius would have bought instruments from this Dane abroad. Ole Olufsen had donated instruments from the Middle East to Hammerich's museum and it is not unlikely that Olufsen provided Claudius with the two lute instruments from Persia and Caucasia in his collection.

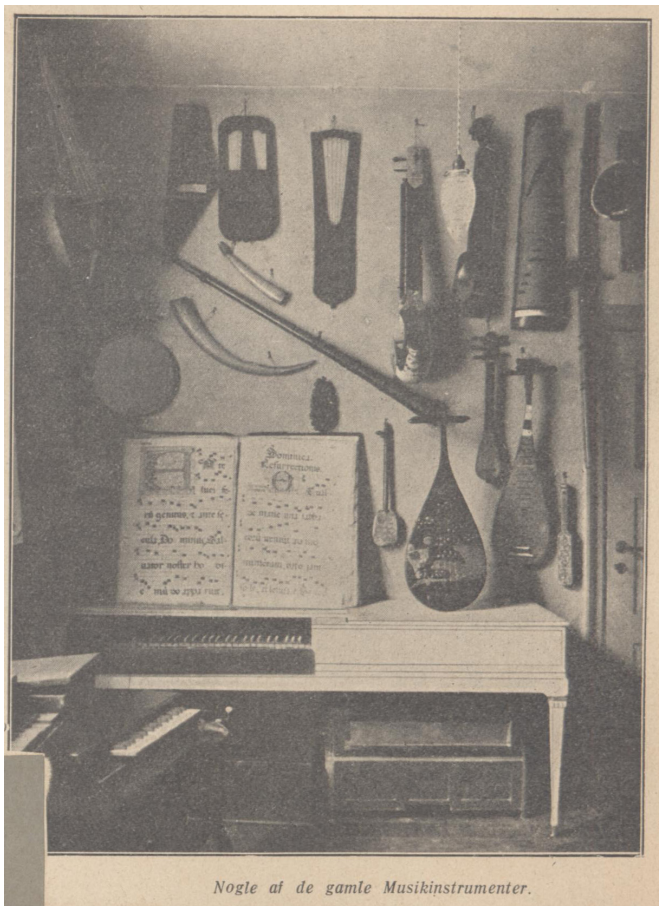
Claudius not only collected for himself but was a most generous benefactor to the Musikhistorisk Museum; among the instruments that Claudius donated to the museum in 1898 were an African lute-type instrument and some European traditional instruments. Hence, it is clear that Claudius from his early collecting days had an interest in classical and traditional objects of non-Western origin.

In the Claudius Collection catalogue, published in 1931, non-western musical instruments are referred to as 'exotic instruments' (Claudius 1931, 365). Claudius certainly had an interest in non-European instruments. In his catalogue, Claudius recognizes the importance of musical instruments from outside of Europe with respect and speaks of the characteristic instruments and the culture that created them (Claudius 1931, 365–389). On the other hand, the rather short chapter about non-European instruments indicates that Claudius didn’t know much about instruments from other parts of the world. Both the Claudius and the Hammerich catalogues do present the instruments according to classification and origin, but the methods were quite different. Hammerich was the first professor of musicology at The University of Copenhagen, and had an academic approach to the indexing of his catalogue from 1909. He took after his close friend, Victor Mahillon of the Musée Instrumental in Brussels (Mahillon 1893, 159), and used a neutral phrasing such as 'non-European' (Hammerich 1909, 108). Claudius, as a passionate private collector, gave his catalogue a personal touch. Even in 1931, 'exotic instruments' seems like an old-fashioned phrase, which Claudius is likely to have adopted from, for instance, the Heyer Collection catalogue from 1913 (Kinsky 1913, 215).

The Danish Music Museum's current exhibition does not reflect Claudius' approach to collecting and exhibiting; original photos from, and descriptions of, his collection at the beginning of the twentieth century, give evidence that he would display his instruments at random, mixing

European and extra-European instruments of all sorts (Fig. 1) – probably partly because of limited space in his villa but also because it seems that Claudius did not know much about musical instruments of non-western origin (Hetsch 1902). A small exhibition catalogue from his collection in Malmö in 1901 simply refers to 'a Chinese instrument' (*Katalog*… 1901, 14). Furthermore, Claudius' collection was not a public museum so he could do as he pleased.

When it comes to the Musikhistorisk Museum, very little evidence exists of Hammerich's display of non-European and traditional instruments. One photograph shows the collection of Chinese instruments but it is not known if the instruments were actually on display (Fig. 2). The photograph and Hammerich's 1909 catalogue show that the Musikhistorisk Museum did own the types of instruments that could have told museum visitors about Chinese music in the same way that The Danish Music Museum tells it today. However, due to Hammerich's collecting methods, the instruments were not necessarily in good condition.



Nogle af de gamle Musikinstrumenter.

Fig. 1.

Fig. 2.

Claudius' collection does not include all types of Chinese instruments, probably because he didn't have easy access to them and because he would typically collect visually attractive instruments in good condition.

The east Asian part of the Danish Music Museum's current exhibition catches the visitor's eye immediately, partly because Carl Claudius did often obtain very beautiful instruments, which is certainly true of the Chinese instruments in his collection.

Today's exhibition includes instruments from Claudius, the Musikhistorisk Museum, and loans from the Ethnographical Collections, a sister department of the Danish Music Museum at The National Museum of Denmark.

With respect to interpretation, presentation, and outreach in the modern exhibition of today, visitors to the exhibition will learn about musical traditions and instruments from all over the world. Both classical and traditional instruments of western and non-western origin are displayed throughout the permanent exhibition which tells the history of music – as well as music histories – in three parallel trails. Within this frame, the visitor can follow western music history from Antiquity to our time, as well as the Danish perspective from Nordic prehistory to our days. The *Sound Arcade* explains the principles of sound production according to classification of instruments and in five showcases presents objects from all over the world. Thus, the visitor is introduced to instruments from Greenland, South America, Africa, the Middle East, and Asia; the tablet offered to the individual visitors gives more details about the instruments and their use in texts, photographs, and sound examples.

Fig. 3.

Fig. 4.

The *World* section of the exhibition is devoted to focus on traditional instruments and traditions, and for now the musical traditions of east Asia have been given special attention. Via The Danish Music Museum's documentation and interpretation of objects from China and Japan, both individual visitors to the exhibition and school groups will come to know about the connection between the instruments of this part of the world, religious music, the traditions of the Japanese No and Kabuki theatres, Japanese chamber music and court music, and Beijing Opera. To place the exhibited instruments in a stronger context and to emphasize their use, the visitor will see other types of related objects such as fans and a kimono, a miniature temple, music iconography, and a Beijing Opera actor's costume (Fig. 3).

The Danish Music Museum's school education program – The Sounding Museum – concentrates on dialogue and interactive hands-on workshops based on an in-house collaboration with the Royal Danish Academy of Music and The Music Confucius Institute of Beijing (MCI). The purpose of the MCI is to facilitate musical and cultural exchange between China and Denmark. Even though they do not speak Danish, the Chinese students of the MCI teach Danish children to play Chinese instruments; equally, the Danish school children do not speak Chinese and nevertheless – or maybe because of that – the workshops have become a close meeting with Chinese musical instruments and some basic Chinese words (Fig. 4).

The Sounding Museum has become a very successful meeting between peoples and cultures, thus embracing the important idea of inclusion by music, fertilized by the synergies between classical Western and Chinese musical traditions.

References

Berlingske Tidende. 23(2), 1931. 'Generalkonsul Claudius døde i Gaar'.

Carl Claudius Archive. MMCCS Arkiv 84.

Claudius, Carl. 1922. 'Om Samlare av "en Samlare"'. Særtryk af *Ur nutidens musikliv* 3.

Carl Claudius' Samling af gamle Musikinstrumenter / Collection Carl Claudius, Beskrivende Katalog udgivet posthumt ved Godtfred Skjerne. 1931. Copenhagen: Levin & Munksgaards Forlag.

Catalogue of The Crosby Brown Collection of Musical Instruments of all Nations. 1902. The Metropolitan Museum of Art. Hand-Book No. 13. New York.

Hammerich, Angul. 1909. *Musikhistorisk Museum. Beskrivende illustreret Katalog.* Copenhagen.

Hammerich, Angul. 1911. *Das musikhistorische Museum zu Kopenhagen. Beschreibender Katalog.* Kopenhagen: G. E. C. Gad.

Hetsch, Gustav. 1902. 'Mellem gamle Instrumenter i Carl Claudius' Musæum'. *Illustreret Tidende* 49.

Katalog öfver C. Claudius' Instrumentsamling utställda til förmån för Musikhistoriska Museet i Stockholm. 1901. Malmö.

Kinsky, Georg. 1913. *Musikhistorisches Museum von Wilhelm Heyer in Cöln. Kleiner Katalog der Sammlung alter Musikinstrumente.* Cöln.

Music Confucius Institute. https://english.dkdm.dk/Confucius-Institute (accessed November 27, 2018).

Mahillon, Victor-Charles. 1893. *Catalogue déscriptif et analytique du Musée Instrumental du Conservatoire Royal de Musique de Bruxelles.* Gand.

MMCCS correspondence archive (1896–1931).

Wit, Paul de. 1893. *Kurzgefasster Katalog aller im Musikhistorischen Museum von Paul de Wit vorhandenen Musik-Instrumente, Gemälde und anderen Merkwürdigkeiten, die auf Musik oder Musik-Instrumente Bezug haben.* Leipzig.

To Keep the Music Playing in the Netherlands: An Update on Two Working Collections of Historic Pianos

Jurn A. W. Buisman
Geelvinck Music Museums
Amsterdam and Zutphen, Netherlands

Abstract

Since two years in the Netherlands, two modest museums with working collections of historic pianos and player pianos are collaborating as the Geelvinck Music Museums. Together their collections span a period of over one and a half century from the early square pianos up to the player pianos of the Roaring Twenties.

This short update will give an insight into the process of strengthening the concept of working collections of early keyboard instruments in relation with preserving "sounding heritage", both material and immaterial. It concerns cooperating with conservatories and the high school for piano technicians and restorers. Preservation of a working collection has to be linked with preserving the skills connected to the historic piano. Steps forward have been made, since my last paper in 2016. This part of my talk will be in line with the theme of the conference.

However, my talk will give also an overview of the difficulties of sustainability for maintaining a museum without the financial support of a local government. This concerns the risks of loss of an important part of musical heritage due to unexpected outside circumstances. We are very happy with the support from CIMCIM, because it immensely helped to convince the officials. In total we received near to 20,000 signatures for our petition.

The roots of the Geelvinck music museums go back to the seventies and eighties of the twentieth century, when in the Netherlands – as in its surrounding countries – a wave of rebellious interest in the "authentic performance" music stirred-up the quest for original period instruments. Collections, such as those of Rien Hasselaar, Henry Hollander and Kasper Janse, had their start in these years. These were private collections of period pianos and in the case of Kasper Janse, player pianos and pianola-rolls. The collectors were also restorers and sometimes sold instruments to musicians, or swapped instruments with other collectors. In some cases they were able to acquire instruments from museum collections, such as the Municipal Museum in The Hague, but more often instruments were bought at auction or rescued from being dumped. Their motivation was genuinely altruistic: the period instruments were collected and restored for educational use and for public performances. Rien Hasselaar had been the vice-director of the Amsterdam School of Music, which in the late eighties merged into the Sweelinck Conservatory of Amsterdam. In 1991 the Sweelinck Museum – including the collections of Rien Hasselaar and Henry Hollander (who had passed away already earlier) – opened on the top floor (the attic) of the newly acquired building of the Sweelinck Conservatory. In the same year 1991, Museum Geelvinck, also a private initiative, opened its doors within one of the grand canal mansions and, two years later, the Municipality of Amsterdam gave part of one of its buildings in use to the Pianola Museum to house the collection of Kasper Janse.

In the year 2000, Rien Hasselaar, passed away and left his collection of period pianos to a foundation (the Stichting Sweelinck Museum), which was loosely connected to the Conservatory of Amsterdam. Already, in the late nineties, but even more in the years thereafter, due to budget cuts, but also lacking interest from the authorities, the collection was not further developed and, in fact, gradually fell in disrepair. When the conservatory moved to

a new building in 2007, the Sweelinck Museum was dismantled, objects on loan were returned and the remaining collection was placed in storage, except for some objects in use with the conservatory, or on loan, mainly to our Museum Geelvinck. Shortly after, the total collection was placed under the wings of our museum.

In parallel to this development, the municipality withdrew its original promise to give the whole building, in which the pianola collection of Kasper Janse was located, for use to the Pianola Museum. As a result, the Pianola Museum could only partly materialise its original exhibition plans. As the authorities gradually lost interest in the Pianola Museum and strangled both its funding and the upkeep of the building, the museum came under continuing financial stress. Only due to the perseverance of Kasper Janse and the community of those, who valued the collection and loved the individual atmosphere of the Roaring Twenties in this tiny museum, the Pianola Museum managed to survive. In December 2017, the municipality – as part of a policy to get rid of a large chunk of its real estate holdings to cover losses it had suffered from building the new metropolitan line – decided to sell-off the building in which the Pianola Museum is located. In the unfortunate case the building would have been acquired by a real estate developer, this certainly would have resulted in the definite closing of the museum. Two years earlier, our museum had partnered with the Pianola Museum, so we were able to support a public outcry against such action. Within three months, 20,000 people signed the protest. We received the support of the Association of Amsterdam Museums, as well as the Amsterdam Arts Council. We are very grateful for the letter of support by CIMCIM, whose token of solidarity gave a global dimension to our effort to rescue the museum. As a result, the municipality placed the sale on-hold and, in August 2018, we have been able to negotiate abandoning the selling process. Instead, due to the general outcry in favour of the Geelvinck Pianola Museum, the municipality became more positive in its approach. However, there is still a long way to go.

In the meantime, in 2017 our museum had moved to a new venue in Zutphen, in the eastern part of the Netherlands, about 1.5 hours by train from Amsterdam. The Geelvinck Music Museum Zutphen is now located in a patrician mansion with a classical front of the late eighteenth century and partly dating back to the late Middle Ages; it is a listed state monument. The museum is dedicated to the living musical heritage of keyboard instruments from the long nineteenth century, with an emphasis on pianos from the late eighteenth to the mid-nineteenth century. Recently, we were able to acquire instruments from the auctions of the Finchcocks and the Colt Collections, as well as other instruments, including recently a late-eighteenth-century glass armonica from the Walter Erdmann Collection. In August 2018, the eighth edition of our Geelvinck Fortepiano Festival, curated by Dr. Michael Tsalka, including 20 concerts, 9 fringe recitals, a – weeks in advance fully sold-out – concert stroll with three recitals, 18 master classes by Richard Egarr, Peter Sykes and other, and, last but not least, our – now annual – symposium, had become an outright success. This success is in part thanks to the media, and especially the Dutch national radio broadcast for classical music, which frequently took notice of our festival and even broadcasted interviews at prime time.

However, this does not mean that our position is stable. The new premises of our museum are on loan from the municipality of Zutphen for only two years, ending in December 2018. We requested the municipality to extend this term with another three years, and, at the moment of writing this article, we are still awaiting their decision. We expect to be able to acquire enough funds from various stakeholders, including the regional authorities, to materialise the necessary refurbishment of the building within these three years. In the meanwhile, we have stirred-up the on-going process to have at least part of the collection listed as national cultural heritage. The National Arts Council advised positively on this application already in 2007. However, the National Heritage Service has still to act. This listing would much strengthen the position of our museum.

In general the position of small, musical-instrument museums in the Netherlands is feeble as much depends on the support of – often grey-haired – volunteers. In 2016, we launched an initiative for a National Platform for Music and Musical Instrument Collections. Mid-term 2018,

we received funding from the Mondriaan Fund (the national fund for fine arts and museums) to investigate the potential to develop the platform as a format for cooperation between music and musical instrument museums and institutions in the Netherlands. The concept is to create a network of small music and musical instrument museums with the following activities:

- exchanging specialist knowhow between each other and with larger museums
- exchanging practical knowhow on museum related issues and fund raising
- developing integrated marketing for music and musical instrument museums and creating a framework for national public visibility for music and musical instrument museums and institutes
- applying jointly for funding applications to the lottery funds and other larger cultural funds
- lobbying for niche attention with the regional and state authorities
- integrating networks of specialist musicians, conservatories, restorers and collectors
- linking friends and volunteers' organisations
- linking with music and musical-instrument museums and conservatories abroad
- linking with international organisations, such as CIMCIM
- developing hands-on support to unlock collections on-line, such as through MIMO
- joining forces with educational institutes, for building of a curriculum for professional technical craftsmanship to sustain experience and knowhow on the maintenance, revision, restoration and (copy) building of original historic instruments
- developing a common strategy for collection development and deaccessioning
- developing a national central storage, specialised for musical instruments, possibly in connection with other national heritage institutions

In addition, we have good hopes that at least some of the small, musical instrument museums will follow our practise to loan playable instruments to historical house museums, country houses and castles open to the public, to develop the potential of presenting sounding musical heritage to a larger public. Thus, we would give a further incentive to stimulate the living heritage of musical instruments at their proper historical sites: in eighteenth- and nineteenth-century music rooms. Recently the National Heritage Service has announced, that 2020 will be the Year of Sounding Heritage. We have good hopes that this will attract the public and political attention needed for our common goals.

Keeping musical instrument collections in stable condition is a costly affair. Technical knowhow of the instruments is a must. Unfortunately, we see that in some areas the technical expertise may vanish when experience and knowhow is not handed over to the next generation. As an example – following the earlier attention given to this issue by Laurence Libin – I note that in the Netherlands, a country where once the reed organ was the kernel of family life in many homes, only one single professional restorer of reed and house organs survives, and he also is nearing his pension age. The specialised conservatory courses for professionally performing on reed organ have all been discontinued in the past two decades. Another example: recently, we acquired a late-eighteenth-century Meerbach clavichord from the Colt Collection. It had been restored previously by orders of Charles Colt and it needed a small repair only. Through the Dutch Clavichord Society, we searched for a reliable restorer specialised in clavichords. In the end, we contacted two restorers, both located in Germany: it appeared that one of them was willing to put the instrument "on his list",

estimating that maybe in ten (!) years, he would have time to do the job, while the other told us he was already full with work for the rest of his lifetime. In the end, with help of the English expert Peter Bavington (the undisputed authority, an *éminence grise* in the field), who fully examined the instrument and researched its background, we had the Meerbach restored and properly restrung by the clavichord builder Sander Ruys. In short, if we do not preserve the experience and knowhow of craftsmen working with musical instruments, we may lose the ability to properly care for our working collections. This year, we started cooperation with the Dutch three-year course for piano technicians and we created a part-time educational position for a post-master graduate. In the Netherlands at the moment, as far as we know, there are only two young-generation, emerging-professional piano-technicians learning from the experience and lifetime built-up knowledge of the few still existing top-level restoration ateliers. If we wish to inspire musicians to continue performing on playable musical instruments from the eighteenth and later centuries, then we need to support the development of a young generation of craftsmen, who can give the necessary care to these instruments. As the world of specialised musicians, such as for instance early-keyboard performers, has become highly cosmopolitan, the same approach should be developed for the young generation of craftsmen in the field of the preservation, restoration and copy-building of historical instruments.

The CIMCIM annual conference 2018 being in China, it should be noted that an already large and still growing percentage of young musicians interested in performing on early keyboards, period pianos and even reed organs, originate from Japan, Korea and, more recently, China. In a recent article by David Crombie (World Piano News) on the sale of the Colt Collection, he noted: 'Buyers did indeed seem to come from all over, and in particular, China, Japan and Korea'. I can imagine, that museums and collectors in these countries do not yet have the knowhow and experience available on how to best take care of their newly acquired treasures. Our museum and the museums already related to our platform are open to share our experience. We hope, that we can connect to the museums and collectors in this part of our world and thus to contribute to the preservation of our living musical heritage on a global level for all humankind.

The Protection and Inheritance of Zhihua Temple Jing Music

Hui Wang
Beijing Cultural Exchange Museum
Beijing, China

Abstract

Zhihua Temple is located in the Lumi Cang Hutong of Dongcheng District, Beijing, and was built in 1444 AD. Less than 3 kilometres from the Forbidden City, there is the Ming Dynasty ancestral Zhu Xizhen inscription 'Sui Ci Zhihua Temple' on the plaque. This little-known temple has given birth to one of the most famous Buddhist music in the history of Chinese music – Zhihua Temple *Jing* music. The music of Zhihua Temple is characterised as Buddhist music, but its musical form has historically extended some features from the Han Dynasty to the Qing Dynasty. It includes court music, folk music and religious music, which is the product of the development of Chinese music. Its source is the type of music that has existed in the course of history, which has been chosen and adapted according to the spirit of religion and content. The Zhihua Temple *Jing* Music has been transmitted for more than 570 years and has been passed down from the original Art Monks to today's inheritors, with precious historical and artistic value.

Introduction to Zhihua Temple *Jing* Music

The Zhihua Temple *Jing* Music is a traditional music that was circulated in the Beijing area during the Ming and Qing Dynasties. In a broad sense, the Zhihua Temple Beijing Music is not only passed down in the Zhihua Temple, but also spread to more than ten monasteries in Beijing Dongcheng District and Nancheng District. Therefore, the music passed down by the monks of many monasteries at that time was also called the Zhihua Temple *Jing* Music. Although the Zhihua Temple *Jing* music was established in the Ming Dynasty, it has an inheritance relationship

Fig. 1. Zhihua Temple.

with the music of the Tang and Song Dynasties. The existing songs, tunes, scores, musical instruments, etc. of the *Jing* music of Zhihua Temple fully prove this relationship.

There are 14 books that record the scores in Zhihua Temple, and a total of 812 songs are recorded, including 705 music pieces (2 pieces) and 107 percussion pieces. In addition to the vocal songs, there are 205 instrumental music pieces and 85 percussion music pieces. The names of these songs are not from the *Jing* music of Zhihua Temple, but have a long history. For example, some scholars have studied that 17 of the songs of Zhihua Temple are the same as those of the Cui Lingqin of the Tang Dynasty. The *Music Poetry, Biji Manzhi, Taihe Zhengyin* and the music of the Tang, Song, Yuan, Ming and Qing Dynasties prove that it has been continued since the *Faculty of the Church*, rather than by chance. Professor Yuan Jingfang, a famous Chinese musicologist, said that in the Zhongtang set of *Jing* music, "The names of nine songs of *Jing* music come from the music and literature of the Tang Dynasty, 17 songs from the Song Dynasty, 49 songs from the Jin and Yuan dynasties; more than 20 songs appeared in the Ming Dynasty".

Fig. 2. The fifteenth generation of art monk portraits (the Kangxi period of the Qing Dynasty).

The structure of the existing music is very similar to the structure of the Tang Dynasty music. The songs of Zhihua Temple *Jing* music, *"Xiaohua Yan", "Chui Si Tune",* etc., the length of the music is about 12 minutes, and its structure is slow to fast, obviously the same as the "disorder", "middle order", and "break" of the Tang Dynasty music. It is first entered by a long lead, followed by a rhythm-stable medium-speed passage, connected to a small free rhythm and then enters a faster ending. This structure has a unique title in the Zhihua Temple *Jing* music, known as *Pai* (head), *Shen* (body), *Wei* (tail).

The tune of the *Jing* music of Zhihua Temple retains some of the characteristics of the Tang and Song Dynasties. The four tunes of the Zhihua Temple *Jing* music are *Zheng, Bei, Jiezhi* and *Yue*. Musicologist Yang Yinliu believes that the name of the two tunes is used in the Yan music of the Tang Dynasty.

The music scores used by Zhihua Temple Beijing music are unique in their notation. The Chinese name is "Gongche notation"; it uses Chinese characters to write the pitches in the score. The earliest recorded music of the Zhihua Temple is the *Jing* music *Gongche* notation of Kangxi, which is over three-hundred years old (1694), with a total of 48 scores recorded. *Jing* music Gongche notation was discovered in 1952 by the art monks *Faguang* in the kitchen of the Zhihua Temple. At present, the songs sung and played by the intellectuals of the Zhihua Temple are the same as those in the book.

The instruments used in the music of Zhihua Temple are mainly *Sheng*, *Pili* (the Chinese name is *Guan*, a double-reedpipe wind instrument), flutes, cloud gongs and drum. The *pili* is the main instrument of the music of the Zhihua Temple, and the *pili* used by the Zhihua Temple *Jing* music has nine holes, retaining the shape of the Song Dynasty, the same as that recorded in the Song Dynasty Chen Yang's *Book of Music*. The *pili* is used to accompanied the *sheng*, which is in the same band, and is the inherent and ancient instrument of our country. Until today, the *sheng* of the *Jing* music of Zhihua Temple have retained the same shape and seventeen-reeds system since the Song Dynasty. The music

of Zhihua Temple, which is dominated by *pili* and *sheng*, has also been played together with the bamboo flute.

Three Courses of Protection and Inheritance of Zhihua Temple *Jing* Music

The protection history of Zhihua Temple *Jing* music can be divided into three stages. The first stage was in the 1950s. The discovery and in-depth study of musicologists made the inheritance of Zhihua Temple Beijing music a good sign, thus entering the academic and government visions. The second stage was from 1979 to 1996. From the beginning of the integration of Chinese folk instrumental music, to the inheritance of the new generation of intellectuals of Zhihua Temple, the *Jing* music of Zhihua Temple was strongly protected

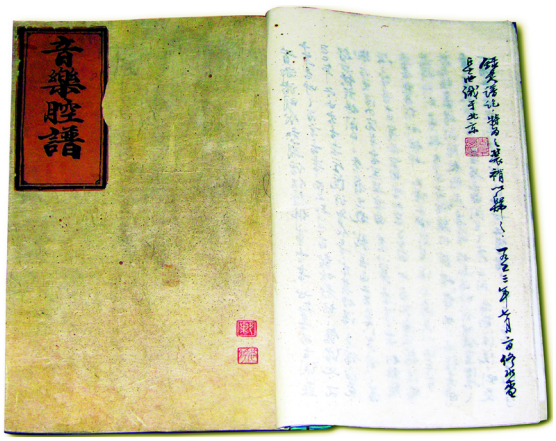


Fig. 3. In 1694, the fifteenth generation of art monks copied the Gongche notation of the Jing music.

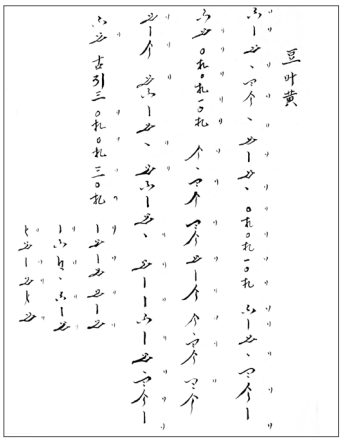


Fig. 4. The Gongche notation of the Zhihua Temple Jing music.

and passed down. The third stage is from 2004 to the present. With the advent of China's intangible cultural heritage protection, the Beijing Museum for Cultural Heritage Exchanges, the protection unit of Zhihua Temple *Jing* music, has made a series of effective and far-sighted protection work.

The first stage. It dates back to the 1950s. The wave of national literary and artistic performances, the policy of "Hundred Flowers Blossom, and Innovation" made the music of Zhihua Temple the first time in the music science community at the end of 1952. Mr. Zha Fuxi, the master of Guqin, first stepped into the gate of Zhihua Temple. When he saw the art monks with exquisite skills and saw the ancient Gongche notation of the Qing Dynasty, he wrote with excitement *The Letter to the Art Monks of Zhihua Temple.* Later, the famous musicologist

Fig. 5. Pili (Guan in Chinese), a double-reedpipe wind instrument.

Fig. 6. Sheng (a 17-reedpipe wind instrument).

Fig. 7. Cloud gongs.

Yang Yinliu came to Zhihua Temple to study and carry out extensive and in-depth investigation and research. He and Jane and Wang Di jointly wrote *Zhihua Temple Jing Music*, detailed descriptions of the music scores, songs, art monks, and instruments used in the music of Zhihua Temple. From the end of 1952 to 1953, the National Music Institute of the Central Conservatory of Music recorded several songs for the *Jing*hua Temple. In February 1953, Zhihua Temple *Jing* music participated in a performance hosted by Mr. Lao She at the Beijing Federation of Literature and Art. In 1954, under the joint initiative of the literary and art circles and the religious circles, the "Beijing *Jing* Music Preparation Conference" and the "Beijing Zhihua Temple *Jing* Music Research Association" were established; but the latter did not carry out corresponding work and was dissolved after one year. In the early 1950s, the attention of the literary and art circles to the Beijing music of Zhihua Temple laid a solid foundation for the follow-up protection and inheritance of this "living fossil" music. Later, the Japanese government established the concept of "intangible cultural wealth" and the law. At a time when China had not yet touched on this concept, our literary and art workers have actually started research and protection of a series of traditional art, including Zhihua Temple *Jing* music, while Zhihua Temple and Zhihua Temple Beijing music really benefited from the attention of these people of insight. As the musicologist Tian Qing said: 'The famous name of Zhihua Temple depends on a group of intellectuals who have received Western education and have strong national consciousness and traditional culture'.

Second stage. On 1 July 1979, the Chinese Ministry of Culture and the Chinese Musicians Association issued the document *Collecting and Organizing China's National Music Heritage Plan.* The document pointed out: 'National folk music is mostly through sound. It is mainly preserved in the actual performance and singing of folk artists. If it is not timely rescued and collected, there is a danger of loss'. In order to rescue the important music that has been lost, the cultural departments and literary and art workers of all levels of government across the country have carried out vigorous "four major integrations". In the 1980s, the staff of the "Chinese National Folk Music Integration – Beijing" came to collect the *Jing* music of Zhihua Temple. This "Integration", which was published 20 years later, included two songs of the *Jing* music of Zhihua Temple. The set of songs and a single track are recorded in the form of scores and accompanied by explanatory texts. A total of more than 200 pages of related content of the texts of Zhihua Temple *Jing* music are recorded.

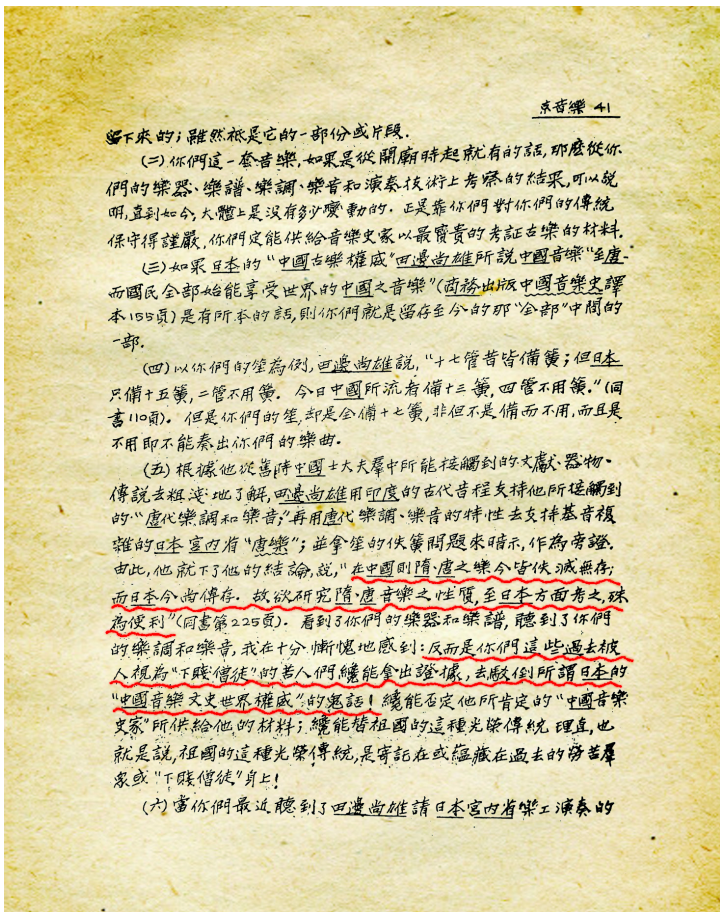


Fig. 8. The Letter to the Art Monks by Zha Fuxi.

In the 1980s, the Beijing Buddhist Association and the Central Conservatory of Music carried out a series of rescue work on the *Jing* Music of Zhihua Temple. In 1984, at the Guanghua Temple, the Zhihua Temple *Jing* Music Reception was interrupted for more than 30 years, and the art monks were reorganized into a rehearsal. In 1986, the inaugural meeting of the Beijing Buddhist Music Group, which is based on the Zhihua Temple *Jing* music,

was held. Zhao Puchu, president of the Chinese Buddhist Association, Vice President Zheng Guo monk, Honorary Chairman of the Chinese Musicians Association, Lu Ji, and Dean of the Central Conservatory of Music, Zhao Feng, attended the event. At the meeting, the twenty-fifth generation of Zhihua Temple music and the twenty-sixth generation of art monks and the teachers of the Central Conservatory of Music jointly performed the Zhihua Temple *Jing* music. It is precisely the goal of 'serving socialist spiritual civilization' and the artistic characteristics of 'combination of good and beautiful'. Zhihua Temple *Jing* music goes abroad. In 1987, the art monks of Zhihua Temple *Jing* music was staged in seven cities including West Berlin, Cologne, and Paris. It was called "music bomb" by local audiences. The Central News Record Film Studio followed up and produced a large-scale colour documentary *Zhihua Temple Jing Music* in Europe. In 1989 and 1994, the art monks went to Singapore and China Taiwan to perform, which enabled overseas Chinese and international friends to experience the ancient music from the Ming Dynasty of China.

In the 1980s, the development of Zhihua Temple *Jing* music was in full swing. However, faced with the serious problem of aging art monks, the question arose of how to pass this skill onto the next generation. This era is precisely the period of rapid development of China's economy. All services for economic construction, all for the construction of modernization, who would be willing to inherit this career with little income, no scenery, and no future? It happened to be the peasants who lived in the village and were infected by the music of Zhihua Temple in the Qing Dynasty. They also passed on the music of the past art monks with their own system and style. In 1991, at the first Cultural Relics Festival held in Beijing, the art monks of Zhihua Temple met the teenagers from the concert of Qujiaying in Hebei Province. When the familiar melody was played, the art monks realised: are these little musicians who have inherited the music of their parents not the successors of the Zhihua Temple music we are looking for? In the winter, the leaders of the Zhihua Temple Cultural Relics Center came to Qujiaying. After talking with their parents, they invited six people including Hu Qingxue and Qu Yongzeng to study music at Zhihua Temple. In 1992, six young musicians from Qujiaying visited art monks Benxing, Fuguang and Huiming as teachers, and began their journey of learning and inheriting the music of Zhihua Temple. Any traditional art is hard to learn. The characteristics of Zhihua Temple music are difficult to learn and easy to forget. These young musicians who have been working with the *Gongche* notation and traditional instruments since childhood have a solid ancient music base. Under the leadership of Master, the practice began. From singing scores to playing instruments, the musicians needed to learn them word-by-word and be familiar with them. In five years they mastered more than 40 songs.

The third stage. In 1996, because the economic income was meager (more than 200 yuan per month), the six inheritors left the Zhihua Temple due to the pressures of marriage and need to support their families. These young people had unique skills, some as masons, some as car drivers; no matter what kind of occupation, in the era of economic growth, wages were much higher than the legacy of a music that no one listens to. Just as they were busy with their business, a new cultural craze swept over the land of China, and the term "human oral and intangible cultural heritage" began to enter people's lives. Zhihua Temple *Jing* music had not been forgotten by people. In 2003, Mr. Song Dachuan, member of the Beijing Municipal Committee of the Chinese People's Political Consultative Conference, called for the rescue of the endangered Zhihua Temple music at the Beijing Political Consultative Conference. This suggestion aroused widespread concern in society. In November of the same year, CCTV interviewed Zhang Benxing, a twenty-sixth-generation art monk of Zhihua Temple, and broadcast it on the "News Night" program. People finally experienced the feeling of the first time that Mr. Cha Yuxi and Mr. Yang Yinliu heard the music of Zhihua Temple, and the history is amazingly similar! In the same year, the Beijing Museum for Cultural Heritage Exchanges submitted a declaration form for the special fund for applying for the "Inheritance and Protection of Zhihua Temple Beijing Music" to the Beijing Cultural Relics Bureau. In 2004, the project was approved and officially launched. The leaders of Zhihua Temple invited the

six inheritors from the Qujiaying in Hebei Province to the Zhihua Temple to work full-time on musical inheritance. At the same time, the 75-year-old Benxing master was invited back to the temple to guide the disciples to re-learn the *Jing* music of Zhihua Temple. In the Zhihua Temple, a *Jing* music classroom and a dormitory for the disciples were established. With the Cultural Relics Bureau supporting the training and living expenses of the disciples, the place of residence and inheritance, the Zhihua Temple music was very quickly recovered and started to be performed in public.

In September 2005, the Beijing Museum for Cultural Heritage Exchanges compiled and filed the files and materials of Zhihua Temple *Jing* music. In May 2006, Zhihua Temple *Jing* Music was included in the first batch of national intangible cultural heritage. It can be said that entering the list proves that the music of Zhihua Temple has precious value.

The Status Quo of Zhihua Temple Beijing Music

In order to allow people to better appreciate and understand the music of Zhihua Temple, Beijing Museum for Cultural Heritage Exchanges has carried out a lot of protection, research and dissemination work on the *Jing* music of Zhihua Temple, for example, it is stored by means of audio and video recording, strengthening theoretical research and media dissemination, and carrying out performances and education. Since 2004, the Zhihua Temple Beijing music inheritor has performed four public performances in the Zhihua Temple daily, playing 15 minutes each, and changed to two in 2014. It has been held for 12 years, and the daily performance is still performed today. The daily performance has become a well-known activity of Zhihua Temple. In 2006, our museum held the first Zhihua Temple Music and Culture Festival, and it will have been successfully held for eight seasons by 2018. The purpose is to gather domestic excellent traditional music by means of large-scale activities, *Xi'an* drum music, *Fujian Nanyin*, Taiwanese traditional music, Daxiangguo Temple Buddha Music, Hebei folk music and other excellent ancient music has been exhibited for the masses and experts and scholars on the stage of Zhihua Temple. Although the platform is small, it is an elegant courtyard. In addition, "going in" still needs to "go out". In recent years, Zhihua Temple *Jing* music has often been performed at home and abroad, such as at the British Museum, University of London, British Asia House, Singapore Esplanade, and Taiwan and Hong Kong (China), etc. At the same time, they actively participated in traditional music festivals and traditional festival commemorative events held in various places in China, and pushed Zhihua Temple music to different stages to present the protection results to the world.

Connecting Users and Communities Through Repatriation of Recorded Musical Traditions and Cultural Materials

Isaac Machafa
Midlands State University
Gweru, Zimbabwe

Abstract

In the post-independence era, from April 1980 to the present, Zimbabwe has witnessed huge efforts being made in the repatriation of both tangible and intangible cultural-heritage artefacts back to their original indigenous communities. During the colonial era from 1890 to 1980 significant cultural materials were taken to foreign lands were some items found their way into international museums and archives while others have summarily disappeared without convincing trace. The advert of political independence and international cooperation amongst nations has seen a rise in the repatriation of recorded musical traditions as well as traditional materials back to their owners. This paper discusses the challenges that populate this initiative, as some receiving communities are not readily equipped to derive value in the tangible and intangible repatriated heritage.

Introduction

African communities are well known for taking great pride in their traditions and other cultural practices that characterise their daily living. However, this view can be contested given the opposing forces taking place in indigenous African communities today. It can be noted that the advent of the industrial revolution ushered in new ways and patterns of living, many of which are alien to indigenous ways of living. Within the African communities, traditional practices are held dear as these define the state and sense of being and belonging for one in his or her given community. It is in this view that scholars like Collins (2002) have summarily defined African people as generally culture conservative.

Culture in African Indigenous communities

Culture plays an integral component within the lives of many indigenous communities throughout Africa. Culture in this context is understood as the way of life of a people. Culture can be defined as the sum total of a way of life a society can offer in terms of material implements and possessions; in terms of intellectual and educational level of development; in terms of standards of living and ways of life; in terms of values and value systems; and in terms of social relations between members of the society; in terms of arts and crafts; and in terms of religion. According to United Nations Educational, Scientific and Cultural organisation, (UNESCO 1995) culture is that complex whole which includes knowledge, beliefs, arts, morals, laws, customs, and any other capabilities and habits acquired by a human as a member of society. A people without a culture are a people without identity. A people's culture gives them the reason to live as it guides them to make correct and beneficial choices in life. Culture is therefore of crucial importance in the development of a nation and its integration as it ensures that economic development is in line with philosophical, structural, environmental, political and social values.

Zimbabwe's development must therefore be looked at holistically. Culture must be integral to development, and since development cannot take place without the full support and participation of the people, it is essential that all Zimbabweans participate actively in the creation and promotion of a culture that is responsive to their needs and aspirations. From

a UNESCO "culture" definition point of view, culture sums up all the various elements and characteristics that make up a community.

In African communities we find shared symbols, meanings, and artefacts that bind communities together. This is achieved as community members strive to live up to the demands and expectations of these shared symbols and meanings. In an endeavour to weaken African communities during the colonial era, several African artefacts were taken away from their original owners and were taken to faraway lands where some were taken to private homes. Some artefacts got completely lost while others were sold to merchants and curators who later deposited them in their museums and archives where the majority are still housed to the present day.

The advent of political independence and freedom brought about amazing enlightenment to many African citizens, Zimbabweans included. There has been a wave of consciousness amongst scholars, researchers, and the general population about the need to reclaim what originally belongs to the African culture and its people. While this exercise has been long and fraught with resistance in some quarters, there is general understanding amongst many researchers on the need to repatriate African artefacts back to their original communities so that the artefacts once again belong in the custody of the indigenous African communities.

Calls for repatriation

With the rise of globalisation, a common question has been raised: should cultural property taken by a stronger power or nation remain with that country or should it be returned to the place where it was created? Since the 1990s this question has received growing attention from the press, the public, and the international legal community. For example, it is well documented that prestigious institutions such as the J. Paul Getty Museum of Art in Los Angeles and The Metropolitan Museum of Art in New York have agreed to return looted or stolen artwork or antiquities. It was reported in the media that British smuggler Jonathan Tokeley-Parry was convicted and served three years in prison for his role in removing as many as 2,000 antiquities from Egypt (Clavir 2002).

New books about repatriation of art and antiquities have captured the attention of the public in various spheres of life. In addition, a documentary based on one of these books was shown in theatres and aired on public television on several platforms in Europe. The first international academic symposium on the topic of repatriation was convened in New York City in January 1995 and thereafter many academic fora have been organised to discuss issues to do with repatriation to reconnect with users mainly in the receiving communities.

These events signify a shift away from the historic tradition of plunder and theft, and evidence a move to protect and repatriate cultural property. However, efforts to reclaim and return stolen or looted artefacts are confronted by very complex and intricate issues. First, there has always been debate about what approach should be taken with respect to a country's ownership of cultural property. Second, the process itself requires delicate cooperation among government, law enforcement agents, researchers, media houses, indigenous communities, community leadership, museums, university departments, as well as antiquities dealers that are interested in archives, documentation, and preservation. Frequently these include transactions where there are gaps in historical records. It is encouraging though to note that there is a tangled web of both local and international laws covering the subject.

What is repatriation?

Repatriation can be defined as the process of returning an asset, a person, or an item of symbolic value voluntarily or forcibly to its owner or their place of origin (Guillford 2000, 55). Repatriation in the context of this discussion is the act or practice of returning cultural materials to their original owners. The process of repatriation needs to be done in honesty

and transparency. It demands cooperation and greater understanding between the concerned partners. For repatriation to be a success it is important to consider the cultural values of the indigenous people who in most of the cases are the receiving communities. It therefore means cultural feasibility should always be considered to minimise unnecessary cultural losses. Failure to uphold these virtues in many cases results in the process being just a ritual falling short of satisfaction of the receiving communities. There is need for a meaningful amount of engagement and preparedness in the receiving communities to ensure the received materials create a bond with the receiving community.

The return of ceremonial materials has assisted some communities in their efforts to renew cultural values and practices and contributed to efforts to revive traditional ceremonial practices as a component of contemporary life. For example, the Blackfoot community of Southern Alberta in Canada has been active in seeking the repatriation of ceremonial objects, in this case sacred medicine bundles that traditionally played an important role in maintaining health and well-being in the community and provided a focus for establishing personal and community discipline and responsibilities (Seymour-Smith 1986). This serves as a very good example of a successful repatriation exercise from which others can learn.

Cultural education in the twenty-first century has brought about awareness amongst indigenous communities. After decades of suppression and social injustice, many colonized indigenous peoples are seeking to revive traditional values and cultural practices. This is done as part of a process of renewal intended to strengthen cultural identity, heal personal and community wounds and provide a stimulus for new creativity. Cultural heritage in its tangible and intangible forms is integrally linked to social structure, ceremonial life and cultural identity. Indigenous activities regarding heritage preservation are therefore often part of cultural maintenance or renewal strategies and tied to community concerns in many other aspects of community life. Repatriation of traditional artefacts is generally linked to community concerns in many other aspects of community life, including indigenous education, sovereignty, language renewal, intellectual property rights, land rights, economic development and health and well-being. In addition, it can be noted that spiritual and religious practices are being revived as indigenous people seek ways to maintain their cultural identity and forge a successful path through contemporary society. As humans we all want to maintain a link to the past, the present, and the future. We remember our heritage through the foods we eat, the language we speak, and through the stories we know of our ancestors, hence the importance of keeping a permanent link with various cultural materials that identify with our daily living. According to Collins:

> for many Native Americans the importance of having a direct connection to the past is one of the most important aspects of retaining their culture. Because such a large portion of their heritage and culture has been either lost or destroyed it is imperative that their youth hold on to what they can find of their ancestry. (2002, 17)

For this reason, it is important to note that, on an international scale, literally millions of American Indian artefacts are housed in non-native museums and private collections. Many of these objects, like tools, weapons, and clothes, were acquired through perfectly legal means. Others, however, were bought for pennies, or stolen.

In an endeavour to connect today's users in the general consumption of cultural materials, musical arts included, it is important to understand the context within which African musical traditions found their way in the hands of non-indigenous people who are found in geographic spaces outside Africa. This understanding is important to minimise incidents that will further result in artefacts being unlawfully moved away from their original owners and locations.

During the colonial era, from 1890 to 1980, when present-day Zimbabwe attained its political independence, significant musical recordings were made by missionaries and researchers largely from outside Africa (Moyana 2002). Others were from within Africa, but affiliated with private institutes and organisations outside Africa. Huge amounts of recordings

were made for personal use and others for commercial use with significant amounts finally being deposited in both private and public archives outside Africa.

Debate for and against repatriation

Generally, there is huge debate for and against repatriation of cultural materials mainly to Africa. As a gesture of good will several countries in the global north have clear policies that encourage their institutions to repatriate foreign-owned cultural materials. In most cases repatriation is done simply because it is the right thing to do. Today, according to Collins (2002), literally millions of American Indian artefacts are housed in non-native museums and private collections. Many of these objects, like tools, weapons, and clothes, were acquired through perfectly legal means. Others, however, were bought for pennies and or stolen. Therefore, there is arguably a need for all these artefacts to be taken back to where they come from regardless of the manner through which they were acquired.

From my research conversations, there are some scholars who are of the view that when there is a clear case of ownership, they think museums and collectors should be compelled to return historical objects to their original owners or country. They cite some of the challenges that are associated with repatriation to poor communities. Some receiving communities are poorly resourced to derive any value from repatriated materials. The level of development in the source country is in many instances far advanced compared to the receiving country. This disparity creates a situation where receiving communities can hardly interact with repatriated materials immediately after the receiving ceremony. This is common with sound and audio-visual recordings, which in some instances require sophisticated equipment to playback the recorded materials.

It is also common to find that many receiving communities in the global south are characterised by civil wars and political instability, a feature that threatens the existence of archival materials as peace is a prerequisite for the establishment of facilities like museums and archives. A peaceful environment creates a platform for studies meant to restore the value of the repatriated materials. The priority to construct appropriate infrastructure like museums and archives is very low as many governments from developing countries are preoccupied by issues concerning defence and security, health, food insecurity, and malnutrition amongst others. The costs associated with maintaining viable museums and archives are beyond the reach of many governments from the global south.

In many African communities, the issue of ethnicity is very important in identifying one's cultural identity. According to the Cambridge English Dictionary (2002), to repatriate is to bring back to the country of origin. With this nature of scope, it can be noted that with some cultural artefacts, merely taking them to their country of origin may not be repatriation enough. There is need to identify the rightful owners in the "right" country. In Zimbabwe for example we have the Shona, Ndebele, Tonga, Sotho and many others. The Shona one can further find the Karanga, the Zezuru, Korekore, Ndau, and many others, hence the need to clearly identify the correct destination. If we take for example the repatriation of human remains, we need to identify the appropriate country, the correct tribe, ethnic group and finally the real family of which the person's remains were a part.

The same can also be said of recorded musical traditions. Musical traditions can be very specific to tribal or even ethnic groups while some are generic as the music will be in the public domain. In situations where we have specific music from specific sources an attempt must be made to ensure the appropriate recipients are identified. We have music that appeal to specific rituals and such music may have to be directed to a specific audience and community.

The debate for and against repatriation to source countries has pointed out several factors to be put into consideration. There is general lack of awareness and appreciation amongst indigenous communities of the importance of cultural materials. This can be addressed by emphasizing cultural education amongst the young and up to tertiary level students. Mecer (2001) advocates for an inclusive ethnomusicological education in an endeavour to build a

humane society. An education system that has thrust on good ethical conduct will go a long way in minimising or total elimination of the various issues that confront the preservation of indigenous cultural artefacts in the twenty-first century and beyond. The more people are aware of the right thing to do, the more tolerance we derive from our community of nations.

Scholars like Moyana (2002) have argued that there are weak curatorial and archival institutions in many developing countries in the global south. This is marked by poorly resourced museums and archives that receive very limited financing because the central governments do not prioritise the funding of these few institutions. Usually the unavailability of funding leaves the museums and archives with untrained personnel, with very little motivation in their work endeavours. This sorry state of affairs is common in a number of Southern African countries that share similar characteristics and challenges. The available infrastructure is poorly maintained and rarely connects with the communities around them.

The twenty-first century has witnessed extensive missionisation of African communities. While religious teachings have to a great extent contributed towards building cohesion amongst communities, they have had little regard for the African traditional culture. While a significant number of my research subjects were not at ease to speak against their religious faith, comments show that missionisation has had many misgivings about African traditional religion. There is need therefore for missionisation programs to be sensitive to the various value and belief systems that identify with people before these people convert to another religious faith of their choice. In Zimbabwe the constitution guarantees the right to association as well as the right to choose one's own religion (Zimbabwe Constitution, Chapter 1, Section 3.2.1).

The repatriation of ancestral remains as a stimulus for cultural renewal

In some indigenous communities the repatriation of human remains has also contributed to cultural renewal processes and stimulated the creation of new forms of contemporary cultural practices based on traditional values, ceremonies, and art forms, thereby reinforcing cultural identity in the modern world. For example, related literature according to Cole shows that

> in the 1990s members of the Haida First Nation of British Columbia in Canada discovered that the remains of ancestors had been removed from gravesites in old Haida villages abandoned in the nineteenth century following a smallpox epidemic that killed 90 per cent of the population. The Haida communities of Old Masset and Skidegate formed a repatriation committee and sought the return of ancestral remains from a number of museums in Canada and the US. Over a period of six years the remains of over 466 ancestors were located and returned. The process of organizing the collection, return and reburial of the ancestors proved to be an emotional journey for members of the Haida community, but one that has stimulated the renewal of cultural knowledge and activities and contributed to the process of community healing. In order to bury the ancestors with respect, members of the Haida Repatriation Committee talked with elders and researched traditional burial practices, using this information to devise reburial ceremonies informed by traditional values and methods. This involved the weaving of cedar bark mats for wrapping the remains, the construction of steamed bentwood boxes to carry the remains of each individual, and the stitching of blankets, decorated with clan crests outlined in mother-of-pearl buttons, which were used to cover each box during repatriation and reburial ceremonies. Haida artists re-learned bentwood box-making processes and taught Haida teenagers about this form of their heritage. The process also stimulated the development of new songs and dances, evidence of the vitality of contemporary Haida culture. (Cole 1985, 119)

It can be noted that, without a successful repatriation exercise characterised by cooperation and understanding, all this could not have been achieved for the people of Haida culture.

Drawing parallels with the above development from Canada, it can be noted that independent Zimbabwe is yet to receive the remains of liberation wartime executed spirit medium Mbuya Nehanda whose head, after her execution in 1890, was taken to United Kingdom where it lies in a museum up to the present day. The general people of Zimbabwe have been calling for the return home of Mbuya Nehanda's skull. It can be noted that for the past two decades

calls for her skull return have been getting louder. Calls for return also include those for her fellow comrades who also paid the ultimate price for defying the colonial authorities during the colonial period. Such calls, for the return home for proper, culturally acceptable, and decent burial, have fallen on deaf ears. Appropriate repatriation would demand that her chief, tribe, ethnic group, family, and relatives must be identified, and then appropriate rituals undertaken.

Connecting users in the contemporary era

It is important to ensure that museums and archives in the twenty-first century to redefine themsleves if they are to remain relevant to the youth and today's greater population. Repatriation as a process is well appreciated but it can be noted that, if receiving communities are not empowered, repatriation will surely result in "throwing away" in the name of repatriation. Given that African communities are characterised by various tribes and ethnic groups, it is of paramount importance to ensure that the appropriate ethnic groups are identified to receive and are also empowered to derive maximum cultural value.

With the current technological trends that characterise our communities, museums, and archives, we need to devise mobile museums that can be taken to the communities to enhance appreciation of their collections with the indigenous communities. Mobile apps can also be handy as a way of enticing the attention of the younger generations. Repatriation can surely help in connecting indigenous communities with their lost traditions, but a lot of caution must be exercised to minimise unfortunate instances of cultural loss.

References

Assembly of First Nations and Canadian Museums Association, Turning the Page: Forging New Partnerships Between Museums and First Peoples. 1994. Vancouver: UBC Press.

Avorgbedor, D. K. 1992. The Impact of Rural-Urban Migration on a village Music Culture: Some Implications for Applied Ethnomusicology. *African Music* 7(2): 45–57.

Baumann, M. P., eds. 1991. Traditional *Music in the Focus of Cultural Policy. In: Music in the Dialogue of Cultures: Traditional Music and Cultural Policy*, pp. 22–31. Wilhelmshaven; Florian Noetzel Verlag.

Becker, K. 1992. Picturing Our Past: An Archive Constructs a National Culture. *The Journal of American Folklore* 105(415): 3–18.

Canadian Museum of Civilization, Curatorship: Indigenous Perspectives in Post-Colonial Societies. 1996. Hull: University of Victoria.

Clavir, M. 2002. *Preserving What Is Valued*. Vancouver: UBC Press.

Cole, D. 1985. *Captured Heritage: The Scramble for Northwest Coast Artifacts.* Seattle: University of Washington Press.

Collins, J. 2002. *The Conservation of Culture. Folklorists and the Public Sector.* Lexington, Kentucky: The University Press of Kentucky.

Dodson, M. 'Cultural Rights and Educational Responsibilities', The Frank Archibald Memorial Lecture, University of New England, 5 September 1994. Armidale: University of New England.

Gulliford, A. 2000. *Sacred Objects and Sacred Places: Preserving Tribal Traditions.* Boulder: University Press of Colorado.

Jacknis, I. 2002. The Storage Box of Tradition: Kwakiutl Art. Washington: Smithsonian Institution Scholarly Press.

Mercer, C. 2001. Towards a New Conceptual Framework for Cultural Indicators. In *Towards Cultural Citizenship: Tools for Cultural Policy Development*, pp. 124–134. Stockholm: The Bank of Sweden Tercentenary Foundation.

Moyana, N. 1986. *The African Heritage*, Book 1. Harare: Longman.

Nand. K. 2000. *Fiji Museum in the Post-Colonial Era.* Papers presented at the ICOM–CECA conference 'Culture as Commodity', held in Christchurch, New Zealand. Christchurch: Blackwell Publishing Inc.

Roehrenbeck, C. A. 2010. Repatriation of Cultural Property–Who Owns the Past? An Introduction to Approaches and to Selected Statutory Instruments. *International Journal of Legal Information* 38(2), Article 11.

Seymour-Smith, C. 1986. *Macmillan Dictionary of Anthropology.* London: The Macmillan Press. UNESCO. 1995. *Our Creative Diversity: Report of the World Commission for Culture and Development*. Paris: UNESCO.

Modern Technology on Preservation of Mbira Musical Traditions in Zimbabwe

Richard Muranda
Midlands State University
Gweru, Zimbabwe

Abstract

The aim of preserving heritages is to protect their authenticity and integrity. Preservation of mbira musical instrument has since changed with the advent of modern technology. Whereas modern technology has helped to preserve a variety of indigenous mbira instruments it has also removed them from their cultural context into archives and museums. This paper analyses how digital technology influences continuity and change of mbira music traditions focusing on the nyunga nyunga mbira of Zimbabwe. The use of modern technology in preserving tangible, audio, and visual (motion and still) graphics of the mbira has enabled mobility, and dissemination of the entrenched traditional mbira musical practices in institutions of learning outside their natural context. Digital preservation technologies enable researchers to access mbira materials for study. Through the digital preservation methods, museums readily provide space to conserve bulk information. Rather than having hard copies of material and tangible artefacts only, digital technology offers virtual storage space which does not take up bulky space and hardware. Such virtual storage mediums avail notable advantages that include easy retrieval, sending and receiving information through the internet. Through accessing virtual storage mediums of archived mbira traditions and artefacts, people can appreciate the embedded musical practices, even though such virtual technologies may not readily create a complete understanding of the context of the mbira music traditions. In this digital age modern technologies applied in the preservation of tangible, visual and audio artefacts need to be fortified by making use of authentic information. The digital technology bang has brought an upsurge in information which should always be cross checked for authenticity before archiving in museums, to ensure continuity especially in view of unavoidable changes to the nyunga nyunga mbira.

Introduction

Digital technology birthed a paradigm shift in preserving intangible and tangible artefacts. In the process there is need to adapt to modern trends in the preservation of mbira practices. In Zimbabwe and other societies, preservation of indigenous musical legacies is important. Among the Shona, preservation of mbira musical practices is via oral tradition. For continuity and survival, studies have been conducted on mbira music through emic and etic approaches and this contributes to scholarship. Some researchers like Hugh and Andrew Tracey (1977), Maraire (1991), Berliner (1993), Azim (2011), Matiure (2013), and Gahamadze (2018), just to name a few, contributed to mbira traditions in Zimbabwe. Also modern technology helps preserve mbira traditions even though they are sometimes misrepresented on the Internet. This paper tackles the realities of using modern methods of preserving mbira musical practices in Zimbabwe.

Focus of study

The study upholds the view that preservation of intangible heritage is realisable, 'when people who can see, read, understand and utilise these values do so. These are the people interacting with this heritage as defined by its values' (Katsamudanga 2018, 2). This discourse takes the performers, procreators, researchers, and innovators as valued contributors in the preservation of mbira musical traditions. Regardless of available technologies, human involvement remains critical in preserving mbira musical traditions (Mataga 2003, Ndoro 2001 and Taruvinga, 1995).

Methodology

The study was qualitative research with particular focus on participant observation, and document analysis as methods to collect data (Kawulich 2005). As performer and instructor of the mbira for more that 28 years the researcher was also informed by personal involvement in mbira performances. Mbira performers and instructors' views are analysed in the backdrop of the theoretical underpinnings of the study. The research solicited data on the preservation of mbira in view of the trends in the digital era.

Preservation of mbira practices

Pearson and Sullivan (1995) mention that the sense of identity in communities is not static. Identities keep evolving based on factors like socio-historical changes, and in this view western ideologies, politics, education systems, migrations and tourism, globalization, the impact on traditional practices, and values of the people – and hence changes in methods of preservation of musical traditions – take place. The focus of preserving cultural heritage is to defend authenticity and exact identity of cultural heritage (Lu and Pan, 2010).

Oral tradition is used to preserve information, based on personal experiences and opinions on mbira songs and tunes handed down by word of mouth. This method can be questioned on reliability and validity of information (Entsua-Mensah 2015). Archives and libraries are institutions meant to preserve such legacies that oral tradition cannot. Yet, archives and libraries solely as places to preserve intangible and tangible cultural heritage are inadequate, as they have no space for recreation and human involvement. Preserving such heritage in static conditions removes inherent elements of dynamic appeal to the music. The arrival of western practices to Africa changed modes of preservation to create combinations of writing and oral tradition to preserve mbira musical traditions.

Modern technology for the preservation of mbira music

People of the twenty-first century are techno savvy, they readily make use of smart phones and computers to capture videos and sound all at once. With modern technology, it is possible to preserve information for future reference and in some ways guarantee its validity. Writing and recording devices help create all-inclusive documentaries in preserving mbira music. Researchers preserve information in the books and articles they publish. The internet provides virtual archives and libraries.

Changes in technology require human adaptation, to avoid being archaic. With the Internet, all materials can be accessed at the click of a mouse button. On the Internet, researchers, performers, composers, and archivists collaborate with peers in various mbira projects, involving sound, video, graphics, and performance. It is also possible to have tutorials via Skype, Facebook, and other social media available to date.

Internet information can be encrypted to elude abuse and illegal downloads. However, unscrupulous people can hack and illicitly download material. A lasting solution to piracy is yet to be found. In Africa and other developing nations, utilisation of computers is growing, while illegal downloads are rampant. It is good that institutions of higher learning insist on respect and acknowledging the use of others' ideas; in that way, all universities compel students to respect copyrighted materials.

Digital technology, as a new paradigm in preserving mbira musical traditions, offers high-quality sound and videos. Visitors can access mbira music on websites, archives, and libraries, however these instances do not offer real life experience. In the real context, mbira performances are for all people (Berliner 1993). The way people are involved and interact among themselves in context defines the dynamics of the instrument and its music.

In the libraries and archives

It is critical for archive and library personnel to know all details relating to mbira and skills for using computers in order to inform the visitors and tourists. Technology keeps changing; hence, every change requires adaption to keep the archive or library relevant to visitors. Digital archiving should include interactive use of materials that visitors can study and analyse. Zimbabwe does not have such a thing. Archives and libraries display artefacts detached from reality in terms of practice and the context of performances, recreation, and interaction with owners of the mbira and their music. Digital technology puts the mbira in the same space as western instruments on the performance stage. Once recorded, the information stays static; events are locked in specific time and context; the viewers cannot change the context. There is no room to alter the context of the recorded ideas when the mbira is out of context. The use of microphones changes the sonic appeal of the instrument either for good or bad depending on the quality of the microphone.

The digital sound

Playback of mbira tunes notated in software like Sibelius, Musescore, Finale, and Noteflight is mechanic, hence emotionless. Mataga (2003) notes that the best way to protect intangible heritage is to document and archive it, while avoiding changing the recorded values. The above view is sensible to mbira music protagonists. For western first-timers to understand the sound produced, it is ideal to use music theory via staff notation. Krimmel (2000) transcribes mbira tunes in staff notation making it possible to see and hear the sound. The researcher transcribes some mbira tunes that can be used by people with western music theory. These tunes can be accessed on the Internet and played in any software by viewers. Azim (2011) argues that mbira music entails listening the Shona way, if one is to understand and appreciate it. Azim's paper argues that adaptation to the music from one's knowledge and experience helps in understanding mbira music. As an insider, listening the Shona way is a long process that can frustrate aspirants, hence the need for staff notation is ideal.

Gahamadze (2018) and Mbira DzeNharira Band use guitar pickers to amplify the sound of mbira instruments. His ideas resulted in mbira sound that has the sonic appeal of guitars. The above idea preserves the instrument, but displaces the warm African sound as the identity of the instrument. Matiure (2018) adapted the guitar pickers with the Zvirimudeze Mbira Band. The most glaring feature is that many people think that this band uses guitars because of the guitar pickers' effect on the sound. Their music is played on radio and TV broadcasts, and Internet streaming.

Conclusion

Modern technology has placed the mbira on the performance stage to compete with other musical instruments. The Internet propagates information about the mbira instrument across the world regardless of some misrepresentations on social media and the cyberspace in general (Khan and de Byl 2011, 721). The absence of human interaction with the mbira in some preservation methods is a cause for concern as mbira preservation thrives in contexts with human involvement; conversely, computers are artificial. Further, innovations on the mbira contribute to the existence of the instrument since the sound and the instrument are disseminated via the Internet all over the world.

References

Azim, Erica. 2011. On teaching Americans to play mbira like Zimbabweans. http://www.mbira.org/onteaching.html (accessed January 26, 2018).

Berliner, Paul F. 1993. *The soul of mbira: Music and traditions of the Shona people of Zimbabwe.* London: The University of Chicago Press.

Entsua-Mensah, T. E. 2015. African music historiography: The case of Ghana. *Global Journal of Arts Humanities and Social Sciences* 3(2): 37–42.

Katsamudanga, Seke. 2003. *The dilemma of preserving intangible heritage in Zimbabwe.* In: 14th ICOMOS General Assembly and International Symposium: 'Place, memory, meaning: preserving intangible values in monuments and sites', 27–31 October 2003, Victoria Falls: Zimbabwe.

Kawulich, Barbara B. 2005. Participant Observation as data collection method. *Forum qualitative social research* 6(2): Article 43.

Khan, Muqueem. and deByl, Penny. 2011. Preserving our past with toys of the future. *Proceedings Ascilite 2011. Changing demands, challenging directions.* West Point Tasmania Australia. 4–7 December, pp. 718-728. Tasmania: University of Tasmania.

Krimmel, Max. 2000. Mbira Jumpstart. http://www.maxkrimmel.com/ShonaMusic/Mbira/Mbirajumpstart/Mbira%20jumpstart.html (accessed January 15, 2018).

Lu, Dongming and Pan, Yunhe. 2010. *Digital Preservation for Heritages: Technologies and Applications.* Hangzhou: Zhejiang University Press.

Maraire, Dumisani A. 1991. *The nyunga nyunga mbira: Lesson book one. Portland*: Swing Trade.

Mataga, Jesmael. 2003. Managing Intangible heritage of monuments and sites in Zimbabwe: A case study of national museums and monuments of Zimbabwe (NMMZ). Unpublished Masters Thesis, University of Zimbabwe.

Matiure, Perminus. 2013. Archiving the cultural legacy of mbira dzavadzimu in the context of kurova guva and dandaro practices. Unpublished PhD Thesis. University of KwaZulu Natal.

Matsuzono, Makio. 2004. Museums, Intangible Cultural Heritage and the Spirit of Humanity. ICOM News, Key Note Speeches. No. 4, pp. 13–14. http://icom.museum/pdf/E_news2004/p13_2004-4.pdf (accessed May 16, 2018).

Murambiwa, Ivan. 1991. Archaeological Heritage Management in England and Zimbabwe. Unpublished Masters Thesis. Stale College, Cambridge University.

Ndoro, Webber. 2001. *Your Monument our shrine: the preservation of Great Zimbabwe.* Uppsala: Uppsala University.

Pearson, Michael and Sullivan, Sharon. 1995. Looking after heritage places. Victoria: Melbourne University Press.

Perminus Matiure, Personal Interview at Gweru, 15 February 2018.

Taruvinga, Pascal.Cultural or economic? The conflicting values affecting the management of Domboshava rock art site. 1995. Unpublished seminar paper. Harare, Zimbabwe Museum of Human Sciences.

Tendai Gahamadze, Personal Interview at Norton 26 May 2018.

Tracey, Andrew. 1997. *Transcribing music in pulse notation.* Grahamstown: International Library of African music.

Tracey, Andrew. 2015. Andrew Tracey's Portrait, ILAM. Online: www.ru.ac.za/ilam/about/history/andrewtraceysportrait/ (accessed July 28, 2016)
.

Exploring the Policies, Barriers, and Opportunities in Zimbabwean Marimba Music Archiving Practices

Wonder Maguraushe
Midlands State University
Gweru, Zimbabwe

Abstract

The paper explores marimba music archiving technologies, methods, policies, and barriers at play in Zimbabwe in the age of global information exchange. I unveil how the high demand for open and equal access to musical information is being handled in Zimbabwe, with the emerging professional interest in marimba music archiving. I discuss music educators, consumers, and musicians' experiences in a contemporary context. Using ethnographic methods of informal conversational interviews and participant observation, I investigate the nexus between marimba music consumers and music materials in the Zimbabwean community. The analysis draws on Bourdieu's (1977) theoretical perspectives as a lens to view the status quo in marimba music resource accessibility in the country. Results show a critical need to embrace practical methods, legal, and technical issues to enhance pioneering work in, and access to, marimba music archive materials in Zimbabwe against a harsh economic environment. General institutional archives, music recording studios, efforts by individuals with a passion for marimba music archiving, and oral transmission, are the main avenues where marimba music archiving has survived in Zimbabwe. Securing the country's audio-visual material heritage cannot be left to chance in the twenty-first century, and Zimbabwean musical memory professionals need to mobilise resources and set up professional marimba music archives.

Introduction

This paper provides a valuable contribution to dialogue about evolving approaches to sustaining marimba music cultures and safeguarding this cultural heritage in the Zimbabwean context given that UNESCO guidelines now influence the archiving of the world's intangible heritage. In the foreword to the 2010 volume on *Heritage* and *Globalisation,* heritage studies specialists William Logan and Laurajane Smith highlight the importance of recognising more fully that 'heritage protection does not depend alone on top-down interventions by governments or the expert actions of heritage industry professionals, but must involve local communities and communities of interest'. These considerations have led to new and evolving strategies of incorporating local communities in safeguarding processes, with an emphasis on the DIY creation of "born digital" media. The 2003 UNESCO *Convention for the Safeguarding of the Intangible Cultural Heritage* has increasingly ecouraged the development of nationally driven digital heritage projects that utilise participatory methodologies to produce online community-generated archives. Although the collaborative approaches of these projects offer promising new directions, the implementation of top-down policy and application of external value systems associated with UNESCO continue to be problematic. A discussion of marimba music archiving activities in Zimbabwe therefore offers a much-needed example of related methodologies that operate independently from national agendas and in the absence of safeguarding practices.

I stress the importance of networking amongst policy-makers, marimba musicians, and academics. I explore how this connection leads to the creation of "collaborative networks" between academic archives, culture-bearers and policy-makers in order to address overarching issues of access and agency. I am particularly interested in how emerging Zimbabwean marimba music archivists should aim to bridge the gap between existing/non-existent marimba music archiving policies and on-the-ground activities by connecting with culture-bearers in

the country who have essentially no means of directly participating in the archiving process themselves. These connections provide a measure of continuity between various real-life experiences by prompting face-to-face conversations that consider the diverse perspectives of culture-bearers and their strategies of addressing barriers of religious and social stigmas.

A critical point in this study is the need to address the roles of culture-bearers who are influenced by a persistent digital divide. Whereas cultural studies specialist Piia Varis suggests that 'the lives of people with little or no digital engagement are influenced by the very absence of Internet or device access for communication', I show here that online-offline dynamics must also consider the agency of those individuals with little-to-no Internet access and the ways in which they negotiate their online presence. As online safeguarding and sustainability projects continue to encourage "user-generated" audiovisual recordings to be uploaded and shared online without traditional archival safeguarding mechanisms in place, it becomes increasingly important to consider the intentions of culture-bearers without online access, especially if they are featured in these recordings. My own role and perspective as an applied ethnomusicologist are informed by over a decade of playing, performing and teaching marimba music in communities, schools, teachers' colleges and universities in Zimbabwe. The research would not be possible without the community music experiences and connections that initially inspired my interest in ethnomusicology and introduced me to marimba music.

This study is based on one of my doctoral thesis recommendations, which revealed a critical gap in the form of lack of the marimba record in Zimbabwe.

> More marimba ensembles ought to record their music on CDs for marketing purposes. This would help to make the music available on the market, where it is presently very scarce since only a handful of them have made records. Not recording their own music is tantamount to marimba ensembles marginalising themselves on the Zimbabwean music market. When records are available, people can play them at home, in their cars, and at the workplace. When a person hears a record for a number of times, it is likely that they may end up understanding and appreciating the music. Currently this is not happening for marimba music in Zimbabwe. There is a section of the Zimbabwean population that is not outgoing and will not attend marimba festivals and live shows. These people are missing out due to lack of marimba music records. (Maguraushe 2018, 198)

This situation provides a niche for this current study in the form of marimba music collection, preservation, and access. This niche is coupled with my recent interest in research in marimba music library and archiving in Zimbabwe that started in 2016, and it provides the foundation of my lectures and actual marimba music archiving at Midlands State University in Zimbabwe in the coming years.

Methodology

In this research, I used a qualitative approach that aims at 'the identification and exploration of a number of often mutually related variables that give insight in human behaviour (motivations, opinions, attitudes) in the nature and causes of certain problems and in the consequences of the problems for those affected'. The research was conducted as a case study; a method which is widely used in social sciences such as music archiving (International Research Development Centre (IRDC), 2010). Why have Zimbabwean marimba musicians gone for more than five decades without producing marimba records? How can this situation be rectified through interventions by music archivists? and What policies and technologies exist to promote marimba music records? are the major questions which I posed in this case study. They yielded typically qualitative data that involves descriptive words. I chose a case study 'performed in detail on a single case rather than on a sample of the whole population' since it is basically an empirical inquiry that investigates a contemporary phenomenon within its real-life context (Hamel 2003, 34). A case study is a form of qualitative descriptive research, which looks intensely at an individual or small participant pool, drawing conclusions only about that participant or group and only in that specific context. This method was chosen for the major reason that archiving is

a very broad field which is practiced in many professions, but this research sought to be more precise and concentrate on the music archiving, particularly marimba music records.

For this research, the population comprised marimba festival-goers, musicians and fans. From this population I used convenience sampling to select those who best met the requirements in terms of knowledge about the topic under study and the information that I required. I picked on those informants who present at marimba festivals in Harare, Mutare, Bulawayo and Benoni. The data collection methods included observations, interviews and document analysis. As a marimba tutor and player, I got immersed in the activities of marimba performers at festivals such as Tambarimba Arts Festival, Manicaland Arts and Culture Festival, Research and Intellectual Output (RIO-SET) Expo, and the International Marimba and Steelpan Festival and made observations. I conducted interviews with the marimba band managers, recorded marimba artists, and marimba music fans whom I purposively singled out as the key informants so that I could tape detailed information. Yoon and Jain (2010) pointed out that interviews are particularly suited for key informants who have an in-depth understanding of the topic under investigation. They went on to state that 'such interviews are suited to small studies which are limited by a modest research budget' (2010). I also managed to go through marimba records and documents.

My approach to marimba music archiving in this article engages major streams and ideas about music archiving that take place across multiple settings such as culture policies, marimba music archives, social media platforms, websites, and real-life contexts. I do this in part to respond to what heritage studies expert Elisa Giaccardi identifies as a need to understand the broader impact of emerging communications technologies on heritage construction by investigating how individuals engage with cultural heritage 'in the context of their own lives and in association with the unique character of the places and communities in which heritage comes to matter'. I draw from research in cultural heritage, archiving and ethnomusicology to understand the nexus between government music archiving policies and what is ensuing on the ground in Zimbabwe. Strategies pertaining to the sustainability of the marimba music archive are worthwhile undertaking in the age of global information exchange. This paper may furthermore provide some ideas on how to investigate the impact of online cultural sustainability and safeguarding initiatives in terms of how they translate to contexts beyond the constructed environment of the marimba music archive.

Theoretical orientation

As I discuss the status quo in marimba music archiving in Zimbabwe from a post-colonial perspective in which emphasis is placed on indigenous customs and traditions, I borrow the views of Homi Bhabha (1994), who sees the survival of culture as hinging on self-consciousness, a means of cultural resurgence unashamed of the past. I am informed by post-colonial ideology as I analyse the experiences and relevance of marimba records and archives in contemporary Zimbabwe.

I also use Pierre Bourdieu's (1979) ideas as a lens through which to factor perspectives on marimba music archives as a capital resource. According to Bourdieu, financial capital establishes class structure and social inequality, as does cultural capital, such as marimba performance virtuosity. Different kinds of capital are connected to each other; a person who has marimba performance skills, which is cultural capital, can acquire financial capital from selling marimba records or performing live.

Records and live shows might also lead to an accumulation of both cultural capital, as they learn and master the advanced art of marimba music performance, and financial capital, if their recorded marimba music sales increase or they draw large crowds at live shows, or if funders offer them lucrative performance contracts either locally or abroad (which is the usual case, and what most marimbists based in Zimbabwe dream of). This is the logic of practice explained from Pierre Bourdieu's perspective.

> People who can attend marimba festivals obviously can afford the associated festival fees, transport, and accommodation costs if they have to attend the marimba performances away from their home towns. That in itself is a habitus, which places them in some kind of a disposition that characterises them in society. Festival organisers to a certain extent are playing the agency role to ensure that marimba performers are motivated to ply their trade by the trophies, certificates, accolades, awards and cash prizes that they offer for the victors. However, it is notable that they remove agency from individual actors by institutionalising marimba performance. Consequently, I believe that marimba festival organisers mean oligarchy when they speak of organisation. (Maguraushe 2018, 14)

Zimbabwe's national cultural policy

Government cultural policies have always emphasised the need to preserve and promote Zimbabwean cultural identity. ZANU (PF)'s mandate was to re-embrace traditional culture. The ZANU (PF) government's expansion of the education system after independence in 1980 led to an upsurge in the popularity of the marimba in urban centres as Kwanongoma graduates taught in former Group A and newly established schools where marimba bands became an instant source of entertainment. However, the government was slow to intervene in visual and performing arts education until around 1990. 'Lack of coherence in cultural policy was evident in failure to support specialist training in music and performing arts' (Jones 2012). After taking over the United College of Education (where Kwanongoma is housed) the Ministry of Education, Arts Sports and Culture terminated the specialist music diploma program in 1980. ZINTEC teachers' music teaching capabilities have been reported to be largely incompetent (Maguraushe 2016).

Archiving marimba music naturally falls under Zimbabwe's national cultural policy, which has been aligned to UNESCO standards. In 2016 Zimbabwe's Ministry of Rural Development, Promotion and Preservation of National Culture and Heritage approved the revised National Arts, Culture and Heritage Policy meant to resonate with the current national development framework. The Ministry has a National Intangible Cultural Heritage Committee, which meets regularly in Harare. The policy, which was first crafted in 2007, draws attention to issues that had not received adequate consideration before. The review of the policy was a collaborative effort by previous ministries of Education, Sports, Arts and Culture, with various stakeholders through broad and inclusive consultation. Researches and outreaches were held in partnership with UNESCO and the Culture Fund Trust of Zimbabwe. Consultations brought out the aspirations of many stakeholders to see the sector's contribution to social cohesion through providing an enabling environment for the diversity of cultural expressions, and an increased access to the arts, culture and heritage.

According to Jocelyn Moon (2016, 148), 'A number of national policy initiatives that operate under the UNESCO safeguarding paradigm have also begun to embrace a grassroots, participatory approach towards inventorying ICH through the creation of digital heritage archives'. An example is eNanda. In Zimbabwe there is a glaring absence of concrete top-down policy, or even external funding, to preserve, safeguard and sustain marimba music whether online, in a music archive or in a general library set up. This situation does not conform to UNESCO policy and it's time the Zimbabwean marimba claimed its place in ICH digitised-content heritage.

The policy reinforces the need to safeguard cultural heritage as the nexus of dignity, the topmost driver and enabler of social cohesion, national unity and holistic sustainable socio-economic development. It is informed by the imperative to reinforce Zimbabwe's identity and embrace its culture, as well as celebrate its diversity in a globalised twenty-first-century world. The successful implementation of the policy depends on active political, administrative and technical support for the translation of goals, objectives and strategies into action at all levels of the Zimbabwe society. The Zimbabwean government should make sure that the policy is periodically reviewed and realigned whenever need arises so that it remains relevant and valid to its sector-specific needs (Winstone 2016). This policy sounds very relevant, but the implementation has not been well-resourced enough to cascade down to the grassroots and particularly to influence marimba archiving directly. This has tended to leave everything to chance.

Jocelyn Moon (2016) discusses how Book Café owner Brickhill describes the trans-local social connections that contribute to the sustainability of marginalised music traditions in Zimbabwe that are disconnected from top-down support, primarily functioning outside of national arts and culture policies. I am specifically interested in how social networking raises the awareness and status of particular marimba music performers based in Zimbabwe. Quite differently from the usual strong associations to traditional religious practices of ancestral spirit veneration, the Zimbabwean marimba is purely a school music instrument that was designed at Kwanongoma College of music in the 1960s when local music traditions came in contact with western music theory principles (Maguraushe 2018). Since the turn of the millennium, marimba music's emerging presence online has contributed to the formation of networks that engage a small contingent of Zimbabweans, Zimbabweans in diaspora, and other scholars and musicians, myself included, who are specifically interested in learning how to play marimba music. Online interest and activity do lead to some economic opportunities for Zimbabwean musicians via the global market, but they also function as a means to learn traditional repertoire, build community through dialogue and resource-sharing, increase the visibility of marginalised cultural groups, and address religious and social stigma associated not just with marimba, but with Zimbabwean musical traditions in general.

Music archiving technologies

Music archiving is generally moving towards the digital realm of preservation by ultimately converting all analogue content, and marimba music is not an exception. From the dawn of recorded history up to the twentieth century, all documents have been created in analogue format and records were readable by human beings, but this is fast becoming unnecessary. This is because recordings on magnetic tape and computer files are not human readable and accessing these formats is only possible through the use of technology. Music archivists will face an imminent challenge of failing to monitor digital files which they used to play back easily on film, disc, and cylinder. How long the technology will survive obsolescence is a question that might linger on music archivists mind for some time. Retrieving digital files and knowing about their continued existence will depend on the maintenance of increasingly complex technologies, and the risk of loss is frightening. 'Migration to the digital domain ends the connection with the analogue carrier and the associated technology. The content is separated from its physical context and meaning. There is no longer a physical aspect to be experienced, whether that be the tactile experience of handling or examining the carrier or experiencing its reproduction' (Edmonson 2016, 60).

In their 2012 article, "We're All Archivists Now", Carolyn Landau and Janet Topp Fargion assert that the digital revolution has shifted archival policies concerning access and dissemination to the point where 'archives are no longer for the "-ologists" but for all learners, including the people whose cultures are represented in them wherever they are in the world' (2012, 14). The authors speak of the ways in which digital media and the Internet have increased the relevance of archival materials while also creating new challenges and responsibilities as archives attempt to reach out and respond to diverse global audiences.

A key element in the "production, consumption and engagement with heritage" related to marimba music is a consistent emphasis on learning how to play. I argue that utilising digital resources for the purpose of learning uses a mode of engagement that is more participatory than presentational because it requires repeated and attentive listening to recordings and careful study of related text and transcriptions. Ultimately, I hope to show that learning from digital resources is less focused on the digital products themselves, but rather leads to music-making in various contexts outside of the online environment. To demonstrate this, I begin with the growth of marimba online and the ways in which learning from new media has enabled a renewed interest in archival recordings from the International Library of African Music (ILAM) as well as an increase in their accessibility via processes of convergence and narrative connection. I then relate marimba online to emerging born digital heritage projects that are

influenced by UNESCO policy in order to offer insight on the implications of not operating as a centralised, policy-based initiative.

Zimbabwean marimba bands

According to Fred Zindi (1985) the establishment of a local music recording industry and the proliferation of township bars and nightclubs suggested a promising future for the music business. Consequently, the number of bands exploded in the country during the 1960s. Yet, marimba musicians remained out of the picture until 30 years later, in the the 1990s, when some artists started to attempt to make a living from marimba performance following the growth of the community music industry in Zimbabwe which opened up opportunities for musicians. Claire Jones (2012) notes that 'Marimba musicians began to express their aspirations thirty years later'.

The pioneers were St Peter's Kubatana Marimba Band, which was subsidised by the school. The band members earned a living through performing marimba music. They continued to work as musicians, after the band disbanded in 1989, as marimba makers in the St Peter's Kubatana Marimba Workshop, tuning and repairing marimbas for schools, colleges and community-based ensembles. The Mhemberero Dance Troupe also popularised the use of marimba as accompaniment to traditional Zimbabwean dances (Jones 2012). There are other community theatre groups that frequently integrate marimba with dance and drama as well such as Bindura-based Kubatana/Ukubambana.

Stella Chiweshe pioneered the integration of marimba with mbira and electric guitars prominently on the Zimbabwean soundscape. She moved to Germany where she has established her second home for over two decades now. Her pioneering effort was linking the marimba to the deep Shona cultural values embodied in the mbira. Stella has recorded marimba music quite extensively. Piranha Records broke Stella Rambisai Chiweshe as a recording artist internationally. Her career started when Zimbabwe was still the white settler's Rhodesia and she started to receive underground recognition as a musician and medium at traditional ceremonies, which were at the time still forbidden. She has international performing success and an illustrious recording career. She is the only woman in her home country who leads her own band, and is in control of her own equipment and transport: an achievement that only those who know the horrifying conditions under which female musicians normally work in Africa can understand.

Hohodza Hot Band, which was formed in 1992 is famed for his traditional music that saw them record hits such as "Chinyakare Makaisepi", "Dzorai Moyo", and "Take Sure". Initially they performed music on marimbas only, but later embraced electric guitars, a drumset and keyboards as well. Simbarashe Mudzingwa was the lead vocalist, mbira and keyboard player for Hohodza together with Aluwis Machapo (lead guitar), John Nyahodya (drummer), Patrick Nyakudya (bass guitar, keyboards), Innocent Jack Farai (mbira, percussion), Lloyd Mapfumo (percussion, king dancer), Jane Josiah (backing vocals, dancer), and Lena Mandizera (backing vocals, dancer). The now famous musician Progress Chipfumo was incorporated into Hohodza and mentored to stardom.

Shamva Marimba Band is an outfit which operated from the late 1990s into the new millennium, playing contemporary and traditional Zimbabwean songs on a set of one soprano, one tenor, one baritone, and one bass marimba. The band was partially financially supported by Shamva Mine's Community Development Department to purchase marimbas and travel around the mining compound and surrounding areas to entertain marimba music lovers. I was a student at Mutare Teachers' College during this time in 1999 and I used to join the band to make music during vacations when I was at home. The band members were Richard Kufandiko, Osward Nyakuwa, William Mupeta, Naison Jamu, Daniel Yelson, Smart Smart, Harrison Brighton, Aleck John, Clever George, and Rabson George. The band recorded one marimbas only album, *Muroora*. They later incorporated lead and bass guitars and played them together with the tenor marimba and recorded albums titled *Rega* and *Sunga Imbwa* in 2002.

Mtukudzi in 2007 decided to blend marimba in his music and this was done through incorporating Charles Chipanga to play the marimba as part of the Black Spirits Band. According to Claire Jones (2012, 32) Mtukudzi said 'This change would inspire the younger generation of artists and make them proud of our traditional instruments'. Their relationship lasted five fruitful years in which Chipanga brought the traditional African wooden sound of the marimba into Tuku Music. Charles Chipanga left in 2011 when the majority of the band members and Oliver Mtukudzi fell out over a pay dispute but Chipanga says they still have 'A legend and marimba player relationship' (2012, 320). In *The Herald*, July 23, 212, Chipanga is quoted saying 'I brought *marimba* into *Tuku Music* and I think I managed to do it well' (Tera 2012).

After parting ways with Mtukudzi and The Black Spirits, Chipanga co-founded the band Charlenam Rhythms with his wife Namatayi. Chipanga is the leader of Charlenam Rhythms. The band's music has the unique wooden percussive sound of the Zimbabwe marimba fused in a modern way with the rattling sound of the *hosho* (which is played by Namatayi). The band's gospel music has a jazzy feel and a very sturdy evangelical message. Charlenam Rhythms also use other musical instruments such as drums, keyboards, acoustic guitar, bass guitar, and Zimbabwean percussion. According to Chipanga (Personal communication, 12 January 2015), Charlenam Rhythms aim to add immensely to the intangible value which music contributes to the Zimbabwean society.

Jah Prayzah is yet another recorded popular Zimbabwean artist who fuses marimba and mbira instruments into his music. His hit song "*Jerusarema*" features Charles Chipanga of Charlenam Rhythms playing the marimba. There are several other songs on his previous albums in which he has blended the unique wooden sound of the marimba with guitars and percussion instruments to define his own style. I observed Jah Prayzah himself also playing the marimba with a passion during his live performance at Musopero Night Club in Gweru on 25 August 2014. The song 'Machembere', for example, is his own rendition of the marimba song 'Rugare', which was arranged to be played on the marimba at Kwanongoma College of African Music in the 1960s by Alport Mhlanga and his students.

Blessing Bled Chimanga plays three different musical instruments (drums, marimba, and percussion) for Zimboita. He is also a music director, arranger, and dancer. Chimanga started his professional music career in 2006 when he played with the late Sam Mtukudzi's band. After that he featured as a session marimba musician for several local and international artists. Nowadays Chimanga performs in a four-member group that he co-founded with three other players. The group is called Zimboita, which means Zimbabwe–Italy collaboration. This group is made up of two talented young Zimbabweans and two young Italians. The other members of Zimboita are Max Covini (drums), Naphtali Chivangikwa (bass guitar), and Joseph Chinouriri (saxophone). The band plays Afrocentric music fusions, and also showcases contemporary dance. Their project focuses on collaborating the two countries' music and culture as well as highlighting the power of friendship and passion for music.

College-based marimba bands in Zimbabwe include Teachers college-based marimba ensembles from: Belvedere; Bondolfi; Hillside; Madziwa; Marymount; Masvingo; Mkoba; Morgan ZINTEC; Morgenster; Mutare, Nyadire; Seke; and the United College of Education. The marimba ensembles from polytechnic colleges that play marimba music are: Bulawayo, Gweru; Harare; Joshua Mqabuko Nkomo; Kwekwe; Masvingo; and Mutare polytechnics. University marimba ensembles include: Africa University (AU); Bindura University of Science Education (BUSE); University of Zimbabwe (UZ); Catholic University (CU); Chinhoyi University of Technology (CUT); Harare Institute of Technology (HIT); Great Zimbabwe University (GZU); Lupane State University (LSU); Midlands State University (MSU); the National University of Science and Technology (NUST); and the Women's University in Africa (WUA). At the Tertiary Institutions Festival of Arts (TIFAZ) and RIO-SET, about 30 marimba ensembles from the country's local colleges meet annually every September and each is comprised of about 15 marimba players, drummers, *hosho* (shakers) players, dancers, and singers.

Rainbow Blaze Marimba Band and Hloseni Arts Ensemble are based there permanently. In Harare, the 2015 edition of the annual Tambarimba Festival was held during the last week of September, and the Zimbabwe College of Music's (ZCM) Timbila Vibes Ensemble is permanently based there. In Victoria Falls, The Big Five Marimba Ensemble and Sinsiska members entertain tourists who visit the resort town throughout the year, and in Gweru, the Midlands State University's (MSU) Rimba Resonance Vibes entertains guests at lunch hour concerts, public lectures, research conferences, graduation ceremonies, cultural week celebrations, and various other functions. I personally formed Rimba Resonance Vibes Ensemble of Gweru in the Midlands Province out of my passion for marimba music and this has enabled me to mingle with many marimba players at festivals.

Music Festivals in Zimbabwe where marimba music is played include: Allied Arts Festival; Tambarimba Festival; Manicaland Folk Music and Dance Festival; Bulawayo Music Festival; Buddies Annual Festival of Arts (BAFA); and the Harare International Festival of the Arts (HIFA). In the SADC Region there is the International Marimba and Steelpan Festival in South Africa, as well as the International Music Festival in Malawi. Zimbabwean Festival bands include: Rimba Resonance Vibes, Guruve Marimba Arts; Sailors Marimba Crew Petero; Gokwe Rovarimba; Blackspear; Pamuzinda; Tambarimba Arts; Rimba Resonance Vibes; Timbila Vibes; Hloseni Arts; and Rainbow Blaze. There is a section of the Zimbabwean population that is not outgoing and will not attend marimba festivals and live shows. These people are missing out due to lack of marimba music records.

Marimba ensembles need to take it upon themselves to organise marimba festivals at grassroots level, even when there is no funding at all. Waiting for one or two festivals in Harare and Mutare does not help their cause in any way. Some of the ensembles cannot even afford the travel and subsistence costs associated with a trip to the capital city. Festivals held in townships in the districts would reach out to more people locally. Harare festivals remain an impossibility for the greater percentage of the country's population. Even some of Harare residents cannot afford the transport to go and enjoy marimba music at the Harare Gardens in a dwindling economy. Synergies could be created by marimba ensembles based in the country to organise local/regional festivals. Without such efforts, marimba music will remain uncommon for a significant percentage of the Zimbabwean population.

Challenges and prospects for Zimbabwean marimba records

My interaction with marimba makers, musicians, academics, and festival organisers during my fieldwork revealed that the greatest barrier to the collection, preservation, and access to marimba music resources is lack of funds. Any financial opportunities for Zimbabwean marimba players or archivists remain limited. Some marimba players and archivists may only benefit from festival involvement and academic institutional support. The marimba music industry has not evolved to become a sustainable undertaking in Zimbabwe largely because the marimba musicians do not record and market their music. There is considerable online invisibility and consequently, musicians face challenges to raise money for purchasing instruments. Students who seek in-person instruction in instrument playing can be a source of income but for marimba these are very few and far apart.

I witnessed Zimbabwean marimba performers make it into the Guinness Book of World Records when 200 participants from 40 schools made history playing in a booming ensemble with the highest ever number of marimba performers playing in the same ensemble. They performed the popular marimba tune "*Manhanga Kutapira*" on the Zimbabwean marimba. This song's lyrics literally translate to mean "sweetness of pumpkins", which actually implies that African women's hips are a delicacy (Dumisani Maraire, Personal communication 1998). Marimba ensembles perform the traditional and contemporary Zimbabwean music on handcrafted marimbas. This event that was organised in Harare surpassed the Australian record of 108 participants playing together in one ensemble in November 2016. The organiser of the event said that the task of creating history has never been easy and they had to

overcome a lot of challenges. The National Arts Council of Zimbabwe and the Zimbabwe Tourism Authority endorsed the festival whose participants were from schools in Harare, Masvingo, and Marondera among others. This makes quite an outstanding record and memories were captured on cell phones as well as camera.

Conclusion

The Zimbabwe marimba has risen to become one the country's national instruments. For this reason, I think the Ministry of Education, Arts, Sports and Culture through the National Arts Council should ensure that the country has state-of-the-art technologies for recording and archiving marimbas. Marimba education programs in the community need financial support for them to thrive, because currently marimba performers only wait for annual marimba festivals for them to showcase their talent. The instruments are too expensive for impoverished community-based marimba players. Lack of financial resources remains the biggest dilemma and as a result, marimba bands and individual virtuoso players are leaving the country in droves at the slightest opportunity. This is the reason why Zimbabwean marimba performances are thriving abroad in places such as Norway, Sweden, USA, Germany, The Netherlands, and Denmark. There are no lucrative opportunities at home.

The marketing of the local marimba brand needs to be explored in various platforms such as national and social media. There are literally no marimba music programmes on national radio stations. Giving marimba music airtime would also help to popularise it in the country. This is how this music could reach the majority of people in the country; otherwise, it remains an art for Harare festivals only. About eighty percent of Zimbabweans belong to a rural population who are being marginalised from enjoying marimba music. Radio tends to be more accessible to outlying remote areas in Zimbabwe than television, and programs should be introduced where marimba music is featured.

The current marimba performance practices in Zimbabwe entail marimba festivals, tourist recreational performances, and community-based shows. Meaning in Zimbabwean marimba musicking is secular – performances in stadiums, concert halls, open spaces, gardens, streets, and festival arenas – and done purely for entertainment purposes. The entertainment value of the marimba lies in the instrument's prospects for prosperity because all Zimbabweans yearn to participate in recreation. I argue from this discovery that leisure Zimbabwe marimba musicking activities are important because social life is laced with more secular than sacred music. Archivists ought to embrace this practice and ensure the marimba finds its place as one of the world's intangible cultural heritage.

References

Antonio, Winstone. 2016. Government revises national culture policy. *Newsday*, 24 November 2016.

Axelsson, Olof E. 1985. Zimbabwe's melodious marimba. *Africa calls from Zimbabwe* 150: 26–27.

Bhabha, Homi K. 1994. *The Location of Culture.* London: Routledge.

Bogdan, Robert and Biklen, S. Knopp. 2003. *Qualitative research for education: an introduction to theory and methods.* Boston: Allyn and Bacon.

Bourdieu, Pierre. 1984. *Distinction: A social critique of the judgement of taste.* R. Nice, trans. Cambridge, MA: Harvard University Press.

Edmonson, Ray. 2016. *Philosophy and principles of audio-visual archiving.* Bangkok: UNESCO.

Ichpedia 2015. Intangible Cultural Heritage Online Encyclopedia. ichpedia.org (accessed May 23, 2016)

International Library of African Music. 2012. ILAM Digital Sound Archive. greenstone.ilam. ru.ac.za/cgi-bin/library?site=localhost&a=p&p=about&c=ilam& l=en&w=utf-8 (accessed May 23, 2016)

Jones, Claire. 2006. From schoolboy stuff to professional musician: the modern tradition of the Zimbabwean marimbas. PhD Dissertation, University of Washington.

Jones, Claire. 2012. A Modern Tradition: The social history of the Zimbabwe marimba. *African Music* 9(2): 32–56.

Kyker, Jennifer. 2011. A Person Among Others: Music, Morality, and Postcolonial Politics in the Songs of Oliver Mtukudzi. PhD Dissertation, Pennsylvania State University.

Landau, C. and J. T. Fargion. 2012. We're all archivists now: Towards a more equitable ethnomusicology. *Ethnomusicology Forum* 21(2): 125–140.

Logan, W. and L. Smith (co-eds). 2010. Foreword. In: C. Long and S. Labadi (eds.), *Heritage and Globalisation*, pp. xi–xii. New York: Routledge.

Logan and Smith. 2010. UNESCO 2003a. Applied Ethnomusicology in Institutional Policy and Practice.

Maguraushe, Wonder. 2018. Musicking at home on the wood that sings: Contemporary marimba performance practices in Zimbabwe. PhD Dissertation, University of South Africa.

Matiure, Sheasby. 2008. Performing Zimbabwean music in North America: An ethnography of mbira and marimba performance practice in the United States. PhD Dissertation, Indiana University, Bloomington.

Moon, Jocelyn. 2016. Uploading Matepe: Online Learning, Sustainability and Repatriation in Northeastern Zimbabwe, Collegium. In: Klisala Harrison (ed.), *Applied Ethnomusicology in Institutional Policy and Practice Studies across Disciplines in the Humanities and Social Sciences* 21, pp. 190–209. Helsinki: Helsinki Collegium for Advanced Studies.

Polyphony: Reinterpretation of the Musical Museum Collection

Jin Yang
Shaanxi Normal University
Xi'an, Shaanxi Province, China

Abstract

In the more diversifying, digitizing, and globalizing world, museums face great challenges in reinventing the narrative framework, including the musical collection. According to the new national statistics of museum collections, there are musical collections in almost every museum of China (total 4,826) due to the fact that most museum collections came from ancient tombs, which reflected the popular belief of "Treating the dead as alive". Unfortunately, many musical collections were hidden in storage, some were on display with other objects, without emphasizing their function or unique nature. Their values were not fully recognized and their meanings were not totally interpreted.

Based on practical work of museum experience, the author uses a polyphonic theoretical model to reinterpret the musical collection. The author will choose *guqin*, a seven-stringed plucked instrument in some ways similar to the zither, one kind of non-mainstream object at the Shaanxi History Museum, to make a full examination.

Firstly, to advance new perspective to explore the complex polyphony in a thematic exhibition of *guqing*, to present the objects in a broader context of Chinese musical history, e.g., Tang poems, mural paintings, gold and silver wares, stone carvings, and jade plaques; secondly, to combine multimedia into educational programs so as to enhance the audience's experience emotionally, e.g. workshop, salon; thirdly, to dig the deep meanings hidden behind the musical collection in order to build sustainable relations between objects and audience, as well as to provide a platform for people to exchange thoughts, e.g. online and offline lectures; fourthly, to put the *guqin* into museum creative industry, to activate them, and to become one part of people's life, e.g. toys, booklets, cups, etc.

In conclusion, we should think museum musical collection in a polyphony way, because their complicated and long history of production and usage, because of the people behind them, the craftsmen, the musicians, and the audiences, because of their various survival ways and precious heritage they left for us.

In a more diverse, digital, and globalised world, museums face great challenges in reinventing the narrative framework, including the musical collection. According to the new national statistics of museum collections, there are musical collections in almost every museum of China (total 4,826) due to the fact that most museum collections came from ancient tombs, which reflected the popular belief of "Treating the dead as alive". Unfortunately, many musical collections were hidden in storage; some were on display with other objects, without emphasizing their function or unique nature. Their values were not fully recognized and their meanings were not totally interpreted.

Fig. 1. Female zither player in performance (304–439 CE). Collection of National Museum of China.

Figs. 2 and 3. Female zither player in performance (304–439 CE). Collection of Xianyang City Museum.

Fig. 4. Man Playing a zither in a performance, Northern Dynasty. Collection of Gansu Provincial Museum.

Fig. 5. Man making a zither. Painting on silk by Gui Kaizhi (348–409 CE). Liaoning Museum.

Fig. 6. Woman playing a zither in a performance (630 CE) from Mural Painting.

Fig. 7. 'A Lady Holding a Zither' from the Carving on Stone Coffin. Unearthed from Prince Li Shou's tomb, Collection of Shaanxi History Museum.

Fig. 8 - Fig. 10. Male musician playing a zither in a performance (745 CE) from a mural painting. Unearthed from Su Sixu’s tomb, Xi'an, Shaanxi Province. Collection of Shaanxi History Museum.

Fig. 11. Woman playing a zither accompanied by other female and male musicians. Wall painting from Han Xiu's Tomb (740 CE), southern suburbs of Xi'an. Collection of Shaanxi History Museum.

Fig. 12. Wall painting showing a woman holding a zither in her arms and accompanied by another woman in male clothing and carrying a harp. In the centre painting, a woman is holding a zither in her hands. It seems she is preparing for a performance. Another woman is in male clothing and carrys a Konghou (plucked stringed instrument) following her. Unearthed from a Tang tomb at Nanliwang village, Chang’an District, Xi'an city, Shaanxi Province. Collection of Shaanxi History Museum.

Fig. 13. Prince Shanshi playing a zither to amuse his lover. From the wall paintings in Cave 146, No. 85, Dunhuang Grotto, Late Tang Dynasty. With the help of a zither, Prince Shanshi immersed himself and his lover in a happy and loving atmosphere.

Figs. 14 and 15. Wall painting depicting a Bodhisattva playing a zither from Cave No. 154, Dunhuang Grotto.

Figs. 16 and 17. Wall Painting Depicting a Bodhisattva Playing a Zither from Cave No. 463 of Dunhuang Grotto.

Figs. 18 and 19. Bronze mirror with scene showing enlightened men playing zither accompanied by a dancing phoenix in the moonlight (Collection of Shaanxi History Museum and Collection of National Museum of China).

Based on practical work of museum experience, the author uses a polyphonic theoretical model to reinterpret musical collections. The author will choose *guqin*, a seven-stringed plucked instrument in some ways similar to the zither, one kind of non-mainstream object at the Shaanxi History Museum, to make a full examination.

As one of the leading museums in China, this museum has more than 370,000 objects, including bronze wares, pottery figurines, Tang tomb wall paintings, and gold and silver wares of the Tang dynasty. Some of them have sculptures or images of zithers, mostly with a human figure, that means "he" or "she", playing the instrument in solo or with others. For an example, in the Wall Painting Gallery, there are several paintings depicting a performing team respectively. One or two zither players could be seen in performance. Besides, there are

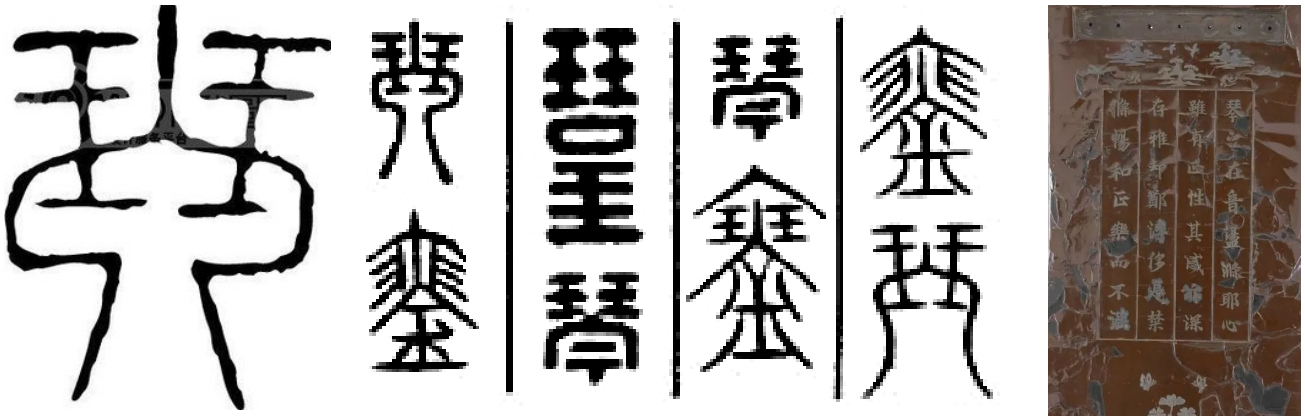
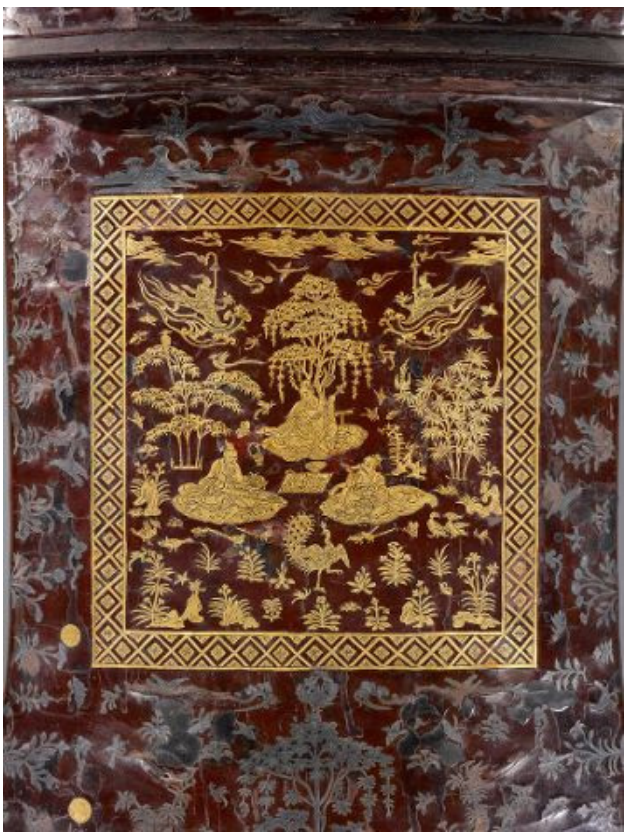


Fig. 20. A poem containing Chinese character spelling '*qin*', inscribed in the upper half of a Tang dynasty zither. Collection of Shosoin, Nara.



Figs. 21 and 22. Scene showing a hermit playing a zither accompanied by two other enlightened ones on a Tang dynasty Zither. Collection of Shosoin, Nara.

other images of zither players in jade, gold, and silver, as well as stone carvings. Due to some obvious reasons, such as lack of experts who have musical-instrument expertise, a music-education background, or training in art history, museum zither-related objects are frequently misinterpreted or exhibited inappropriately. A lot of information or stories were left behind and the value or significance of the zither has not been fully recognized. These objects were either kept in a storeroom or carelessly exhibited.

What should we do so as to better discover and reconstruct the meanings of the zither-related objects? I would borrow a word "polyphony" which was firstly used in music to explain what I mean.

Firstly, to advance a new perspective to explore the complex polyphony in a thematic exhibition of *guqing*, and to present the objects in a broader context of Chinese musical history, e.g., Tang poems, mural paintings, gold and silver wares, stone carvings, and jade plaques. Such an approach creates a grand context for narration, helping the public to understand the deep integration of music with the governance of the dynasty and the development of aesthetic psychology during the long period of evolution of Chinese philosophy. Music was an important offering of Buddhism followers and a medium to help practitioners communicate with higher powers. Bodhisattva is playing a zither to amuse and to worship the Shijiamoni. The flying ribbons indicate him floating in the air as a messenger between the earth and the heaven.

In the left of the mirror back, there is a man in sitting position who is playing a zither. The round shape of the mirror symbolizes heaven, the turtle-shaped central knob indicates longevity; the mirror represents the lifelong pursuit of each one. The lotus-pond suggests the purity of the earth, and the cloudy mountain promotes a worldview stretching into infinity. A dancing phoenix helps this gentleman to prepare his ascent up the high mountain where the immortals live and the medicine for longevity was produced. Some people believe this zither player was a Taoism practitioner, while others predicted that this man was the legendary Zhong Ziqi, who played zither for his best friend; he broke his instrument when his friend died. These two mirrors reproduce the ideological pursuits of Ancient Chinese elites and intellectuals.

Fig. 23. A male performer playing a zither accompanied by a flute player at the Night of the Museum, 18 May 2018 (International Museum Day). Shaanxi History Museum.

Fig. 24. A zither in the exhibition "Archaeological Findings on Music and Dance" at the China Grand Theatre, May–August 2017.

In ancient China, the *guqin* was one of the most symbolic and highly spiritual instruments. It was also multi-functional. In Taoism, Buddhism, and Confucianism, the *guqin* played a vital role in promoting the otherwordly or spiritual qualities. According to our legends, the *guqin* created one kind of philosophy, a universe, and a life. It symbolizes friendship, communication, spirit, and dignity, as well as being a medium to connect the life and death.

In the musical sphere, the *guqin* created a framework for introducing and integrating foreign musical instruments since the opening of Silk Road, which linked the West to the East and


Figs. 25 and 26. A zither performer in the Xi'an Beilin Museum, 26 July 2015.

created a prosperous period of musical and other cultural exchanges from the Southern and Northern Dynasties to Sui and Tang Dynasties. The Guqin changed both in appearance and mechanism during its long history of evolution and communication.

Polyphony is represented by all the images of the Tang tomb wall paintings, jade, stone, pottery wares (painted, glazed, tri-coloured), gold and silver objects. Polyphony or complex polyphony was reproduced through various media, creating a new paradigm for museum interpretations.

Secondly, to combine multimedia into educational programs so as to enhance the audience's experience, e.g. in workshops and salons. Each year, the Shaanxi History Museum organized Guqin-related public events attract the public to participate in the International Museum Day or


Figs. 27 and 28. Creative products inspired by Museum Zither, Beijing Palace Museum.

some special events, e.g. the museum anniversary celebration or opening of new exhibitions. The Xi'an Beilin Museum also organized interactive *guqin* programs in the museum's Buddhism gallery to attract a greater audience who share in the same values and love for the ancient musical instrument, the *guqin*. In a Buddhist context, the *guqin* seems to be more appealing, and to have a kind of transcendent effect. The participants were encouraged to engage with the real Buddha sculptures that were believed to have protective properties and healing effects.

Thirdly, the museum aims to uncover the deep meanings hidden behind the musical collection in order to build sustainable relations between objects and audiences, as well as to provide a platform for people to exchange thoughts, e.g. in online and offline lectures. In this sense, *guqin* seems to fulfil its communicative functions. Stories were told and thoughts were spread. There were a lot of interesting stories about the *guqin*; some had a happy-ending, some were

about heartbreak, some were romantic, and some were tragic. History tells a story, and we narrate interactions between the *guqin* and people.

Fourthly, to put zithers into the creative industry of the museum, to activate them, and for them to become one part of people's life, e.g. as toys, booklets, cups, etc. In a controlled setting, the *guqin* is an object, an image, and a recognisable character. With experimental endeavours, museums are making greater efforts to extend their services to more of the public in order to fulfil their missions in a new era. Nowadays, with the strong support from the central government, more and more museums or enterprises involve themselves into creative efforts. Museums work with other institutes or universities to open a greater vision, to have a presence on the Internet, e.g. the Beijing Palace Museum, National Museum of China, and provincial museums initiated online–offline activities to globalise museum outreach services via products. The *guqin* was an inspiring element which is now helping joint-creative minds to publicise the philosophy of ancient Chinese people.

In conclusion, we should think about musical museum collections in a polyphonic way, because of their complicated and long history of production and usage, because of the people behind them – the craftsmen, the musicians and the audiences, because of their various ways of survival and the precious heritage they left for us.

The Representation of Iranian Traditional Music in Golestan Palace

Sara Kariman
Saad Abad Complex
Tehran, Iran

Abstract

Traditional Iranian music, like many ancient civilizations, has several thousand years of history, but due to the numerous wars and most important of all the entry of Islam into this country (in Islam music is forbidden), relevant documents from ancient Persian music and music tradition are not available; except for two books and several wall-paintings, there are no readable documents. Credible documents refer to the Qajar Dynasty and the time of Naser e Din Shah Kingdom's era (and the kings after him). The king's strong passion in art and music and the direct patronage of the king and government from art and artists on the one hand, and on the other hand, the advancement of technology and tools has led to documenting the events and the traditions of Iranian music have been since that time.

In the Naser e-Din Shah's era, as mentioned in many daily notes and travelogues, music has a special position in the daily life of king, as well as special ceremonies of the king's palace. The Qajar palace complex in Tehran is also the main place of government, called Golestan complex. Today, this complex is almost preserved in its original layout, so as to be able to imagine many of the historical events that have taken place in various parts of this palace. The remnants and artworks of court painter artists or photographs taken by the king are also on display. But the lack of introducing and displaying music in this collection is clearly felt. During the reign of Nasseri, the music performers of the king's court had a special artistic status; they were the ones who first brought the Iranian musical notes on the paper, the first disks of music recording have been performed by them. The first academic music book was also translated and the first music school was founded on the orders of the king. It is important to some extent that when we refer to the biographies of these artists, much of the events and memories are about the king or in the Golestan palaces complex. It is impossible to study the tradition of Iranian music, the most important part of which is Qajar music, without studying the music space of the Qajar court, the most important part in the Golestan Palace.

This is to an extent that forms and schools of traditional Persian music are also named by these people. In this research, it has been tried to address the importance of Qajar music as a tradition of Iranian music, Golestan Palace Complex is one of the most famous and most visited museums in the Iran to transmit and display the tradition of Iranian music and Introduce methods for implementing this solution. Because this space as the original texture and origin of this kind of music can be much more effective than collections of instrument museums.

Introduction

Iran is one of the several important ancient and old civilizations of the world and, hence, the explorations and ancient achievements of this country are important in terms of art and science. In addition, Iranian music as one of the main branches of art has had a complicated history. Clearly, the presence of music in human life has a history as long as life and the formation of civilizations; although making any comment on its quality is very difficult due to limited documents and evidence. In addition to the problem of lack of reliable documents in Iran, attack by Arabs and the establishment of Islam in Iran (600) doubled this impact, since according to the verses and hadiths in Islam, music is haram and thus prohibited. Different attitudes and beliefs divide the study of the history of Persian music into two parts, because it could be claimed that, with the growth of the Islamic belief in haram, an important branch

Fig. 1. Bronze karnay, Achaemenid Era (c. 550–330 BCE), Takht-e Jamsid Museum, Shiraz, Iran. Photo by Sara Kariman.

Fig. 2. Relief on Stone, Sassanid Era (224–651 CE), Tagh-e Bostan, Kermanshah, Iran. Photo by Dr. Javad Ali-Mohammadi Ardakani.

of music has been allocated to innate and private spaces and analysis of these changes needs further research. In the Medes (678–549 BCE) and Achaemenid Era (c. 550–330 BCE), the *karnay*, a long trumpet with a mouthpiece, was commonly used in royal ceremonies (Fig. 1). What is noteworthy in the iconography of Iranian music in the age before Islam are embossed motifs relevant to the Sassanid Era (224–651) of music celebrations of the court and the lines of players (chang, oud, barbat, and horn); they depict musicians with musical instruments in their hands (Fig. 2). In general, it seems that the musical modes of the Sassanid Era are close to contemporary Persian music (Monazzami. 2001). In Islamic era, paintings of the Safavid Era (1501–1736) palaces; the extant paintings from that age refer to presence of music in the seraglio and at personal parties of kings (Fig. 3). Folklore music was performed with ritual and religious aspects in special ceremonies throughout the year; although the important issue is the question of what has been continued during different ages and remains as traditional music or Persian classic music today, a type of royal and regal music supported by the king.

Golestan Palace

Golestan palace is one of the palaces of the Zand dynasty (1751–1794) and Qajar dynasty (1789–1925) eras and is located in center of Tehran. Golestan palace, which is over 440 years old, is one of the most unique historical complexes of Iran. Applying the name "Golestan" for this complex originated in the foundation of a hall called "Golestan", which is one of the buildings of Agha Mohammad Khan Qajar (1742–1797) that was used until 1801 in the time of Fath-Ali Khan Qajar (1772–1834).

Over the years, from the Safavid Era to today, Golestan has been changed in several aspects. Although the origin of Golestan palace dates back to the age of Shah Abbas the Great (1571–1629) and the year 1589 and with construction of a Chaharbagh inside the enclosure of Shah Tahmasb (1514–1576) and later in time of Shah Suleiman of Persia (1667–1697) with construction of a court house in same region of Chenarestan Shah Abbasi, the foundations are destroyed now and the belongings of Golestan palace are limited to a part of the monuments of the Zand dynasty era and are no longer extant from before that in terms of antiquity. In the age of Naser al-Din Shah Qajar (1831–1896) (crowning on Friday, 19 October 1848), Golestan palace was changed drastically, including being influenced by European trends, because during

Fig. 3. Wall Painting of Chehel Sotoon Palace, Safavid Era (1501–1736), Isfahan, Iran. Photo by Hamidreza Hussayni.

the period of his kingship (about 49 years) Naser al-Din Shah Qajar, during his three trips there in 1786, 1791, and 1889, was the first king of Iran to visit Europe.

Although the Royal Citadel was not changed significantly in terms of architecture in the age of three last kings of Qajar Dynasty – Mozaffar ad-Din Shah Qajar (1853–1907), Mohammad Ali Shah Qajar (1872–1925), and Ahmad Shah Qajar (1898–1930) – until the collapse of the dynasty, its history synchronized with some major political events, including the Constitutional Revolution and its consequences. The Royal Citadel saw the crowning of Reza Shah (1878–1944) and Mohammad Reza Pahlavi (1919–1980) and some changes and occupations after collapse of Qajar Dynasty and the rise of the Pahlavi Dynasty. The existing monuments in the palace are as follows: Shams-ol-Emareh (meaning "Edifice of the Sun"), Salam hall, Takht-e Marmar, Takht Marmar veranda, Hozkhaneh, Abyaz palace, Khalvat Karimkhani, Badgir building, Aaj hall, Almas Hall, Brilliant Hall, and the Hozkhaneh, Badgir building. The monuments that previously existed in Golestan palace: Andarooni, Khabgah Naseri, Khaghan, Khoruji building, Sandoughkhaneh building, the royal laundry, and Tekyeh Dowlat (Hedayat 1984).

Qajar Music

Iranian music was growing until the fifteenth century, but was followed by an age of recess in Iranian music that continued until the age of Qajar. In the Qajar era, especially during the reign of Naser al-Din Shah (September 1848 – 1 May 1896), the growth and prosperity of Iranian music resumed. By that time, the structure of Iranian music changed from *maqam* (melodic modes) to *Dastgah* (a musical modal system). The first king of Qajar was Agha Mohammad Khan with a two-and-a-half-year reign; he had no time to handle the music and artists. However, after him, Fath Ali Shah paid attention to musicians and determined salaries for them. By that time, two masters called Zohreh and Mina established two music groups. These two women were respectively students of Mater Rostam Shirazi and Master Mehrab Esfahani (Khaleghi 1999, 17). The result of attention of Fath-Ali Shah and Mohammad Shah Qajar (1808–1848) appeared during the reign of Naser al-Din Shah. The King paid specific attention to art and supported the growth of musicians. In 1847, with efforts of Mirza Taghi Khan Amir Kabir (1807–1852), the Dar ul-funun (meaning "Polytechnic") School was established. In its military branch, military music was taught for the first time, which was upheld by the efforts of French military musician and composer Alfred Jean-Baptiste Lemaire (1842–1907). At the time, Iranian military music used only traditional drums (*naqareh*) and trumpets (*karnay*). On his return to Iran in 1867, the King asked his ambassador in France to hire a French musician to reorganize his military orchestra along Western European lines. Adolphe Niel (1802–1869), then France's Defence Minister, selected Lemaire to take up the post. Lemaire aimed at training musicians, composers, and military music teachers and was successful in this way. The military-music branch impressed Iran so much; in fact, the familiarity of Iranian musicians with Western music was through military music and those who graduated students from these schools were later counted as famous people in the field

of Iran's music of its modernity movement; and, for the first time, the court of an Iranian king was equipped with a military-music system in a European way. The term "music" was created in the Persian language at that time (Binesh 1999).

Music and Court

In the courts of Iranian kings, since the pre-Islam age until the early twentieth century, music always had a high position. Kings and princes of Iran consistently employed the best composers and musicians and supported them. Aruzi in his 'Four discourses' (written in the twelfth century) also mentions poets who have played pleasant melodies and performed their poems with music for the kings (Aruzi 2010). Muhammad al-Shahrastani (1086–1153), an influential Persian historian of religions, in his book *Kitab al-Milal wa al-Nihal* (*The Book of Sects and Creeds*), talks about four brilliant people while also talking of the beliefs of Mazdak, which have been servants of kings: Mobed of Mobeds (the high priest of Zoroastrians in medieval Iran), Hirbad of Hirbads (a half-initiated priest), Spahbod (an army chief), and Rameshgar (a musician) (Shams 2011, 45).

Qajar Era

When recording Iranian music on phonograph discs started in 1906, several music masters of the age of Naser al-Din Shah were still living, such as Mirza Abdollah (1843–1918), Mirza Hosseingholi (1853–1916), Nayeb Asadollah Isfahani (1852?–1925), Bagher Khan Rameshgar (1876?–1959), Mirza Ali-Akbar khan Shahi (1857?–1923), and Muhammad Hassan Khan (1868?–1920?) (Sepanta 1998).

What is known to have existed historically as national music of Iran, and encompassed seven Dastgah (a musical modal system) and Radif (a collection of many old melodic figures preserved through many generations by oral tradition), is the same music played, and used to train music masters during the Qajar era; these traditions have survived to our time through oral tradition. It seems to have been a cyclic system until about the nineteenth century, and then it has been replaced by a Dastgah system. What is certain is that Iranian music has had scientific aspects until the early fifteenth century, and great figures such as Al-Farabi, Avicenna, Safi al-Din al-Urmawi, and Abdülkadir Meragi have made significant contributions to the field. The *Kitab al-Adwār*, by Safi al-Din al-Urmawi, is the best and most complete book in which the cyclic system is explained and interpreted.

The Position of Musicians in Qajar Court

The Qajar kings, like their predecessor, also honoured music and this art was valued in their court. Music was not only played at official celebrations and parties, but also in their everyday lives, so that even when they were sleeping, eating, and riding, they heard it. Agha Mohammad Khan Qajar, for example, used to listen Shahnameh from a Naqqal (a storyteller) every night before sleeping. He also played *dutar* (a traditional long-necked, two-stringed lute) when he was happy and in good mood.

The role of women in the court included the arrangement of *Rawda khwani* (the Shia Iranian Muslim ritual of mourning Muharram) and the other role of women was to hold celebrations under the responsibility of the king (Khaleghi 1956).

Ta'ziyeh-Tasnif

One of the most interesting forms of Iranian religious music is the passion (*Ta'ziyeh*). It seems that the passion play has a long history in Iran. What is known today as a passion play was spread at the time of Naser al-Din Shah and developed rapidly. Peter Chelkowski, who was close to passion

players in Iran for long time, says the importance of passion play in the age of Naser al-Din Shah:

> the passion play was not only supported by the court of Naser al-Din Shah, but also it was changed into the center for entertainment and worshipping. (Chelkowski 1979)

The Tekyeh Dowlat ('State Theater') in Golestan palace was built similar to European opera salons in order to perform passions (Fig. 4). Since the late Qajar era and at the beginning of constitutionalism movement, Tasnif – one of the several forms of Persian music and can be considered as the Persian equivalent of a Ballad – spread, and poets and musicians welcomed that under impact of the conditions. In the majority of ballads made in those years, as Edward G. Brown mentions, the reflection of desires of the constitutionalism movement and the political and social statuses of the years 1905–1913 can be observed clearly (Mashhuon 2001).

Music in Non-Military Domains

Using military music, except in special domains of official and military ceremonials, had also gained an entertainment function. Kings and princes and courtier men and politicians of the age of Naser al-Din Shah were trained by military music groups and used Western musical instruments to play in celebrations or passion plays (Fig. 5). The music was mostly performed in the yard of palace and the images of music groups exist on the tiles of the palace yard (Shahri 1988, 353).

Fig. 4. Tekyeh Dowlat, Qajar ear (1874), Golestan Palace, Tehran, Iran. (Zoka 1997)

Fig. 5. Tiling, Qajar era (1850?), Golestan Palace, Tehran, Iran. Photo by Hamidreza Hussayni.

Nohay and Marsieh

Nohay (a lament about the tragedy of Husayn ibn Ali, as in the Battle of Karbala) and *Marsieh* ("threnody", an elegiac composition), the religious ceremonies and ceremonials of the Safavid era, were also common in the Qajar era. In the post-Islam age, in different cases, such as celebrations and combats, welcoming kings of foreign countries, the movement of armies for war, and opening of national ceremonies, trumpet, bell, *kus* (a large-sized ancient Persian kettledrum), and *dhol* (a double-headed drum) are used; this style was later called Naqareh Music. Naqareh was used in following cases: at sunset and sunrise, state ceremonies, and private ceremonies. The place for performing this style was also in Naqareh-khaneh, which is a part of the current Shams-ol-Emareh (Mashhuon 2001, 420–421).

The Position of Music in Golestan Palace

As mentioned, in the Qajar era, music was supported by kings and courtiers more than before and at Golestan palace has been the most important headquarters of Qajar kings. Musical activity played a key role in the history and destiny of Iranian music.

According to the different types of music referred to above and their different functions, such as military music, religious music, festivity music, celebration music and music for entertainment, they were performed in different places of the palace, like Tekyeh Dowlat and the seraglio. A major part of the music that was performed is destroyed and today nothing is available other than images of the ceremonial performances in the seraglio, and descriptions in logbooks and diaries.

The Museological Importance of Golestan Palace and its Representation of Traditional Music

As music is one of the most important elements to introducing one to a culture, and as what remains today as musical tradition of Iran survives from Qajar musicians in books and sheet music, it is important to become familiar with these sources, especially for visitors. This is

because the evolution and formation of traditional music can be tangible for them through this. Moreover, when the iconography is found in Golestan palace, the place of origin of this music, and it is possible that it can be performed with environmental effects and surrounding details, it can be attractive and tangible for visitors. This is because; in addition to hearing the music, a three-dimensional experience of the space of events can be achieved. In this regard, embedding the following elements can pave the way to achieve this goal and the visitors can become familiar with other aspects of life and kingship culture of Qajar in addition to becoming familiar with historical (and contemporary) traditional music of Iran.

Location to install VR[1] and QR code[2] using 3-D glasses

Capability to listen to music (with special headphones) relevant to each place in different spaces such as Naqareh in the garden of complex or music of masters in some interior halls

Broadcasting images and video (discs, music player etc.); this means in

Broadcasting images and video (discs, music player etc.); this means in replacement of the original iconography related to the music life of this complex

Holding music performances and concerts to attract more audiences to this museum

Simulation of events and music performances; (this means that the music belonging to that period, with visual details such as clothing and types of instruments, will be used)

Using technology to locate specific figures or examples in 3-D modelling[3]

Notes

[1] VR (abbrev. Virtual Reality) is an interactive computer-generated experience that takes place in a simulated environment. It incorporates mainly auditory and visual feedback.

[2] QR code (abbreviated from Quick Response Code) is the trademark for a type of matrix barcode (or two-dimensional barcode).

[3] Developing a mathematical representation of any three-dimensional surface or object.

References

Alvandi, Ezatolah. 2013. *Music Story in Iran*. Tehran: Ofogh.

Arianpour, Amir Ashraf. 2015. *Iranian Music from Constitutional Revolution to Islamic Republic of Iran Revolution.* Tehran: Arts Academy.

Aruzi, Nizami. Qazvini, Mohammad and Moein, Mohammad, (eds.). 2010. *Four Discourses.* Tehran: Agah.

Binesh, Taghi. 1999. *Short History of Music in Iran*. Tehran: Hastan.

Chelkowski, Peter. 1979. *Taziyeh: Ritual and Drama in Iran.* New York: New York University Press.

Hajjarian, Mohsen. 2014. *Iranian Music Schools.* Tehran: Gousheh.

Hedayat, Mehdi Gholi. 1984. *Memories and Risks.* Tehran: Zawar.

Kasaie, Mohammad Javad. 2008. *Music History and Row of Music in Iran.* Isfahan: Navay-e Isfahan.

Khaleghi, Rohollah. 1999. *The Story of Iranian Music*, vol. 1. Tehran: Safi Ali Shah.

Khosravi Danesh, Bahram. 2003. *Music of Iran in Time (Music History of Iran).* Tehran: Gol Afshan.

Mashhuon, Hasan. 1994. *Iranian Music History.* Tehran: Jadid.

Monazzami, Darvish Reza. 2001. A Passage on the Ancient Music. *Fine Arts Magazine* 9: 76–78.

Rahgani, Shorangiz. 1998. *Iranian Music History.* Tehran: Pishrou.

Safvat, Dariush. 1971. *A Short Research about Music Professors of Iran and Iranian Music Melodies.* Tehran: Ministry of Culture and Arts.

Sepanta, Sassan. 1998. *The History of Music Recording in Iran,* Tehran: Mahour.

Shams, Mohammad Javad. 2011. Mazdakiyeh: Unanimity or Dualism. *Semi Specialist Journal of Religious Studies* 9: 33–52.

Zendebudi, Abolfazl. 2015. The Status of Iranian Music before the Arrival of the Arabs. harmonytalk.com http://www.harmonytalk.com/id/14328 (accessed July 17, 2018).

Zoka, Yahya. 1997. *Tehran in Pictures.* Tehran: National Cultural Heritage Organization.

The Interaction Between Museum and Traditional Opera: An Exhibition of Han Opera in the Hubei Provincial Museum

Pan Zeng, Peiyao Yu
Hubei Provincial Museum
Wuhan, China

Abstract

Han Opera is a national, traditional opera which originated in Hubei Province. It dates back to Emperor Jiajing's reign of the Ming Dynasty. Han Opera developed at a time of thriving trade and urban development and four major schools were formed, namely, Han, Jing, Fu and Xiang schools. Incorporating *xipi* and *erhuang* tunes from different local operas, Han Opera artists created the *xipi-erhuang* ensemble in the history of Chinese operas. Han Opera has been known as the origin of China's national opera. It boasts a large repertoire, reportedly 800 operas. In terms of operatic vocal music, the Wuhan dialect is taken as the standard language of Han Opera and shows distinct local features.

The 'Fascinating Chu Tunes and Melodies: An Exhibition of the Museum Collection of Han Opera Artefacts', sponsored by Hubei Provincial Museum and supported by the Han Opera circles of Wuhan, fully showcases the history, art and culture of Han Opera. The exhibition included musical instruments, costume props, scripts, and video materials, which fully displayed the main categories of Han Opera. While presenting the artefacts, the exhibtiion also introduces the artists and stories behind Han Opera. In order to allow the audience to "see the show", a traditional stage was set up in the exhibition hall and we arranged 32 classic opera performances for the audience during the exhibition. The audience was able to understand the art and history of this Chinese drama in a relatively short period of time. Through this exhibition, we hope the public may pay more attention to the protection of Han Opera and elements of intangible cultural heritage.

As modernisation progresses and new media and new means of communication press on, traditional Chinese operas are on the decline, and Han Opera is no exception. However, Han Opera artists and fans have been engaged in safeguarding this precious cultural heritage. Han Opera was included in the List of National Intangible Cultural Heritage in 2006. It is an urgent task for us to protect the cultural heritage of Han Opera.

Han Opera

Han Opera is a national, traditional opera which originated in Hubei Province and is one of the most popular dramatic forms in ancient China. Han Opera dates back to Emperor Jiajing's (1522–1566) reign of the Ming Dynasty about 400 years ago. During the Wanli (1573–1620) Period of the Ming Dynasty, Xipi and Erhuang met in Hanshui, the golden waterway of this prosperous economic lifeline. Xiangyang, a major town in Hanshui, formed a Pihuang cavity, also known for Han opera, developed a thriving trade and urban development. Han Opera first spread to Beijing, and is called Peking Opera. It spread to Guangdong later, where it became known as Cantonese Opera. Clearly, Han Opera is the source of the entire Pi Huang Opera, including Peking Opera.

In the Ming and Qing Dynasties there went a saying about the Jianghan Plain: "good harvests in Huguang area, enough food for the country". The Han River gradually became an important channel for transportation of timber, herbs and salt, with great economic development. A strategic city along the Han River, Xiangyang connected the Central Plain to the north and

Hubei to its south and was known as "the port of land-water transportation". Shashi connected Sichuan to its west and the Dongting Lake to its south. 'Boats and carts clustered and the city was one of the most thriving cites in China'. Meanwhile, Shashi was also one of the top four rice markets in the country. The Han River changed its course in 1466 (the second year of Emperor Chenghua's reign of Ming Dynasty), and Hankou became the commercial and trade

Fig. 1. Map of Hubei Province.

centre in Hubei and Hunan, and one of the top four commercial clusters in the country, the other three being Bejing, Suzhou, and Foshan.

Thriving trade and urban development laid a foundation for the rise of civic culture. In the Ming and Qing Dynasties there were numerous theatres and guildhalls in cities and towns across Hubei. Businessmen from all over the country met here and different cultures exchanged and mingled. Han Opera developed in such an open environment and four major schools formed, namely Han, Jing, Fu, and Xiang schools. Incorporating *xipi* and *erhuang* tunes from different local operas, Han Opera artists create the *xipi-erhuang* ensemble in the history of Chinese opera. In 1790 (the fifty-fifth year of Emperor Qianlong's reign of the Qing Dynasty), a famous Hui Opera troupe went to give a performance in Beijing, thus introducing the Han Opera to north China. Consequently, Peking Opera, a new type of opera has thus been known as "the origin of China's national opera". In modern times, Han Opera, mainly based in Wuhan, reached its heyday. There appeared quite a number of Han Opera masters, including Yu Hongyuan, Wu Tianbao, and Chen Bohua. During the period of the Republic of China there appeared many female Han opera artists who brought a new fresh look to the art. After the People's Republic of China was founded in 1949, the old folk Han Opera troupes were transformed into state-owned theatres and opera saw radical changes.

Han Opera has been known as the origin of China's national opera – Peking Opera. The master of Peking Opera, Mei Baojiu once said that Han Opera is the source of Pi Huang Opera.

Han Opera boasts a large repertoire, reportedly 800 operas. Its ten types of roles have well retained the features of those in Chinese opera classics and had their own distinct characteristics in performing. The tunes are rich in operatic music, namely *xipi-erhuang* tunes, accompanied with *geqiang*, *kungqu*, *zaqiang*, and other tunes. In terms of operatic vocal music, the Wuhan dialect is taken as the standard language of Han Opera and shows

distinct local features. The time-honoured Han Opera has had profound influence on the development of Chinese operas with its rich content and superb artistic level.

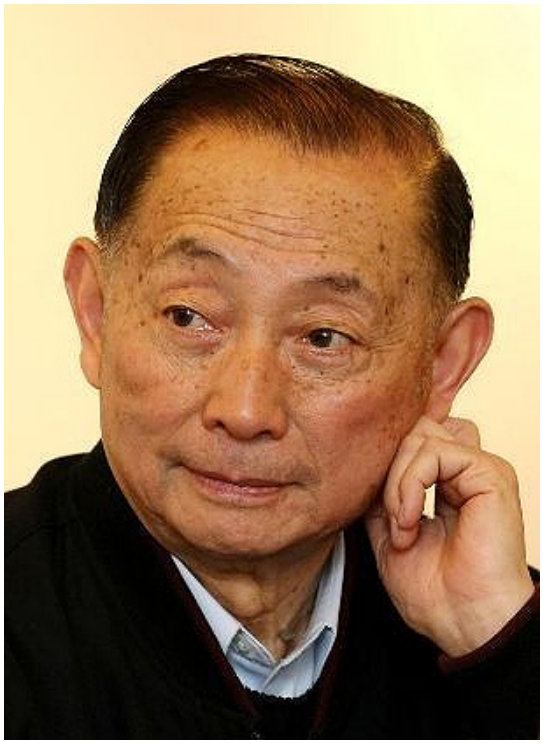


Fig. 2. Peking Opera master Mei Baojiu.

Han opera has a broad foundation based in ancient China. It is a high-level drama. It can be seen in many occasions, such as festival celebrations, gatherings with friends and relatives, activities in the halls, temples, tea gardens, and theatres. It used to be popular in the vast areas of China's urban and rural areas and it was an important force for spreading traditional Chinese values.

Despite its origins in Hubei, Han Opera was popular elsewhere in China and foreign countries, especially among Hakka Chinese in some Southeast Asian countries, where the singing of Han Opera has always been regarded as a symbol of taking root in the Chinese Han nationality. A Han Opera survey conducted in Fujian and Guangzhou in 1982 shows that the "Rong Tian Cai" Han Opera Troupe made a performance tour in 1924 to such places in Taiwan as Taipei, Taizhong, and Tainan. The introduction of Han Opera into Southeast Asia, however, could at least be traced back more than 100 years. The "Rong Tian Cai" Han Opera Troupe performed in Thailand and elsewhere in Southeast Asia in 1875. In the early reign of the Xuantong Emperor, the "Lao San Duo" Han Opera Troupe performed for three years in Singapore, Malaysia, and Indonesia. Local Hakka Chinese called Han Opera "national music". The president of the Singapore General Association wrote that Han Opera uses the Chinese language as the medium and, like Peking Opera, is not considered a type of dialect opera. But there is little difference in theme between Han Opera and other types of opera. Guangdong Han Opera and Western Fujian Han Opera, performed by emigrants from south China, have preserved many of original features of Han Opera.

Han Opera Exhibition

In 2013, the Hubei Provincial Museum and the Han Opera enthusiasts held 'Fascinating Chu Tunes and Melodies: An Exhibition of the Museum Collection of Han Opera Artefacts'. The exhibition was supported by the Han Opera circles of Wuhan, and fully showcased the history, art and culture of Han Opera.

Fig. 3. Opening ceremony.

The exhibition was divided into three parts, which told the history, art, and culture of Han Opera. The art of Han Opera includes music, repertoires, role types, stage performances,

stage art, and costumes. Its stage performance inherits the merits of Zaju (another form of Chinese opera) of the Song and Yuan Dynasties and Chuangqi Opera of the Ming Dynasty, incorporating singing and dancing in various forms and with distinct characteristics. *Qimo* (simple stage props and settings) in early Han Opera was already well developed, and became a new starting point for the stage art of traditional Chinese operas. Costumes and women's head ornaments of Han Opera followed those in Kunqu Opera in the early days and were developed with their distinct features later.

The exhibition also introduced the celebrities, actresses, fans, and materials of Han opera. In areas where Han Opera is popular, the fans actually "live" in the opera; they feel what the characters feel. In Wuhan where Han Opera used to be thriving, in particular, the opera helped form the unique folkways there.

Figs. 4 and 5. Xingtou in Han Opera.

The exhibits in the exhibition included musical instruments, costume props, script submissions, and video materials that fully displayed the main categories of Han Opera.

Most of the exhibits are were donated by Mr. Liu Li, a Han Opera collector. The earliest collection of Chinese opera in our museum was the collection of a chaplet and official robes, recruited from Dr. Chen Bohua who is was a master of Han Opera in the 1980s.

Fig. 6. Stills of Chen Bohua's Han Opera.

Fig. 7. Han Opera performance in the exhibition.

While presenting the artefacts, the exhibition also introduced the artists and stories behind the scenes. In order to allow the audience to "see the show", a traditional stage was set up in the exhibition hall and we arranged 32 classic opera performances for the audience during the exhibition. The audience was able to understand the art and history of this Chinese drama in a relatively short period of time.

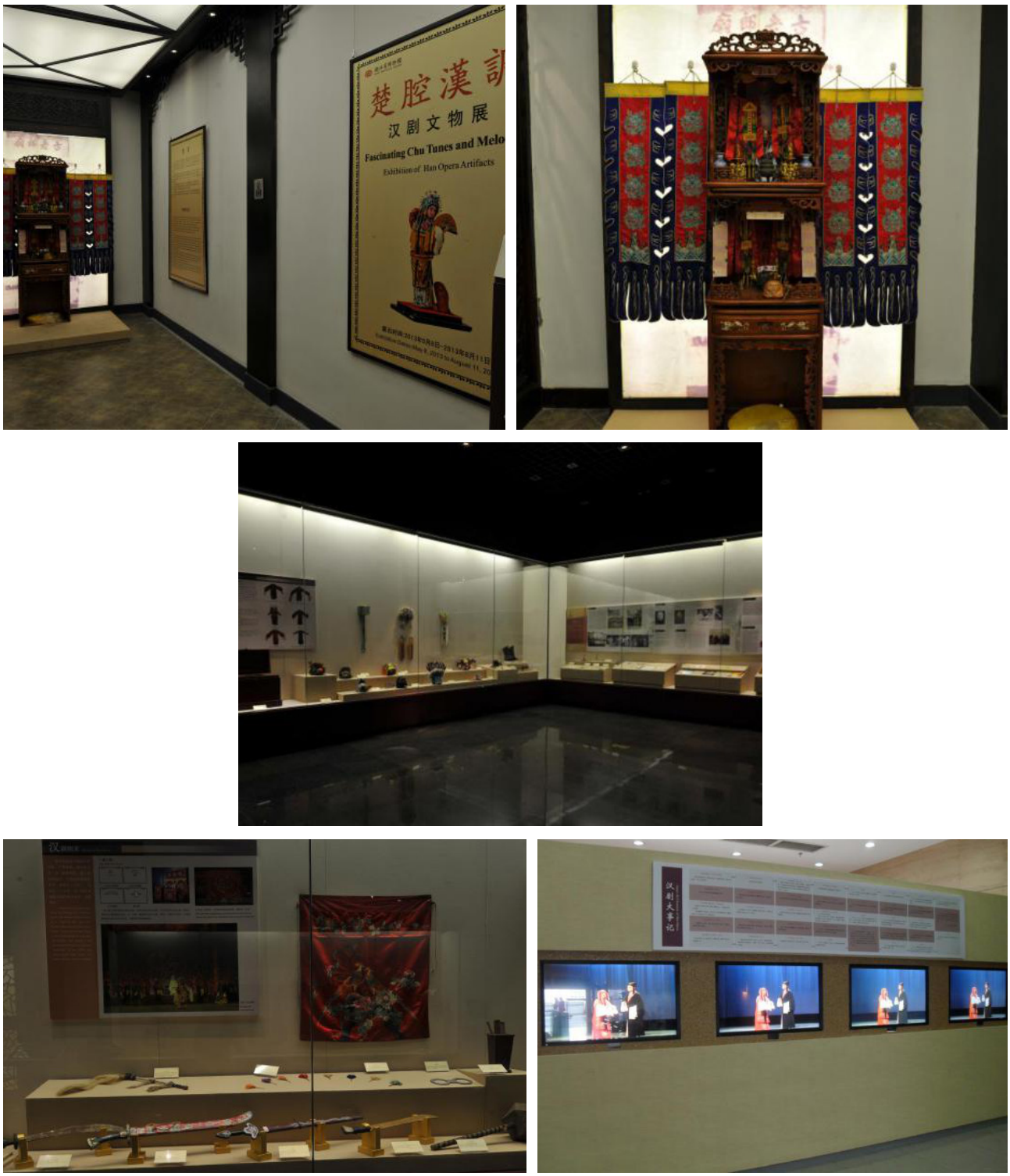


Fig. 8. Han Opera Exhibition (five images).

The exhibition quickly sparked a huge response in from the public. The most direct result was the unprecedented collection of Han Opera cultural relics, literature, audio, scripts, and other materials, coming from a large number of Han Opera enthusiasts. The exhibition stimulated the Han-opera community's reflection on the original operation-mode of relying on the government to support the theatre. It also set off a wave of Han Opera to enter the campus, and finally urged the government to rethink the original cultural policy.

Nowadays, dramatic productions in general are sluggish, and Peking Opera and Han Opera are no exception. Before 2013, due to the influence of cultural policies, the cultural department of Hubei Province merged the original 22 Han theatres and other dramas in the province, and compressed them into only two provincial and municipal theatres, which made the Han Opera's survival worse.

As modernisation progresses and new media and new means of communication press on, traditional Chinese operas are on the decline, with no exception for Han Opera. However, Han Opera artists and fans have been engaged in safeguarding this precious cultural heritage. Han Opera was included in the List of National Intangible Cultural Heritage in 2006. This recognition reveals that the government has attached great importance to Han Opera, and it is an urgent task for us to protect this cultural heritage. Through this exhibition, we hope the public may pay more attention to the protection of Han Opera and other intangible cultural heritage items.

The Interaction between Museum and Han Opera

The Hubei Provincial Museum is famous for the chime bells of Marquis Yi of Zeng. In view of this, we pay special attention to the study of music archaeology and musical cultural relics, as well as to the protection and preservation of music intangible cultural heritage.

Han Opera has a history of 400 years. Han opera is a high-level drama and has broad, historical foundations. It can be seen in the many occasions, such as festival celebrations, gatherings with friends and relatives, activities in the halls, temples, tea gardens, and theatres. It used to be popular in the vast areas of China's urban and rural areas and an important force for spreading traditional Chinese values. Today's situation of Chinese drama has been influenced by both of natural laws and historical laws. This is not a situation that museums can change, so museums can only do their own work towards collection, preservation, research, and exhibition.

There is a good opportunity to protect Han Opera. Cultural policy brings opportunities to our Han Opera collection. In the 1990s, the government ordered the Chinese opera troupes at various levels to close, merge, and transfer. A large number of Chinese opera costumes, props, and materials were discarded by the troupes as waste materials. These items were usually stamped with unit seals. Han opera fanciers are reluctant to see these things lost, and they actively took the initiative to collect them.

The museum has the conditions to do a good job in the collection and preservation of Chinese opera culture. The museum has researchers in academic backgrounds such as archaeology, anthropology, ethnology, and museum studies. On one hand, the museum staff has long been dealing with cultural heritage and has a heartfelt awe of culture. On the other hand, the academic qualities and technical training of museum staff allow them to take special care of people's values in their collection, protection and exhibition. We are touched by the fact that those fanciers who love Han Opera actively volunteered to donate their own collections and materials to the Hubei Provincial Museum. They hope that we can preserve the Han Opera.

By studying the causes of the endangerment of the Han Opera, we established that the purpose of the museum is to preserve, taking into account both protection and inheritance. Our working principle is "collection comes first". The earlier theatre system destroyed the ecological environment of the Han opera, which made Han drama lose its market initiative and the competitiveness among the actors.

In order to protect the opera, first of all, we should establish a united front for the protection

of Han opera. Social celebrities support the protection of Chinese dramas as individuals and various media have also called for the protection of Chinese opera. Wuhan University, Central China Normal University, Wuhan Conservatory of Music, and other universities have contacted us to arrange the that cultural relics and materials of Han Opera are photographed and documented in oral histories. Since 2012, we have officially launched the Chinese Opera Exhibition Project. By the time of the opening of the exhibition in 2013, it has just been a curatorial cycle, and the whole society has mobilized together.

We are trying to reconstruct the ecology of Han Opera. The people who love Han opera are mainly composed of audiences, fans, and actors. Their power is very strong. We made friends with them, and based on the existing Han opera life circle, we formed a museum centre, and reconstructed Han opera ecology. Reconstructing the ecology of Han Opera is the premise of collecting and preserving the art and culture of Han Opera. During the process, many enthusiastic people emerged. Apart from actively donating their own collections to us, they actively mobilised other friends who love Han Opera to donate their collections. Therefore, our collection of Han opera has reached an order of magnitude. We selected 171 pieces and produced the exhibition catalogue: *Fascinating Chu Tunes and Melodies*.

In addition, gathering talents to study cultural relics and materials of the Han Opera is necessary. There are two major achievements in the collection research.

Fig. 9. Li Jinzhao Han Opera Research Office.

Fig. 10. Catalogue of the exhibition.

One is the exhibition and the other is the publication. In order to study, we must have talented people. We hired Mr. Li Jinzhao, who truly understands the Han opera, to serve as a consultant. He donated all his collections, scores, and recordings. On this basis, we established the "Li Jinzhao Han Opera Research Office". We originally intended to publish the Han Opera series. Now we have published the catalogue of the exhibition: "Fascinating Chu Tunes and Melodies".

Furthermore, the exhibition is an opportunity to fully implement cultural education of Han opera. The success of collections and exhibitions depends on lovers of Han Opera. Continuing the health of the Han opera ecosystem, the most important thing is to cultivate successors who love it. Protecting Han opera requires education, so it is especially important to incorporate these dramatic productions into campus activities. Han Opera has entered the classrooms of Wuhan primary and secondary schools. Han Opera performances and lectures have also entered colleges and universities in Wuhan.

Summary

After 2013, Han drama received the concern and support of leaders at all levels in Hubei Province. The Hubei Provincial Han Opera Troupe, which was originally intended to be dissolved, not only received recognition, but also won the quota of 40 Han Opera talents. Wuhan Han Theatre received support from the municipal government funds, rearranged the entire "face" of Han Opera, and at the same time increased efforts to send these dramatic productions to the community. The people's theatre in Hankou is now performing Han opera every day by the Wuhan Han Theatre, and riverbanks have performances by opera lovers. The well-known Tan Hualin community in Wuchang District cooperated with the Hubei Han Opera Troupe to present the Han opera performances as an important project to the public.

At the beginning, we did not realize that an exhibition could affect the fate of a dramatic genre. We only really fulfilled the duties of a museum staff. At the same time, we persisted in organizing education activities for Han opera in compulsory education, colleges, and communities, establishing volunteer teams.

Of course, the fundamental task of the museum is to preserve the cultural relics and materials of the Han Opera to serve for the public to study. We hope the public may know more about Han Opera and pay more attention to the protection of Han Opera and other intangible cultural heritage in China.

Figs. 11 and 12. Photos of volunteer performers. Volunteer Xie Junlan and her stills during the exhibition.

An Early Chinese Musical Instrument Exhibition and Its Interpretation of Musical Traditions

Xiaoyu Zhang
Hubei Provincial Museum
Wuhan, China

Abstract

This essay is based on a case study. It is a music-themed exhibition that will be held in the Hubei Provincial Museum next year, which includes more than one hundred musical instruments of early China, and discuss how those instruments inherit Chinese traditions and Chinese musical culture.

The origin of music comes from the nature. Human entered the period of agricultural civilization 10,000 years ago, and from this time people gained broader and deeper understandings of the interaction between humans and nature. Because of this, the ancestors invented sound instruments to better support life and farming. The voices they made also help them expressing thoughts and emotion.

This paper would mainly focus on three sections. In the first part, it would introduce the anthropological theories the curators utilize. It is the first anthropological-musical display in Chinese museums. This "theory part'" would analyse the impacts that musical traditions have on the choices of exhibition topic.

The second section is the "methods part". Here would show the selection process of exhibition collections. The exhibition does not simply choose early Chinese musical instruments and organize them chronologically. It divides the collections by musical types, and would display and interpret them based on their musical tradition features.

The last part is the "technical" section. It mainly demonstrates the way that early China musical instruments would be displayed. The exhibition would use new technical methods to help audience understand the ancient musical instrument and its culture, as well as traditions. The technology in this exhibition relies on visible and virtual methods.

Music is a kind of communicative method of humanity. It could be regarded as a language. Music delivers information by the variation of tones, to express thoughts and emotions. At an early stage, our ancestors discovered the rule of tones from nature. With the development of human society, people obtained broader and deeper knowledge from farming activities and social life. They began to create sound-making objects to better support their life and production. Later, those primitive noisemakers were named musical instruments. At the beginning, people might simply imitate the sound of nature. Gradually they infused musical objects with emotional feelings. Under a particular cultural background, the semantic meaning of music is specifically understood by its cultural community. Thus, music's transmission range is bound by culture.

This paper introduces a musical cultural relics' exhibition of early China, named *Da Yin Xi Sheng*. This was an important period in Chinese cultural history. It is also known as "pre-Qin period", indicating the time before 221 BCE (the year that Emperor Qin Shi Huang unified China). During this stage, there was great progress in knowledge and techniques, thus the types of musical instruments diversified, and their performance improved. Musical instruments

of early China included daily tools of ordinary people, and important sacrificial musical articles from the royal ranks. They were the combination of talent and emotion of Chinese ancestors, because they were the prototypes of the majority of Chinese musical instruments. The musical instruments after the Qin dynasty were also designed based on them. This exhibition tries to demonstrate the evidence of this relationship to its audience.

As Gabriele Rossi Rognoni pointed out at the 2018 CIMCIM Conference, the Hubei Provincial Museum holds one of the largest collections of archaeological music relics in the world, and it is an international centre of music archaeology. In recent years, the unearthed musical relics in Hubei have updated people's knowledge of early Chinese music culture by its variety in types and richness in materials.

The Hubei Provincial Museum is in the process of Phase III of its reconstruction and expansion project. The new exhibition building covers 30,000 square meters and will be open to the public in 2019 or 2020. One of the new permanent exhibitions covers about 100 musical relics discovered in archaeological excavations in the Hubei Province. The majority of these objects is now stored in the Hubei Provincial Museum. The most extensive range of musical relics ever displayed in Chinese museums China will be exhibited in a 600-square-meter display area.

This exhibition focuses on early Chinese music culture, and aims at acquainting its audience with early Chinese musical instruments and music culture. The collections are selected from the early Neolithic age to 221 BCE. This paper introduces the display from three aspects. It starts with the relationship between music and nature. This is mainly illustrated in Section One of the exhibition. The designers explain the process of the birth of music in early China from an anthropological view. Secondly, the paper talks about impact of making techniques on musical instruments. Objective conditions strongly influence human activities. This was shown in the musical relics as well, but not many museums or galleries include this in their interpretations. Musical instruments production is limited by manual techniques in the pre-Qin period. Then, the article enters the Section Two of the display, discussing music and ceremonies. In ancient China, one of the most important traditional systems of Chinese culture is the Rites and Music. It has strict regulations on the use of musical instruments according to noble ranks. Different sets, materials, and ways of placement identify the various hierarchies of the social stratum. During this period, the meaning of music changed, and it played a crucial role in social and political fields. The last part will introduce the Acoustics Space in this exhibition. It enhances people's awareness of the sound environment from the past to the present, enriching the visitor experience.

Music and Nature

This exhibition is based on archaeological musical relics in Hubei Province. The exhibition implements both a "linear" and "frame" approach. Linear structure is mostly used in historical exhibitions, and the collections are arranged in chronological order. This exhibition primarily obeys a chronological order, but not strictly. It is divided into two parts during the eleventh century. In Section One, the music relics are presented according to material. For example, the first set of collections in this display are noisemakers, *Xun*, whistles, and bells, which are all made of pottery, followed by bronze collections such as *Nao* bells, drum and chime stones. These cultural relics construct the main substance of section one. It helps us to focus on the relevance of musical instruments and nature.

Fig. 1.

Unlike most of the exhibits displaying instruments with few or no labels, this display tries to interpret musical instruments in a different way. The first line of each object's label points

Fig. 2.

out its type according to the way that the sound is generated. For example, a terra cotta noisemaker could be called a shaken idiophone, which means it created sound by its natural material. A pottery whistle produces sound by causing air vibration, so we labelled it an aerophone. By squeezing or releasing the membrane or skin, the drums could make noise, thus, this drum is one type of membranophone.

By these instrument classification labels, the curators intend to challenge the audience's views on the nature of music. The curators believe that in ancient times, the creation of musical instruments, which might be called noisemakers at the very earliest, is a process of imitating the sound of nature. Taking a coloured pottery noisemaker unearthed from Yelin Temple, Gansu Province as an example, it is made in the form of a calabash, decorated by leaf patterns. This might be the result of imitating the sound made by wilted leaves, fruits and seeds. There were some musical instruments that originated as domestic or agricultural tools. For example, the interpreting panels explain the relationship between chime stones and the grinding farming blade, and between pottery bells and pottery containers. Archaeological findings illustrate that about 8,000 to 4,000 years ago, percussion instruments and wind instruments were used in the basins of Yangze River and the Yellow River, and those musical relics have similar features as those above. Thus, the exhibition uses panels to tell the audience a story of the birth of music, emphasising its strong connection with the nature.

Music and Technique

Museum visitors often pay more attention to the shapes and patterns of musical collections, and the way they are used. On one hand those characteristics are important information that musical collections carry; on the other hand this visit practice is affected by how the curators present musical instruments. In this display, the experts would like to emphasise the objective condition of the birth of different instruments. As referred to above, the cultural relics in section one are placed according to the sequence of material, because the processing technique was developing gradually. In the Palaeolithic Age, cutting-material methods were primitive and simple for a relatively low productivity. Hard substances such as stones, bones, and horns were hacked or chipped. Then, cutting technique appears in the Neolithic Age, and also fine processing like polishing, skiving, hollowing-out, puncturing, carving, etc. After the Zhou Dynasty (800 to 300 BCE), bone-manufacturing declined gradually, and ironware rose and became general. New materials and

Fig. 3.

techniques continuously replaced the old ones; this process can also be seen with musical instruments. Only when the ancestors possessed the ability to acquire a particular type of material, and knowing how to process it, could they produce a musical instrument. New techniques and materials were first used in the production (e.g. agricultural) field and daily life, and then they were used for musical instruments.

The curators of the display encourage the understanding of the evolution of musical collections in the context of human society. If modern citizens truly want to comprehend the origin of musical instruments, they should return and look back to these factors. That is the reason the curators use technique-themed panels to interpret early Chinese musical relics in this display. These panels create a focal line for the display, and enrich the content, enhancing its academic level.

Music and Ceremony

Primitive religious activity is a crucial part of early Chinese ancestors. The activities included sacrifice, pray, divination, and so on. These practices were usually combined with primitive music and dance, occupying an important place in the primitive religious cults. This phenomenon was generally common in many areas in the early ages. According to archaeological discoveries, some early Palaeolithic Age cliff and cave paintings found in Europe and Africa depict primitive dances. And many from Yin Mountain, Cang Yuan, and Zuo River in China also preserved original musical activities.

A bronze drum excavated from the riverbank in Chongyang County of China serves as an example. The archaeologists infer that this 75.5-centimetre-high drum was used in ancient rituals, highly possible for sacrificing to the mountains, rivers and the heaven – for no other objects were found together with it. When presenting this object, the curators designed a large scene of mountains and rivers behind the Chongyang drum, utilising virtual digital technology and real landscape to reproduce the ceremony environment. Owing to the progress of the development of science and technology, it provides the visitors a possibility to reach through the fog of time to gain a deeper comprehension of early musical instruments. In this exhibition, we hope that people not only concentrate on the instruments' objective elements, but also become aware of the cultural meaning of early Chinese music. The musical instruments could not just be viewed in an isolated way, but linked with human culture.

If we say the story of section one is about the birth of music generally in most early cultures, section two focuses on early Chinese culture particularly. This part covers from the eleventh century BCE to 221 BCE. During this period, the function of music in China gradually changed, and an important symbolic meaning was added to it. To early Chinese lords, ritual and music equals military, and these were deemed the two most vital affairs.

Musical traditions of the early Zhou Dynasty were inherited from the Shang dynasty; this was the time that Chinese ritual and a music system first formed. As mentioned before, primitive religious dance and music were extremely important to the royal court. For instance, in the royal musical system of the Zhou Dynasty, there was a type of music that was particularly played for sacrificing to the universe and ancestors. The ritual and music system of the Zhou Dynasty facilitated the development of musical culture for it collected folk music and also standardised the use of music and music-education activities. Especially during the spring and autumn periods and the Warring States period (770 to 221 BCE), the social environment changed dramatically. One of the features was that the mobility of the population has greatly increased. This would result in exchanges of musicians, and musical instruments among different states. This strengthened the spread of musical culture, and the musical theory, activity and skill developed comprehensively.

The Western Zhou Dynasty was the constructive period of Chinese ritual and the music system, which in this period was standardised. The core of ritual and music is to fix the placement and numbers of Yong bells. This provision was very strict on noble ranks, and it has profound influence on Chinese and East Asian civilization for more than 3,000 years.

Ritual originated from religious ceremonies of pre-historical tribes, while *music* acted as a symbolic behaviour initially for coordinating the ceremonies. Ritual and the music system reflected the organisation and standardisation of Zhou society. For example, the nobles of different ranks should use and place musical instruments correctly in type, number, and set, as well as the arrangement of dancers and musicians. It marked the rigid hierarchy within the aristocracy.

The social function of musical-instrument sets was to make communication possible between the human world and the gods. The earliest set of musical instruments so far found by archaeologists in China is a group of drums. It consists of three drums made of different materials: crocodile skin, stone and pottery. According to a legend, the Yellow emperor beat the crocodile drum to frighten his enemy *Chiyou*, and finally defeated him. Among various sets of musical instruments in early China, the music of metal and stone rank at the top. This rank symbolises the highest level in ritual and the music system. The earliest set of metal and stone instruments was found in the tomb of Fuhao in Yinxu of Henan Province, including a set of Nao bells made of bronze and a set of chime stones.

Fig. 4.

Fig. 5.

Fig. 6.

Acoustics Space

This exhibition especially includes an acoustics space for an audience. In this laboratory, people could experience the sound environment of different stages. At the beginning, there will be no noise in this room, and then comes the sound of nature, such as wind, leaves, rivers, storms, then, animals. After that, the audience would hear the sounds made by humans; they are cutting stones, chopping wood, and lighting fires. Gradually these noises became rhythmic, and then the early musical noisemakers appear. First, the instruments produce single sounds; gradually the sounds are made from more types of material. Afterwards, people could hear the music made by sets of musical instruments, such as those typical in early Chinese music produced by the chime bells with chime stones, and *Qin* zithers with *Se* zithers. We hope to lead our audience into this adventure of music history. Modern citizens are familiar with the noises made by industry and metal machines, but in the very primitive age, the sound fields were extremely different according to the stages of human society. We establish this "acoustics space" to aim at arousing people's awareness of the change of our sound environment.

Conclusion

The paper introduced this exhibition from the music's connection with the nature, technique (construction), and early Chinese ceremony; it also gave a brief introduction to the Acoustics Space. The display will be opened to the public in 2020. And the curators are honoured to have the opportunity to reorganize the Hubei Provincial Museum's musical collections, and interpret them for the audience in a different way. In the past, the musical relics were mostly explained by archaeological and artistic information. However, in this new exhibition, the curators want to break this rule, and lead visitors to understand early Chinese musical culture in a comprehensive range. Definitely there is still much effort to do with the display, to make it worthy for experts, and joyful for the audience.

Applied Organology: Theory and Practice in the Observed Collections

Jinmin Zhou
CHIME Institute
Leiden, Netherlands

Abstract

The beginning of modern organology is generally considered to be French scholar Victor-Charles Mahillon's milestone work, *Catalogue Descriptif & Analytique du Musée Instrumental du Conservatoire Royal de Bruxelles*, which was the result of extensive study of museum collections at the Conservatoire. Over the years since, various theories of organology, including those of classification of musical instruments and those that position the instruments in their social and cultural context, have been developed. Some research is based on existing museum collections and other research is accomplished by field work; still other studies are, to certain extent, developed by "armchair work" – all with the hope that a given theory, study or methodology would work universally under various applications.

This report focuses on several significant collections of musical instruments I have observed in the past several years – along with the available literature on those collections – for the purpose of analysing how the existing organology theories influence musical instrument collections in ways of presenting the instruments to researchers for the purpose of obtaining insights and to the general public for gaining musical as well as cultural knowledge regarding those instruments. The classification systems considered in this report include: 1) the Hornbostel-Sachs System first published in *Systematic der Musikinstrumente. Ein Versuch* in 1914, which was primarily based upon the four-group division established by Victor-Charles Mahillon in 1880; 2) Francis W. Galpin's classification, initially published in 1910 and enhanced in 1937, which differentiates itself from the Hornbostel-Sachs System by applying the "Principle of sound production" at a lower level, and also, significantly, added an "electrophonic" category; 3) André Schaeffner's two-group classification, published in 1932, that is usually viewed as a more logical approach than the Hornbostel-Sachs System; and 4) Nicholas Bessaraboff's monumental work that defines the very concept of "organology", and also applies its fundamental theory to the Mason Collection at the MFA, Boston. Additional theories in the discipline of organology that provide guidance to this report also include the Mantle Hood's tri-fold organology theory: organography-organology-organogram.

In the preparation of this paper, the following collections of musical instruments were considered:

- The Crosby Brown Collection at the Metropolitan Museum of Art, New York
- The Leslie Lindsey Mason Collection at the Museum of Fine Arts, Boston
- The Yale Collection of Musical Instruments, Yale University, New Haven, Connecticut
- The Smithsonian Keyboard Collection in Washington, DC and elsewhere
- The V&A Museum, London
- Archaeological discoveries of ancient musical instruments in China housed in various museums

Western Orchestral Instruments

The modern "western classification" system usually divides western orchestral instruments into wind, strings, and percussion. This system can be traced to the Classical Greek period, with the existing examples such as the fifth/fourth-century-BCE lyre (British Museum, GR 1816.6-10.501) in the strings category, the sixth/fifth-century wooden auloi (British Museum,

GR 1816.6-10.502) in the wind category, the fifth-century bronze finger cymbals (Museum of Fine Arts, Boston, 96.670a-b), and sixth-century gold rattles (Metropolitan Museum of Art, 1981.11.11, .12) in the percussion category.

Among the earliest form of organological theory along this line of division can be found in Martin Agricola's 1529 (revised in 1545) treatise *Musica instrumentalis deudsch*, in which the German composer and music theorist laid out his extensive studies on various instruments. For wind-and stringed-instrument categories, his division has for winds: blown with human breath, blown by bellows, and for strings: with frets, with keyboards, and a total of three types of fiddles. For percussion instruments, his division has those made of sounding metal and those made of other substances. Nearly a century after Argicola initially published his *Musica instrumentalis deudsch,* Michael Praetorius wrote his expansive but unfinished treatise, *Syntagma Musicum*, with its second volume *De Organographia* published in 1618. The categories of musical instruments in this volume also follow the three-group tradition, with wind division of various brass- and woodwind instruments (trombones, trumpets, flutes, recorders, cornets, shawms, among others), strings of various types (violas *da gamba*, lutes, cithers, lyras, harps, trumpets marine, monochords, clavichords, harpsichords), and a third division, interestingly, of "various ancient instruments" (*psalterium*, *cythara hieronymi*, etc.).

The tradition of dividing instruments into these three categories is often carried on through exhibitions and/or the catalogues of western musical instruments at some prominent museums. Among the dedicated musical instruments collections in the USA, such tradition is clearly demonstrated by the groupings of the western instruments.

For western musical instruments displayed at the Boston Museum of Fine Arts – mostly from the Leslie Lindsey Mason Collection – one would see in the order of exhibition layout the group of brass first, with an 1835 silver-plated brass slide trumpet (17.1996) listed as the first item. This is then followed by woodwind instruments and their variants, including several early instruments dated 1700: a soprano bassoon (*fagottino*) made in Germany (17.1922), a flute made in France (17.1846), and a bass recorder made in Germany (1987.550). The stringed instruments as a group follow the winds in the exhibition hall, subdivided into lute/cittern/theorbe/guitar/mandolin, viols, and the violin family – among the earliest is a 1673 diminutive type of violin (*pochette*) – so named because it was "to be carried in the pocket of a gentleman's coat" (1995.123).

The Yale Collection of Musical Instruments is another dedicated instrument collection that uses the traditional western classification method, although in this case, it has a separate group of keyboards, mainly because of its extensive collection of such type. The stringed instruments include the violin family, various viols, theorbo/lutes, guitars, with a 1550 bass viol (4670) among the earliest; wind instruments feature various brass and woodwinds; percussion instruments including drums, chime, bells, and other items. About half of the exhibition space at the Yale Collection is devoted to keyboard instruments; therefore, naturally it is arranged as a category of its own. Most of the keyboard instruments were made before the mid-nineteenth century, and the earliest among them is a double virginal made in Antwerp in 1591 (4870).

Usually at a collecting institution, the application of the traditional classification of western musical instruments also incorporates the perspective of historical development, chronologically or depending on their complexity, such as the *jagdhorn* in G for hunting displayed as the first item of a group of orchestral horns in the musical instrument collection at The Metropolitan Museum of Art. As the types of these instruments are familiar to most people, adding a historical dimension often enhances the knowledge and experience of the viewers. For institutions that have extensive collections of a single type of instruments, that type is often organized in separate groups independent of the conventional classification scheme. Examples of such treatment can be found in keyboard collections at Yale University; the Smithsonian Institution, The Met Museum's

special exhibition of the Lau-Wing Lam collection of rare Italian stringed instruments, as well as the stringed instruments at the Ashmolean Museum of the University of Oxford.

Non-western Instruments

For institutions that have systematic collections of non-western instruments, geographical areas are often used to organise the instruments at the highest level. Within a geographical region – such as Sub-Saharan Africa, the Middle East, Southeast Asian, etc. – the instruments are then divided based on their physical characteristics, often following the Hornbostel-Sachs classification system.

Among the musical instruments at the Boston Museum of Fine Arts, there are also those from various parts of the world. Interestingly, the first group of instruments that are out of western orchestral development is tucked in between the "main stream" western wind instruments – after woodwinds such as the basset-horn, alto saxophone, and various flutes, and before stringed instruments such as guitars and lutes – those are primarily European folk instruments outside the orchestral tradition, such as a wooden trumpet from Switzerland (1989.698), ram horn from Poland (17.1961), double duct flute from Bosnia/Serbia (17.1826), fiddle from Serbia (2005.209), and Balalaika from Russia (2005.207). The non-Western instruments at the MFA, Boston are grouped by geographical regions at the highest level, and after that they tend to be divided by applying the Hornbostel-Sachs Classification System. This portion of the exhibition starts first with chordophones from Africa: a bowl lyre (*ndongo*) from Uganda (17.2179), arched harp (*kundi*) from Democratic Republic of the Congo (1994.194), and a scraped mouth bow (*xizambi*) from Southeastern Africa (17.1701). Membranophones are grouped next, including hourglass drum from Niger (17.2185) and goblet drum from Central Africa (2009.2635), etc., followed by aerophones such as a side-blown trumpet from the Democratic Republic of the Congo (17.1960), and end-blown flutes from Burkina Faso (2008.23) and Sudan or Chad (17.2191). In the idiophone group we can find a double bell from Benin (2005.1188), and also a number of lamellophone type of instruments: a malimba from Nigeria, mbira from Zimbabwe, and the like. The Musical Instruments Collection at the MFA, Boston also features similarly arranged instruments from other regions of the world: India, China, Japan, Korea, Southeast Asia, and the Middle East.

The exhibition spaces for the collection of musical instruments at The Metropolitan Museum of Art in New York City have gone through a multi-year renovation, and the recent, partially completed galleries illustrate the results of transition not only into a renovated space but also into a concept of arrangement that is quite different from the old way of introducing those instruments to the viewers. The first level is organised by geographical areas, then classification based on physical characteristics, i.e., Hornbostel-Sachs. In contrast, the thus far completed "Gallery 684: The Art of Music through Time" reflects a fundamental change in concept that is different from the conventional classification-based layout. In the new exhibition story line, instruments of different cultures are merged together along a rather unified chronological order, thus providing a fresh historical view of those otherwise very diverse instruments from different cultures. Under this scheme, one would see in the period of 2000 BC to 1000 AD, hanging bells of the Iron Age from Iran (1978.514.27), an arched harp of the Dynasty 17-18 from Egypt (25.3.3061a,b), and bronze cymbals from Classical Greece (14.105.4a,b). Such an approach goes light on the classification theories but with more emphasis on the underlying commonalities of those instruments.

Institutions within China often have collections resulting from archaeological discoveries; the unearthed musical instruments – mostly of bronze or stoneware/earthenware – are often grouped together by type of instruments such as *zhong* or *bian qing*, or by excavation site if the collection of a given site is extensive (the most prominent example is the Zeng Hou Yi bell set at the Hubei Museum). Interestingly, there is a classification system of its own within the most common type of ancient instruments, bronze bells: the *lai*, *bo*, *yong*, *niu, nao* bells.

Research on the Tokugawa Musical Instruments in the Grassi Ethnographic Museum in Leipzig

Yu Filipiak
Staaliche Kunstsammlungen Dresden
Dresden, Germany

Abstract

The Grassi Ethnographic Museum in Leipzig, Germany, includes nearly 5,000 musical instruments from different parts of the world. Among them, there are five unique objects from Japan. These five instruments were collected during the same period of the nineteenth century. They are decorated with the Tokugawa family's symbol, and they belong to the instruments of the Gagaku. The presentation will provide a short survey of the collection and illustrate the circumstances in which the five Japanese instruments became part of one of the largest collections of non-European musical instruments in the world. In addition, analysis of settings, materials, measures, ornaments as well as purposes and culture-related meanings will demonstrate the great value of these instruments in the past and present.

The Grassi Museum of Ethnography in Leipzig, Germany, is one of the largest ethnographic museums in Europe. It is a part of the Dresden State Art Collections, was founded in 1869 and has more than 200,000 collections. These collections come from all over the world and are very diverse. Among them, there are more than 5,000 musical instruments, the number of instruments from Africa being the largest, totaling more than 3,000. Among these precious musical instruments, there are 410 from East Asia, including China (with Tibet and Taiwan), Japan, North Korea and Mongolia. Most of these instruments were collected from the mid-19th century to the early 20th century by more than 70 collectors. Chinese instruments form the largest part of this section, whereas some of the Japanese instruments are the most beautiful, including five which are extremely valuable.

Gagaku Musical Instruments with Tokugawa Insignia

Japan's *Gagaku* is a type of court music dating back to the 7th century. It prospered particularly in the Heian period (794–1185 CE). It was listed as human intangible cultural heritage by UNESCO in 2009. The instruments used in Japanese *Gagaku* are very beautiful, not only as musical instruments, but also as works of art, and are favored by the European museum community. Five of the Japanese *Gagaku* instruments in the Grassi Ethnographic Museum in Leipzig are extremely special. They comprise a *Gaku taiko* (inventory number: OAs 5900), a *Kakko* (inventory number: OAs 5901), a *Shōko* (inventory number: OAs 5899), two sets of *Ryūteki* (inventory number: OAs 5891a) and a *Komabue* (inventory number: OAs 5891b). At first glance, they are no different from other court musical instruments but have one thing in common: these instruments are clearly marked with a decoration of three hollyhock leaves (*Mitsuba-aoi*, 三つ葉葵).

Fig. 1. The crest of the Tokugawa family: Three hollyhock leaves.

Three hollyhock leaves form the crest of the Tokugawa family of Japan. Insignia such as this originated from the end of the Heian period in Japan and have a history of more than 800 years. The use of these insignia was

limited to the samurai and aristocratic classes. Crests with hollyhock leaves – most of them including two or three leaves – were popular. The earliest belonged to the Matsudaira, Honda, Ina, and Shimada families. Tokugawa Ieyasu was appointed shogun in 1603, establishing the beginning of the Edo shogunate (1603–1868 CE). It is for this reason that other families gradually decided to forego crests with hollyhock leaves, leaving it almost exclusively for the Tokugawa family. Although nowadays the Honda family still uses a crest of hollyhock leaves, its shape is different from the Tokugawa three-hollyhock crest (Niwa 2011, 57).

Tokugawa Musical Instruments: Dating, Origin and Collection's History

The tenth World Expo opened in Paris in 1878 and provided various European museums with a good opportunity to buy objects and collections. Dr. Hermann Obst (1837–1906), the first Director of the Leipzig Ethnographic Museum, also set out for Paris with the same purpose. It is said that Hermann Obst was a very elegant gentleman, having great charisma, which helped him to establish good relations with many delegations from all over the world. That might be the reason why he could acquire a lot of valuable and rare collectible items during the period of the World Expo. The establishment of his relationship to the Japanese Imperial Household Agency serves as a good example of his international networking. As a result, he acquired a valuable collection of Japanese objects; among them five instruments bearing Tokugawa insignia.

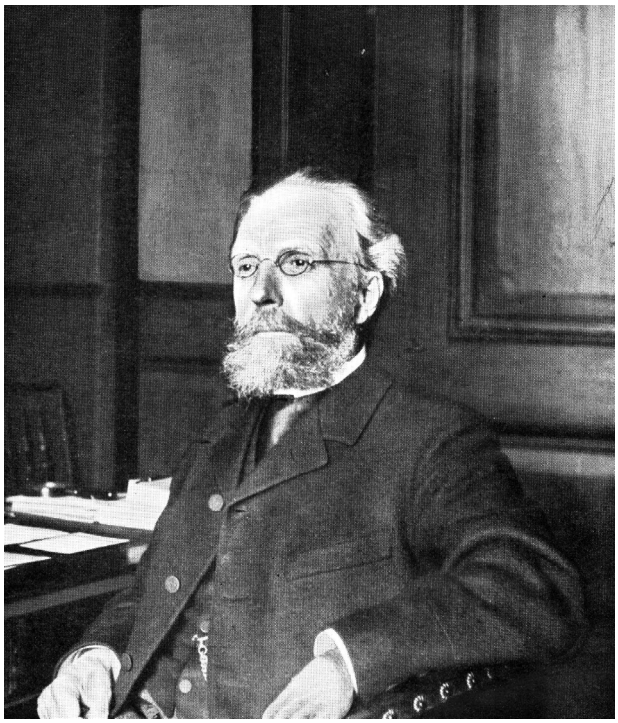


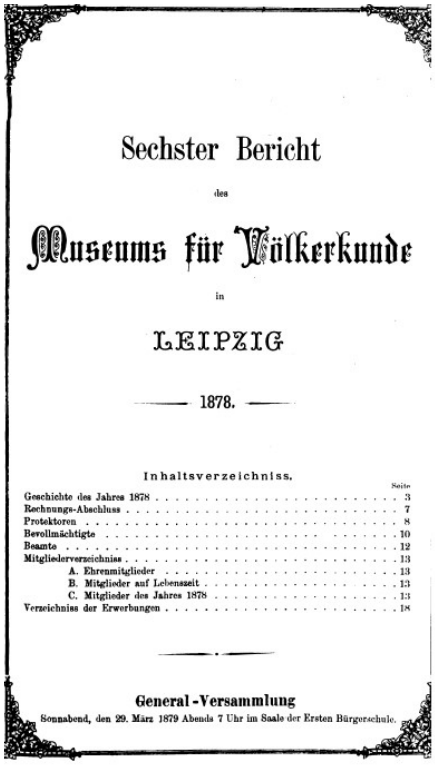
Fig. 2. Dr. Hermann Obst, the first Director of the Leipzig Ethnographic Museum. Ethnographic Museum Collection Archives.

The records in the existing collections are not very detailed. A small amount of information about these instruments can be found in the sixth annual report of the Leipzig Ethnographic Museum:

> As was the case at the Vienna World's Fair at the time, in the past year it has been the zealous endeavor of our Dr. Obst which succeeded in acquiring rare and precious treasures from the Paris exhibition for our institute. First and foremost, we must hereby thank the valuable gift which the Ministry of the Imperial House in Tokyo has made in the most flattering manner for the promotion of the excellent relations which exist between Japan and our Institute rich collection of Japanese musical instruments of splendid work, which are likely to seek their peers even in their homeland. Next to the Ministry of the Imperial House, we have to attend the Imperial Japanese Exhibition Commission in Paris, and notably the President of the same, Se. Excellency of Mr. Masagochi Matsugata, Vice-Minister of Finance in Japan, through which not only the above gift givers, but also the already noteworthy Japanese division of our collection still very much enriched and increased. (*Sechster Bericht....* 1878, 3)

Although the Masagochi Matsugata mentioned above was a member of the Japanese government, it was very difficult to find reliable information about this person. On the one hand, his name was written in alphabetic letters, on the other hand, there was no information on a person called Masagochi Matsugata recorded in other sources. The only way was to check members of Japanese government at the time whose names had similar pronunciations. There was, in fact, a Meiji politician and fiscal reformer called Masayoshi Matsukata (松方正義 1835–1924) who served as Minister of Finance. The pronunciation of the name Masayoshi Matsukata seems very close to Masagochi Matsugata. Masayoshi Matsukata began to work in

Japan's Ministry of Finance in 1871. Later, in 1877, he served as Vice President of the Japanese Committee dealing with all affairs in preparation for the World Expo. During the time of the World Expo, Masayoshi Matsukata had been delegated to Paris. This is a strong indication that Masayoshi Matsukata and the person who was mentioned in the sixth annual report of the Leipzig Ethnographic Museum were the same person.



Sechster Bericht

des

Museums für Völkerkunde

in

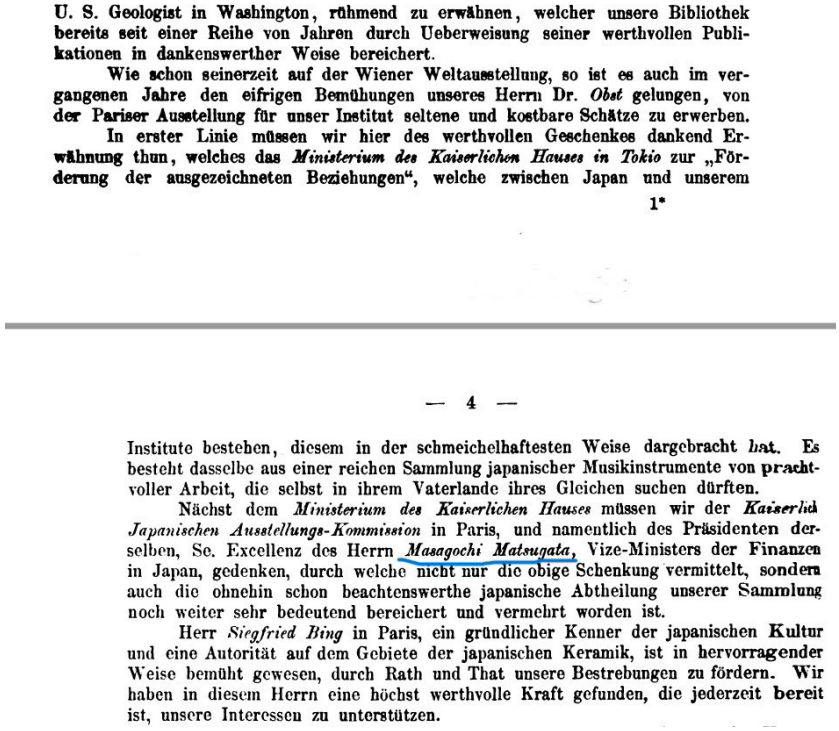
LEIPZIG

1878.

Inhaltsverzeichniss.

General-Versammlung

Sonnabend, den 29. März 1879 Abends 7 Uhr im Saale der Ersten Bürgerschule.



U. S. Geologist in Washington, rühmend zu erwähnen, welcher unsere Bibliothek bereits seit einer Reihe von Jahren durch Ueberweisung seiner werthvollen Publikationen in dankenswerther Weise bereichert.

Wie schon seinerzeit auf der Wiener Weltausstellung, so ist es auch im vergangenen Jahre den eifrigen Bemühungen unseres Herrn Dr. *Obst* gelungen, von der Pariser Ausstellung für unser Institut seltene und kostbare Schätze zu erwerben.

In erster Linie müssen wir hier des werthvollen Geschenkes dankend Erwähnung thun, welches das *Ministerium des Kaiserlichen Hauses in Tokio* zur „Förderung der ausgezeichneten Beziehungen", welche zwischen Japan und unserem

1*

— 4 —

Institute bestehen, diesem in der schmeichelhaftesten Weise dargebracht hat. Es besteht dasselbe aus einer reichen Sammlung japanischer Musikinstrumente von prachtvoller Arbeit, die selbst in ihrem Vaterlande ihres Gleichen suchen dürften.

Nächst dem *Ministerium des Kaiserlichen Hauses* müssen wir der *Kaiserlich Japanischen Ausstellungs-Kommission* in Paris, und namentlich des Präsidenten derselben, Se. Excellenz des Herrn *Masagochi Matsugata*, Vize-Ministers der Finanzen in Japan, gedenken, durch welche nicht nur die obige Schenkung vermittelt, sondern auch die ohnehin schon beachtenswerthe japanische Abtheilung unserer Sammlung noch weiter sehr bedeutend bereichert und vermehrt worden ist.

Herr *Siegfried Bing* in Paris, ein gründlicher Kenner der japanischen Kultur und eine Autorität auf dem Gebiete der japanischen Keramik, ist in hervorragender Weise bemüht gewesen, durch Rath und That unsere Bestrebungen zu fördern. Wir haben in diesem Herrn eine höchst werthvolle Kraft gefunden, die jederzeit bereit ist, unsere Interessen zu unterstützen.

Figs. 3 and 4. The 6th Annual Report of the Leipzig Ethnographic Museum in 1878. Library of the Grassi Ethnographic Museum.

The five instruments were constructed during the Edo period, more specifically, in 1866. The Edo period (1603–1868) was characterized by the Tokugawa reign, the last of four shogunate reigns in Japanese history. Its last representative was the shogun general Tokugawa Yoshinobu (徳川慶喜 1837–1913), who only ruled Japan for two years from 1866–1867. Faced with the increasing weakness of the shogunate, he initiated a series of reform measures to strengthen his power, hoping that the French government would support his reforms in the realms of the military, industry and commercial trade. Therefore, he attached great importance to the sixth World Expo 1867 in Paris and sent his half-brother Tokugawa Akitake (徳川昭武 1853–1910) who headed the Japanese delegation that participated in the World Expo for the first time.

Fig. 5. Masayoshi Matsukata. Online: https://commons.wikimedia.org/wiki/File:4_MatsukataM.jpg?uselang=de (accessed 20 May 2019).

The sixth World Expo took place in Paris from April 1 to November 3, 1867, and this is where the five musical instruments marked by the Tokugawa family crest were exhibited. Considering the fact that the instruments were constructed for the purpose of the World Expo, they could not have been manufactured later than April 1, 1867. When we further consider that it took a while preparing for the World

Expo, organizing the Japanese delegation and traveling to Europe, we can assume that the instruments were more likely to have been manufactured in 1866.

A later manufacturing time seems implausible for another reason: on November 9, 1867, Tokugawa Yoshinobu transferred power back to the emperor, which is known as *Taisei houkan* (大政奉還). It marked the end of the Edo period and the withdrawal of the Tokugawa clan from the political stage. Therefore, it is impossible that the five instruments marked with the Tokugawa family crest were manufactured after the *Taisei houkan* to represent Japan during the World Expo. Eleven years later, in 1878, these instruments once again appeared in Paris during the tenth World Expo; however, this time, the instruments were not a part of the exhibition, but used by an orchestra representing the traditional ritual music *gagaku*. After finishing the exhibition, the Japanese government donated the instruments to the Grassi Museum of Ethnography in Leipzig.

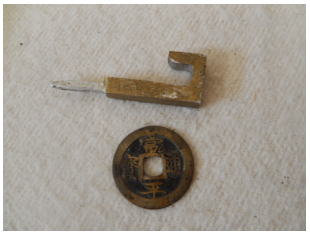
Instrumental Analysis of the Five Instruments

Fig. 6 (Left). The last shogun general Tokugawa Yoshinobu. Online: https://upload.wikimedia.org/wikipedia/commons/3/31/1867_Osaka_Yoshinobu_Tokugawa.jpg (accessed May 20, 2019).

Fig. 7 (Right). Tokugawa Akitake. Online: Tokugawa Akitake. Online: https://commons.wikimedia.org/wiki/File:Akitake_Tokugawa.jpg (accessed May 20, 2019).

1. The *Gaku taiko* (inventory number: OAs 5900) is a drum (Figs. 6-8). Its body has a maximum diameter of 54.0 cm and a height of 20.0 cm. The maximum diameter of the drumhead is 52.5 cm. The drum frame is 135.0 cm high and has a maximum diameter of 80.0 cm. The two drumsticks are 27.0 cm long and their heads have a maximum diameter of 6.17 cm. The drum, which is completely preserved, is beautifully crafted, with a wide variety of ornamentation. The drum frame is painted with a golden layer on a black background, with complex ornamentation and a metal flame on top. Except for some common decorative symbols, such as lions *Karajishi*, a peony pattern *Botan-mon*, *Hanawachigai* symbol and chrysanthemum pattern *Kikuka Monshō*, that are typical for Japanese court musical instruments, the drum stand and drumsticks are marked with the Tokugawa family crest of the three hollyhock leaves. In addition, there is a Korean coin bearing the words *Changping Tongbao* used as a gasket between the frame and a hook used to hang up the drum body. (*Changping tongbao* were cast and used on a large scale during the seventeenth to nineteenth centuries.) It is difficult to estimate the coin's value because the back has been polished.

2. The instrument with the inventory number OAs 5901 is a drum called a *Kakko (*Figs. 9 and 10). The overall height of the drum including its stand is 39.3 cm, the maximum diameter of the drum is 17.4 cm and the maximum diameter of the drum skin is 23.3 cm. Both drum skins are attached to rings. There are eight holes, reinforced by brass rings and leather strips,



Figs. 8-10. OAs 5900. (Photo: Martin Lutze, Yu Filipiak, Ethnographic Museum in Leipzig, Dresden State Art Collections)

Figs. 11 and 12. OAs 5901. (Photo: Martin Lutze, Yu Filipiak Ethnographic Museum in Leipzig, Dresden State Art Collections)

Fig. 13 (Below). OAs 5899. (Photo: Martin Lutze, Ethnographic Museum in Leipzig, Dresden State Art Collections)

on each skin. Solid leather cords are passed through the holes to tighten the drum skins. Both the drum and the stand have a golden layer on a black background. Its rich ornamentation includes blue and red peonies combined with a ruby-colored design. Furthermore, there is a crest of three hollyhock leaves on both sides of the stand.

3. The *Gaku taiko* drum, the *Kakko* drum and the *Shōko* gong are called the three drums of the Japanese *Gagaku*. (Although the *Gaku taiko*, *Kakko*, and *Shōko* are referred to as drums (ko 鼓), the *Shōko* clearly belongs in the gong category.) The *Shōko* gong (inventory number OAs 5899) has an overall height of 83.0 cm and the maximum diameter of the small bronze gong is 15.0 cm (Fig. 11). Three hollyhock leaves are marked on the frame in many places and a flame crown decoration made of brass with golden varnishing is placed on the top of the frame. The chrysanthemum blossom, the Japanese national emblem, decorates the middle of the small gong.

Figs. 14 and 15. OAs 5891. (Photo: Martin Lutze, Yu Filipiak, Ethnographic Museum in Leipzig, Dresden State Art Collections)

4. The last two instruments are flutes: A *Ryūteki* and a *Komabue* (Figs. 12 and 13). Both are preserved in a box and, thus, have the same inventory number: OAS 5891 a/b. The *Ryūteki* flute has a length of 39.7 cm and maximum outside diameter of 2.68 cm. There are seven finger holes. The total length of the *Komabue* flute is 36.2 cm and the maximum outside diameter is 1.75 cm. The flute has six finger holes. The total length of the flute box is 42.0 cm with a maximum width of 6.1 cm. The decoration and painting follow the methods regarding the *Gaku taiko* and *Kakko* mentioned above. There is a golden layer on a black background; hollyhock leaves decorate the box and the box lid.

Conclusion

The five *Gagaku* instruments described above are important objects of the Grassi Ethnographic Museum in Leipzig, Germany. They were acquired at the World Expo in Paris in 1878 by Dr. Hermann Obst, the first Director of the Ethnographic Museum. The instruments were manufactured in the late Edo period and exhibited for the first time at the World Expo in 1867 as products of the finest Japanese craftsmanship. What makes these instruments so special is that they bear the family crest of the last Tokugawa shogun, who represented the supreme ruler of Japan at the time. However, at the same time as Tokugawa Akitake and the Japanese delegation participated in the World Expo, the Edo period came to an end and the shogun retransferred the power to the emperor. Consequently, exhibits marked with the Tokugawa crest were presented for the first and the last time at the World Expo in 1867. Nowadays, such exhibits are rarely to be found in other museums in the world, even in Japan. This is also the reason why the five instruments have a high collector's value and a significant impact on academic research in the museum.

References

Gunji, Sumi and Johnson, Henry. 2012. A Dictionary of Traditional Japanese Musical Instruments: From Prehistory to the Edo Period. Tokyo: Eideru Kenkyūjo.

National Public Librarian of Japan. Biographies of Meiji Prime Ministers. Online: http://www.archives.go.jp/exhibition/digital/2007_01/masayoshi_matsukata/archive02_01.html (accessed November 15, 2018);

Http://www.archives.go.jp/exhibition/digital/2007_01/masayoshi_matsukata/archive02_02.html#ph (accessed November 15, 2018)

Niwa, Motoji. 2011. The crest of the Family (Meng Jing, transl.). Changchun, Jilin (China): Jilin Publishing Group Co.

Sechster Bericht des Museums für Völkerkunde in Leipzig 1878. 1878. Leipzig.

Ströhl, Hugo Gerard. 2006. Japanisches Wappenbuch. Schmitten/Ts.: Verlag Wolfgang Ettig.

Yuqing, Yan. 2011. “Chang Ping Tong Bao” of Money Ferries, Collectionworld, vol. 7, pp. 87–88.

Gamelan: Journey, Experience and Identity

Mawaddatul Khusna Rizqika
Museum Nasional Indonesia
Jakarta, Indonesia

Abstract

Musical instrument collections at Museum Nasional Indonesia reflect Indonesian culture and identity. It has over 2,500 objects made to produce sound. Especially for gamelan collections, the museum has 4 sets of gamelan originating from different cultures, namely Java, Banten, Bali, and Banjarmasin. The journey of Museum Nasional Indonesia and also the collections are inextricably connected to the nation's journey. Dutch colonization has affected the history of the museum, including collection acquisition and exhibition. Nowadays, as a musealized object, the gamelan is exhibited with a new context in accordance with the vision and mission of the museum. However, there are restrictions for the visitors in enjoying gamelan collections. They are not allowed to touch and play the collections for preservation and security reasons. Yet they actually can get more than that: experience. Therefore, the museum provides interactive site for the visitors. In another room, the museum provides a new set of gamelan for the visitors to play. The museum also cooperates with a cultural community to revive gamelan through the activities of gamelan performance and a free course. It has opportunity to shape cultural identity through experiential learning. Visitors enjoy, appreciate, and are proud of the gamelan as part of themselves.

Gamelan: Journey, Experience and Identity

For today's Indonesian people, *gamelan* is not something new. The musical instruments are found in various parts of Indonesia, for example Bali, Java, Lombok, and Kalimantan. The word *gamelan* itself derives from "*gamel*" meaning to do. When referring to musical performance, the word "*nggamel*" is used. A Dutch Academician, J.L.A. Brandes, points out that prior to the presence of Indian cultural influence, Javanese society had mastered ten skills, and gamelan was one of them (Haryono 2009). Haryono (2009) also described that the presence of gamelan was found in written sources such as inscription, literary book, and relief on the temple in Hinduism-Buddhism era (seventh to tenth century). Data on performance art and gamelan are found in inscriptions discussing the determination of sima (cropland in the form of rice field or farm that is exempt from tax to the palace/*keraton*). Gandasuli II's inscription (Saka, year 769) found in Gandasuli Village, Temanggung briefly mentions a musical instrument called *curing* in relation to ceremonial equipment. As one of the musical instruments in gamelan, curing took the form of a cymbal, or *kecèr* (Haryono 2009).

The existence of the gamelan itself experienced ebbs and flows within the history of Indonesia. Suryabrata (1987) wrote that starting from the end of 1920s to the early 1930s, western music was more appreciated than original Indonesian music. At that time, academicians also developed theories and philosophies that were more western. Indonesian society was overwhelmed by a sense of inferiority. However, the preservation of traditional music was maintained by the palaces in Java. It continued to be appreciated by the foreigners and academicians, and such appreciation was an indirect acknowledgement of the primacy of Javanese culture, including *gamelan* (Suryabata 1987, 15–16). And now Indonesia has become an independent country. Traces of unpleasant colonialism should be left behind.

Today, as a scientific institution, Museum Nasional Indonesia makes its effort to revive the pride of the Indonesian people in their own culture.

Underlying Story of Gamelan in Museum Nasional Indonesia

Bart Barendregt and Els Bogaerts (2016) describe that music and performance art can extensively illustrate colonial life in the past. Music can portray the culture of both the colonizer and the colonized. It was typical of the colonizer to make use of culture, including music, to perform control or repression mechanism (Barendregt and Bogaerts 2016, 1). Museum Nasional currently has approximately 2,500 objects to produce sounds. Some of them are displayed in the exhibition room, while some others are put in the storage room. Among those instruments, there are at least four sets of gamelan considered as unimpaired sets of musical instruments. They come from various cultures, namely Java, Banten, Bali, and Banjarmasin.

The process to acquire the sets of *gamelan* was very interesting due to its relation to past Dutch colonialism in Indonesia. One of them is a Sukarame *gamelan*, previously owned by Banten Sultanate (the Sukarame gamelan is recorded under inventory number 1243–1256). According to *Catalogus der Ethnologische Verzameling van het Bataviaasch Genootschap van Kunsten en Wetenschappen 1885*, the gamelan was acquired by the Dutch colonial government between 1868–1885. A change of ownership of the objects from the Banten Sultanate to the Dutch colonial government can be seen as a form of submission by the sultanate towards the colonist.

The story of the *gamelan* acquisition, as relates to Dutch colonization, was also experienced by the gamelan bequeathed by the Banjar Sultanate (with the inventory number 2572). This sultanate was one of the most important sultanates in Kalimantan several centuries ago. Its system of government was influenced by Malay and Javanese cultures, particularly by the Majapahit Empire. One of the collections from the Banjar Sultanate currently held by Museum Nasional Indonesia is a *gamelan* called *Si Panglipur/Si Penghipur.* They were collected during the Banjar War (1859–1905) (Brinkgreve, Francine, et. al. 2010, 107). Banjar people, consisting of noblemen, religious scholars, community leaders, and commoners mainly composed of farmers, fought against Dutch tyranny. Based on *Catalogus der Ethnologische Verzameling van het Bataviaasch Genootschap van Kunsten en Wetenschappen 1885*, this *gamelan* was brought to Batavia by the Dutch together with other regalias of the Banjar Sultanate, such as keris (Indonesian style dagger), jewelry, a shield, pekinangan (container for betel nuts), and a dragon-head-shaped embellishment for a boat (Brinkgreve et. al. 2010, 106–107).

The then policy specified that cultural objects originating from the colony may be owned by the colonial government and its management was assigned to *Bataviaasch Genootschap van Kunsten en Wetenschappen*, a scientific organization that later became Museum Nasional. The Museum Nasional Indonesia began assembling its collection in the eighteenth century. Generally, the collecting was undertaken by means of scientific expedition, military exhibition, grant, and purchase. European society collected cultural objects from its colonies back then; this also happened in Indonesian territories under Dutch colonization. The process of collecting these cultural objects was often done with limited information and was only based on the interest of the collector. This resulted in a neglect in gathering information on the inherent context of the collections (Keurs 2007). Many ethnology museums in Europe also suffered from this problem at that time. Collections were exhibited only for the interests of the museum itself and the colonial government.

Post-independence political change in the Republic of Indonesia on 17 August 1945 resulted in massive changes in museum management. All activities of *Bataviaasch Genootschap* were consequently managed by the Indonesian government. In 1979, its name was changed into *Museum Nasional*. This change also affected curatorial practice, as seen in the exhibition arrangement and narration. Collections were exhibited by providing new contexts, which correspond to the vision and mission of the Museum Nasional Indonesia to promote Indonesian

culture. The vision of the Museum Nasional Indonesia is to be an international-level museum of Indonesian culture through quality individuals and an ecosystem built on the spirit of mutual aid (gotong-royong). Further, the missions of the Museum Nasional Indonesia are: (1) performing collection management as per the international standards, (2) providing excellent service, (3) actualizing the museum into a means of education and recreation, (4) developing quality study towards museum advancement, and (4) achieving satisfactory governance by involving the public.

The provision of new contexts in new museology is related to the concept of musealization. Zbynek Stránský, a museologist from Czechia, that musealisation means a transfer of objects conceptually and physically from their primary or original context to a museological context (Van Mensch 2003). Essentially, museology discusses the interaction between us (as persons, community, society) and our material environment. In the course of interaction, a necessity-based environment can be created. Primary context of an object can be processed for a number of reasons, such as aesthetic, pragmatic, symbolic and/or metaphysical reasons. Such context represents a specific matter because the object preserves a historical event, a person, and others. Primary context of an object can be utilised to develop a new context called museological context, with preservation and educational purposes (Van Mensch 2003).Thus, the *gamelan*, its primary context being the sultanate regalia, experiences musealization as it receives museological context.

Creating Experience

Magetsari (2016) describes that nowadays museums are urged to perform their basic function to preserve collections and perform their missions. They are also expected to perform public programs relevant to the needs of the community. Museums are expected to stimulate the visitors to actively interpret everything presented there. Visitors coming to museums expect to gain experience. Thus, when their visits are over, they will have gained a new point of view from museums. Museums can create and influence the visitor experience (Magetsari 2016, 170).

Visitors are not permitted to touch or play the *gamelan* collections that are exhibited or those stored in the storage due to preservation and security reasons. Thus, the Museum Nasional Indonesia provides an interactive site to create an experience for the visitors. They can enjoy the gamelan very closely through experiential learning. The interactive site is located in the Ruang Kaca (Glass Room) which connects Building A and Building B. The Glass Room is highly strategic due to its see-through feature, allowing people passing by the Museum Nasional Indonesia (Medan Merdeka Barat Street) to see any activities performed in the room. This position is beneficial for attracting visitors who are still outside of the room. Administrators of the Museum Nasional Indonesia have placed a set of new Javanese *gamelan* in the Glass Room.

Roy Ascott, *Director of the Centre for Advanced Inquiry in the Interactive Arts of the University of Wales College UK* asserts that art is closely related to interactivity in a museum (Schocken 2006). The observer or visitor becomes an integral part of a creative system (Schocken 2006, 12–15). In order to perform activities in this interactive site, Museum Nasional Indonesia has, since late 2017, cooperated with a gamelan community: the Saptawara Gamelan Ensemble. Initially, members of this community, who are mostly elderly, play *gamelan* to spend their free time. As time passes by, they improve their capability to play *gamelan*.

The missions of this community conform to those of the Museum Nasional Indonesia; it is non-profit and aims to develop Indonesian traditional culture. This conformity encourages the Museum Nasional Indonesia to collaborate with the Saptawara Gamelan Ensemble. Every Thursday and Saturday, members of the community play gamelan in the Museum. Visitors who are exhausted after viewing the collections can rest in the Glass Room while enjoying *gamelan* playing. In addition, they can also try to play the instruments directly in this interactive site. This activity becomes livelier with the support of the instructor from the Saptawara Gamelan Ensemble. People from any background are allowed to join the practice or learn to play the *gamelan* free of

charge. Schools in Jakarta also regularly cooperate with the Museum to practice playing *gamelan*. Hopefully, this experience of playing *gamelan* becomes a memorable experience for the visitors.

Thus, research, communication, and preservation functions of the museum can be accomplished simultaneously. The gamelan can be preserved physically, while its inherent values can be conveyed to the community by means of public edutainment activity. The educational aspect of the gamelan is disseminated in an entertaining way. Meanwhile, the aspect of public involvement at the Museum Nasional Indonesia is also facilitated by the presence of a cultural community participating in museum activity. This community is engaged in reviving intangible values of the collections.

Constructing Cultural Identity

Magetsari (2016) wrote that in new museology theory, there is a shift of museum orientation, from its former focus on collections to now turning to society; this means that the interest of society becomes the focus. Collections are exhibited by highlighting the aspect of meaning to improve society's knowledge. In addition, they can cultivate identity and allow the society to revive their own cultural roots. Collections are a representation of identity (Magetsari 2016, 182–183). A similar opinion is also set forth by Levin as stated below:

> Museums are not only places to which something radical, even traumatic is currently happening. They are simultaneously participants and agents of change in the stressful shifting ecology of globalization that has unmoored whole economies, regions and populations. What they have to contribute to the establishment of a future equilibrium is their own identity as repositories and interpreters of the past. On the local level, they use their buildings and collections to negotiate their survival in the push and pull of donors, visitors, economic resources, and public and private tastes and needs. On the macro-level of world-wide change, they participate in tourism and educational markets, regional development, identity politics, and the electronic revolution. (Levin 2006, 31–35)

In a global community dominated by communication and information technology, which causes diminished limits of time and space, identity is required to reformulate and rediscover one's own history through a connection between the past and the present. Identity is also a representation of various characteristics and customs indicating the core of authenticity of both the individual and the group. In the context of museology, museums can create a method to rediscover their own, as well as the visitor's identity. As cultural heritage, museum collections – on an operational basis – instil patriotism-value through memory institutionalisation to be bequeathed to the next generations. The relevance for both tangible and intangible cultural heritage can be seen here. Essentially, the collections also function as the basis to develop an identity. This identity is expressed in order that the community realize and reinforce their identity. Further, they will have the confidence to develop themselves (Magetsari 2016, 182–183).

In relation to a postcolonial point of view, Marilena Alivizatou (2012) asserts her standpoint as follows:

> Intangible heritage has thus been related to a postcolonial reinvention of museum practice centred on providing a space for cross-cultural communication. This creates a new context for a museology that is not only about preservation of collections, but rather more ambitiously is also about the safeguarding of traditional knowledge and the expression of local identity. (Alivizatou 2012, 21)

The Museum Nasional Indonesia, once a part of colonial construction, underwent change following the independence of Indonesia. The Museum is managed as a part of an independent country with its new functions and responsibilities. In relation to music, Bohlman (2000) and O'Connell and Castelo-Branco (2010) stated that music can function as a means for articulating collective identity (Barendregt and Bogaerts 2016). Music can also contribute to sociocultural integration and reconciliation, and heal open old wounds (Alivizatou 2012, 21).

The Museum Nasional Indonesia is aware of the importance of constructing the identity of

national culture. Most collections at the Museum, including the gamelan collections, bear a traumatic past story related to Dutch colonialism. However, through the gamelan collections, such unpleasant experience can be turned into pride for Indonesian culture, nation, and country. The Gamelan is Indonesian musical instruments with sophisticated philosophy and values of virtue. It implies the value of togetherness as it cannot be played individually.

The diversity of Indonesian culture is also portrayed in the gamelan, which is comprised of various instruments. The taps of gamelan players playing with good coordination will result in harmony for anyone to enjoy. These values of cooperation and tolerance allow the gamelan to be appropriately acclaimed as one of pride and the cultural identity of Indonesia. Taking pride in the gamelan means pride in Indonesia. Currently, the gamelan is widely accepted by the international community. The Museum Nasional Indonesia plays important and strategic roles to introduce culture in its material forms to the community in order to make them understand the dynamics and diversity of their culture. An understanding of cultural diversity is crucial for Indonesia with its multi-ethnic population.

Conclusion

Through its public activity, the Museum Nasional Indonesia makes efforts to construct Indonesian cultural identity. This activity is directed by the vision of the museum, which highlights Indonesian culture. The society visiting the museum perceives pride in its own culture through experiential learning. The gamelan as a prominent work of art in Indonesia is made into an interactive site for museum visitors. By involving the cultural community, the Museum Nasional Indonesia revives the gamelan in the museum. As a zone of cultural contact, the Museum has a strategic role to reverberate the *gamelan* as Indonesian cultural identity on the international stage.

References

Alivizatou, Marilena. 2012. *Intangible Heritage and the Museum: New Perspectives on Cultural Preservation.* Walnut Creek, California: Left Coast Press.

Barendregt, Bart and Bogaerts, Els. Merenungkan Gema: Menyimak Warisan Musik Indonesia-Belanda. In: B. Barendregt and E. Bogaerts (eds.), *Merenungkan Gema Perjumpaan Musikal Indonesia-Belanda*, pp. 1–36.

Jakarta: KITLV Jakarta-Yayasan Pustaka Obor Indonesia, 2016.

Brinkgreve, Francine, et. al. 2010. *Kemegahan Emas di Museum Nasional Indonesia, Golden Splendour in the National Museum of Indonesia.* Jakarta: Duta Tiga Perkasa.

Hardiati, Endang Sri. 2005. Dari Bataviaasch Genootschap sampai Museum Nasional Indonesia. In: E. S. Hardiati and Pieter Ter Keurs (eds.), *Warisan Budaya Bersama.* Amsterdam, The Netherlands: KIT Publishers.

Haryono, Timbul. 2009. *Gamelan dalam Artefak Budaya Jawa.* Wacana. http://www.wacana.co/2009/01/gamelan-dalam-artefak-budaya-jawa/ (accessed May 19, 2019).

Levin, Miriam R. Museums as media in the emergent global context. *Curator: The Museum Journal* 49(2006): 31–35.

Magetsasi, Noerhadi. 2016. *Perspektif Arkeologi Masa Kini.* Jakarta: Kompas Media Nusantara.

Schocken, Hillel. 2006. Packaging the Evolving Museum. *Curator: The Museum Journal* 49(1): 12–15.

Suryabrata, Bernard. 1987. *The Island of Music: An Essay in Social Musicology.* Jakarta: Balai Pustaka.

Ter Keurs, Pieter. 2007. Introduction: Theory and Practice of Colonial Collecting. In Pieter Ter Keurs (ed.), *Colonial Collection Revisited.* Leiden: The Netherlands: CNWS Publications.

Van Mensch, Peter. 2003. *Museology and Management: Enemies or Friends? Current Tendencies in Theoretical Museum and Management in Europe.* Paper presented at 4th Annual Conference of the Japanese Museum Management Academy, Tokyo, Japan. https://www.scribd.com/document/47106692/Mensch-Museology-and-Management (accessed May 19, 2019).

Musical Instrument Collections of the Museum Nasional Indonesia: Interpretation and Presentation

Nusi Lisabilla Estudiantin
Museum Nasional Indonesia
Jakarta, Indonesia

Abstract

Indonesia is the largest archipelagic country in the world consisting of about 17,000 islands. In Indonesia there are hundreds of ethnic groups with different customs and cultures. Its strategic location between two continents (Asia and Australia) and two oceans (Indian Ocean and Pacific Ocean) meant that Indonesia has been passed and visited by foreign traders from all over the world. Long before the Indian and Chinese traders came to Indonesia and later came traders from the Middle East, Africa and Europe. The arrival of these traders indirectly affect the social, political, cultural and economic life of the local community. The mix of cultures could not be avoided, it enriches the local culture, including the arts.

Museum Nasional Indonesia is the largest and most comprehensive museum in Indonesia. The museum was founded in 1778, and was originally an independent institution founded for the purpose of advancing the research of the arts and sciences especially in the fields of biological sciences, physics, archaeology, literature, ethnology and history. Over time this institution changed its function into a museum. This museum stores various types of collections such as collections of prehistoric, classical periods (Hindu-Buddhist), Islamic period, colonial period, numismatic, ethnography and so on. Currently the Museum Nasional Indonesia stores about 2500 collections from various regions in Indonesia. Unfortunately not much information is revealed from the collections. For decades there has been no special curator for the collection of musical instruments. Noted names such as Jaap Kunst (1930s) and Karl Halusa (1960s) became unofficial curators of these musical instrument collections. Now it is a challenge for us to continue the research to reveal the information behind the collections of musical instruments and how to deliver the information and present it to the public.

Introduction

Indonesia is the largest archipelago in the world, consisting of more than 17,000 large and small islands. There are more than 400 ethnic groups inhabiting these islands. Each ethnic group has their own culture and customs. The location of Indonesia itself is very strategic, located between two continents, Asia and Australia, and located between two oceans, the Indian Ocean and Pacific Ocean. It means Indonesia is passed and visited by foreign traders from all over the world for over one thousand years. The arrival of traders from China, India, Persia (Iran), Spain, Portugal, England, the Netherlands, and countries in the Middle East to the archipelago has impacted the social and cultural life of local communities. The presence of foreign cultures was accepted with open arms and partly blended into the local culture to enrich Indonesian culture.

The cultural diversity and the influence of foreign cultures enriched the performing arts in Indonesia, especially the art of music. There are hundreds and possibly thousands of types of musical instruments in Indonesia. Some musical instruments have similar forms in some ethnic groups, but have different names, such as the mouth harp (jaw harp) whose existence is scattered in almost all parts of Indonesia, some names of mouth harp are *genggong, rinding, karinding awi*, *pepo*, *knobe oh*, *oil, hodong-hodong*, and others.

Music Art in Indonesian History

Indonesia has a very long history. The prehistoric period has passed for millions of years. The prehistoric life pattern was very simple, as well as the performing arts, especially the art of music. The types of sounds that existed were very simple and produced by certain movement of body parts such as whistling, clapping, shouting, and so on prior to the appearance of various types of musical instruments. The earliest forms of Indonesian performing arts were of indigenous origin; they were entirely religious and magical in nature, founded in practices of ancestor worship.

Archaeological remains associated with musical instruments from the prehistoric era are not numerous. Archaeologists refer to the kettledrum, which came from the Dongson culture in North Vietnam. The kettledrum with the four frog ornaments is associated with a rain-summoning ceremony, in which the player hits the flat surface of the kettledrum. Kettledrums were found in several parts of Indonesia, such as Sumatra, Java, Bali, West Nusa Tenggara, and East Nusa Tenggara. A huge sculpture of a megalithic statue depicts someone riding an elephant and carrying a kettledrum. Until now in East Nusa Tenggara, the small kettledrum or *moko* is still used in ceremonies and also serves as a dowry.

Figs. 1 and 2. Kettledrum and frog detail. (Photo: Nusi, L. E., 2017)

In the classical period (fifth – fifteenth century AD) or the Hindu and Buddhist kingdom period, the development of performing arts especially musical art was significant. This is evident from archaeological remains of the eighth century, as found in the reliefs of Borobudur temple in Central Java that depict street artists (singers) playing musical instruments, as well as images of noble figures enjoying musical performances. Several types of musical instruments were also depicted in the reliefs of Borobudur temple, including a drum, cymbal, transverse flute, gourd mouth-organs, bar zither, shell trumpet and a lute. Adjacent to the Borobudur temple, are the Prambanan temple, Sari temple, Panataran temple, and several other temples that have reliefs depicting figures playing a musical instrument.

However, the Indonesian archaeologist M. Dwi Cahyono states that although the stories visualized in the relief are not necessarily real scenes in the world at that time, the objects used by the figures in the reliefs are likely factual. Thus, the temple relief deserves to be positioned as a material reference that reveals something that happened in the past; further, these conclusions can be used in a transformative way to realize various objects and practices in the present.[1] This can be seen in the depiction of the gourd mouth-organs in the temple reliefs, but for a long time, no one has encountered this instrument on the island of Java. Gourd mouth-organs can even be found in the western, eastern and northern parts of the island of Borneo (Kalimantan) among the Dayak ethnic groups. Similar mouth organs are also

Figs. 3 and 4. A relief of musicians playing drums at Prambanan Temple, Central Java. (Photo: Nusi L. E., 2017)

found in minority ethnic groups in South China and the Yunnan Provinces as well as in other Southeast Asian regions, such as Thailand, Vietnam, Laos, Cambodia, and Myanmar.

Some inscriptions and manuscripts include ancient Javanese and ancient Balinese languages, such as the inscriptions of the *Kuburan candi/Kamalagi* (821 CE), *Kwak I/Ngabean* inscriptions (879), and *Buwahan E* inscription (1191 CE), while others include excerpts from ancient manuscripts, such as the *Hariwangça* (1150 CE), *Bhāratayuddha* (1157 CE), *Smaradahana* (1210 CE), and *Nagarakretagama* (1365 CE). These inscriptions and manuscripts mention musical instruments, such as drums, cymbals, flutes, a gong, *kemanak, reyong,*[2] harp, zither, transverse flute, and end blown flute, as accompaniment for ceremonies, dances and other performing arts.

The arrival of traders from the Middle East and Persia also enriched the type of musical instruments in Indonesia, such as the tambourine, *rebab* (bowed lute), *and gambus or qanbus* (various kinds of lutes), are widespread in the coastal region that is thick with Malay culture. Europeans such as the Portuguese and the Dutch also carried a variety of musical instruments, such as brass instruments (trombone, piston trumpet), woodwinds (such as clarinet), violin, and accordion, that can be found in some ethnic groups in Indonesia.

The Collection of Musical Instruments at the Museum Nasional Indonesia

Museum Nasional Indonesia is the largest and most comprehensive museum in Indonesia. The museum is no longer young. It started when Dutch scientists and collectors of antiquities, who were interested in exploring the arts, archaeology, history, ethnography, biology, literature and so on, established the Royal Batavian Society of Art and Science (*Bataviaasch Genootschap van Kunsten en Wetenschappen*) on 24 April 1778.[3] The members of the institution also collected various cultural materials from some places in Indonesia.

One of the founders of this institution, R.C.M. Radermacher, donated a building for an office and stored research collections. In addition, there was a note mentioning that Radermacher himself donated a number of collections of books, manuscripts, musical instruments, and so on. Unfortunately, there is no explanation about the kind of musical instruments that were donated. Those musical instruments are considered the first musical instruments collected before this institution later became the Museum Nasional Indonesia.

For 240 years, the number of musical instrument collections managed by this museum is approximately 2,500 objects. Despite such a long period of time there are only two curators named who specifically dealt with the musical instrument collections: Jaap Kunst (early 1930s) and Karl Halusa (1936–1960). Yet, Kunst was not an official curator at the Royal Batavian Society of Art and Science. For more than 10 years, he lived in Indonesia (1919–1934). Kunst collected various types of musical instruments from various regions of Indonesia. He also made phonograph recordings with wax cylinders, LP records, and documented collections in glass slides and film. Kunst's legacy is very important, because culture has always been changing and Kunst's legacy can be a guideline for current and future ethnomusicological studies in Indonesia. His concern about the fate of Indonesian traditional music in the future inspired him to preserve musical arts and he deserves to be appreciated. There is a report that Kunst donated about one thousand musical instruments, one hundred wax cylinders, LP records and glass slides to the Royal Batavian Society of Art and Science before he left Indonesia in 1934; but unfortunately there was no description of the kind of musical instruments he donated. The search of the documents has been done at the Museum Nasional Indonesia and at the University of Amsterdam,[4] but further information has not been found yet and remains a mystery.

Interpretation: The Unlimited Effort

Among the 2,500 musical instruments managed by the Museum Nasional Indonesia, less than 30% are complemented with information about their meaning and function in the community. In fact, there were some musical instruments having no information, not even about their origin. After the curatorial decades of Karl Halusa, there was no curator of the instruments in the museum. In 2004 when we prepared for the exhibition of musical instruments "The Sound of Archipelago", we realized that, since Halusa, there had been no research or information added about the collection of musical instruments.

With limited human resources, we tried to study and interpret the collection. The only thing we could do was a literature review and correspondence with those having links to the collection of musical instruments, such as local ethnomusicologists, the Volkenkunde Museum in Leiden, Tropenmuseum in Amsterdam, the University of Amsterdam, and others. Questions about some of the musical instruments were finally answered, including the inventory code-number system, which we strongly assumed was made by Kunst. The explanation of the codes was just recently found, about 2007.[5] This discovery was certainly very helpful because information about a number of musical instruments was finally revealed, such as their origin and function in social and cultural life.

The Museum Nasional Indonesia annually participates in a joint exhibition with other provincial museums on various themes. Since 2011, the exhibition of traditional musical instruments has been held every year from museum to museum. Through these events, we have slowly gained additional new information related to our collection of musical instruments – a result of the efforts of our literature review and correspondences. Our participation at the joint exhibition has also encouraged the museum's curator to create informative and in-depth text narrations for the exhibited collection.

The efforts towards interpreting the musical instrument collection have been a long journey, giving new information. An interesting example is when we found some unique objects with unique names as well; another example: previously an object was labelled as a sharp weapon, but after doing more research, it is apparently part of a musical instrument played during

ceremonies for the beginning of the rice-planting and harvest time in the Bugis community from South Sulawesi. The instrument is played by the *Bissu*, the saint (priest) leading the ceremony. In addition, there are other musical instruments accompanying other ceremonies. (This instrument, like others, was stored in the storage room and not on display.) The *Bissu* could be an interesting case because it is considered half human and half god, and representing all existing genders. This information adds insight and knowledge for visitors about the collections as well as the cultural diversity in Indonesia.

Presentation: Creating Performing Stage for Musical Instruments

The various musical instruments in the Museum Nasional Indonesia have become the main asset for making musical-instrument exhibitions. While the unrevealed information of some collections is a challenge for curators, exhibition designers and educators have still been able to create fascinating and informative exhibitions.

A successful exhibition is a dream for all museums. Before creating an exhibition, other than doing a study of the collections, visitor studies should also be made beforehand, so that we can better understand the behaviour of visitors. Visitor behaviour can impact the design of an exhibition. Museums generally use several approaches so that the exhibition can be carried out as expected. Stephen Bitgood (1994) made several approaches in designing the exhibition:

1. The Subject-Matter Approach: the major emphases are in presenting complete and accurate information with less concern for how the message will be received by the exhibit's audience or for the aesthetic appeal of the presentation.
2. The Aesthetic approach: the major concern is in the aesthetic appeal of the presentation.
3. The Hedonistic Approach: the major concern is that the audience will have a good time. In this approach, the enjoyment or entertainment is the primary emphasis.
4. The Realistic Approach: the major focus is to create a stimulating, realistic experience.
5. The Hands-On Approach: exhibits are designed with the assumption that hands-on activities are inherently more effective that exhibits which require passive viewing.
6. The Social Facilitation Approach: exhibit designers attempt to produce exhibits allowing for and stimulating social interaction among visitor group members.
7. The Individual-Difference Approach: exhibit designers attempt to develop exhibits for an audience who differs on one or more characteristics.

Exhibition designers can use more than one approach, depending on the needs and mission of the exhibition.

The Museum Nasional Indonesia is currently creating a new storyline and a new look for its permanent exhibition. The above approaches can be implemented in the application of the new storyline of its permanent exhibition but a study must still be done. One of the galleries with the new storyline will be themed 'the heritage room for musical instruments'. The design of this exhibit has been made and is available to create an exhibit that is interactive for visitors. In the previous storyline, the musical instrument collections were displayed without any sound samples of the instruments even though the narratives were quite informative, but something was still missing because the core of the musical instrument is *sound*.

The new exhibition space will use vitrines (showcases) in accordance with the needs of the collection, and lighting that will be able to change the room atmosphere just like magic. The role of a scenographer is needed here to create the vitrine as the stage of these collections.

This gallery will also provide some musical instruments (not part of the collections) that can be played by the visitors. The interactive media and audio is a treat to entertain various types of visitors. Traditional musical instruments will also be showcased in this exhibition hall. This project will definitely require a long time of preparation.

Fig. 5. An example from the Musical Instruments Gallery. (Photo: Museum Nasional Indonesia)

Figs. 6 and 7. The visitor can play a *Fu* (traditional trumpet), and a *Tifa* (drum) from the Asmat ethnic group at Asmat Museum in Jakarta. (Photo: Nusi L. E., 2013)

Conclusions

It becomes a challenge to uncover the mystery of the musical instruments that are in front of us. It takes patience and commitment because it is not easy to uncover something that is quite deeply buried. However, our extensive efforts are expected not only to reveal mysteries, but also to preserve and even revive the tradition of playing musical instruments as has been done by our ancestors.

Through the research, literature review, correspondence with stakeholders, new networking with artists and related institutions, and also attendance at conferences – like what we are doing right now – is very helpful in adding information, knowledge and insight. Thus, we can do more to

uncover the mysteries of these instruments, and can communicate the information to the public. In order to recognize them in a deep way about their cultures, their traditions. At the same time, they are also expected to participate in preserving rare and historical musical instruments.

Notes

[1] Khasanah Musik Nusantara "Sound of Bharrabudur". Representasi Seni Musik Pada Relief Candi Borobudur dan Transformasinya: Waditra Berdawai pada Relief Mahakarmawibhangga. By M. Dwi Cahyono with JAPUNG Nusantara.

[2] *Kemanak* and *reyong* are local names for kinds of metal percussion instruments.

[3] At that time Indonesia was under Dutch colonial rule. The Dutch first came to Indonesia in 1595 for trading, but then they monopolized the spice trade of the archipelago, forced labour, forced cultivation, the obligation to pay taxes to the natives, political expansion and so on. In 1945 Indonesia proclaimed its independence.

[4] After leaving Indonesia in 1934, Jaap Kunst became a lecturer at the University of Amsterdam and as a curator at the Tropenmuseum.

[5] Jaap Kunst created a special inventory number for the collection of musical instruments. The inventory number is different from existing inventory number. This number is coded Roman numerals and alphabet A, B, C and D, such as: III D 12 (Flute), III refers to the place of origin, III for Sulawesi Island; D refers to the type of musical instrument, i.e. aerophone; and 12 is the serial number of the collections.

References

Bitgood, Stephen. 1994. Designing Effective Exhibits: Criteria for Success, Exhibit Design Approaches, and Research Stategies. *Visitor Behavior* 9(4): 4.

Direktori Seni Pertunjukan Tradisional. 1999. Jakarta: Masyarakat Seni Pertunjukan Indonesia and Art Line.

Estudiantin, Nusi Lisabilla. 2009. *Performing Arts in Sumatra. 'Sumatra: Crossroads of Cultures'.* Leiden: KITLV Press.

Estudiantin, Nusi Lisabilla. *Harmoni Dalam Keragaman Alat Musik Tradisional Nusantara*. Katalog Pameran Keragaman Alat Musik Tradisional Nusantara. Jakarta: Museum Nasional Indonesia.

Estudiantin, Nusi Lisabilla. 2011. *Chinese's Cultural Contribution in Indonesian Performing Art Development. The Catalog of Colour of Uniqueness Exhibition.* Collaboration: Museum Nasional Indonesia and Guangxi Museum of Nationalities of China. Jakarta: Museum Nasional Indonesia.

Ferdinandus, Pieter Eduard Johannes. *Alat Musik Jawa Kuno. Dissertation.* Jakarta: Yayasan Mahardhika.

Hastanto, Sri. 2005. *Musik Tradisi Nusantara (Musik-Musik yang Belum Banyak Dikenal).* Jakarta: Deputi Bidang Seni dan Film, Kementerian Kebudayaan dan Pariwisata.

Holt, Claire. 1999. *Melacak Jejak Perkembangan Seni Di Indonesia.* Translation of *Art in Indonesia, Continuities and Change.* (Ithaca: Cornell University Press, 1967). Masyarakat Seni Pertunjukan Indonesia. Bandung: Art Line.

Khasanah Musik Nusantara. "Sound of Bharrabudur". Representasi Seni Musik Pada Relief Candi Borobudur dan Transformasinya: Waditra Berdawai pada Relief Mahakarmawibhangga. By M. Dwi Cahyono with JAPUNG Nusantara.

Kunst, Jaap. 1931. *A Study on Papuan Music.* G. Kolff & Co. at Weltevreden, D. E. I.

Kunst, Jaap. 1968. *Hindu-Javanese Musical Instruments*. The Hague-Martinus Nijhoff.

Kunst, Jaap. 1973. *Music in Java: It's History, It's Theory and It's technique*. Heins, E. L., ed. The Hague: Martinus Nijhoff.

Kunst, Jaap, et. al. 1994. *Indonesian Music and Dance: Traditional Music and Its Interaction with the West*. Amsterdam: Royal Tropical Institute/Tropenmuseum.

Lathief, Halilintar and Niniek Sumiani H. L. 1999. *Pustaka Wisata Budaya: Tari Daerah Bugis.* Jakarta: Proyek.

De Musicologische Verzameling (Jaarboek). 1938. Bandoeng: A.C. Nix & Co.

Pengembangan Media Kebudayaan, Direktorat Jenderal Kebudayaan, Departemen Pendidikan dan Kebudayaan. Nakagawa, Shin. 2000. *Musik dan Kosmos "Sebuah Pengantar Etnomusikologi".* Jakarta: Yayasan Obor.

Pameran Nasional Alat Musik Tradisional Nusantara 2017: Sounding the Diverse Collectivities. 2017. Yogyakarta: Museum Sonobudoyo.

Soedarsono, R. M. 2002. *Seni Pertunjukan Indonesia Di Era Globalisasi.* Yogyakarta: Gadjah Mada University Press.

Taylor, Eric. 1990. *Musical Instruments of South East Asia.* Singapore: Oxford University Press.

Function of Music and Musical Instruments of Zambia

Esther Kabalanyana Banda
Lusaka National Museum
Lusaka, Zambia

Abstract

In Zambia as elsewhere in the world, music has had an important role to play in the lives of many people as it has made many of life's woes endurable. Apart from its soothing role on the people, music often carries messages which, though satirical in expression, have a moralizing influence on society. It has been argued that music has a humanising influence on people in that it helps them appreciate other people's problems. In countries with "high cultures" such as the west, music has reached such levels of development to match intellectual achievements. Its aesthetic appreciation stimulates and enthrals the lives of many people. For Zambia, indigenous traditional music styles have significantly contributed to shaping the country's popular music landscape and clearly influence the creativity of contemporary musicians. It has remained both traditional as well as adapting to the changing times. Because of the high level of practical community participation, music has been a legitimate way of looking at the people of Zambia in that music activities are functional and an integral part of everyday personal, religious, social, political and economic life.

In this paper therefore, the writer will discuss the traditional uses of music and musical instruments and show the role played by museums in the preservation and management of traditional uses of music. Museums are important spaces for raising awareness and for information dissemination as custodians of tangible and intangible movable heritage through exhibitions. As custodians of the country's rich diverse cultural heritage, Museums make connections between people of different cultures through their collections. This way, people are able to appreciate each other's cultures thereby enhancing mutual respect and understanding. Museums assist future generations to understand and appreciate their history and culture and take pride in the achievements of their fore-bearers.

Introduction

In the traditional society in Zambia like in most African societies, music is a product that has evolved through a process of oral transmission. It is vocal and carefully developed over centuries and the factors that shape the tradition of music are among others, continuity which links the present with the past, variations which spring from the creative individual or the group, and selection by the community which determines the form or forms in which the music survives.

In Zambia, singers have composed music purely out of natural instinct. As a result, the music is impulsive and unpolluted. The folksong for instance, composes itself, and it is composed by the individual who is a folk product. According to Banda (2018) the idioms are taken off the tongue of the people and the subjects are the things which make for the joy and sorrows of the people. In this regard, the Zambian traditional songs grow straight out of the needs of the people and the people themselves find a fit and perfect form for satisfying these needs.

Furthermore, Zambian music like any other has always been authentic and true because instinct has been the people's only guide and desire for self-expression of their motives. However, in as much as what culture a people are a part of, one thing for sure is that music will change, but even though change is inevitable, the past should also be valued and well-preserved.

The role of Traditional music

Music is always a message carrier on the way of life of the people. In Zambia too, it serves different functions in the communities, be it educational, entertainment, moralizing, reminders, therapeutic, and/or communication. Besides other inputs, different musical instruments are also used to fine-tune a given piece of music. The more available and environmentally friendly music is produced, the better for the local people and the world at large.

Furthermore, as music is generally organised as a social event, musical activities belong to the community as a whole. As such, it has been and is always on hand to break the monotony of the simple traditional life.

Fig. 1. Women doing different household chores.

There are special dances and corresponding songs for every occasion like when playing, farming, martial rituals and in other circumstances; gender, and even age groups and through song and dance, messages are conveyed to the intended target group.

In the past and even now, music is used and serves traditional ceremonies. These ceremonies are many and have continued being important events on the cultural calendar of Zambia. This is because traditional ceremonies are an integral part of the oral traditions, folklore and culture of the nation passed on from generation to generation. In the case of initiation ceremonies for boys and girls for instance, the singing was both to entertain and to advice those that were just maturing on how to conduct themselves as adults. After confinement for a certain period of time, members of the community gather to witness their release from exclusion for those and this is usually accompanied by music and dance.

Fig. 2. Young boy initiates being taught skills.

Fig. 3. Release of a girl initiate to the public.

The factors that shape the tradition of music are among others, continuity which links the present with the past, variations which spring from the creative individual or the group, and selection by the community which determines the form or forms in which the music survives.

During recreational activities, such as children's play songs, beer parties, hunting, and story songs, just to mention a few, the role of music is to offer entertainment, enjoyment, praises, or recognition in society. One should not forget the use of music by women pounding maize or

groundnuts in a mortar, or melancholy songs about a husband who has been away from home for some time. Then there is that music which livens up beer parties in villages.

Over and above, music helps to foster unity and solidarity among all those who are fighting for a common cause and the impact of such songs are tremendous. There is therefore no question about the important functions of music in our society. It has remained both traditional as well as adapting to the changing times. Without it, man's life would be boring. Indeed music is food to the soul. Therefore as long as man lives, music is and will always be a part of our everyday life.

Fig. 4. March in the past.

Fig. 5. Playing games.

A glimpse through our cultural diversity

As it has been noted, music plays an important role in the life of the people. Traditional Zambian music is rooted in the beliefs and cultural practices of the various ethnic groups, for instance, the Insimba dance, a unique dance mostly showing the swaying of shoulders and *Vingwengwe*, a set of musical instruments comprised of a clay pot and a wooden stool. This musical instrument is usually played by women during traditional ceremonies such as the Mutomolo Ceremony – the tasting of the first crops among the Mambwe and Lungu people of Mbala and Mpulungu districts in the northern part of Zambia. In this instance, music was and is used to make people pay tribute to their chief. The music is also used to reaffirm the bonds of clanship between them and their ancestors like in other tribal ceremonies for instance the Umutomboko ceremony of the Lunda in the northwestern part of Zambia.

Vingwengwe is also played during weddings, independence celebrations, beer parties and even when performing daily chores. This is also accompanied by singing and dancing. This instrument can also be used when welcoming visitors such as other chiefs, government officials, etc. It is used during different occasions to entertain the people. As the Mambwe-Lungu are a musical people, the *Vingwengwe* musical instrument still plays an integral part in spicing their festivals with music.

Fig. 6. The *Maoma* drums. (Courtesy: Ian Murphy)

Similarly, music was used to mobilize the masses. During the Kuomboka ceremony practiced by the Lozi of Western Zambia, the Litunga, i.e. the King, moves from the Barotse flooded plain palace to a safer place in Limulunga on the upper banks of the Zambezi river. The spectacle journey is brought to life with music assisted by the Maoma drums. The *Maoma* drums are played to inform people that the day is set for *Kuomboka* – to come out of the water and also played to summon paddlers for the long journey. The *Maoma* drums also serve to authenticate the Litunga's authority.

Other festivals include the *Nc'wala* of the Ngoni of Eastern Province of Zambia in which King Mpezeni and his people celebrate the "first fruits", the Ila of Namwala in Southern Province with their *Shimunenga* festival in which they sing and dance in praise of themselves as good hunters.

Fig. 7. Women playing the *Vingwengwe*.

Where there is drumming indeed there is dancing. *Nsongwe* dance is one such example performed by the Nsenga ethnic group of Petauke district, Eastern Province of Zambia. It is the epitome of their cultural identity. For generations, Nsongwe has become an institution by itself. From it, we have strong dances like *Ndendeule*, *Dhidika, Mnilitili, Bwanyansa, Chiwela, Kamchoma, Kafyula, Chitele* and *Byototo,* etc. In its original form as a women's dance, it is performed by women who have been initiated in a secret-society cult, whose objective is to preserve and uphold the Nsenga culture of *visiyilano* a heritage strongly preserved and controlled by women as a core focal point of family life.

The dance is satirical in both physical execution and expression. It is highly technical – it could be equated to European ballet of western modern dance in variation of movement styles. The dance is performed to the accompaniment of a musical ensemble consisting of vocals, handclapping and a highly pitched percussion of five African drums, the master drum is double sealed and is called *Fuluma*. The dancers are the singers by themselves. The dance is performed in a circle formation.

The costume is made of cloth material designed of the Victorian style blouse, wrapper skirts and a waistpiece wrapped around the waist, together worn with beads called *Ngumbi*. The dancers adorn a headgear made of Zebra skin called *Mibebe*. The dancers also carry fly whisks in their hands as they dance. This dance uses iconic symbols called *vilengo* to express the emphasis of life. These same dancers are called *Apungu*, translated as "teachers", because of the nature of the social-initiation responsibilities they hold for the girl-child who reaches puberty in society. According to Zulu and *Mbaya* (2016) puberty is a very important rite of passage for girls in many African cultures.

In conclusion, there is no question about the important functions of music in our society. In spite of the decline of traditional music and dramatic social changes, its influences can still be heard in many of today's rural communities in Zambia who have maintained their traditional musical forms.

Through music Zambians have articulated their hopes, intentions, fancies or fantasies. Indigenous traditional music styles have significantly contributed to shaping the country's popular music landscape and have clearly influenced the creativity of contemporary musicians.

Just like in olden days, music is still a means of communication, hence, making it an important media through which culture is transmitted from one generation to another; and most of the traditional songs, dancing and instruments have been kept alive by annual traditional ceremonies.

References

Banda, P. 2018. Consultant, Kwatemba Traditional Ensemble [Oral interviews].

Mwesa John A. E. 1990. 'Meaningful Adjudication of Music and Dance', Training Workshop in Adjudication. University of Zambia, 31 August – 2 October . [Unpublished paper].

Zulu, W. and Mbaya, H. 2016. Some missiological imperatives of the christianisation of Cinamwali as Cilangizo in the Reformed Church in Zambia. *Studia Historiae Ecclesiasticae* 42(3): 78–190. doi:10.17159/2412-4265/2017/2066.

A Reconstruction Study on the Finishing Layer of a Seventeenth-Century Double Bass

Chae Hoon Lee*, Seung Hwan Yoo**, Yong Jae Chung*
Korea National University of Cultural Heritage, Chungcheongnam-do, Korea*
Korea String Instrument Makers Association**

Abstract

The general idea of restoration is to recover an object from the damage of physical, chemical and biological effects. However, in instrument restoration we have to think about the restoration of the function with the shape, meaning that the restored instrument should be playable. Factors affecting an instrument's function include: wood species, varnishes used for finishing, materials, and adhesives, etc. According to the used materials, not only the shape but also the sound, vibration, and tone are different. So when conserving and restoring a musical instrument, we have to consider the manufacturing techniques as well as the materials. In this study we recreated the manufacturing techniques and then analyzed a seenteenth-century violin scientifically by using ultraviolet camera, microscope, FTIR, and SEM/EDS. Using these results we restored the violin, through which we tried to reproduce the morphological, functional, and material object – the violin. We hope to apply this method in various contexts, such as the museum.

Introduction

Musical instruments are tools for expressing music, and they are classified into three categories: stringed, wind, and percussion instruments. Among them, stringed instruments produce sound by eradiating the vibration through a resonating chamber: the instrument sounds are made by merging the vibrating sound of the lower and upper plates inside the chamber and then releasing through the soundhole.

Depending on the storage environment and time elapsing, wood is apt to have physical damages like scratches, cracks, cleaving, and bending, chemical damages like acid, alkali, and discoloration by pollutants in the air, and biological damages such as microorganisms and insects. Also the varnish covering the surface of wood, depending on the storage environment, is subject to cracking, peeling, discoloration and other damages. Consequently, due to various environmental factors, sound, vibration, and tone, which are the key elements of the musical instrument, as well as appearance, are changed. Moreover, depending on thinners and painting techniques, the varnish used as a finishing touch for musical instruments influences the tone and protects the surface of the instruments. However, the mixing ratios and painting techniques of the varnish are inherited only by certain manufacturers. So it is not clearly known what materials are used and how they are made.

Previous researches have evaluated varnish layers by using FTIR, SEM-EDS, and GC/MS and the numbers of varnish applications were observed in the microscopic structure. However, these researches mainly focused on the materials consisting of the musical instruments and only a few researches examined characteristics of the varnishing layer by reproducing the production technique. Therefore, this study aims to identify the manufacturing techniques of the finishing layer used for musical instruments, and their characteristics by fabricating western stringed instruments and reproducing varnishing based on the material analysis results of a seventeenth-century musical-instrument by Giovanni Paolo Maggini.

Materials and Methods

1. Materials

The musical instrument used for this study was a double bass made by Giovanni Paolo Maggini (1580–1630), an Italian musical-instrument maker. Seven samples were obtained from the bass rib and these samples were obtained while repairing the musical instrument at the Korean Stringed Instrument Makers Association. Giovanni Paolo Maggini is a disciple of the Italian craftsman Gasparo da Salo (1540–1609) who may have established the original form of the violin. He developed the usage of six wooden blocks, which support the fixture of the ribs while fabricating a stringed instrument (Fig. 1).

*MG: Giovanni Paolo Maggini.

Fig. 1. Species of Giovanni Paolo Maggini double-bass rib.

2. Methods

2.1. Identification of Samples

In order to identify the samples used for the rib of the instrument, three cross-sections of the samples were hand-sectioned using a razor blade. The cells were stained with 1% of Safranine, loaded on a slide glass, and mounted by dropping 50μl of glycerin solution (Glycerine: Distilled water = 1 : 1). Cell shape and arrangement of wood tissue were observed with an optical microscope (SMZ-18, Nikon, Japan). The species was identified by comparing the features listed in 'Identification of wood tissue' and 'IAWA List of Microscopic features for hardwood identification with an appendix on non-anatomical information'.

2.2. Stereomicroscopic observation and UV imaging

The number and thickness of the varnish layer were evaluated using a stereomicroscope (SMZ-18, Nikon, Japan). Among the plane and cross-sections of 1cm (width) x 1cm (length) samples, I observed the varnishing layer clearly shown part only. UV imaging (360nm) was also taken in a darkroom to identify the attached materials in addition to varnish.

2.3. Infrared Spectroscopic and Chemical Composition Analysis

I aimed to identify the materials used for the varnishing layer. To identify the components of materials, I compared the samples and 17 standard samples (Table 1). Standard samples were categorized into an oil type, resin type, pigment type, and alcohol type. FT-IR Spectroscopy

(Alpha, Bruker, Germany), a structural analysis, was performed 24 times at a resolution of 4cm-1 and a measurement range of 400 to 4000cm-1 under an attenuated total reflection (ATR) condition. The results were compared with the sample. The chemical components of the samples were detected in the energy range of 20keV.

Table 1. Standard samples

No.	Classification	Standard species
1	Oil	Turpentine oil, Linseed oil, Frankincense oil, Poppy oil, Castor oil
2	Resin	Mastic, Colophony, Gamboge, Sandarac, Gum-lac
3	Pigment	Mordant, Sandalwood powder, Mahogany, Sandalwood
4	Alcohol	Benzyl alcohol, Ethyl alcohol, Methyl alcohol

2.4. Fabrication of the Musical Instrument

Musical instrument fabrication was carried out in the order of drawing, woodworking, bonding, painting, and drying. This fabrication was carried out to reproduce the varnishing layer and a design drawing of Antonio Stradivarius (1644–1737) was used for the instrument body. After drawing the design on the acrylic plate, the outline was removed using a chisel (Fig. 2). The prepared acrylic plates included the form, six wooden blocks, top plate, back plate, rib, neck,

Fig. 2. Outline of template.

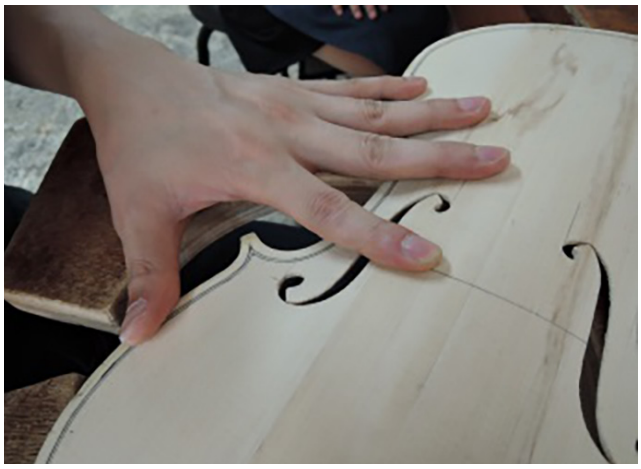


Fig. 3. Wood processing.

Fig. 4. Attaching and drying.

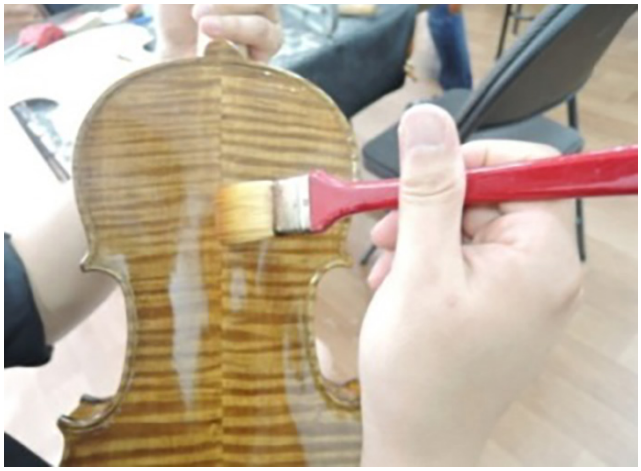


Fig. 5. Varnishing.

sound post, and bass bar. The outlines were drawn on wooden plates using the acrylic plates; the wood was processed by using an electric fretsaw, chisels, planes, round carving knives, and finger planes (Fig. 3). As the sound post and bass bar are important elements determining the sound of instrument, they were processed with checking the tensions of the front and back plates. After processing the shape of structures, all the parts were glued and dried (Fig. 4). Dried instrument structure was varnished and dried again in a sunny place (Fig. 5). The wood for the ribs was determined based on the identification of samples result and the surface of varnish was prepared by the paint, which was prepared according to the results of FT-IR analysis and SEM-EDS analysis. Fabrication was conducted from March 2017 to March 2018.

Results

1. Identification of Species

It was diffuse-porous wood with having conduits across the year rings and pores in similar size on the transverse section. Moreover, the xylem ray on the radial section is composed of procumbent ray cells and spiral cell wall thickening was observed. Therefore, the wood sample was identified as *Acer* spp. (Figs. 6-8).

Fig. 6. Transfer section (x40).

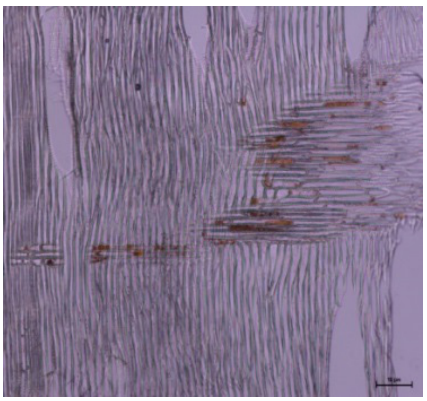


Fig. 7. Radial section (x100).

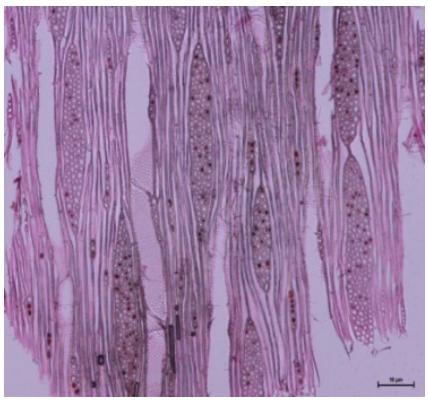


Fig. 8. Tangential section (x100).

2. Stereomicroscopic observation and UV imaging

Brown, light brown, and yellow colours were observed in varnishing layer. In MG1-A and B, a brown layer was observed where the yellow varnish layer was peeled off (Fig. 9). The results of UV observation revealed that other adhesion materials such as white, brown, and yellow colours were observed (Fig. 10). The results of cross-section observation revealed that the first ground varnish was completed first and the surface of it was roughed. Thereafter, the second and third layers of varnish were applied. The thickness of the first and third layers was approximately 1-2μm, while that of the second layer was approximately 3μm (Fig 11).

3. Infrared Spectroscopic and Chemical Composition Analysis

In the varnishing layer analysis, oil, resin, pigment, and alcohol types showed similar wavelength peak values (Table 2). It was found that the stretching vibration values of O-H, C-H, C=O, and C-O were 3900-3500cm-1, 2916-2917cm-1, 1740-1710cm-1 and 1375-1029cm-1. When the wavelength values of the standard samples and that of the sample were compared, a functional group and similar peak values of the resin and alcohol types of the standard samples were found (Figs. 12, 13). Among tested resins, gum-lac which was the most similar peak values to the sample showed peaks at 2917cm-1, 2848cm-1, 1706cm-1, 1636cm-1, 1575cm-1, 1245cm-1, 1148cm-1, 1029cm-1, 780cm-1, 720cm-1, 646cm-1, 595cm-1, and 518cm-1. The chemical composition analysis of the sample showed that it had C, O, Na, Cl, and S (Fig. 14).

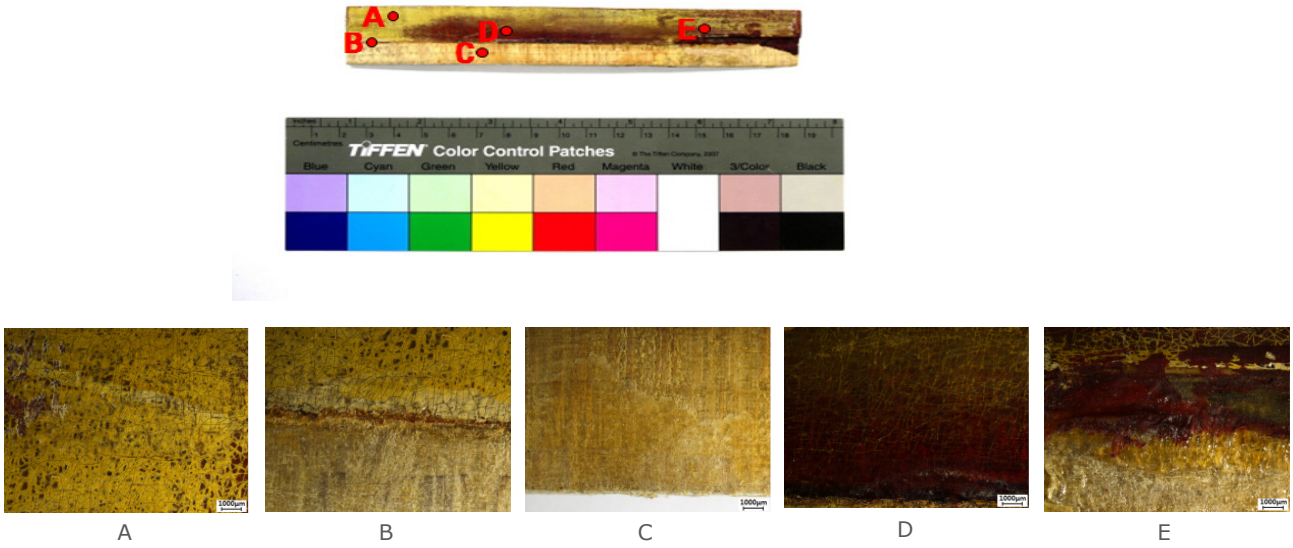


Fig. 9. Observed point and observing by stereoscopic microscope MG1 sample.

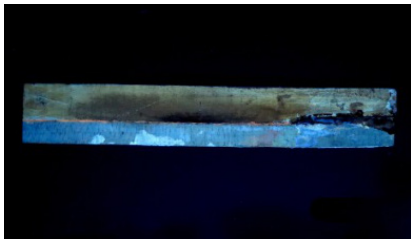


Fig. 10. UV imaging.

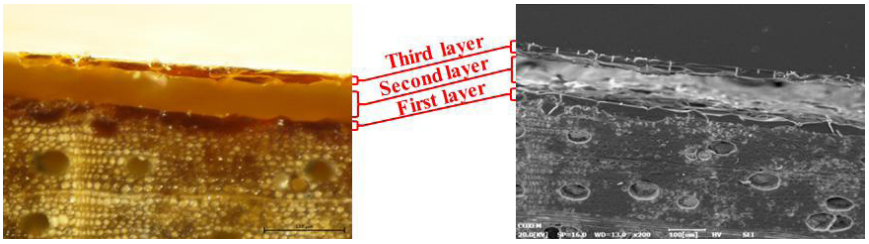


Fig. 11. Observing by Stereoscopic microscope and SEM (x200).

Table 2. Standard species structure

Classification	Wavelength(cm-1)	Functional group
Oil	2917, 2848	C-H stretching
	719	C-H bending
Resin	3337	O-H stretching
	2917, 2848	C-H stretching
	1706, 1540	C=O stretching
	1245, 1148, 1029	C-O stretching
Pigment	3337	O-H stretching
	1029	C-O stretching
Alcohol	3337	O-H stretching
	1376, 1029	C-O stretching

3.5. Fabrication of the Musical Instrument

The ribs of the violin were made with maple wood following the results of wood sample species. Based on the surface analysis, gum-lac was diluted in an alcohol solvent and applied on the instrument. The instrument was fabricated by using a drawing based on the size of the blueprint and by using fretsaws and chisels. In order to fabricate a complete violin, the frame, top plate, back plate, bass bar, sound post, neck, and ribs were processed and bonded using fret saws, chisels, squares, and hand planes. The glued musical instrument was varnished and dried at a temperature of 28 to 30°C and a relative humidity of 40 to 50%.

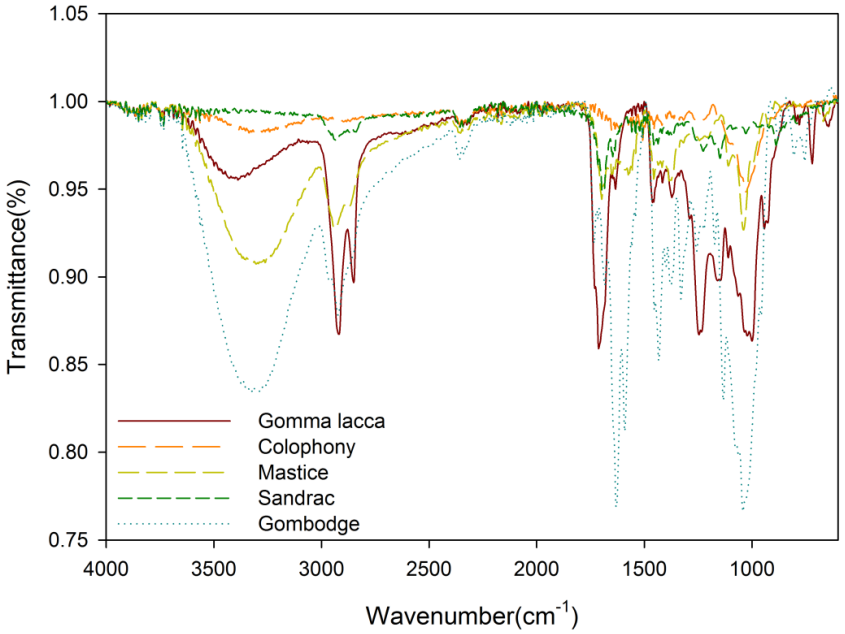


Fig. 12. Structure analysing of resin standard sample.

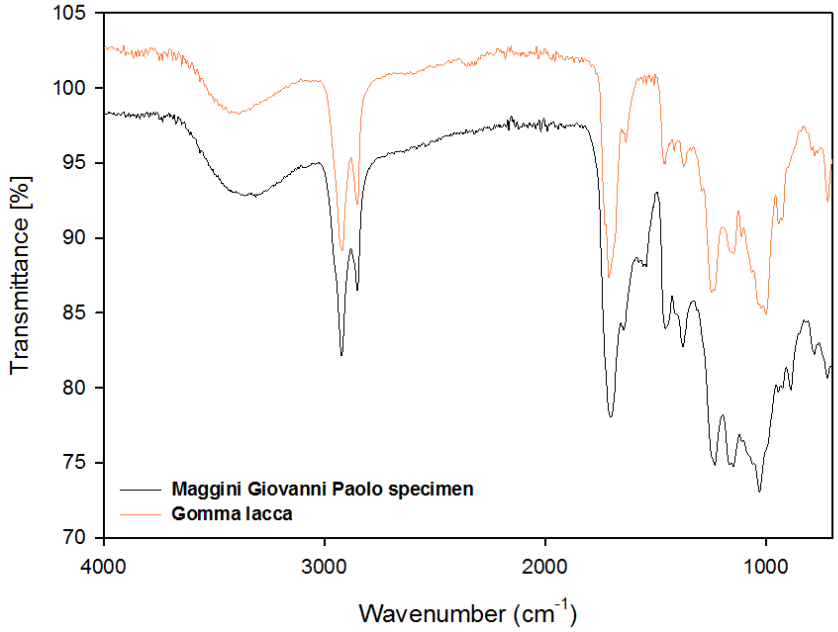
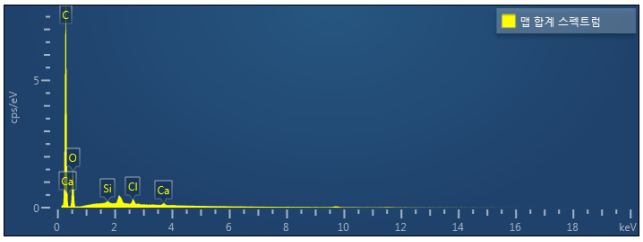


Fig. 13. Structure analysing of sample and gum-lac.



Component	Wt. (%)	At (%)
C	66.34	74.79
O	29.19	24.71
Cl	0.34	0.13
Ca	0.15	0.05
Si	0.12	0.06
	96.14	99.74

Fig. 14. Analysing composition and mapping.

Discussion and Conclusions

This study analysed the varnishing layers and identified wood species using the rib of a musical instrument made by Giovanni Paolo Maggini in order to understand the materials and fabrication techniques. It was found that the rib was made of maple wood and the qualitative analysis revealed that the most similar standard resin sample was Gum-lac. By the surface observation, we found it was layered three times and the last varnishing layer was gum-lac diluted in alcohol varnish.

The maple wood is hard and has a beautiful pattern, so the wood is commonly used for making the ribs of the Western string instruments from past to present. Generally, varnish used for finishing Western musical instruments is prepared by mixing solvent, resin, and pigments. On the varnishing techniques, it is classified into alcohol varnish and oil varnish. The alcohol varnish method dilutes other materials with alcohol as a main solvent and applies varnish up to 25 times. As the number of applications increases, the pattern of wood appears clearer and more transparent. On the contrary, oil varnish darkens the colour when it is applied three or four times, showing a turbid colour, and the pattern of the wood is not revealed. Moreover, modern stringed instruments are finished by diluting Shellac resin, which is the processed secretion of Laccifera Lacca. This technique was also used for the old musical instruments. Therefore, we concluded that the surface of the sample was finished by mixing gum-lac resin with alcohol as a main solvent. Additionally, the observation of the cross-section observation indicated that the second varnishing layer was approximately three times thicker than the first and the last layers. According to the results of previous researches, the second layer is finished by oil varnish and it is clearly distinguished from the alcohol varnish of the last layer. Furthermore, the results of SEM-EDS analysis revealed that it had C and O which are components detected only in the organic materials. This indicated that inorganic materials were not added to the varnish.

The old instruments fabricated before the nineteenth century were basically varnished one to three times. After the nineteenth century, reworking and revarnishing works were popular in order to preserve or alter musical instruments. The number of varnish applications is different between before and after the nineteenth century. The sample had three layers of alcohol varnish. Therefore, it was believed that it was made before the nineteenth century.

This study could identify the basic materials used for finishing the musical instrument made by Giovanni Paolo Maggini. Additionally, it was possible to estimate when the instrument was made based on the number of varnish applications. The varnish layers of the instrument were reproduced based on the analysis results. We applied three layers of varnish to the reconstructed violin. The first and last layers were alcohol varnish made by mixing alcohol and gum-lac, while the second varnishing layer was oil varnish made by mixing oil with resin.

It was possible to understand the finishing characteristics of the maker better by conducting a reconstruction study based on the results of the scientific material analysis. Now I am planning to conduct further studies based on this study for evaluating the changes in the varnishing layers of musical instruments according to the environmental conditions. The results of this study are expected to be useful as the baseline data for musical-instrument preservation treatment in the aspects of material science and finishing-layer reconstruction study.

References

Bertrand, Loïc, et al. 2011. Identification of the finishing technique of an early eighteenth-century musical instrument using FT-IR spectromicroscopy. *Anal. Bioanal. Chem*. 399(9): 3025–3032. doi: 10.1007/s00216-010-4288-1.

Bucur, Voichita. 2016. *Handbook of Materials for String Musical Instrument*. Springer International [Online]: DOI 10.1007/978-3-319-32080-9_0.

Jae, Chung Yong. 2016. [Biology for cultural heritage]. Mainstream.

Échard, Jean-Philippe, et al. 2009. The Nature of the Extraordinary Finish of Stradivari's Instrument. *Angewandte Chemie* 49(1): 197–201.

Fichera, G. V., Rovetta, T.; Fiocco, G.; et al. 2018. Elementary analysis as statistical preliminary study of historical musical instruments. *Microchemical Journal* 137: 309–317.

Hahn, Kyungshin. 2012. A study on the Korean Music Schedules of KDC [Korean Decimal Classification]. *Journal of Korean library and information science society* 43(4): 297–316.

Jin, Park Sang. 2006. [*Identification of wood tissue]*. Hyangmunsa.

Michelman, Joseph. 1946. *Violin Varnish*. Cincinnati: Joseph Michelman.

Oey, Mary. 2006. *Some Problems in musical conservation in museum collections.* Paper presented at the Association of North American Graduate Programs in Conservation (ANAGPIC) Conference. ANAGPIC [Online]: http://29aqcgc1xnh17fykn459grmc-wpengine.netdna-ssl.com/anagpic-student-papers/wp-content/uploads/sites/11/2020/04/2006ANAGPIC_Oey.pdf (accessed April 11, 2021).

Rowell, Roger M. 2013. *Handbook of wood chemistry and wood composites.* CRC Press [Online]: DOI 10.1201%2Fb12487.

Sik, Choi Seung. 2010. *The value of a violin (Korean edition).* Eastern Light.

Tai, Bruce H. 2007. Stradivari's Varnish a Review of Scientific Findings, Part I. *J. Violin Soc. Am*.

Tai, Bruce H. 2009. Stradivari's Varnish a Review of Scientific Findings, Part II. *J. Violin Soc. Am*.

Wheeler, E. A.; Bass, P.; and Gasson, P. E. 2007. *IAWA list of microscopic features for hardwood identification with an appendix on non-anatomical information, IAWA Journal* 10: 219–332.

Yanagida, Masuzoe . 2018. [*The Science of Musical Instruments*]. Bonus.

Conservator vs. Fiddle Maker: Repair and Sound Improvement Practices on Norwegian Hardanger Fiddles in Past and Present

Wiebke Lüders
Ole Bull Academy
Voss, Norway

Abstract

Norwegian Hardanger fiddles have been made at least since the seventeenth century. As long as they have been built, they have also been modified. An original and unspoiled state has hardly ever been an important aspect of a Hardanger fiddle throughout the centuries. Apart from general repair work, fiddle makers and repairers have always been trying to increase the sound quality of mediocre Hardanger fiddles.

Those sound improvement measures are still carried out today by present Hardanger fiddle makers in Norway. Fiddles of the earlier type are increasingly regarded as an important part of Norway's cultural heritage and can often be found in museums. They are usually treated according to current museum standards and are rarely played. However, younger Hardanger fiddles, made around 1900 and in the first half of the twentieth century by renowned fiddle makers, such as Olav G. Helland or Gunnar M.A. Røstad, are rather often subject to sound improvement practices. These fiddle makers built Hardanger fiddles of excellent quality and their fiddles are amongst the most highly priced instruments on the Hardanger fiddle market, which is why some of them are presently regarded as the Stradivaris among the Hardanger fiddles.

Since I started to work as a conservator, repairer and maker of Hardanger fiddles at the Hardanger fiddle workshop of the Ole Bull Academy in Voss, I have been wondering, in which way current Hardanger fiddle makers, including myself, had a legitimation to interfere so severely with the originality of those valuable musical instruments. Are we changing history or are we simply a part of a living tradition?

Hardanger fiddles have been made in Norway at least since the seventeenth century. They reached their first heyday in the eighteenth century and blossomed again in the first half of the twentieth century. As long as Hardanger fiddles have been built they have also been modified for several reasons.

An original and unspoiled state has hardly ever been an important aspect of a Hardanger fiddle throughout the centuries. Apart from general maintenance and repair work, fiddle makers and repairers have always tried to increase the sound quality of mediocre Hardanger fiddles. Those sound improvement measures are still carried out today by present Hardanger fiddle makers in Norway.

Early Hardanger fiddles are increasingly regarded as an important part of Norway's cultural heritage and can often be found in museums, where they are preserved according to current museum standards. However, younger Hardanger fiddles in private ownership, made around 1900 and in the first half of the twentieth century by renowned fiddle makers, such as Olaf G. Helland (1875–1946), Gunnar M.A. Røstad (1874–1947), Erik Johnsen Helland (1816–1886), Knut Ellefsen Steinkjønndalen (1850–1902) or Anders Aasen (1909–1986), are occasionally subject to profound sound improvement practices. These fiddle makers built Hardanger fiddles of excellent quality and their instruments have often been copied by later fiddle makers until the present day, as are violins by Stradivari or Guarneri by modern day violin makers. The tone colour that those fiddles produce is still what most of the current Hardanger fiddle players

are looking for and they are amongst the most highly priced instruments on the Hardanger fiddle market. They can therefore be regarded as the Stradivaris of the Hardanger fiddles.

Maintenance and sound improvement practices

In the course of general repair work fingerboards and tailpieces, whose inlays of bone, mother of pearl, or horn have been lost, either received new pieces of inlay or were altogether replaced by new fingerboards or tailpieces with different patterns. Many of the older Hardanger fiddles have a thin sheet of nickel silver, horn or wood glued on top of the original fingerboard, covering only those areas, which were abraded by playing (Hardanger fiddles are almost only played in first position).

Early Hardanger fiddles of the seventeenth and eighteenth centuries have been built with a relatively unstable neck construction, which caused the neck to move upwards due to the string tension. To correct the angle of the neck and fingerboard and thereby keep those distorted Hardanger fiddles in a playing condition, later repairers used to glue a wedge between the neck and the bottom tongue and often between the neck and the fingerboard as well.

A simple and almost non-intrusive way to improve the sound of a Hardanger fiddle is to change the strings, the bridge or the sound post of the instruments.

If early fiddles are used for playing in concerts, they usually receive a modern bridge and modern stringing. The original bridges used to have a sheet of metal with sawtooth-like spikes inserted in the middle. In this way the sympathetic strings, running under the fingerboard, could be moved up or down in case the angle of the neck has changed due to the string tension. By moving the strings a sawtooth down, unwanted contact between strings and fingerboard could be avoided. Since the metal piece in the middle of the bridge is usually causing a damped and rather unpleasant sound in the ears of a modern audience, the original bridges are often replaced. The rather weak sound of the original gut stringing is not very much desired by modern day fiddle players either, which is why early Hardanger fiddles are often strung with modern strings (but sometimes with a traditional E-string made of gut instead of steel). The resulting sound has the distinctive timbre of the early fiddles combined with the strength and volume of a more modern Hardanger fiddle.

However, most enthusiasts, who are interested in the early fiddle type, own modern copies, which they are using for playing, so that they don't need to play on originals. Since there are very few fiddlers, who prefer playing on original early Hardanger fiddles, there is barely a need to modify or upgrade those early fiddles.

Regarding modern Hardanger fiddles the situation is quite different. More serious sound improvement practices, which are currently carried out on modern fiddles, include the reinforcement of a very thin top or bottom with wood, making a new bass bar or removing material from a top or a bottom that is considered too thick. It is widely believed that by carrying out those measures one can largely improve the Hardanger fiddle’s dynamic qualities without losing any of its original timbre and sound quality. While some of these measures are reversible, others involve the irreversible destruction of original material.

Some of the renowned later fiddle makers were experimenting a lot with different forms and material thicknesses and have as a result also made several fiddles of average or lower quality. However, those fiddles frequently have a lot of potential and with some smaller or bigger interventions it is possible to convert a Beetle into a Ferrari.

Hardanger fiddles made by Olaf G. Helland at the beginning of his career are for instance not quite as good as his later ones. From his father Gunnar Helland (1852–1937) he had adopted some ideas that were not particularly advantageous. He believed that the sound of a fiddle depended almost only on the top and that the bottom did not play an important role in the sound production. In his first years he therefore made fiddles with an overly thick top, a very

thick bass bar and a rather thin bottom. Besides, he used to insert the neck of his fiddles with a very high angle, whereby it protruded only about 1 or 2 mm over the top of the fiddle (instead of 6-7 mm as usual).

In his early years Olaf G. Helland was not very successful in selling his Hardanger fiddles. Even though fiddle makers of the twentieth century had some contact with each other, due to their competitive thinking, they were rather secretive and there was almost no exchange of knowledge. Isolated construction mistakes, such as those that Olaf G. Helland made at the beginning of his career, occurred therefore in several places.

After his brother Jon G. Helland had returned in 1920 from a visit to Germany and Denmark with a lot of violin making knowledge, Olaf G. Helland changed his way of fiddle construction and set out to become one of the most successful Hardanger fiddle makers of all times.

Because of their high potential, even average fiddles from Helland's early period are in demand. To improve their rather powerless sound, fiddle makers in the second half of the twentieth century and in the twenty-first century tend to thin out the top, exchange the bass bar or reinforce the bottom by gluing in a large wooden patch. If the neck lies at a high angle to the instrument, the repairers often take it out and insert it in the usual manner to make playing more comfortable for the fiddler.

Gunnar Røstad, who was a contemporary of Olaf G. Helland, took as a model the most outstanding fiddles made by Erik Johnsen Helland (Olaf's uncle), who had played an important role in developing the Hardanger fiddle towards what it is today. Therefore Røstad never really made any of those big construction mistakes that Olaf G. Helland made in the beginning. Only from time to time his fiddles have a top that is too thin and thus rather weak. Modern fiddle makers usually reinforce those thin fiddle tops with patches of wood and sometimes exchange the bass bar. Røstad himself has repaired many Hardanger fiddles during his lifetime, but he has almost never done any big interventions with fiddles of other fiddle makers.

Fig. 1. Hardanger fiddle of the early type by Trond Botnen, c. 1750, in the collection of the Ole Bull Academy.

Fig. 2. Modern Hardanger fiddle by Olaf G. Helland, Notodden, 1913, in private ownership.

Fig. 3. Hardanger fiddle by Trond Botnen with a thin sheet of nickel silver glued on top of the original fingerboard, covering those areas, which were abraded by playing.

Certainly, there have also been fiddle repairers (often amateurs), who have exchanged bass bars, thinned fiddle tops or bottoms or glued in large patches, who did not succeed in their goal of improving the sound of the instrument. Often those fiddles end up in another workshop and undergo similar procedures again. A severely thinned bottom then needs a new patch of wood, an overly thick patch needs to be thinned or the new bass bar must be replaced again.

Sound improving measures such as making a new bridge, making a new sound post or changing its position are non-destructive and by keeping the original parts almost no information gets lost. However, an original bass bar gets destroyed during removal and by thinning out the top or bottom of a fiddle, original material is getting lost. Even the process of opening a fiddle is seldom completely non-destructive.

Røstad fiddle vs. Stradivari violin

To some extent we are recently repeating the same procedures that classical violins by e.g. Stradivari or Guarneri underwent some centuries or decades ago – past measures that we now often regret, because valuable information about the violins have been lost. Since I have been working as conservator, repairer and maker of Hardanger fiddles at the workshop of the Ole Bull Academy in Voss, I wondered in which way current Hardanger fiddle makers (including myself) had a legitimation to interfere so severely with the originality of those "Stradivaris" of the Hardanger fiddle world? Are we changing history or are we simply a part of a living tradition? What do we consider as more important – to keep up a lively music making tradition or the musical instrument as a tool of that tradition?

Nowadays, museum conservators often carry out a more or less standardised risk/gain analysis to guide their decision if a musical instrument in their collection should be played or not. But how does this work with instruments in private ownership, which are brought to a repair shop? Often it is active Hardanger fiddle players coming to the workshops, or people who have inherited or found an old fiddle in the attic and wish to learn to play the Hardanger fiddle. For professional musicians it is most important to have a well-sounding musical instrument and to get the most out of the instrument they own, even if that means to submit it to bigger "surgeries".

Since the number of excellent Hardanger fiddles is limited, it seems important to have as many high-quality fiddles as possible to keep up the Hardanger fiddle playing tradition on a high level.

But where are the boundaries between early fiddles, which are usually kept in their state and younger fiddles, which are modified rather often? Are modern Hardanger fiddles (from around 1850 until today) still too close to our own time to be regarded as a part of our cultural heritage?

Surely, if the classical Italian violins had not been updated or "improved" and thus kept in a playable condition over many years, they might no longer exist. The same applies to modern Hardanger fiddles today. If their sound does not correspond to current sound ideals (which are quite similar to those in the violin world), they might end up in their cases, put away somewhere and be forgotten.

However, taking into account that we only have about 80 to 200 extant Hardanger fiddles of each of the few outstanding fiddle makers and if we go on with this sound improving practice, how many pristine Hardanger fiddles from the Golden era (1910–1950) will still exist in about hundred years?

Fig. 4. Hardanger fiddle by Trond Botnen with a wedge glued between neck and fingerboard.

Even though there seems to be no clear answer to the question of how far recent sound improvement measures should go, it is important for current fiddle makers to consider these issues and to be fully aware of the future impact of their treatments. Besides, today's repairers should also be aware of the fact that Hardanger fiddles, as folk instruments, might cost less than classical violins, but they do not automatically have less cultural value.

Ultimately, repair and modification measures will differ from one fiddle maker to the other, depending on their overall approach. Whatever they decide in each single case, it is most important to thoroughly document the instrument before, during, and after modification, so that we at least keep this knowledge for future generations.

Fig. 5. Thinning an overly thick bottom patch and replacing a non-original bass bar of a Hardanger fiddle by Gunnar Røstad, 1912.

Musical Instruments as Information Ecosystems

Mimi S. Waitzman
The Horniman Museum and Gardens
London, UK

Abstract

Musical instrument curators, together with other museum specialists, recognise that they can no longer consider themselves narrowly as sources of object-specific knowledge. To reach their increasingly diverse and proliferating audiences, both on location and online, they must become wide-ranging storytellers, placing objects, whatever their age or provenance, into contexts that can be readily accessed. This trend, exemplified in the rising number of displays organised under broader, cross-disciplinary themes, also highlights the growing need to convey more effectively the connective layers, or ecosystems, of object-associated information.

The complexity of musical instruments as cultural objects with multiple layers of meaning has been generally acknowledged for decades, particularly in ethno-organology. Although web-based digital technology should, theoretically, facilitate such in-the-round interpretation, it can equally increase, seemingly to unmanageable proportions, the scope and depth of extra-disciplinary knowledge that instrument curators need to command. Given these new demands, the creation of information-layering models, which build on the previous work of MIMO and MINIM, could prove useful. They could draw attention to interpretative perspectives that are missing or misplaced; encourage deeper cross-network collaborations; and stimulate research that brings to the surface both habitually-overlooked viewpoints and previously obscured influences. Lastly, in articulating basic premises for information gathering that are common to all musical instruments, museum organology could unburden itself of some persistent, artificial and outmoded partitions.

With the intention of initiating a conversation, this paper will discuss the work underway at the Horniman Museum, involving the Documentation and Musical Instruments sections, to identify and model linked layers of musical instrument interpretation. Using selected examples, it will show work-in-progress in mapping these layers for effective presentation, particularly online. Finally, it will ask how museums and musical curators can deploy information ecosystems to help lift perceived barriers to engagement, and activate dialogue with individuals and communities.

Musical instrument curators, together with other museum specialists, recognise that they can no longer consider themselves narrowly as sources of object-specific knowledge. To reach their diverse and proliferating audiences, both on location and online, they must become wide-ranging storytellers, placing objects, whatever their age or provenance, into contexts that can be readily accessed. This trend, exemplified in the increasing number of displays organised under broader, cross-disciplinary themes, also highlights the growing need to convey the connective layers, or ecosystems, of object-associated information.

The complexity of musical instruments as cultural objects with multiple layers of meaning has been commonly acknowledged for decades, particularly in ethno-organology.[1] Although modern information technology should, theoretically, facilitate such in-the-round interpretation, it can equally increase, seemingly to unmanageable proportions, the scope and depth of extra-disciplinary knowledge that instrument curators need to command. Given these new demands, the creation of documentation models, which build on the previous work of MIMO and MINIM, could prove useful. They could draw attention to interpretative perspectives that are missing or misplaced; encourage deeper cross-network collaborations; and stimulate research that brings

to the surface both habitually-overlooked viewpoints and previously obscured influences. Lastly, in articulating some underlying premises for information gathering that pertain to all musical instruments, museum organology could be unburdened of some of its most biased, persistent and outmoded partitions.

This paper will discuss the work underway at the Horniman Museum to identify and portray linked layers or ecosystems of musical instrument interpretation. It will show work-in-progress in mapping information and modelling for effective presentation, particularly online. Finally, it will ask how museums and musical curators can deploy information ecosystems to help lift traditional barriers and activate dialogue with individuals and communities, both locally and internationally.

Personal computers from the 1990s with a Windows operating system introduced a catchphrase with the graphic that appeared on the opening screen. It asked, 'Where do you want to go today?' At the time, the message bemused but, in retrospect, it foretold the way that screen-based information technologies would transform everyday life, its activities and modes of enquiry. A quarter of a century on, it now seems a wholly natural way of interrogating museum objects, perhaps especially musical instruments.

Where do you want to go? In addition to music, performance practice and the many personal stories instruments tell, they can also speak about history, politics, class, sociology, aesthetics, taste, decorative arts, trade, technology, tools, acoustics, materials, conservation, architecture – the list goes on. Musical instruments are time capsules with the potential to open almost every aspect of the past. They also have a definite physicality (or 'tangibility' in some current jargon) that plants itself in the present and, especially in a museum context, projects into the future. With advancing technology, all of this is capable of being conveyed and accessed with an ease and effectiveness never imagined before.

As the Horniman begins to put more of its instrument collection, archives and event documentation online, questions of how and what to record proliferate, too. What and how a Museum chooses to document betrays a great deal about the institution and its values. Does it mention, for example, that an instrument belonged to a slave-owner, that it was taken centuries ago from a holy site, that it came as spoils of war? And how should sensitive information like this be treated? How should it be organised to make it searchable and retrievable? In short, how can audiences be enabled to derive the same sense of intrigue, delight and potential that a musical instrument inspires in specialists? Clearly, it is no longer satisfactory merely to provide a few critical measurements and a photograph.

The Horniman has just completed a comprehensive redisplay of its Anthropology Gallery with over 3,000 objects; and as part of that project, the way that information is documented and presented online underwent considerable scrutiny. The process of change that this initiated is ongoing and will soon have an impact on musical instruments as new models for their documentation are piloted.

Fortunately, there are strong parallels between anthropological objects and musical instruments, both being enormously varied and multi-faceted; so there is already a body of experience in the Museum that will be able to be drawn upon in transferring musical instrument information to the online platform. Nevertheless, a need for a discreet musical-instrument documentation model still asserted itself.

Before turning to the model, it is important to acknowledge that its individual elements comprise much that is familiar, but putting these elements together in this way and putting them online through the Horniman's recently adopted software is a recent venture for the Museum. Therefore, observations from curators and relevant experiences from other museums with musical collections would be most welcome.

The model itself developed from the familiar idea of layering information, but the interdependence of the categories of layered information gradually led to conceptualising documentation as an ecosystem rather than as hierarchical layers. In ecosystems, any

element can form the centre of a web of relationships; and the elements are organically linked and reliant on each other. This, it seemed, better reflected the position of musical instruments and their rich contexts.

In creating a less hierarchical model, the question arose, 'what distinguishes a museum object from any other thing?' This was discussed in a paper at a recent workshop held at the Royal College of Music, given by two members of the Victoria & Albert Museum's Research Institute (VARI) team[2] who offered a good working response. Marion Crick and Marta Ajmar suggested that a museum object equals "'Thing' plus 'Significance'". The role of the curator is to deliver on the 'significance' part of that equation. Enlarging on this, the musical-instrument documentation model proposes five inter-related areas of significance:

1. Tombstone Information
2. Present-Objective Information
3. Present-Subjective Information (or Voices)
4. Contextual-Specific Information
5. Contextual-General Information

These could be represented graphically as a dynamic planetary system with five equal satellites (Fig. 1).

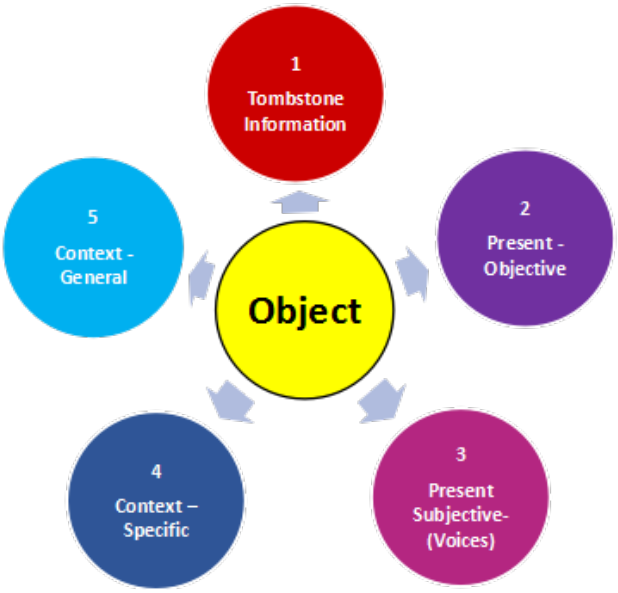


Fig. 1.

Initially, for purposes of discussion, the object occupies the planetary centre of the graphic with five orbiting satellites, each of which is considered in greater detail below.

The concept of tombstone information is familiar to everyone in the museum world. It generally signifies the bare essentials that identify and individuate an object. This type of information answers the questions: what, who, when, and where.

For example, for this, the first harpsichord ever made by Arnold Dolmetsch, pioneer of the early music revival in England, the tombstone information, including the photograph, might look like Figure 2.

Tombstone information, where museums generally excel, is often regarded as straightforward, but it can throw up interesting ambiguities. What if an object's name is contested, or if it is known by several names? For instance, this instrument is habitually known as 'The Green Harpsichord'. What if it is a wind instrument, typically identified by pitch, that plays at a non-modern pitch standard? What if the place in which it was made is now known differently, as in Yugoslavia, Leningrad or Rhodesia? The Horniman has come to accommodations for these and other sorts of ambiguities through a set of agreed terms or 'thesauri', and in taking documentation forward, it now attempts to be consistent. But one of the great strengths of the new software discussed below that the Knowledge and Information Management (KIM)[3] section has adopted is the ease of electronically linking parcels of information like this with each other. One name can be linked to others; a place or pitch name can lead to an historical explanation.

Moving around the graphic clockwise, Present-Objective information comes next. This heading would include all the things that define the physicality of the object. It would be the place for a more detailed description and dimensions and would encompass the materials from which

Horniman Museum Inventory No.: M72-1983
Object name: single-manual harpsichord
Maker: Arnold Dolmetsch
Date: 1896
Serial No.: No. 1
Place of Manufacture: London, England, UK
(This could also include the instrument's classification number according to the Hornbostel-Sachs system).

(Photo: Horniman Museum and Gardens, photo by Heini Schneebeli)

Fig. 2.

the object is made, technical drawings or diagrams, tables of string gauges and tension, bore profiles, and similar types of data. Information pertaining to events or performances in which the object is used would also have a place here, but could also link to a whole new satellite system pertaining to any specific performance. An example of this will be shown later.

The third satellite is called Present-Subjective information, or Voices. This is an area where documentation records are often less rich, yet it's just this type of material that is most likely to engage a wider and more diverse public and help break down perceived barriers between objects and potential audiences, a point which will receive further attention below. Material that contributes to this aim and falls into the Present-Subjective category would include statements by players (e.g. how did it feel to play this instrument? Why did you like/dislike it? What did it tell you about the music?). It could also include the voice of the collector conveying information about how they came to have this object, or why they decided to part with it to the Museum; it could include a voice from the maker, the restorer and the decorator, and it could feature a curator's voice saying how and why the decision was made to acquire/display/restore/retain it unrestored. It would also include audience reactions to the instrument on seeing it or hearing it played. Most importantly, it could include the voice of the instrument itself or its sound.

The final two satellites both consist of contextual information and would reflect on different aspects of the past. Contextual specific information would include elements of the instrument's own specific history, such as:

- Provenance, past owners
- Maker's biographical details
- Stories or lore connected with this specific example
- Significance of decoration or specific decorative features
- Historic Recordings / Reviews

and any other background about that object, uniquely. For example, was it carried by a soldier into a war; was it used by a protester during an anti-apartheid march; was it used by a fan at a sporting event; was it played in a particular concert or recording? Any reviews of such a performance or recording would have a place here. This category would also encompass anything that distinguishes the instrument through modifications made by players or restorers.

Its restoration history and reports would, therefore, have a place here, together with any patents that pertain to it and the actual cost of the instrument when it was made or later traded.

Contextual General information, where online databases, again,are often quite strong, would include topics such as: the history of the period of the instrument and period performance practice, background on the place where it was made and used, the aesthetic principles governing its look and sound, its musical and social function, the types of people who would have used the instrument, and the costs and social status connected with its type.

These five broad categories, as they stand, comprise a model designed to assist curators in gathering and organising information. The aim in creating the model is not so much to identify every possible separate morsel of information, but rather to show how different types of information might fit together. Ideally, it would assist the keepers of collections both in seeing and projecting their objects in the round, and in determining where their documentation records are weak. Keepers, using the model properly, may then be liberated from their professional silos to look further afield and seek out help when documenting their objects. Assistance could be forthcoming from a whole new variety of sectors. Of course, there will be a need for input from other museum and academic specialists, but at least some of them will be outside the fields of organology and musicology. Art historians, social historians and anthropologists, conservators and engineers and scientists will all be wanted, but perhaps most excitingly of all, the model recognises the need to consult non-specialists, for example, source communities, listeners and diverse groups from football fans to refugees. Conversations could be initiated with those who do often feel marginalised, but whose points of view are quite likely to venture beyond an instrument's immediate materiality into the realm of its more intangible significance, the associations and emotions it evokes and a sense of how it is integrated into the world. This mode of documentation also empowers non-specialist curators in documenting musical instruments,since there will always be something of probable interest to their audiences that is discoverable without resort to an organologist.

Moving on to the documentation of events and live performances (which may include the performances themselves or excerpts), a similar model could be employed. The information connected with any given performance would include the five satellite categories which precisely mirror those for the object itself: 1. Tombstone information, 2.Present-Objective Information, 3. Present-Subjective (Voices), 4. Contextual-Specific, 5. Contextual-General (Fig. 3).

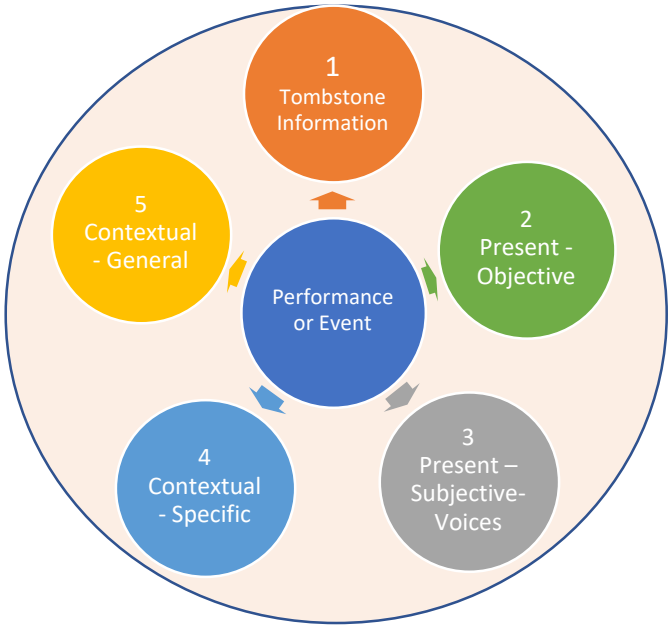


Fig. 3.

In truth, any single element of the documentation could be extracted for the special satellite treatment.F or example, the planetary centre of another system could be occupied by the instrument maker or a material used in the construction. It is easy to imagine the engaging information and stories that might emerge from putting a silk cloth, mahogany veneer or an ivory key in the centre.

At this juncture, the question might legitimately be posed, 'where does it all end?' But that is precisely the point: through this approach, documentation is transformed from an end, something dead and 'finished', to a dynamic and responsive process. Employing this model,

documentation can develop over time, gradually enriching the context and knowledge base of the object in question. It becomes rather like a Wikipedia article where there is always one more 'click'.

Mention of Wikipedia neatly turns the focus from the documentation model to the actual software that the KIM section at the Horniman have adopted for use online with the Anthropology collections: the one that it will soon be advancing with Musical Instruments. Drawn from the Wiki model, it has been named WikiHornimania.

Almost everyone is now familiar with wikis in the form of Wikipedia and Baidu Baike. Wikipedia's definition of a wiki is, 'a website where users collaboratively modify content and structure directly'.[4] It is designed to be easy to use and it is built on links. Researchers have all experienced the way that, in Wiki articles, one thing leads to another. Take a random example like Norma Jean Mortenson (more familiarly known as Marilyn Monroe): the tragic 1950s American film star can lead to the advanced Gemini NASA space programme in as few as three clicks.[5]

Likewise, with WikiHornimania, users will eventually not only find instruments with great facility, but also be led to them by 'clickable' links, potentially through entirely unexpected routes. It has always been the curator's job to open as many channels as possible to help people connect with objects, and the wiki-model can become a vital team-mate in this larger endeavour. Any door becomes the right door in.

KIM chose to use a wiki model for several additional reasons:

1. Mimsy, the Horniman's existing collections management system, or inventory database, which currently forms the back-end basis for the Museum's online delivery, is not straightforward to use, and does not provide a particularly good interface for writing texts of any significant length. To be fair, Mimsy was never designed for transposition to public use – it was intended as a tool to help internal staff know what they had and where to find it.
2. The innate interconnectedness of the wiki format is a good fit with the quality of interconnectedness identified as essential to what has previously been referred to as 'layered information' or, as preferred here, the 'web of relationships', and to putting it online.
3. Wikis are generally quite easy to learn to use, that being part of their design philosophy, and the wiki type chosen, 'DokuWiki', is arguably the simplest of the lot.
4. Finally, DokuWiki provides a nice balance between authoring tools (the ability to format text, add comments, and track changes) and ease of extraction (for online use) once the texts are completed, as it essentially provides a structured set of uniformly marked up texts.

The Museum's middleware providers (the software that takes information from Mimsy and prepares it for the Horniman website) have created a routine that extracts the content of this wiki so that it can be added to the Collections Online website which, in turn, is being re-designed, in part, to accommodate these new DokuWiki texts. This process will preserve and render online the hyperlinks asserted in the wiki pages.

Emerging from the experience of working with the Anthropology collections at the Horniman, the KIM section set up four primary search categories that presently appear on the website and, compared to the satellite model, these are much more straightforward for people to understand and navigate. They are: Objects, Subjects, Places and People. There is a general correspondence between the categories of information in the conceptual five-satellite model described above and the way that Anthropology object documentation currently appears online. This is best represented graphically (Fig. 4).

The apparent overlapping and mixing of the satellite categories are of little consequence because there is no need for end users to be aware of the backend structures or models

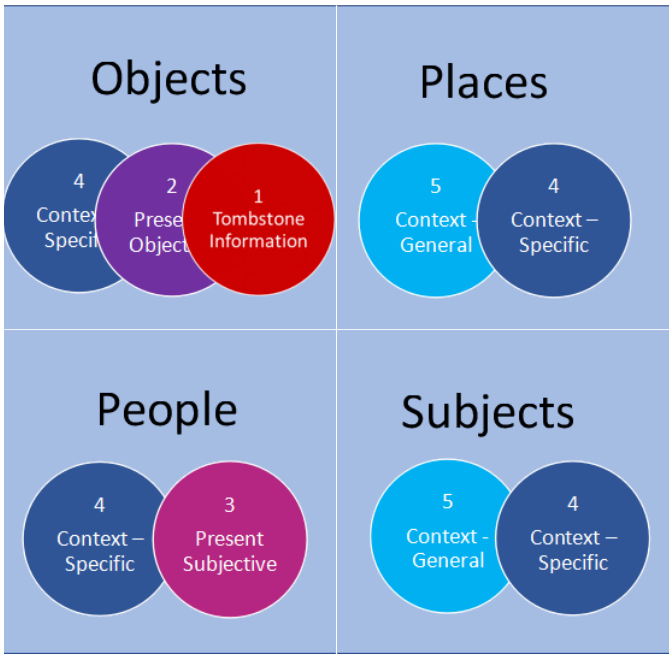


Fig. 4.

that guide the inputting of information, provided it can be easily accessed. In connection with this, it is worth mentioning the experimentation that is now taking place with a WikiHornimania inputting matrix for performances or events which actually mirrors the satellite model much more closely and looks, to the backend user, like Fig. 5.

A similar inputting matrix for objects is also being devised so that information garnered using the model correlates directly. Again, this is more of a convenience for those who input information than for the front-end users who should only ever need to 'click' on a term or subject to extract information.

There remains at least one big and important area for musical instruments that has, as yet, no way of being readily accessed through WikiHornimania, that is the sound. The inclusion of sound and multi-

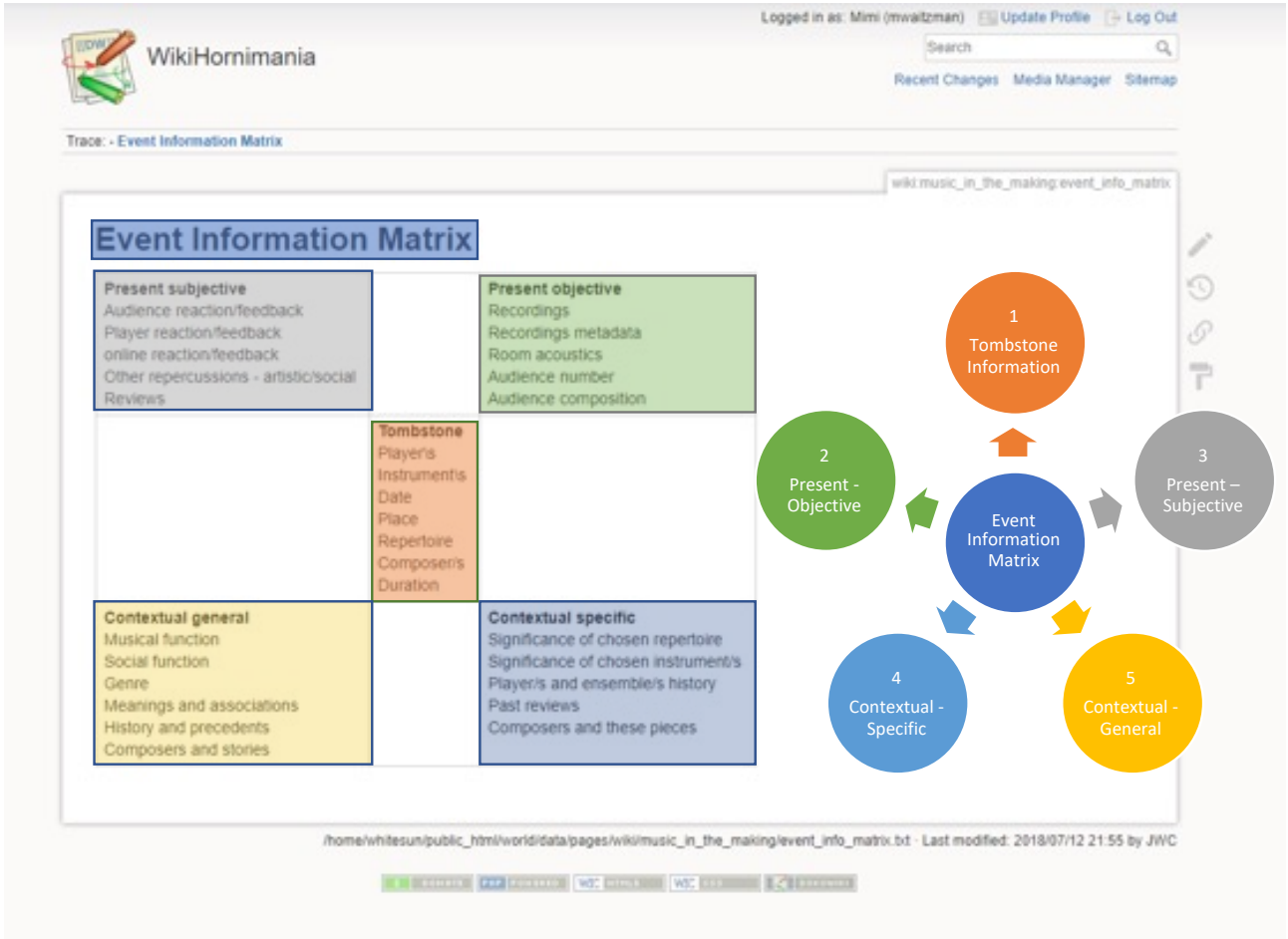


Fig. 5.

media in an online database is not, of course, new. It has a place in the familiar pan-European MIMO[6] online database and the newly launched MINIM[7] database of musical instruments in UK collections. In fact, one of the Horniman's playing instruments, the 1772 Kirckman harpsichord (Inventory No. 1972.211), is demonstrated by harpsichordist Julian Perkins in no fewer than five recordings on the MINIM website.[8] Paradoxically, at this writing (January 2019) there is not yet any way to access these performances directly from the Horniman database or website, but with DokuWiki and its capacity to link, this will be facilitated.

DokuWiki entries can also link to social media destinations, for example blog posts and Twitter, allowing another often-excluded type of user to enter painlessly into the Horniman's Collections Online database and then, almost unwittingly, to become involved in the activity of documenting by leaving a comment, photo or even a video. For non-specialist users, those who have traditionally found accessibility problematic, this has the considerable advantages of simplicity and immediate familiarity. It is true that such activity requires consistent internal monitoring on the part of the Museum, but the return on it, from the curatorial point of view, is the potential gain in information in that critical Present-Subjective category (Voices) which might otherwise be very difficult to collect.

To conclude, it may be salutary to step back and place the documentation of museum musical objects in a social framework. The current economic climate in the UK has begun to influence profoundly the attitude of museums towards their holdings. With storage at a premium, both in terms of availability and cost, a new emphasis has been placed on a notion that might have been presumed axiomatic: that objects are only as useful to museums insofar as they are accessible to the public. But in fact, this represents a colossal shift of emphasis in the underlying methodology of acquisition: from being guided by specialist curators according to systematic historical, classificatory or even lexicographical criteria, to one dictated by the exigencies of 'public accessibility'. The basis for the justification of acquisitions is in the process of being completely redefined, together with the museum's role in society. Rather than the relatively passive functions of caretaker and chronicler, museums are tasked with more active roles such as responder, entertainer, enabler, educator, interpreter, and change-maker.[9]

Fortunately, advancing digital development affords the opportunity to plait these ostensibly diverging approaches into mutual support. However many people come through a Museum's physical door, the potential capacity of its online portal will always be orders of magnitude greater. Online, the contexts for objects can be widened almost infinitely, allowing far greater accessibility – emotional, intellectual and even sensory – than would be possible in any single physical location. Specialists will always require physical access to objects, but it has already been recognised that for a large proportion of non-specialists, questions can be addressed, and curiosity satisfied or piqued by on-screen adjuncts. For example, working parts, interior structures and musical function can all be demonstrated in illuminating detail without incurring any risk or wear and tear to the actual object.[10] Taking the museum's educational remit further, a vast array of items, some, seemingly unrelated, could be set into juxtaposition by users themselves, inviting a proliferation of interpretive viewpoints. For example, musical instruments could be drawn together with each other or other objects according to cross-disciplinary themes – some as broad as 'The Industrial Revolution' or 'The Silk Trade', others, as narrow as 'Clarinet Bore Profiles' or 'Trumpet Valve Design' and still others as personal as 'My Family's Music'. Manifestly, the customisation of collections via personal interest would be facilitated, encouraging individuals to engage in new ways by supplying their own context for objects or creating bespoke interpretations, soundscapes or virtual exhibitions to 'share' online.

In the UK, there is enormous agitation for museums to attract a more diverse, representative and inclusive audience, and, in the minds of policy-makers, this equates not inconsiderably with the need to create and expand effective digital platforms. Their importance was forcefully highlighted by the UK government's recent Independent Review, led by Neil Mendoza, outlining key recommendations for how government can support the museum sector in England. Needless to say, this will not be through increased governmental funding. Instead, the

report suggests measures including community partnerships and institutional collaborations. Developing online resources and digital capacity was also advanced prominently as a clear affirmation of that commitment to widening access. It states:

> Technology may offer museums new opportunities to improve operating models, communicate with audiences, raise money, catalogue and share collections, and make displays and exhibitions more interactive and engaging. Audience behaviour has been altered forever by online technologies and smartphones. One of the most significant opportunities for museums is to use technology to embrace a more inclusive and participatory approach.[11]

In essence, musical instrument museums and collections do not have the luxury of looking backwards. In order to keep pace, to attract funding and to fulfil their potential in drawing and retaining more diverse and representative audiences, their online presentation needs to reflect musical instruments' wider relationships and connections – their true role as information ecosystems.

Notes

[1] See, for example, Bruno Nettl, Theory and Method in Ethnomusicology, New York: 1964, Chapter 7, Instruments, pp. 204–221.

[2] Workshop held at the Royal College of Music, 2 July 2018, Digital Humanities and Musical Heritage, Talk given by Marta Ajmar and Marion Crick, 'An overview of current works at VARI, the museum's research institute, and its Content / Data / Object project'. The complete presentation (and all the others from that day) can be viewed at http://minim.ac.uk/index.php/2018/11/04/digital-humanities-and-musical-heritage-presentations/ (accessed January 2, 2019).

[3] This section was previously named 'Documentation'.

[4] https://en.wikipedia.org/wiki/Wiki (accessed January 1, 2019).

[5] https://en.wikipedia.org/wiki/Marilyn_Monroe (accessed January 1, 2019). From the Marilyn Monroe page, click on the radioplane factory link, https://en.wikipedia.org/wiki/Radioplane_Company, and from there, click on the Gemini paraglider link: https://en.wikipedia.org/wiki/Advanced_Gemini#Other_proposals.

[6] http://www.mimo-international.com/MIMO/ (accessed 3 January 2019).

[7] http://minim.ac.uk/ (accessed 3 January 2019).

[8] http://minim.ac.uk/index.php/explore/?instrument=22273 (accessed January 3, 2019).

[9] The changing roles of museums is reflected by the new ICOM initiative to create a new definition of 'Museum', one which better recognises its more varied functions and the expectations of society. The current definition dates from 2007. https://icom.museum/en/activities/standards-guidelines/museum-definition/ (accessed January 19, 2019).

[10] See, for example, the work that is being undertaken in musical instrument computed tomography at the Germanisches National Museum https://www.gnm.de/en/research/research-projects/musices/ (accessed January 19, 2019).

[11] Mendoza Report, p. 62. Https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/673935/The_Mendoza_Review_an_independent_review_of_museums_in_England.pdf (accessed January 3, 2019.

The Display of Traditional Music in the Museum of Oriental Musical Instruments

Shi Yin, Yuan Xing
Shanghai Conservatory of Music
Shanghai, China

Abstract

Thirty years ago, Shanghai Conservatory Of Music set up the first "China National Musical Instrument Exhibition Room" in China. At the beginning of its founding, the task of "China National Musical Instrument Exhibition Room" is mainly musical instrument collection, display and research. And the collection of "China National Musical Instrument Exhibition Room" was positioned as "Chinese national musical instruments". With the further development of disciplines, the focus of museum collections gradually shifted from "Chinese national musical instruments" to the "World's traditional national musical instruments". So in 2001, "China National Musical Instrument Exhibition Room" was officially renamed as "Museum of Oriental Musical Instrument". In the past 30 years, its collection has increased from more than 70 to more than 700 objects, and the collection range from Chinese national instruments to more than 30 countries and 50 nationalities which cover five of the world's continents.

In addition to the physical exhibition of traditional musical instruments, in view of the performance characteristics of musical instruments, the museum has also adopted a display mode of artificial explanation, instrumental music performance and interactive (Curriculum) teaching. In recent years, museums have opened several traditional music workshops which included Chinese traditional music such as Xinjiang Muqam, Fujian Nanyin, and traditional music from Thailand, Indonesia, India and so on, and provided the graduate courses in Gamelan as well.

A dynamic display of the museum's collection allows the audience to listen to the musical instruments at the end of the visit. This innovative pattern has received a good response. The "Museum of Oriental Musical Instrument" has also become one of the most distinctive museums in China.

The Museum of the Shanghai Conservatory of Music, founded in 1987, is 30 years old. (The Shanghai Conservatory is the oldest in China and was founded in 1927). Compared to other major European music museums, such as the Musical Instruments Museum, Brussels and the Museum of Musical Instruments, Leipzig, – both in terms of the number of items and the display methods, we are a very young institution. But in China, we were the first institution to formally display a collection of musical instruments out of all the art colleges and universities. It was originally called the "Exhibition Room of Chinese Ethnic Musical Instruments" with the purpose of promoting the collection, display, and research of Chinese ethnic musical instruments.

At that time, the collection was dominated by Chinese traditional musical instruments and mainly contained instruments belonging to the academy, such as *guqin*, *pipa* from Shangyin Instrument Factory, *zithers*, and a *konghou*, which was developed by the Institute of Scientific Research and Development.

The eastern harp, the *konghou*, has long since disappeared in China. After the founding of New China, our college participated in the development of the national musical instrument reform, including the *konghou*. Figure 1. shows the famous composer Mr. He Lu-ting, the former dean of our conservatory, trying to play the improved *konghou*.

Fig. 1.

The achievements of the Music Research Institute of our college, such as imitation chimes, are on display in our exhibition hall.

During this period, the small museum display attracted attention from all parties. At that time, the cultural exchange between China and foreign countries gradually increased. The collection of Indian national musical instruments started the collection of national musical instruments in East Asian Countries. This collection was a gift from Professor Zhao Jiazi while he was studying in India, who was recognized by the President of India for his contribution to the spread of Indian music culture.

Our museum display methods are mostly the physical display with textual explanation, open to the teachers and students of our institute. This is what the exhibition hall looked like in 1997, and the number of instruments has increased from 75 at the beginning of the exhibition's creation to more than 200.

With the increasing exchange between China and foreign countries and number of exhibits, more and more foreign national musical instruments have been brought into our collection. In 2001, with the support of the college and other parties, the new Oriental Musical Instrument Museum was built.

This expansion and renaming broadened the museum's collection to folk instruments from all over the world, not just those indigenous to China. The collection is divided into four exhibitions: I. Ancient Chinese musical instruments, II. Modern Chinese musical instruments, III. Musical instruments of Chinese minorities, and IV. Foreign folk musical instruments.

This year, the collection of foreign national musical instruments has entered a period of explosive growth. We have received donations from the Jade Buddha Temple in Shanghai, nine Thai national instruments, nine Korean musical instruments from The Gyeonggi Cultural Institute of South Korea, twelve South American national instruments from the Argentine Consulate, and 300,000 yuan from Zhou Wenxuan, the Hong Kong Health Association Chairman, to purchase a set of Indonesian musical instruments, Gamelan (that has more than 80 pieces), to name a few. The museum's collection has nearly doubled, to over 400 pieces.

In addition to our physical exhibitions, the museum has developed an audio navigation system – in Chinese, English, and Japanese – that has short audio clips of representative

instruments. For the first time, we presented the sounds of the instruments to the audience, and configured a touch screen guide for navigation. During this period, our museum also began to open to primary- and middle-school students and became a base for national education.

In 2006, due to the construction of the campus, the museum moved out of the campus, and rebuilt the new museum in the old residence of Rongdesheng, Gao'an Road, and reopened in 2009. The exhibition hall exhibits the four pillars of ancient China, modern China, ethnic minorities in China and foreign musical instruments. In terms of the number and types of collections, the collection of ethnic minorities in China and foreign musical instruments has increased again.

At the 2010 Shanghai World Expo, we collected 12 national musical instruments from all over the world, 14 Zhuang people musical instruments, 12 Xizang musical instruments, and 12 Daolang Mukam accompaniment instruments from Xinjiang. Scholars and friends from all over the world have given us great support. By 2017, our collection of musical instruments has exceeded 700 pieces.

'The Baby' is growing slowly, and the presentation of the exhibition hall is rich in content. We have improved the original voice guide system; increased the exhibits, which will be added to the collection of related instruments; and ensured that video for the exhibition hall will be constantly playing.

At the same time, we have opened a new model of traditional instrument display: the national instrument playing into a curriculum. Artists from different nationalities and countries are invited to "live" the museum's collections. And, after many efforts, in 2011, we held the Gamelan Music Workshop for the first time.

In 2013, we invited artists from Xinjiang Uygur and Thai Art University to the museum to hold lectures and workshops on traditional music in Xinjiang Uygur and Thailand. The dynamic display has been well received by the faculty and students.

Southern music supported by the Song Dynasty music, known as a "living fossil" has also entered the museum hall, along with ancient instruments, rare music scores, and elegant singing to present to the public on International Museum Day.

For the study of traditional music, one cannot in a lesson, or a week of lessons, thoroughly learn its essence. In September 2016, with the assistance of ritual music research centre of our institute, a gamelan course finally entered the classroom. Professor Gisa Jähnichen, a German specialist in music research in Southeast Asia, joined the museum as a special professor. Gamelan, the set of instruments that have been played in Indonesia for thousands of years, is "living" in the museum in China, including Shanghai. Today, the course is in its fifth semester. Classes are open to visitors during the museum's normal opening hours. Visitors can also stop to enjoy the elegant pleasure of the court. Old people, children, and even listeners have become participants.

The traditional gamelan music in Indonesia has been exhibited well in the Oriental Musical Instrument Museum. And also, an India tabla course entered the classroom last year.

In the future, we will also start a performance course for other national instruments, hoping to expand this display on more traditional national music. It is also hoped that more national musical instruments will enter our museums, so that more Chinese audiences can understand the traditional music and culture of different nationalities in the world.

Musical Instruments in Georgian Museums – History and Modern Perspectives

Nino Razmadze
Tbilisi State Conservatoire
Tbilisi, Georgia

Abstract

Georgia is located at the crossroads of Asia and Europe. The country is primarily known for its vocal polyphony, although instrumental music also has a crucial place. Many local instruments are preserved in Georgian museums, with significant archeological examples among them. Our museums also house instruments of Caucasian, European and Asian origin.

The musical instruments are preserved in two main museums in Georgia. The first of these is the Simon Janashia Georgian National Museum, the largest museum complex in the country today. This was formed by bringing together ten different museums, the National Gallery, four house museums and two research centers into one system in 2004. This museum is the successor of the "Caucasian Museum" established in 1852. The second of the museums is the Museum of Georgian Folk Song and Instruments.

The instruments preserved in the Georgian National Museum were inventoried and measured by Dimitri Arakishvili, the founder of Georgian folklore; his work was published in 1940. Since then, there have been no attempts to study the instruments preserved at the Gallery, and no relevant experts are employed. The instruments are preserved in the the museum's storage facilities awaiting the attention of researchers or visitors. Even the State Museum of Georgian Folk Song and Instruments does not employ organologists, although the ethnomusicologists working there try their best to introduce the musical instruments to visitors, let them listen to the original sound of the instruments or to audio recordings, and generally make every effort to popularize the music. To see the musical instruments actually displayed in an exhibition space is only possible in this museum. The instruments preserved in both museums have not yet been fully classified, and unfortunately, the restoration process is also haphazard.

This year, it is planned to publish the catalogue-album of the State Museum of Georgian Folk Song and Instruments, which implies the long-awaited completion of a thorough inventory and classification at least for this second museum.

This report, based on three years' Ph.D. research, introduces information about the musical instruments preserved in Georgian museums to the interested public; it also addresses the state of research and multiple perspectives on the instruments and museums.

Georgia is located in the Black Sea region at the crossroads of Europe and Asia. It is a country that has vocal polyphony, yet instrumental music is also important. Georgian polyphony was recognized by UNESCO in 2011 as humanity's masterpiece of oral and immaterial heritage. Foreigners as well as Georgian scholars devote less attention to Georgian musical instruments. At present up to 10 instruments are still living in tradition. They are primarily used to accompany singing, yet solo instrumental pieces are also encountered.

In regard to Georgian instruments, foreign researchers primarily rely on Vertkov's atlas, where the photographs of instruments kept at various museums are presented. A few short articles have been printed in *The Grove Dictionary of Musical Instruments* (2nd edition, 2014) without photos. When searching for Georgian musical instruments online, you will come across the site www.hangebi.ge, where some incomplete and partially erroneous information has been

given. It is possible to see some Georgian instruments online at the MIMO website (Musical Instrument Museums Online: http://www.mimo-international.com/MIMO/) from the collections at the Ethnologisches Museum, Staatliche Museen zu Berlin.

The majority of you probably do not know anything about Georgian musical instruments. I have put together an audio-collage where you will have the means to acquire a general concept about the instruments. Primarily local instruments are kept at the museums in Georgia, including some archaeological examples. There are also some Caucasian, European, and Oriental instruments.

These musical instruments are kept at two primary museums: the Simon Janashia State Museum of Art and the State Museum of Georgian Folk Songs and Instruments. The State Museum is the largest museum conglomerate in Georgia containing ten museums, a national gallery, four house museums, and two academic research centres. It is a descendant of the Caucasus Museum founded in Tbilisi in 1852. The State Museum of Georgian Folk Songs and Instruments is a separate entity. It is focused on Georgian songs and instruments. The museum space is quite small, only having up to 300 square meters and bringing together about 300 instruments.

Fig. 1. The State Museum of Georgian Folk Songs and Instruments. (Ohoto by Giorgi Mekvabishvili)

Apart from the material kept directly at the museum, some various monuments are also quite important. The things preserved in these monuments are considered property of the museum, yet there is no control over them and unprotected instruments are frequently lost. One of these is a unique Svanetian church in the village of Latali where a Buki (trumpet) had been kept. This trumpet has been lost for the past two years. There is also a staff decked with small bells used to this day in local folk rituals. This staff is kept by one of the local families who has taken their own initiative to take care of it.

A lute type of instrument is depicted on one of the church's doors, which is said to date to the tenth century, yet no one has studied its age. It is one of the rare museum exhibits providing information about the form of old Georgian instruments. Instruments of the same family today have a different form and were likely not very widespread in this region. As I have noted, the local museum is considered its guardian, which itself is in the jurisdiction of the Georgian State Museum.

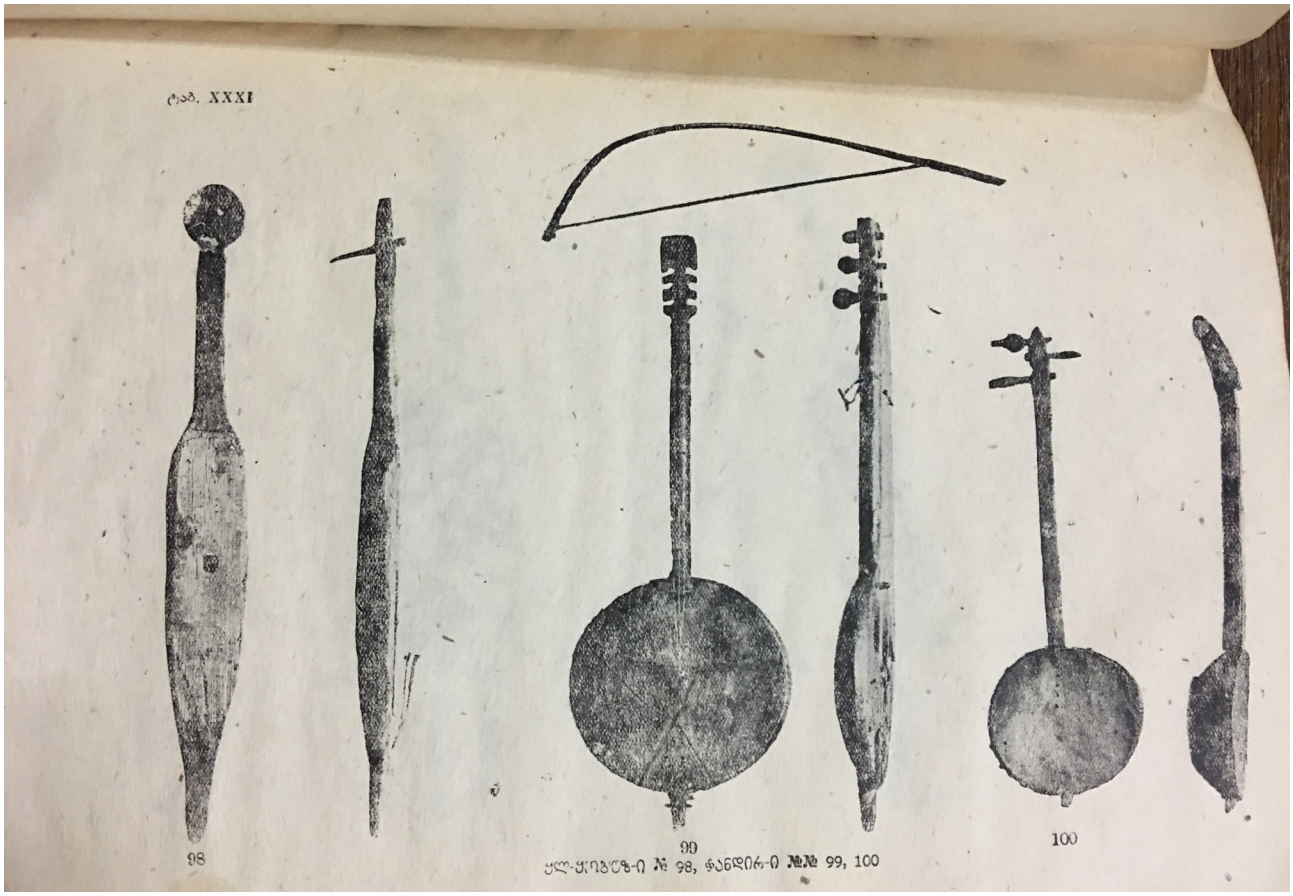


Fig. 2. Arakishvili, 1940: 103.

A collection of unique instruments is kept at the Georgian State Museum. Modern as well as instruments found as the result of archaeological digs are gathered together in various collection groups. Unfortunately, not one instrument is currently shown in the exhibition space. The exhibits are distributed according to the material in various collection groups. For example stringed and wind instruments have been placed in the wood collection group. These instruments have been organised without any kind of description. They have old numbers that even the curator has a hard time identifying. The wood is periodically treated with a special pesticide. This is because there are no field experts employed at the museum; further, not one colleague has a musical education. The collection group in which wooden instruments are kept belongs to the Ethnography Department.

A portion of the instruments kept at the State Museum has been described and measured by the founder of Georgian folklore studies, the academician Dimitri Arakishvili. His work had been written in Russian and was published in 1940 with a translation by Grigol Chkhikvadze, a folklore scholar. Today, the identification of the museum instruments and finding out information regarding them is only possible through this source. Clearly, not every instrument ended up in the work, including metallic instruments, such as cymbals and bells. These have been distributed out to the appropriate group. A description of them also has not been carried out at the museum.

An interesting collection of metallic instruments is presented at the Svaneti Museum, one of the regions in Georgia. As the curator told us, there are many similar examples in this collection group awaiting researchers.

It can be said that there is no precise information as to how many and what type of instruments are kept at the State Museum. The museum directorate is favourably disposed toward those wishing to study the instruments. They gave me the means to take some pictures of one of the Svan instruments, a *changi*. These changis are 100-150 years old. I also photographed some archaeological works in which musical instruments have been presented.

One of the oldest, second millennium BC swan-bone *salamuris* discovered on Georgian territory is an important part of the archaeological instruments kept at the State Museum. It has been studied by a number of scholars. Because of its physical state, they were given the means to see how it sounded. As Georgian scholars hypothesise, the instrument's scale is analogous to the modern day Georgian scale. A *salamuri* kept at the Batumi Local Folklore Museum is also very ancient. It is damaged and it was not possible to establish its scale, yet the items alongside which it was discovered provide researchers the means to define its function – these were attributes associated with taking care of livestock. It must be noted that the *salamuri* is presented in the primary exhibit and takes advantage of special attention from museum collaborators. They have compiled a special program regarding the museum exhibits where this instrument holds a prominent place. Besides this, one of the textbooks prepared for school students is entirely devoted to this instrument and the salamuri tradition in Georgia.

The situation is comparatively better regarding the study of instruments at the State Museum of Georgian Folk Songs and Instruments, which is only focused on musical instruments. (Information about the State Museum of Georgian Folk Songs and Instruments is given by Sopiko Kotrikadze.) Its establishment is connected to the name of Arkadi Revazishvili (1903–1974), a collector from Tbilisi; his unique collection was famous within and beyond our country. In 1976, the museum was founded on the basis of this collection, having since changed its name and location many times. Up to 300 musical instruments are kept here: European, Asian, Caucasian, and Georgian instruments made in the seventeenth to twenty-first centuries. A

Fig. 3.

description and catalogue of them is at the museum, which needs to be filled out and worked on. Here, there are many instruments with their production date and place being unknown. It is sometimes difficult to identify the instruments because there is no information about it.

There is also a problem of field experts here as well, yet a few ethnomusicologists are employed here. In general, there is not only a deficit of instrument experts at the museum, but all throughout the country. Due to significant financial strain, reconstruction efforts often do not adhere to the required codes, presenting a major problem for the museum.

The Georgian folk instrument collection basically consists of instruments acquired by museum personnel during expeditions carried out at various times in Georgia's ethnographic regions. Here one will encounter different examples of brass- and woodwinds (rim duct flutes, bagpipes, panpipes, brass horns, shawms), percussion (drums, tambourines, tablas), stringed instruments (panduris, chonguris, chianuris/chuniris, changis), and bellowed keyboards (accordions, buzikas).

There are many instruments at the museum belonging to ethnic minorities living in Georgia. Their musical culture is an indivisible part of the Tbilisian way of life. There are such instruments as *tonbaks*, *shofars*, *tars*, *bağlamas, kamanchehs, ouds, zurnas,* and *duduks*. In the European instrument collection are some classical orchestral instruments, such as an antique grand piano, a portable piano, player piano, harmonium, as well as a Russian balalaika, Italian mandolin, Spanish guitar, mandolin, Spanish guitar, American banjo, etc. Mechanical instruments hold a special place in the European collection: orchestrions, music boxes, and some types of organs. Mechanical instruments made in the eighteenth to nineteenth centuries have been prevalent in Georgia since the mid-1800s.

Today, there is only one exhibition space in permanent operation at the State Museum of Georgian Folk Songs and Instruments: the Georgian, Oriental, and European Halls. There are also record players and recording equipment, including different types of phonographs and gramophones. When viewing the Georgian Hall, it is possible to see a photo-collage and listen to the sounds of instruments. The information is currently only in Georgian, but it is being prepared in English.

Concerts, lecture-concerts, ethnomusicological discussions, international conferences, meetings with folklore ensembles, individual performers, and instrument makers are frequently held at the museum. Specially made educational programs for children and teens are delivered through the museum, with publications being prepared as well. A bilingual publication of the museum's musical-instrument catalogue has been planned for the fall of this year (Georgian–English). I am involved in the project as a representative of the financing organization. Additionally, I have been given the means to assemble a catalogue editorial group and define the details of the publication. The catalogue will consist of three parts: an introduction, photographs, and the catalogue itself – the descriptions of 287 instruments. The work consisted of a number of stages. First of all, we took the MIMO edition of the Hornbostel-Sachs classification as the cataloguing principle for the instruments; accordingly, the instruments have been arranged in the following sequence: Idiophones (self-sounding instruments), Membranophones (instruments with membranes), Chordophones (stringed instruments), and Aerophones (wind instruments). There is a separate group for mechanical instruments.

Photographing the instruments was an interesting process. Here too, we were guided by a document located on MIMO’s website. Despite being unable to include every photo in the publication, we attempted to photograph each instrument from the best camera angle. Up to 400 photos of 153 instruments were gathered. When selecting the instruments, we tried representing the instruments of various groups and subgroups (Idiophones, etc.).

At the end of the book, a number of parameters are brought together by the information posted in the catalogue. These are: the ordinal number, registration number, identity of instrument maker, date the exhibit was made, place it was made, material, dimensions, and its current state (how much damage the instrument has, i.e. its condition). In fact, the carrying

out of the classification work and the technical-documentation efforts were made possible by the project; it became possible to find the information about a number of instruments and make our documentation records more complete. In this aspect, the assistance of our foreign colleagues had decisive importance, having helped us with identifying the instruments.

The musical instruments kept at Georgian museums are in need of in-depth study, identification, and inclusion in teaching and research activities. It is imperative to classify, describe, and measure them from a modern, professional standpoint. This is important at the local as well as at the international level.

This year we received a letter from Mr. Rolf Killius, who is an ethnomusicologist and a curator of the Musical Instrument Collection at Markneukirchen in Germany. He informed us that there were some Georgian instruments kept at the museum (up to 15). They are planning to make some small films about the instruments and asked us to provide some material. We are planning to collaborate with him and make a video series for every type of Georgian instrument.

We have also planned some international collaboration with the MIMO Project. As was noted above, the principles for classifying the instruments and photographing the material for the catalogue were taken from MIMO's website. Our future goal is to include the collection of the Museum of Georgian Folk Song and Instruments in the MIMO database.

The main challenge is determined by the low interest in studying musical instruments in Georgia and a lack or non-existence of the appropriate experts. My aim is to acquaint the interested public and academic circles with the musical instruments kept in Georgian museums. I will try to actively participate in international events such as this in order to gain more knowledge and contacts.

References

Arakishvili, Dimitri. (1940). *Khalkhuri samusiko sakravebis aghtsera da gazomva* (Description and Measurement of Georgian Folk Instruments). Tbilisi: Teknika da shroma. (In Georgian).

Shoshiashvili, Eka, Kotrikadze, Sopo, Gaprindashvili, Nona (comp.). (2019). *Catalogue of Musical Instruments.* Editors: Nino Kalandadze-Makharadze, Nino Razmadze, Jeremy Montague. State Museum of Georgian Folk Songs and Instruments, Georgian Chanting Foundation. Tbilisi.

"Interactive Music Museums": A Way of Fostering Sustainability of Vulnerable Cultural Musical Heritages of World Communities

Perminus Matiure
Midlands State University
Gweru, Zimbabwe

Abstract

The advent of Christianity and ever increasing globalization have culminated in a decline of some of the African communities' cultural musical heritage. As such these have become vulnerable to change and in some cases becoming extinct. In reaction, governments and institutions stepped in and established some music museums. Currently there are several music museums in countries like America, Germany, Britain and South Africa just to name but a few. The museums house a collection of tangible and intangible materials like traditional musical instruments, objects and songs and as such act as repositories of traditional lore and sources of knowledge for scholars. Scholars and interested individuals constantly visit these music museums to access data on anthropological or ethnomusicological studies. However, a survey carried out by the writer in one of South African universities' music museum indicated that although there are valuable traditional musical instruments and recorded songs in music museums from different parts of southern Africa, there seems to be lack of the involvement of owners of the valuable preserved heritage. In other words the instruments are seen but not heard and the recorded songs are heard out of context. This paper focuses on how the concept of interactive music museums can be fostered in order to inject some life in museums. This can be achieved by decentralizing and placing the museums next to the communities that own the material so that elders can occasionally come and demonstrate to visitors and scholars. By so doing the museums become more live and interactive, thus becoming interactive music museums.

Introduction

It is clearly evident that aspects of musical heritage of any particular community are vulnerable to change or extinction due to factors like migration, technology, paradigm shift in religious beliefs, globalization, education and disintegration of extended rural family system. In order to address this threat, museums and archives of music have mushroomed all over the world. However, it appears very little has been done to establish ways of engaging other possible adjustments to improve the archiving system. The over arching mandate of museums and archives is to preserve tangible and intangible objects in perpetuity and to display them as evidence of the past (Caple 2011, 1). Most of the literature available concerning museums or archival works cover issues of identification, collection, deposition, cataloguing, accession, and de-accession. Other literature puts particular emphasis on preventive conservation. This shows how museums and archives have invested in the collection, deposition, management, and accession of materials. Generally, the importance of any heritage is enshrined in its utility value to the people who own and use it. As such there is absolute need to perpetuate the existence and utility value of the material culture in its different forms.

In the light of the above, it can be noted that traditional lore, by virtue of being handed over from generation to generation, qualifies to be part of indigenous knowledge system for scholarly studies. The heritage is obviously tried and tested such that there is liability in its use. Culture, which can be defined as the repository of all the various aspects of what constitute humanity, is indeed vulnerable to change caused by factors mentioned before. Apparently, such changes usually culminate in identity crisis and loss of self-actualization by a community.

This article attempts to interrogate the archiving system involved and recommend a paradigm shift in the accession system. Basing from some case studies of music museums in South Africa and Zimbabwe, the paper advocates for an "interactive museum system" which allows intimate connection between visitors and museum objects. Instead of just displaying objects for viewing and explanations by the guide, visitors must interact with the objects through a number of ways as suggested in this paper.

Vulnerable communities' music

Every community has some form of tradition, which is usually handed over from generation to generation as part of heritage. This heritage includes aspects of lore like; a particular body of knowledge about traditional life, accumulated ideas and beliefs by a community, traditional materials, values, knowledge, and skills learned orally through experience, music, and musical instruments. Of particular concern to this study is traditional music heritage owned by a community. In her article, Bonnett (1999) indicates that traditional music and musical instruments are slowly being ignored due to the advent of Christianity and modernity. It is true that traditional music is slowly losing space in the modern societies due to rural to urban migration, disintegration of extended family system, modernity, and changes in education.

The writer discovered that communities' music, which include musical instruments and traditional objects usually used during sacred institutions are slowly declining in their use due to the reasons mentioned above. However, attempts are made to preserve them by collecting and depositing them in museums or archives. Archiving our museum system, informed by the archive theory, is one way that is used by scholars and interested parties to preserve tangible and intangible cultural heritage concerning music. Music museums and archives are like libraries of both tangible and intangible heritage of a community. Archives possess qualities equivalent to libraries, they serve as a memory for the community, and are an essential resource to their owners and are an accumulation of materials in some exterior place (Seeger 1986, 262; Pederson 1988; Allen et al., 1954; Derrida 1995; Ketelaar 2000).

Museum work in South Africa

One of the museums (name withheld for ethical reasons) visited by the writer in South Africa contains a fabulous collection of musical instruments and recordings from countries in the southern region of Africa. The instruments include traditional drums, marimbas, various mbiras, blown instruments, those with strings and other percussive instruments. Below are photographs of some of the instruments displayed in their archive.

It was established that this archive receives a good number of visitors, usually scholars and researchers from all over the world, annually. Visitors are usually taken around by the archival attendant who then explains a little bit about the instruments. Visitors are not able to touch the instruments or play them. Note that most of the instruments are enclosed in exhibit cases as shown in Figures 1, and 3.

Fig. 1. Mbira collection.

Fig. 2. Traditional drum collection.

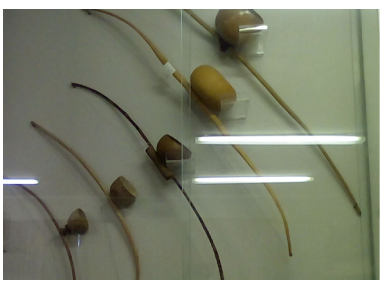


Fig. 3. Collection of stringed instruments.

Fig. 4. Collection of blown instruments.

Fig. 5. Marimba collection.

Museum work in Zimbabwe

There are several museums, archives, and archaeological centres in Zimbabwe. The major ones are the Matonga Museum, the Military Museum in Gweru, the National Museum and National Archives of Zimbabwe, all in Harare. Most of the archival work was done by National Archives of Zimbabwe (NAZ), which was founded through an Act of Parliament in 1935. The archives operate under the mandate of National Archives of Zimbabwe Act of 1986. The archives comprise various sections, which include historical manuscripts, record centres, library, pictorial collections, an audio-visual unit, and oral tradition programs, which are part of intangible heritage. However, there is very little concerning music and related traditional objects. The only music archive available is the one established by the writer at Midlands State University. Part of it is shown in Fig. 6.

Fig. 6. Part of the music archives, Midlands State University.

Positive Implications

The museums and archives studied indicated that great work is being done concerning the preservation and accession of both tangible and intangible musical heritage. The researcher managed to identify notable strengths and challenges faced by the current archiving system adopted by these archives and museums. The findings were that the museums are effective in preserving musical instruments and songs. They have become institutions of indigenous knowledge, and provide systematic and reliable sources of research materials for many scholars.

Tangible and intangible materials are well catalogued and classified and accession and identification is easy. Interested people are free to access the archive during designated times, and assistance is given promptly and diligently. In all the museums, efforts have been made to make the archives conform to the technological standards. For example, recordings are being converted to MP3 and the CDs are being repatriated to the owners.

Weaknesses

Traditional musical instruments draw their utility value and sustainability from their constant use in society. Their sacred and secular roles make them survive and outlive other cultural

elements. When materials like musical instruments are deposited in an archive, they undergo an institutionalization process, which unfortunately alienates them from people. When such objects are displayed in a locked exhibit case for protection (Fig 1, 2, and 3), the objects are disassociated from living people. There is limited interaction between the two. It is only when there is constant interaction between the objects and people that the archiving system becomes meaningful. The current system indicates some flaws, which include an inappropriate environment in which the materials are displayed. Materials are disassociated with their owners and their utility value and efficacy are reduced. They no longer exist in context. Accessibility is restricted, leading to deprivation of our heritage. Further, materials are not presented in a holistic form together with other related materials. Information is rather limited. In that way, the system reflects some colonialist tendencies instead of being interactive, democratic, communal, and inclusive.

In order to address these challenges, the writer advances ideas propounded by authorities like Agawu's (2003) that there is need to revamp and redirect museum work so that some life is injected for them to become alive. This can be achieved if there is a paradigm shift in the way the whole system of museum work is perceived and operated. The writer maintains that the adoption of an interactive system will go a long way in improving the role of museums and archives in the interpretation of musical traditions and also in fostering sustainability of vulnerable cultural musical heritages of communities' the world over.

Towards the concept of an "interactive music museum system"

In this paper an "interactive music museum" is used to refer to a museum or archive that operates in such a way that people and objects continue to be bonded. Objects should continue to perform the duties that they usually perform outside the museum environment. This is in line with Nzewi (2007, 58) who emphasizes the bond between people and their instrument(s) especially the drum when he says, 'there is symbolic connection between the drum as a sonic force and blood as a life force'. Hence there is need to maintain this natural relationship. The museums must embrace a number of ways of information dissemination, which may include visuals like tangible objects, photographs, posters, cards, videos and audio in the form of recordings and live song performances, and also the use of electronic data like software and websites (born digital interface). Any media with images can be very effective in that they act as symbolic representation of cultural information as supported by Banks who says:

> images are ubiquitous in society, and because of this some consideration of visual representation can potentially be included in all studies of society. (…) images in creation and collection of data might be able to reveal some sociological insight that is not accessible by any other means. (2007, 3)

In order to achieve this system there must be decentralization of archives or museums so that they are established in community centres next to the owners or alternatively involve owners in the maintenance of the archive and museum by allowing them to occasionally visit the archive to explain and demonstrate the traditional function of the materials. Alternatively, mobile archives can be used so that the archives reach the people or that archive professionals organize annual workshops and symposia in which performances and discussions may be done in the presence of community members especially the young and also scholars. Such collaborative approach reduces chances of disassociating traditional materials from the people who own them. The approach also attempts to make the materials continue to have their contextual efficacy that they endow. Materials continue to have their traditional value and relevance. Usually archival materials end up assuming a new status brought about by the institutionalization process, which may be slightly divorced from the indigenous one.

In response, the writer has already started adopting this approach. He has re-displayed musical instruments in a way that enables close contact and manipulation (Fig. 7). The displays are positioned in such a way that visitors can not only see, but also touch and even

Fig. 7.

play the instrument. There is controlled freedom in a free and democratic environment. Next to the instrument will be information concerning the instrument on posters or some elaborate cards with detailed information about the instrument, and recorded music and videos about the same instrument saved in a computer so that the visitor can play and hear or see the instrument being performed by its owners in context or as a demonstration.

Allowing visitors to touch, feel and even play the instrument not only makes the visitor understand the instrument better, but also keeps the instrument functional and relevant. This can be noticed with the two mbiras below. The one that is occasionally played looks polished and the other one looks neglected and corroded. This implies that constant contact between an object and user is a preservation system on its own, informed by functionalism.

The constant handling or playing of an object makes it efficacious and relevant. The object continues to endow utility value. In short, an interactive museum is democratic, liberal accommodative and is a hub of indigenous knowledge, which is in line with Bradsher who maintains that, 'Archives today constitute an informational and cultural resource and a storehouse of knowledge, and are the key elements in perpetuating and improving (…) national heritages, cultures and societies' (1988, 31). It is not just a repository for safe-guarding and display, but a life experience in a codified environment.

Fig. 8.

Conclusion

The article has outlined the roles of music museums and archives by making reference to case studies in South Africa and Zimbabwe. Music museums and archives were seen to be playing a very pivotal role in preserving tangible and intangible traditional music heritage of communities in the southern region of Africa. The move has culminated in the collection of various musical instruments and recordings of traditional songs and folktales. Quite commendable work was noted in the museums or archives visited by the author. It was discovered that music museums and archives museums are effective ways of preserving musical instruments and songs in an institutionalized manner. They are a way of generating systematic indigenous knowledge about traditional music of communities. Archives and museums have become reliable sources of research material for many scholars. Tangible and intangible materials are well catalogued and classified in such a way that there is easy accession and identification. Many scholars are free to access the archive materials during designated times and assistance is given promptly and diligently.

However, it was established that the archiving system currently employed does not give room for active interaction between the visitors and the materials in the archives and museums. Ordinarily materials like tangible objects are displayed on shelves and some are even locked in cases with glass windows. Because of this system, materials are divorced from people who want to have a feel by playing them and also the owners. In other words, institutionalization of such museums and archives is some form of colonialism, which denies full access and direct interface between people and traditional materials.

The paper advocates for the adoption of a system that is interactive, democratic, inclusive, and communal. A system which allows the involvement of the community members in explaining materials and performances using similar instruments; visuals like tangible objects, photographs, posters, cards and videos; audio like recordings and live song performances during organised rural and urban concerts; and the use of electronic data like software and websites. Objects should be presented with a holistic perspective, with attempts to retain its contextual role. Adoption of such an approach has been referred to in this paper as an interactive museum system. The author has also made reference to his music archive, in which he has already started to implement the concept, and he has included here a few images.

References

Agawu, C. 2003. *Representing African Music*. New York: Taylor and Francis.

Allen, W. S., Emeneau, M. B., and Chao, Y. R. 1954. Statement for the conference on archiving. *International Journal of American Linguistics* 20(2): 83–88.

Banks, M. 2007. *Using Visual data in Qualitative research*. London: SAGE Publications.

Bonnett, S. 1999. African music. *Talking drum* 11: 4.

Bradsher, G. J. (ed.). 1988. *Managing archives and archival institutions*. London: Mansell Publication.

Caple, C. 2011. *Preventive Conservation in Museums*. New York: Routledge.

Derrida, J. 1995. *Archive Fever: A Freudian Impression*. Chicago: University of Chicago Press.

Ketelaar, E. 2000. Archivistics research saving the profession. *The American Archivist*. 63(2): 322–340.

Nzewi, M. 2007. *A Contemporary study of Musical Arts informed by African indigenous knowledge system*, vol. 4:

Illuminations, reflections and explorations. Pretoria: Ciimda.

Pederson, A. (ed.). 1988. *Keeping archives*. Sydney: Australian Society of Archives..

Seeger, A. 1986. The role of sound archives in ethnomusicology today. *Ethnomusicology* 30(2): 261–276.

Old & New: Redeveloping Scotland's Oldest Concert Hall for the Modern Museum Visitor

Sarah Deters
St Cecilia's Hall, University of Edinburgh
Edinburgh, UK

Abstract

St Cecilia's Hall, the home of The University of Edinburgh's musical instrument collection, is Scotland's oldest concert hall and is located in the heart of Edinburgh's Old Town, a UNESCO World Heritage site. Prior to a major redevelopment completed in May 2017, this Georgian building and its musical treasures were lost within the wealth of museums and tourist attractions in Edinburgh. Inside, St Cecilia's Hall offered limited interpretation to its visitors on the importance of the building to Scottish musical culture or on the instruments on display.

Through the redevelopment project, the staff of St Cecilia's Hall had the opportunity to reimagine the museum's layout, displays, and interpretation, and to bring attention to this historically important, but hidden, architectural treasure. To connect visitors to the items on display and to the history of the building, we took a multi-layered approach, combining traditional labels, a bespoke app, tactile interactives, and live demonstrations in order to bring our objects to life.

But, how did we do? Do our visitors feel more connected to the history of musical instruments and to the history of music performance in Edinburgh? Have we been successful in raising the profile of the building and re-establishing it as a centre of music performance and study? This paper will offer an analysis of the first year of operation after the reopening of the building. It will examine visitor numbers and surveys, critical reviews of the museum space, and the overall response of the new museology of the displays.

St Cecilia's Hall has a long and important history. The concert hall, built for the Edinburgh Musical Society, opened in 1763 and for thirty years, it was the place to go for musical performance in Edinburgh. During its heyday in Georgian society, the Concert Room was the venue for some of the best performances in Scotland, featuring international performers and composers.

After the hall closed as a music venue in 1798, St Cecilia's Hall was used for a variety of purposes. It became a Baptist chapel, a Masonic Lodge, a school, a furniture warehouse, a dance hall, and even a bar. In 1959, the University of Edinburgh purchased the building to house the Raymond Russell Collection of early keyboard instruments, which were given with the intention that they were available for academic use and public concerts. The concert room was returned to its original purpose and an addition was built to create gallery space for the instruments.

The building reopened in 1968 as St Cecilia's Hall and Museum. The focus was very much on university teaching and the instrument collection was open to the public for six hours a week. Only 19 instruments were displayed in the two keyboard galleries. At that time, the building was primarily used by the Music Department for teaching and occasional concerts. Over the next forty years, the number of instruments on display steadily increased, thanks to generous gifts from numerous donors and prior to the redevelopment of St Cecilia's Hall, 72 keyboard instruments were on display in the crowded galleries.

In addition to the instruments at St Cecilia's Hall, the University of Edinburgh displayed wind, stringed, and percussion instruments at the Reid Concert Hall. The display cases at the Reid dated from 1859 when Professor John Donaldson established the foundations of music teaching and the instrument collection at the University. Although the Victorian museum was the oldest purpose-built musical instrument museum in the world, the cases were no longer fit for purpose and were thus unable to provide a stable environment for the display of the Collection. The Reid Concert Hall Museum was run on similar lines to St Cecilia's Hall, with limited opening hours and an emphasis on University teaching. Overall, the displays were crowded, poorly lit, were not accessible, and offered little interpretation for the general public. Although this suited the musically literate and instrument experts, much more potential existed for opening up the musical instrument collections at both museums to wider and more diverse audiences.

The impetus for redeveloping the music museum came from the desire for comfort. In 2008, benefactors offered the University £500,000 to buy new seats for the concert hall, as the seats were made of metal and uncomfortable. This desire for a comfortable chair started a chain of events that would lead to a £6.5 million redevelopment of the entire museum.

Fast forward to today and the University of Edinburgh's musical instrument museum has gone through a transformation. St Cecilia's Hall was chosen as the home for the collection and now displays around 500 musical instruments. Renovation and conservation works have been completed, additional galleries constructed, a new interpretation strategy put into place, and a wide range of events have happened to inspire new audiences. Now, more than a year since the redeveloped museum opened in May 2017, it is a good time to reflect on the project with a critical eye and to review its objectives, successes and shortcomings. This paper offers an analysis of the first year of operation after reopening the building. It provides a critical review of the museum space, an overall response of the new museology of the displays, as well as examines visitor numbers and surveys. It finishes with a discussion of the challenges of balancing the needs of the museum within a large and changing university structure.

Why St Cecilia's Hall?

With two historically significant buildings to choose from, why pick St Cecilia's Hall as the main museum? Mainly, this came down to location. Situated in the heart of Edinburgh's Old Town, a UNESCO world heritage site, St Cecilia’s Hall is located in the main tourist district, halfway between Edinburgh Castle, the most visited site in Scotland, and the Palace of Holyrood House, the official residence of the Queen in Scotland. Aside from its location, the building has a long and important history. The historic importance of the building, along with its prime location, made St Cecilia's Hall the obvious choice. Nevertheless, even in this prime location, St Cecilia's Hall had a visibility problem, as there was not a noticeable entrance to the building, or a major presence on the street.

Plans and Promises

The key aims of the redevelopment project were to modernise, make accessible, and ensure the long-term preservation of Scotland's oldest concert hall and one of the world's finest collection of musical instruments. In the project, we had four main objectives. They were to:

- Restore the original historic frontage of the building and create a new signature entrance visible to tourists. By renovating and reorienting the building, we would improve its visibility within the city and create a first-class visitor attraction.
- Expand gallery spaces to enable a complete redisplay and reinterpretation of the Collection. In redesigning and refurbishing the keyboard galleries and introducing two galleries for instruments previously on display at the Reid Concert Hall, we could thus offer all visitors a more coherent history of musical instruments.

- Improve the concert room and audience experience through the introduction of bespoke tiered seating. This would be reminiscent of the 1763 original and, whilst being sensitive to the eighteenth-century character and acoustic of the performance hall, would modernise services and the look and feel of the space.
- Diversify and expand our audience. We wanted to change our user base by engaging with new audiences and significantly expanding our existing users through a wide range of events and activities.
- Upgrade the building's infrastructure to provide improved access for all and the best possible care for the instruments, thus ensuring their long-term preservation and, ultimately, enable us to offer increased performances, longer opening hours to the museum, and provide new ways to experience its collection.

Museum Design, Display, and Interpretation

During the project, we wanted to form a better link between the two defining features of St Cecilia's Hall, the concert room, and the museum, by creating a joined-up experience throughout the building. Prior to the redevelopment, one could come to a concert in the concert room and never know that there was a musical instrument museum in the same building. Alternatively, visitors who came to see the keyboard collection were often unaware that Scotland's oldest concert hall was just through a set of wooden doors on the first floor. We sought to remedy many of these issues through the building's design, museum layout, and interpretation.

The visitor's journey begins through entering a new, feature metal gate (Fig. 1). The design of the gate was inspired by one of the harpsichords in the collection and this large feature acts as a beacon to visitors, drawing them down to the entrance of the museum.

Fig. 1. The feature gate and new entrance.

After being greeted in the new lobby, visitors continue to the *Binks Gallery* (Fig. 2). Here they can learn about different types of keyboards in the theme 'Uncommon keyboards', be introduced to the most famous makers of harpsichords in 'Meet the Makers: Craftsmen, Entrepreneurs and Brands', and discover some of the more unscrupulous instrument makers in 'Copies, Counterfeits and Concoctions'. One of our most well know instruments, the 1769 Taskin harpsichord, is place on a raised plinth in the centre of the room, giving it a prominent place and also breaking up the visual line in the long narrow space.

The decoration of keyboard instruments and their use in society is the focus of the *1812 Gallery*. Here visitors can explore how keyboard instruments were status symbols in 'Keeping Up with Fashion', and in the 'Grand Houses, Homes and Concert Halls' section, visitors can learn how keyboards have been both important as domestic and concert instruments. In both of these galleries the instruments are not grouped chronologically or organologically. Instead, themes were

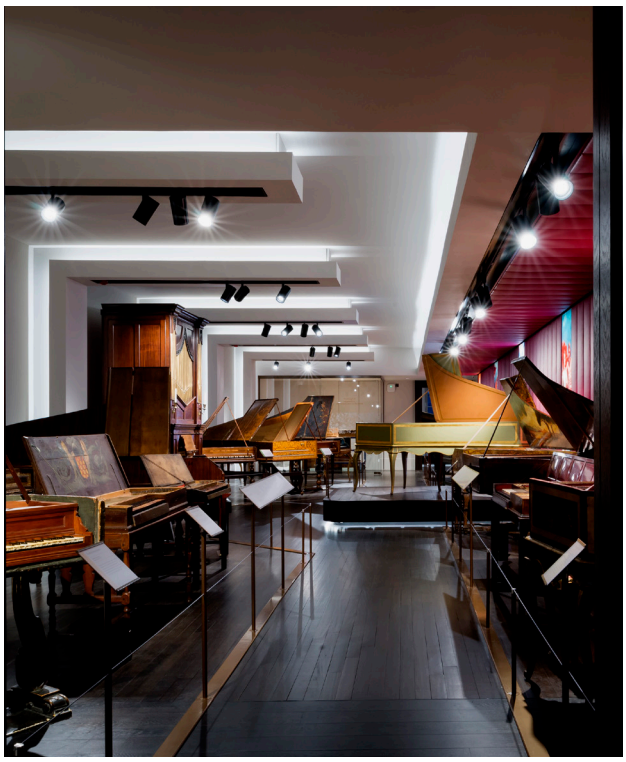


Fig. 2. The Binks Gallery.

created around the objects. This was one of the most significant changes in our approach in the interpretation. The goal was to change the interpretation from being academic and technical to one designed to appeal to the general visitor. Now, no prior musical knowledge is required and we have "humanised" our collection through telling stories and highlighting interesting details and cultural movements associated with musical instruments.

Each keyboard in the two galleries has its own colour-coded label, which helps the visitor to visually connect the instrument to its corresponding panel text. One complaint we have received is that in an attempt to remove technical terms, we used the word 'keyboard' rather than 'manual' in the instrument labels. This was not the choice of the curators of the museum, but was part of the interpretation strategy, which emphasized removing any musical or technical terms.

When leaving the keyboard galleries, visitors see directly into the *Sypert Concert Room* (Fig. 3) through new glass doors and are welcome

Fig. 3. The updated *Sypert Concert Room*.

to enter into the space. The design of the concert room is the most controversial redeveloped space. There has been both positive and negative feedback from users who have alternatively said we 'destroyed' the space and 'ruined the historic building' or called the space 'stunning' and 'beautiful'. It would seem that people either love it or hate it. An oversight from the curatorial side is that there is no physical interpretation in the concert room, which in hindsight is needed. Instead, visitors can learn about the hall through our museum app, which will be discussed later.

Next on the journey is the *Wolfson Gallery*, which displays instruments previously displayed at the Reid Concert Hall. This room explores the creation and development of musical instruments and has stringed, wind, and percussion instruments on display. The gallery uses a more standard, organological grouping in its display design with instruments grouped according to family and, when possible, chronologically. Because of the large number of instruments on display, around 300, all of instruments have a short, keystone label, with "highlight" instruments receiving a more complete label. This densely packed room has a "wow" factor when visitors walk in, but we have heard that sometimes the experience can be overwhelming and finding the information on a particular instrument difficult because of the number of items displayed in each case.

Fig. 4. Example of labels used in the *Wolfson Gallery*.

The final display area in the museum is a space known as the *Laigh Hall*. Here the exhibits explore how music is a form of communication and part of every culture, and we investigate the universality of music and musical instruments. In the section 'Playing Together' we discuss the joys and challenges of playing instruments in a group and have organized instruments into three ensembles. In the 'Global Sounds' section we explore how people from all over the world use music and musical instruments in the same ways. In this section we grouped instruments according to their social use rather than geographically or organologically. We created mixed displays of instruments from all over the word, which are used to play classical, traditional, ritual, and popular music. In addition to introductory panel text for the various themes, each instrument has its own descriptive label in this gallery. Unfortunately, this last room seems to be the least visited by museumgoers – perhaps because visitors are starting to experience visitor fatigue by the time they reach this space. Although general visitors do not always spend a lot of time in this gallery, this is the starting point for school groups and it is where receptions, concert intermissions, and many events occur.

In addition to the traditional panel text and labels available throughout the museum, digital interpretation was developed in tandem with the physical interpretation. To augment a visitor's experience, a free downloadable app was created. This app is the gateway for accessing additional information on the history of the building, the instruments, and over 90 sound recordings. The app works as an interactive map where the visitor chooses a room, has the opportunity to listen to an introduction to the space, and can navigate around the room, and choose an instrument to find out

more information and listen to a recording of the instrument. If the visitor wants to learn even more information about the instrument, they access the online catalogue of the item where technical information is available. For visitors who do not have a smartphone or who have not already downloaded the app, the museum has a number of tablets that can be borrowed from reception free of charge.

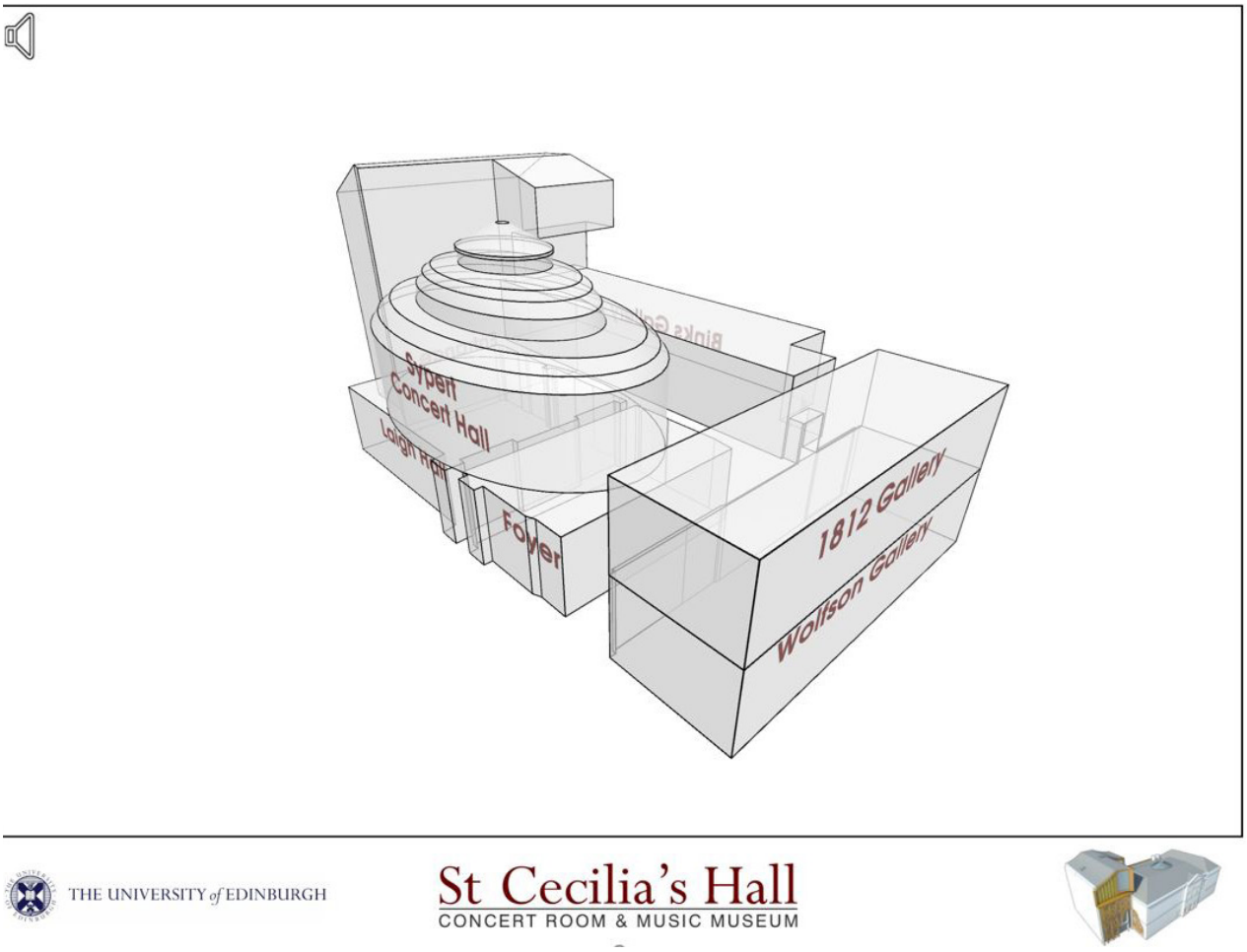


Fig. 5. The interactive map used on St Cecilia's Hall app.

Overall, the app has been successful, but we have found that some visitors are intimidated by the technology and choose not to borrow a tablet when visiting the museum. Also, by relying on the app to give the history of the building to visitors, those who do not use it miss this important part of our interpretation. By not using the app, visitors do not connect with the history of the St Cecilia's Hall – an important goal in the project.

Expanding Audiences

As stated earlier, one of our main objectives was to diversify and expand our audiences. To reach out to previously unengaged people and to retain our current supporters, we developed an extensive programme of activities and events. The activities were designed to attract people who had not engaged with our building or collection, to strengthen relationships with our current users, and to build ties with different members of the community.

Examples of the types of events we have held include concerts, lectures, masterclasses, workshops, and playing days. In the first year of operation, we held over 80 public concerts. The concerts featured musicians from around the world playing music ranging from medieval times to today and explored genres such as traditional folk, classical, rock, and experimental

music. We organised workshops and masterclasses that explored subjects such as beer tasting, murder ballad singing, sitar playing, jewellery making, and swing dancing. This seemingly disparate group of events all relate to either instruments on display or the history of St Cecilia's Hall.

User Analysis

During the first year of operation, St Cecilia's Hall had 24,204 visitors, which was 6,000 more than our target. The most popular month for visitors was in August, when Edinburgh hosts the Edinburgh International Festival, Festival Fringe, and the Edinburgh Art Festival. The majority of people who came to St Cecilia's Hall during the first year of operation did so to attend an organised event. Not surprisingly, concerts were the best attended, followed by events such as master classes and workshops. We had over 8,000 "walk up" visitors and close to 2,000 people came for a pre-arranged tour of the museum. Of those surveyed, 74% of visitors had never visited St Cecilia's Hall in the past. Unfortunately, when asked if visiting the building increased their knowledge of the history of St Cecilia's Hall, only 12% of visitors said yes. This reinforces the need to improve the interpretation of the building's history. In general, visitor feedback has been overwhelmingly positive. Examples of comments left on visitor surveys include: 'Always knew about this place but had never visited – wonderful!' 'The quality of the exhibitions has been enhanced by the high-quality renovations of the building. Thank you.'; 'Absolutely fantastic and fascinating collection!'

The Price of Success

Overall, the redevelopment has been seen as a success, but there are still challenges facing our museum. Because of restructuring within our department at the University, there have been staffing changes within our museum, as well as a shift in the emphasis in regards to teaching. The curatorial staff was reduced to one museum curator, ending the long tradition of having two curators who were dedicated to research and teaching. Offsetting this reduction is an increase in museum support staff, including a full-time museum services manager and two part-time museum assistants. With the focus of the museum now centred on the general public, research and teaching has suffered. Our institution was an internationally known centre for the study of musical instruments, where students from around the world came to obtain a PhD in organology. Now, because of lack of support and funding, this programme has essentially ended. Although our staff continuously advocates for the return of this important programme, it looks as though PhD teaching will not revive unless there is a dramatic change in institutional thinking. In creating a museum that is open and welcoming to a large and diverse audience, we have neglected one of our core supporters: student researchers. Perhaps as St Cecilia's Hall continues to settle into its redeveloped state, the pendulum will swing again and balance our focus.

In summary, through the redevelopment of St Cecilia's Hall we changed the orientation of the building both physically and philosophically. This transformation turned our thinking from inward-looking, exclusive, and academic-focussed to an outward-looking, inclusive, public museum, which is free to visit and open five days a week. The physical alterations to the building have made our historic structure accessible, new approachable interpretation has been introduced, which tells the story of musical instruments to a non-expert audience, and an exciting range of programmes and activities have allowed us to provide meaningful engagement to an expanded audience. We have received overwhelming positive feedback from visitors and we expect our audience to continue to expand as more and more people learn about our museum. For the general visitor our museum is now a welcoming and friendly space but the focus on the non-specialist audience has come at a price.

Embracing the Bull; The "*Tololoche* Problem" as a Case Study of Organological Taxonomy in a Museum Context

Matthew W. Hill
Edinburgh, UK

Abstract

In the Musical Instrument Museum in Phoenix, Arizona there is an exhibit on the Norteño music of northern Mexico. Within this exhibit there is a rather unremarkable-looking example of an instrument that nonetheless presents a particularly striking taxonomical challenge for the museum. To the casual observer, the instrument appears to be an ordinary plywood double bass, but there are musical and cultural aspects to the instrument which make its identification within the context of the exhibit problematic. To the organologist, the instrument is a double bass. The label on the inside of the American-made instrument identifies it as a "bass viol". But to the Mexican player of Norteño music the instrument is known as a "tololoche", a name that is derived from an ancient Mayan word meaning "embraced bull". All of this raises a simple, yet difficult question; what do we call this instrument?

Shakespeare famously asked "what's in a name?" And while a double bass by any other name would sound just as sweet, the conveying of fundamental information within a museum – such as what, when, and who – cogently and correctly is the foundation of the visitor experience. The presentation of relevant context regarding material culture is of primary importance for museums, and yet, as every museum professional knows, sometimes these simple questions are anything but simple, and coming up with a satisfactory answer requires careful and creative consideration. This paper will discuss the cultural, organological, and taxonomical questions that the divining of the proper name of this instrument raises, along with an examination of the relevant methodological and other issues associated with it.

In the musical instrument Museum in Phoenix Arizona there is an exhibit on the *Norteño* music of northern Mexico. *Norteño*, which in Spanish means "northern", is a type of traditional Mexican dance music. *Norteño* music is very influenced by the polka, and is typically played on the accordion and a *bajo sexto*, which is the type of baritone guitar. Along with examples of an accordion and *bajo sexto*, within this exhibit there is a rather unremarkable-looking example of a double bass. There are however, musical and cultural aspects to this instrument which make it anything but ordinary, and that make its identification, especially within the context of the exhibit, something of a problem. To an organologist, identifying this instrument is easy: it is a double bass. The label on the inside of the instrument identifies it as a "bass viol", made in the United States by the Kay musical instrument company of Chicago, Illinois, USA. But to the Mexican player of *Norteño* music this instrument is known as a "*tololoche*".

So, we have an instrument with three possible names: one that derives from its musical classification; one that was given to it by the maker of the instrument; and one that is given to it by the musicians who actually play the instrument. So, when displaying this instrument in a museum, what should we call it? What name should we put on the label? This is what I have called "the *tololoche* problem".

To answer the *tololoche* problem, we first have to understand exactly what a *tololoche* is and how it is used in *Norteño* music.

The name "*tololoche*" comes from an ancient Mayan word meaning "embracing the bull". It is not clear how the name *tololoche* became attached to this double bass-like instrument, but it is interesting to note that the name *tololoche* has been used in Mexican culture for other things that are rather big and loud. For example there was a famous type of Mexican made

Fig. 1. Tololoche at the Musical Instrument Museum, Phoenix. (Photo: Steve Hinders)

Fig. 2. Musician using a conventional double bass as a tololoche. Note the use of the randomly multi-coloured red, white, and blue nylon strings.

aeroplane in the early twentieth century that was known as a *tololoche* because of its large cargo capacity and rather loud and noisy engine.

At first glance the traditional Mexican *tololoche* looks a lot like a conventional double bass, but there are many subtle differences which make the instrument quite different, especially in the way it is played.

The first and most obvious difference between traditional Mexican *tololoche* and the double bass is its size. The *tololoche* is noticeably smaller and has a smaller string length. Although most modern examples of *tololoches* have four strings, earlier instruments would often be made with three strings, similar to many English double basses of the early nineteenth century. In contrast to typical double bass, a *tololoche* is typically constructed of wood that is locally available in Mexico, with a neck, back and sides made from various woods of the mahogany family, and a soundboard made of various woods of the pine tree family, especially the wood known as *piñon*.

But possibly the biggest difference between a *tololoche* and a conventional double bass is the strings. In contrast to the high-tension strings typically used on a double bass, almost all *tololoches* use strings made of a springy, low-tension nylon material. The most common variety of *tololoche* strings are made in such a way that they are randomly coloured red, white, and blue along the length of the string. These strings are extremely similar to those used on the Mexican gitarron, the six-stringed bass instrument used in mariachi music.

The differences in the construction and set up of the tololoche are reflected in the way that the instrument is played by *Norteño* musicians. The tololoche is never played in the traditional European way with a bow. It is always plucked with the fingers, pizzicato style. However, the pizzicato technique used by tololoche players is very different than that used by classical musicians or even the double bass plucking technique used by jazz musicians. The *Norteño* tololoche player uses a right-hand technique known as "taca taca", which is named after the percussive sound that this playing style makes. This taca taca technique is very similar to the slap-style of double bass playing used by American rockabilly musicians and is such an

essential part of the *tololoche's* sound, that *tololoche* players are often known simply as "taca taca". The taca taca is so important to the sound of *Norteño* music that the distinction is typically made between groups that use the instrument and ones that do not, with groups that do use it being known as "*Norteño con tololoche*".

So, after all of this explanation of why the *tololoche* is so important to Norteño music, why did we not use an actual tololoche in our *Norteño* exhibit at the Musical Instrument Museum? As is often the case, the simple truth was not so simple.

The exhibit "*Norteño* music" is located in the gallery dedicated to the musical traditions of the USA and Canada. Although *Norteño* music is closely associated with Mexico, it is a musical style performed and appreciated equally on both sides of the Mexican–American border. In fact, Norteño's biggest market is not in Mexico, but in the Mexican expatriate community in the United States, especially the larger cities of the American West and Southwest, some of which are a considerable distance from the Mexican border. On the American side of the border, it is much easier for a musician to find a double bass than indigenous Mexican *tololoche*, and it is very common for musicians to substitute a double bass, especially in American made instrument of plywood construction, for a tololoche. Musicians take these plywood double basses and set them up like a *tololoche*, using the multi-coloured nylon strings I mentioned earlier – which by the way are made by a company in Los Angeles, California. When it came to representing the performance of *Norteño* music, I felt that using a double bass set up as a tololoche, the setup used by the majority of tololoche players on the American side of the border, better reflected the actual reality and playing practices of *Norteño* musicians.

So what can we learn from "the *tololoche* problem"? What makes the instrument on display at the Musical Instrument Museum a "*tololoche*" and not a double bass as it is to the organologist, or a bass viol as it is to the manufacturer of the instrument?

In a word, context.

Although we talk a lot about the cultural context of objects, we are not always consistent about using cultural context as a part of taxonomy. And the reason for this is that an object can have multiple contexts operating at the same time. In this exhibit it was important to convey the most important framework of the object, which in this case was its cultural context, rather than its organological context. The inclusion of the American-made double bass in the *Norteño* exhibit was intended to depict the real, rather than the ideal, and using the object name "*tololoche*", emphasised that the musician's conception of the instrument, rather than the maker's – or the organologist's – is the most relevant one to present to the museum visitor.

To put it succinctly, the instrument is a *tololoche* because the player thinks of it and plays it as a *tololoche*.

So after careful consideration, the *tololoche* problem turns out not to be a problem at all.

New Instruments for the Chinese "Folk" Orchestra: A Challenge for Museums

Stewart Carter
Wake Forest University
Winston-Salem, North Carolina, USA

Abstract

The Chinese "folk" orchestra has faced many challenges in its relatively short history, due largely to the conflicting objectives surrounding its inception. On the one hand, it has tried to preserve China's musical heritage by employing traditional instruments; on the other, it has tried to compete in sonority with western-style orchestras. In attempts to meet both objectives, new instruments in the bass range were developed as early as the 1960s so that these orchestras could perform harmonized versions of traditional melodies as well as new music written expressly for them. Among the strings, the huqin family and the ruan in particular were constructed in larger sizes; and among the winds, the sheng and the suona.

In several decades of experimentation with these instruments there have been many successes, but also several failures. The bass sheng, made largely of metal and activated by push-buttons or a keyboard, and the bass suona, with its elaborate keywork, have proved to be successful additions to the orchestra. New bass members of the huqin family, however, are generally so deficient in sonority that most folk orchestras use western-style cellos and basses.

These developments have been largely ignored by the museological community. While a substantial number of experimental instruments survive, many of the makers of early models are deceased, so chronicling the initial stages of the movement becomes increasingly difficult. My papers offers suggestions for collecting and displaying these instruments and also for gathering ancillary information about them and their makers. It further identifies specific technological innovations, such as a right-angle soundpost for the bass huqin, that could be highlighted in exhibits, and suggests how museums could mount displays combining experimental instruments from western as well as Chinese traditions.

The Chinese "folk" orchestra has faced many challenges in its short history, due largely to the conflicting objectives surrounding its inception. On the one hand, it has tried to preserve China's musical heritage by employing traditional instruments; on the other, it has tried to compete in sonority with western-style orchestras. In an effort to meet both objectives, new instruments in the tenor and bass ranges have been developed. Ironically, most Chinese folk orchestras today use western-style cellos and basses for the foundation of the string section. My study highlights some of the experimental efforts to develop larger sizes of Chinese instruments and presents a case for displaying these instruments in museums.

Historically, Chinese music was monophonic or heterophonic and had little need for instruments in the bass range. Traditional melodies continue to be an important staple of the Chinese folk orchestra, though today they typically perform such tunes in harmonized arrangements. These ensembles also play new music composed expressly for them. As a result, they now need strong support in the bass range. Among the strings, members of the *huqin* family in particular have been constructed in larger sizes; and among the winds, the *sheng* and the *suona*.

Stringed instruments

In the 1950s folk orchestras were formed in Beijing and Shanghai, and around the same time, music conservatories in China began to teach traditional instruments. Peng Zhen-yuan of Shanghai was one of the earliest adherents of the *gehu*, essentially a bass *erhu.* Yang Yu-sen, professor of *erhu* at the Shanghai Conservatory of Music, encouraged Peng to help design and learn to play the *gehu*. Yang's plan to create a bass member of the *huqin* family was enthusiastically endorsed by then-Premier Zhou En-lai, who wanted to hear Chinese instruments rather than western cellos and basses in the Chinese orchestra. In 1951 Yang published an article in the journal *Renmin yue* ("People's Music"), in which he presented technical drawings for a larger member of the *huqin* family, which he called *gehu*, or "revolutionary *hu*" (Fig. 1).

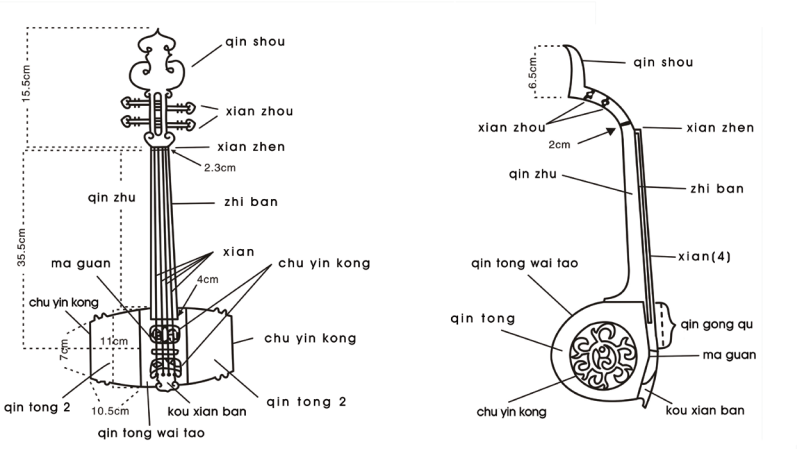


Fig. 1. Yang Yu-sen, technical drawing of *gehu*. (Printed in the Chinese journal *Renmin Yinyue*, vol. 3, 1951)

But from the outset, the development of the *gehu* faced challenges associated with the basic form of the *erhu*. The *erhu* has a small resonating body, its head is made of snakeskin, and it has no soundpost to transmit vibrations to a second resonating plate. Yang's design for the *gehu* was intended to address some of these problems, in part by using additional vibrating plates made of wood. The last seventy-odd years have witnessed the construction of many alternative forms of the large-size *huqin*, under a variety of names. Most of these are in many respects more cello-like than *huqin*-like: they have four strings instead of two, which means that the bow cannot be fixed between the strings, and they usually follow the tunings of their western cousins.

Peng Zhen-yuan worked with Yang Yu-sen's development team, some of whom were students at Shanghai Conservatory, to improve the *gehu*. The team's master craftsman was Xu Jin-yuan, who worked for Shanghai No. 1 Musical Instruments Factory. The team's efforts came to fruition in 1974–1975, when a second stage in the development of the *gehu* was realized. Peng's own *gehu*, made in 1974, was a product of the team's efforts. Its body is made of wood, it has four metal strings stretched over an ebony fingerboard, it sports a belly of mountain fir (*shan*) rather than snakeskin, and it has an endpin. On the player's left, open lattice-work adorns the large opening. A sloped cutaway on the left-hand side of the body of the instrument, also covered with lattice-work, provides space for to operate the bow. On the player's right is another thin wooden head. The cello-style bridge fits into a slot in the belly of the instrument, below which is attached a thin soundpost, extending approximately halfway through the cavity inside the instrument, where it joins another small post extending at a right angle from this point to a "bass bar" attached to the wooden head on the player's right (Fig. 2).

A notable exception to the prevailing preference of Chinese folk orchestras for cellos and basses is the Hong Kong Chinese Orchestra. In a workshop near the orchestra's offices, Yuen Shi-chun builds most of the orchestra's stringed instruments, including *gehu* and *dagehu*. Yuen's *dagehu* is in similar in construction to Peng's *gehu*. But unlike Peng's instrument, the main vibrating plate is made of polyethylene terephthalate (PET) rather than snakeskin;[1] the other is made of wood. Tuned E-A-D-G, like a western orchestral bass, Yuen's instrument has ¾-size bass strings. And like Peng's instrument, the bridge fits into a slot in the wooden

Fig. 2. Gehu designed by Yang Yu-sen, made by team including Xu Jin-yuan and Peng Zhen-yuan, c. 1975. Property of Peng Zhen-yuan. (Photo by the author, 2013)

belly; one of its feet is attached to a slender soundpost that extends into the instrument's cavity. A secondary soundpost joins the primary post at a 90-degree angle at the midpoint of the cavity. It extends to the synthetic head on the player's right, where it is attached to the centre of a six-pointed star made of thin strips of wood, each approximately four inches long. Mr. Yuen's demonstration of the instrument showed it to be remarkably resonant (Fig. 3).

Yuen uses mountain fir for the body of the instrument, pine for the soundboard, maple for the neck, and ebony for the fingerboard. He experimented with several different materials for the resonating head before settling on PET. The Hong Kong Chinese Orchestra has achieved a certain notoriety for their use of these synthetic materials, for Mr. Yuen has constructed an entire family of instruments called the *eco-huqin* series. In 2012 the Orchestra won the Chinese Ministry of Culture's Innovation Award for its efforts in developing these instruments. The Chinese government has granted permission for some makers to use python skin for the construction of *erhu*, but the Hong Kong Orchestra

Fig. 3. Hubert Yan (left), Music Director, Hong Kong Chinese Orchestra, with snake-skin *gehu*; Wong Lok-ting with *eco-gaohu*; Yuen Shi-chun, instrument maker, with *eco-dagehu.* The two eco-instruments have heads of polyethylene terephthalate. (Photo by Sherry Lee. Reprinted by permission of *South China Morning Post*)

discovered on concert tours that some countries will not allow instruments with snakeskin heads to cross their borders, due to animal-rights laws.

Wind instruments

Sheng

Chinese wind-instrument makers have been more successful than stringed-instrument craftsmen in developing tenor/bass-size instruments. Both Suzhou No. 1 Musical Instrument Factory and the smaller Suzhou workshop of Chen Bo-quan manufacture large-size *sheng*. A particular specialty of Suzhou No. 1 is a bass *sheng* with accordion-style buttons, mounted on top of a cabinet, its pipes positioned behind the button-board, with the mouthpipe above it.

In a smaller workshop located in the outskirts of Suzhou, Chen Bo-quan makes both button-style tenor/bass *sheng* and keyboard *sheng*. Chen holds a patent for a keyboard *sheng* with forty-two pipes and keys and a range from G to c3. He attempted to build a *sheng* with an even lower range in keyboard form, but eventually determined it would not work, so this instrument has buttons, mounted on the instrument's base (Fig. 4).

Fig. 4. Bass *sheng* with keyboard, workshop of Chen Bo-quan, Suzhou. Mouthpipe not shown. (Photo by the author, 2013)

Fig. 5. Tenor-bass *suona*, Wushi Company, Beijing. (Photo by the author)

Suona

The traditional *suona* is a loud, high-pitched instrument. Some manufacturers have fitted the "soprano" *suona* with keywork in order to permit greater use of chromaticism and a wider range of tonalities. But larger versions of the *suona* have been manufactured in an effort to expand the harmonic foundation of the Chinese folk orchestra's wind section. The Wushi Company of Beijing is one of a small number of manufacturers in China making tenor or bass *suona* today. It is essentially a family operation, run by three members of the Wu family. Wu Lai Shun and Wu Jing Xin manage day-to-day operations; their younger brother, Wu Tong, is primarily a performer, a member of the famed Silk Road Ensemble.

Conclusion

The developments I have described in this essay represent the most significant changes in the construction of musical instruments within a relatively short span of time in China's history. One might compare these innovations to developments in wind instruments in European orchestras in the nineteenth century, especially in France and Germany, yet these developments in China have largely been ignored by the museological community. To the best of my knowledge, only the Minhang Museum in Shanghai, the collection of the Shanghai No. 1 Musical Instruments Factory, and Shanghai's Museum of Oriental Instruments hold more than a bare handful of these instruments. And they are almost totally absent from museums in Europe and the Americas.

Notes

[1] hkco.org/en/Instrument-Rd/Eco-Huqins.html. The Hong Kong Chinese Orchestra's awards include "Green Awards for 'Excellence of Environmental Contributions - Culture and Art" (2015 and 2016) "Distinguished Innovative Environmental Concept Award" (2014) and "4th Ministry of Culture Innovation Awards" of the People's Republic of China (2012).

References

Tsui Ying-fai. The Modern Chinese Orchestra. In Robert C. Provine, Yosihiko Tokumaru, and J. Lawrence Witzleben, eds., *The Garland Encyclopedia of World Music,* vol. 7: East Asia: *China, Japan, and Korea.* New York and London: Routledge, pp. 227–232.

Wang Guo-Zheng, ed. 2003. *Gongxian nanbei*. Shanghai: Shanghai No. 1 Musical Instruments Factory.

Xi Qiang. 2011. *Chinese Music and Musical Instruments.* New York: Better Link Press.

Yang Yu-sen. 1951. " 胡琴的改革和创造 " ("Huqin de gaige he chuangzao"; "Reform and Creation of Huqin"). 人民音乐 (*Renmin Yinyue*), vol. 3.

Research on the Musical Instrument "Sheng" Unearthed from the Tomb of Marquis Yi of Zeng – the Folk Remains of the "Bamboo-Reed Sheng" of WA Nationality in Cangyuan County, Southwest China and its Enlightenment

Chen Yang
Yunnan Normal University
Kunming, Yunnan Province, China

Abstract

The Sheng unearthed from the tomb of Zeng Hou Yi is of bamboo reed, which is difficult to recover. This paper examines the Wa people's bamboo-reed gourd sheng from Cangyuan County, Southwest China, by investigating the production techniques and performing forms of local folk artists. This paper explores the reasons for the remains of the bamboo-reed sheng of Wa Nationality and suggests that the natural environment, bamboo fibre, bamboo humidity, and the musical instrument's structure should be paid attention to during the restoration of the Tomb of Marquis Yi of Zeng.

Unlike most "*sheng*" in China, for which reeds were made of metal, the reed of the *sheng* unearthed from the Tomb of Marquis Yi of Zeng is made of bamboo. Similarly, the Wa People's "gourd *sheng*" in Cangyuan County, Yunnan Province of southwestern China still has the remains of bamboo reed *sheng* today. The restoration research on this musical instrument will surely give some inspiration to understand the early creative craftsmanship technology, and aid in the restoration of the *sheng* unearthed from the Tomb of Marquis Yi of Zeng.

There is no clear record of "Bi Lag Leen" in Chinese literature. The Wa people's "*bi lag leen*" and "*bi krom*" belong to Aerophones made of golden bamboo.

The reed of Bi Lag Leen is made of a slender bamboo strip. These bamboo strips were acquired and naturally dried in the mountains in the year before being crafted. The technique is to scrape one end of the bamboo strip with a knife to make it thinner as a whole then cut a rectangular groove with an artistic knife. The maker will tie the head of the bamboo strip with thin thread to prevent cracking. After repeating scraping in the groove to the required thickness of the reed, to make such an instrument, one cuts the three edges of the groove with a knife to form a reed tongue. Turn up the reed a little; put a very thin bamboo sheet under the reed tongue to keep the reed tongue tilted; the reed tongue can be shaped by a quick fire (Fig 1).

Fig. 1. The musical-instrument maker Mr. Tian Kaizheng making reed of *bi lag leen.*

Mr. Tian Kaizheng, a musical-instrument maker, prepared a bamboo pipe about 1.2 inches in diameter. The bamboo pipe is sealed with a bamboo knot at one end and a reed window is opened at the side of the sealing end so that the reed can be placed on it. All sides of the reed are then sealed and the reed window completely covered with black wax. The black wax has a high viscosity and can fix the reed very well (Fig 2).

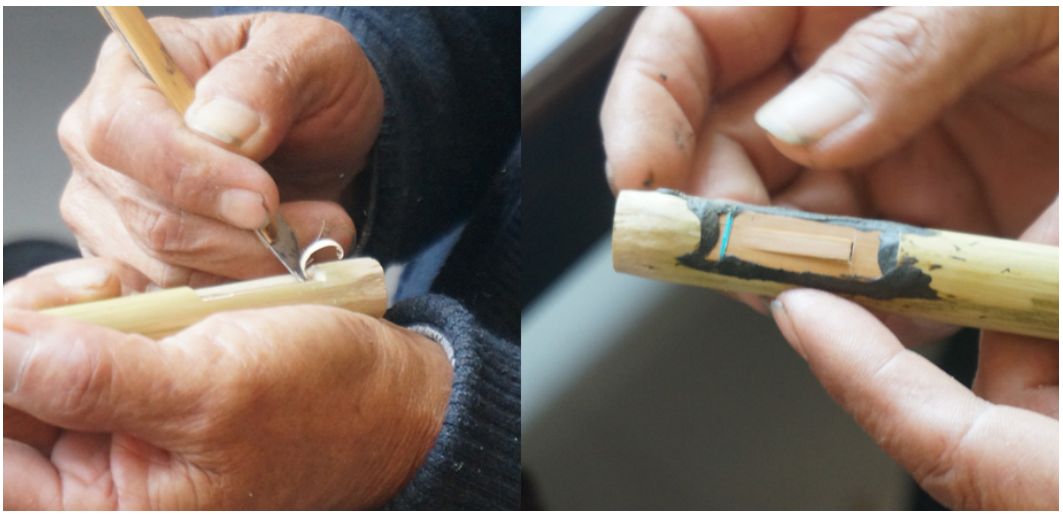


Fig. 2. The musical-instrument maker Mr. Tian Kaizheng fitting a reed of "Bi Lag Leen" into a reed window.

2. The Making Technology of a Wa gourd *sheng* by Mr. Tian Kaizheng

The reed window and reed-craftsmanship technology of a Wa gourd *sheng* is very similar to that of Bi Lag Leen. The difference is that the reed tongue of the gourd *sheng* cannot be raised like the reed tongue of the Bi Lag Leen in the process of making the gourd *sheng*. It needs to be kept flat to ensure its free vibration. It is a common and long-standing method in the traditional manufacturing process of *sheng* in China to add some black wax to the tip of the reed tongue. Generally, some minerals are added to the reed tongue to increase its weight, changing the elastic modulus of the reed, and achieving the purpose of adjusting the pitch. This method is called "Dian Lu" in China. Black wax or lead are usually used as the materials for Dian Lu in the Yunnan Province. The reed should be sealed with black wax and *sheng* seedlings. It can be fixed by heat from a fire (Fig 3).

Fig. 3. The craftsmanship technology of a Wa Gourd sheng: fixing a reed with black wax.

The blowing pipes of a Wa people's gourd *sheng* are usually connected and bonded by the heads of several gourds of different thicknesses. The most sophisticated mouthpiece is made of a thin bamboo tube. Tian Kaizheng's gourd pipe is made of bamboo tubes of different thicknesses, which can be connected by two to four segments as needed. The thicker bamboo slit on the other end is bonded to the gourd *sheng* body. The length of the general blowing pipe is about 30-40 cm. The purpose of setting such a length of the blowing pipe is to minimize the generation of water vapour into the gourd *sheng* body during blowing as much as possible. Water vapour will also attach itself to the inner wall of the pipe, which is easy to clean up. The reed window and reed back (in the direction of the intake of the *sheng* body) are needed when the *sheng* pipes of the gourd are installed. These practices are designed to prevent moisture from permanently impacting the reed due to humid air flow. These ingenious ideas are excellent creations of the Wa people.

Fig. 4. Mr Tian Kaizheng is playing the Wa Gourd *sheng* that he made himself.

3. The Research on Craftsmanship Technology for Using Bamboo Reed and Discussion of the Problems

Mr. Wang Zichu, a famous Chinese musical archaeologist, once participated in the restoration of the reed of *sheng* unearthed from the Tomb of Marquis Yi of Zeng in 2012. However, during the recovering process, many problems were identitifed with the bamboo reed, such as it was too thin, there was water erosion, and difficulty in tuning. Based on the author's dynamic research, it is preliminarily speculated that the causes of these problems are as follows:

(1) The problems are related to the natural environment and the characteristics of bamboo in the area where the Tomb of Marquis Yi of Zeng is located. The natural environment in the area where the tomb is located is relatively humid. The moisture content and humidity of the bamboo for the reed are the important factors determining the success of reproduction of the *sheng* reed. It is uncertain whether the reed of *sheng* unearthed from the Tomb of Marquis Yi of Zeng was dried in the manufacturing process; we should note that Cangyuan County, Yunnan Province, has an elevation of 2600 meters and has a relatively dry climate.

It is a fact that the reeds are easy to preserve. The gourd sheng purchased by the author in 2016 was placed in a home in Kunming City at an altitude of 1900 meters, and it is still in good condition.

(2) The elastic modulus of bamboo is also determined by the fibre structure and toughness of the bamboo used in *sheng* reed unearthed from the Tomb of Marquis Yi of Zeng. Therefore, more caution should be taken in the selection of bamboo materials to choose bamboo with higher elastic modulus and better flexibility.

(3) The manufacturing process of a *sheng* reed influences the long-term preservation of reed. Bamboo reed has a vertical fibre structure, which is difficult to preserve for a long time. So it is necessary to dry bamboo for reed first. It is necessary to tie wires on the head and keep the spring tongue dry and set in order to prevent the bamboo from cracking.

(4) The *sheng*'s structure effectively protects and influences the reed. The finalization of the *sheng* body unearthed from the Tomb of Marquis Yi of Zeng is based on the design requirements. "A certain circular diameter of the jacket inserted into the upper end of the juvenile spar, which can restrict the growth of the upper part of the juvenile spar forms a standard tubular shape for blowing." Whether the sheng body made in this way had been dried or not is still uncertain. But at least the distance between the blowing pipe end and the reed is relatively short. The body and pipes of a Wa people's gourd sheng were dried for a long time in the preparation process, even through a long-term fumigation process, so that the drying degree of the materials could meet high requirements. The sheng body with multi-sleeve structure was extended using a "big sleeve" and "small sleeve". As a result, the airway is artificially lengthened, and more water can be deposited in the longer airway, thus effectively preventing the erosion of water on the reed during blowing.

A corollary can be drawn from the above research: is the gradual disappearance of bamboo reeds in mainland China (and their replacement with copper reeds) caused by the influence of natural environment and shortage of bamboo? Alternatively, is it the superiority of materials from the natural environment and the original natural state of musical instruments that determines that some relics of bamboo-reed sheng in some minority areas of Yunnan Province survive? Further research will be needed to confirm these.

References

Liantao, Tian and Bingchang, Yuan. 1980. Musical Instruments of Wa Nationality in Ximeng. *Musical Instruments* 3(3): 25–28.

Shixiao, Li. 1983. Rich and Colorful Wa Music – A Brief Introduction to Wa Folk Music. *National Music* 8(3): 35–36.

Xueyuan, Wu. 2012. The Integration of Chinese Ethnic and Folk Instrumental Music (Yunnan volume). Beijing: ISBN Center.

Zichu, Wang. 2003. Chinese Music Archaeology. Fuzhou: Fujian Education Press.

The Scenes of Music-Making in the Wall Paintings of the Tang Tombs in Xi'an Areas and the Cultural Exchanges Between the West and the East

Liang Mian
Shaanxi History Museum
Xi'an, Shaanxi Province, China

This paper includes four parts: Introduction, Study of musical instruments, Analysis of musical images, and Musical exchanges between the Huren and Han.

Introduction

Xi'an area refers to the present Xi'an city in Shaanxi and its neighbouring counties. But in the Tang dynasty, it was the capital city of the country and the centre of the politics, economy and culture, as well as the burial place of many royal families, nobilities and the local elites. 18 mausoleums of the 19 Tang emperors (Emperor Gaozong, Li Zhi and his wife, Empress Wu Zetian shared one mausoleum) could be found on the northern bank of the Weishui River close to the present Xi'an city. Thus, Xi'an has become the centralized locations of the Tang dynasty tombs, especially those big mounds, which represent the characteristics of that era.

Generally speaking, the larger tombs of the Tang dynasty had wall paintings inside, among which the big tombs of the nobilities ranked of the highest grade were even richer in content and more superb in skills. Although the wall paintings of the Tang dynasty were also found in other provinces, no matter their scales or value, they do not compare with those found in the areas of Xi'an. According to the archaeological data, more than 3000 Tang tombs had been officially excavated, and more than 100 of them bore wall paintings up to now. The wall paintings existing in the Tang tomb chambers belong to the noble culture, which was one of the mainstream cultures in the Tang dynasty, and vividly recorded the law system, social customs, religious belief, ideology, and cultural exchanges. Then among these 100 tombs rich in the wall paintings, 23 of them had the wall paintings concerning about music and dancing. Table 1 following can clearly show the wall paintings about music and dancing in the Tang dynasty excavated in Guanzhong region of Shaanxi.

Table 1. Music and Dancing Presented in the Wall Paintings of the Tang Tombs

	Tomb Owner	Sacrificial time	Location	Excavation time	Content and condition	Works cited
1	Li Shou (brother of Emperor Gaozu)	In 631	In Jiaocun Village, Linqianzhen, Sanyuan County	In 1973	Music playing	Heritage Management Committee, Shaanxi Provincial Museum. 1974. *Tomb Excavation Briefing of Li Shou.* Cultural Relic, 9th ed., 71–88.
2	Li Simo (a General of Army)	In 646	In Satellite tombs of Zhaoling Mausoleum, Liquan County		A painting of *pipa* playing; and a painting of vertical *konghou* playing	Zhaoling Museum. 2006. *The Wall Painting of Zhaoling Mausoleum in the Tang Dynasty.* Heritage Press, 48–49.
3	Lord Zhishi Fengjie	In 658	Guodu, Changan County	In 1957	Dancing picture painted on the north wall of tomb chamber	He Zicheng, *The Wall Painting of Tang Tombs.* Cultural Relic. 8th ed., 1959, 3133.

4	The Princess Royal, Xincheng (Tang Taizong's 21st daughter)	In 663	In Satellite tombs of Zhaoling Mausoleum, Liquan County	In 1993	One dancing painting at the fourth hole on the east wall	Zhaoling Museum. 2006. *The Wall Painting of Zhaoling Mausoleum in the Tang Dynasty.* Heritage Press, 68 and 207.
5	Wei Guifei (Tang Taizong's concubine)	In 666	In Satellite tombs of Zhaoling Mausoleum, Liquan County	In 1989	Ji Music and dancers painted at the back on the east and west walls	Zhaoling Museum. 2006. *The Wall Painting of Zhaoling Mausoleum in the Tang Dynasty.* Heritage Press, 137–141.
6	Li Shuang	In 668	Yangtouzhen, Yangta district, Xi'an	In 1956	Ji Music	Heritage Management Committee, Shaanxi Provincial Museum. 1959. *Tomb Excavation of Li Shuang's Tomb in Yangtouzhen of Xi'an.* Cultural Relic, 3 ed., 43 –3.
7	Li Ji (Prince Taishi)	In 670	In Satellite tombs of Zhaoling Mausoleum, Liquan County	In 1971	Dancing pictures painted on the north wall of the tomb chamber	Zhaoling Museum. 2006. *The Wall Painting of Zhaoling Mausoleum in the Tang Dynasty.* Heritage Press, 146–147.
8	Yangfei (Tang Taizong's concubine)	In 671	In Satellite tombs of Zhaoling Mausoleum, Liquan County		Two dancers and music playing painted on the east wall of the tomb chamber	Zhaoling Museum. 2006. *The Wall Painting of Zhaoling Mausoleum in the Tang Dynasty.* Heritage Press, 172–178.
9	Li Hui (a General of Army)	In 689	Majiawan Village, Gaoling County	During 1995 to 1996	Dancers painted on the east wall of the tomb chamber	The Shaanxi Institute of Archaeology. 1998. *New Excavation of Wall Paintings in Tang Tombs.* Chongqing Press, 63–67.
10	Princess Yongtai (Tang Zhongzong's 7th daughter)	In 706	In Satellite tombs of Qianling Mausoleum, Qianxian County	During 1960 to 1962	Seemingly a music band painted on the east wall of the tomb chamber	Heritage Management Committee, Shaanxi Provincial Museum. 1964. *Tang Tomb Excavation Briefing of Princess Yongtai.* Cultural Relic., 1st ed., 7–33.
11	Prince Zhanghuai (2nd son of Tang Gaozong and Wu Zetian)	In 706	In Satellite tombs of Qianling Mausoleum, Qianxian County	During 1971 to 1972	Music instruments playing: *xiao, pipa*, flute and etc.	Zhang Honghxiu. 1991. *Selection of the Wall Paintings in Tang Tombs.* Shaanxi People's Fine Arts Publishing House, 114 and 119.
12	Prince Yide (Tang Zhongzong's oldest son)	In 706	In Satellite tombs of Qianling Mausoleum, Qianxian County	In 1971	Vertical konghou and *qin* players among the female figures painted on the east back wall	Zhang Honghxiu. 1991. *Selection of the Wall Paintings in Tang Tombs.* Shaanxi People's Fine Arts Publishing House, 94.
13	Wu Huifei (one of the Tang Xuanzong's favorite concubine)	In 738	At Pangliucun, Chang'an District, Xi'an	In 2008	Waist drum playing painted on wall of the tomb chamber	Cheng Xu. 2012. A Preliminary Study of the Decoration on the Stone Chamber from Concubine Wuhui's Tomb. *In Tang Dynasty Archaeology and Cultural Relics,* 3rd ed.
14	Li Xian (Tang Xuanzong's oldest brother)	In 742	In Sanhexiang, Pucheng County	In 2000	Music playing and dancers painted on the east wall of the tomb chamber	The Shaanxi Institute of Archaeology. 2005. *A Report about Excavation of Li Xian in Tang Tombs.* Science Press, 150–155.

15	Tombs of No. 10 Shaanxi Cotton Textile Factory		In No. 10 Shaanxi Cotton Textile Factory in Western suburb of Xi'an	In 1996	Music playing and dancers painted on the east wall of the tomb chamber	The Shaanxi Institute of Archaeology. 2002. *A Briefing about Cleaning Work of Wall Paintings in Tang Tombs excavated at No 10 Shaanxi Cotton Textile Factory inWestern Suburb.* Archaeology and Cultural Relics, 1st ed., 16–37.
16	Su Sixu	In 745	Near the site of Xingqingong Palace in western suburb of Xi'an	In 1952	A complete painting about music playing and dancers on the east wall of the tomb chambers	The Working Team for the Tang Tomb Research at the Shaanxi Institute of Archaeology. 1960. *A Briefing about Cleaning Work of Wall Paintings in Su Sixu's Tombs excavated at in Western Suburb of Xi'an.* Archaeology, the 1st ed., 30–36.
17	The Songs	In 745	At Hansengzhai of western suburb of Xi'an	In 1955	The remaining of music playing and dancers on the east wall	Zhang Zhengling. 1957. *Records of the Cleaning Work of The Tombs at Hansengzhai of Western Suburb of Xi'an.* Archaeological Communication, 5th ed., 58–59.
18	Zhang Quyi	In 748	At Zhangzhen, Xianyang	In 1953	Music playing and dancers painted on the east wall	He Zicheng. 1959. *The Wall Paintings in Tang Tombs.* Cultural Relic, 8th ed., 31–33.
19	Tombs of Zhujiadao Village		Zhujiadao Village, Fuping County	In 1994	Music playing and dancers painted on the east wall	Jing Zengli and Wang Xiaomeng. 1997. *The New Excavation of Wall Paintings in Tang Tombs at Fuping County.* Archaeology and Cultural Relics, 4th ed., 8–11.
20	Gao Yuangui (a General of Army)	In 756	Gaoloucun at the eastern suburb of Xi'an	In 1955	Female dancers painted on the east wall	He Zicheng. 1959. T*he Wall Paintings in Tang Tombs.* Cultural Relic, 8th ed., 31–33.
21	The Family Tombs of the Weis at Nanliwangcun		Nanliwangcun, Changan district, Xi'an	In 1987	Music playing painting on the 4th byobus among the six *byobus* on the west wall	Zhao Liguang. 1989. Wang Jiugang, *The Wall Paintings in Tang Tombs at Nanliwangcun in Changan district of Xi'an.* Cultural Browse, 4th ed., 3–9
22	The oldest Princess of Kingdom Tan (the 4th daughter of Tang Suzong)	In 787	At Dizhangwan, Xianyang	In 1953	The remaining of music playing painted on the east wall	Wang Renbo. 1984. He Xiuling, Shan Wei, *A Study of The Wall Paintings in Tang Tombs of Shaanxi.* Cultural Browse, vol. 2, 2nd ed., 44–55.
23	Yang Xuanlue	In 864	At Zaoyuan in western suburb of Xi'an	In 1953	Musinc playing and waist drum dancers on the east wall	Wang Renbo. 1984. He Xiuling, Shan Wei, *A Study of The Wall Paintings in Tang Tombs of Shaanxi.* Cultural Browse, vol. 1, 2nd ed. 44–55.Shaanxi Historical Museum. Charm and Glory: *The Wall Paintings of the Tang Tombs,* 365.

Study of musical instruments

Musical Instruments symbolize human material and spiritual civilization. It is the indispensable means of the music performance. Table 2 lists the main musical instruments and dancing presented in the wall Paintings of the Tang Tombs excavated in Xi'an.

From Table 2, we can clearly see that the music instruments like the vertical *konghou, pipa, bili,* panpipes, flute, cymbals, *sheng*, and harps were very common ones in people's everyday life. However, many of these instruments such as the vertical *konghou, pipa, bili*, cymbals, and waisted drums were brought from the Western regions to central China. *Tai Ping Yu Lan Music*

Part V has also recorded the origin of these musical instruments. This source states: 'In 382, there are totally 15 kinds of musical instruments: the vertical konghou, pipa, five-stringed *pipa, sheng,* flute, *xiao, bili,* panpipes, cymbals, *sheng*, and *bei*'.[1]

Table 2. Musical Instruments and Dancing Presented in the Wall Paintings of the Tang Tombs

	Tomb Owner	Main musical instruments and scene of music playing
1	Li Shou	Vertical konghou, five-string pipa, bent-neck *pipa*, *sheng*, and *qin*
2	Li Simo	The Vertical *konghou,* five-string *pipa*
3	Zhishi Fengjie	Dancing paintings
4	The Princess Royal, Xincheng	Dancing painting
5	Wei Guifei	Five paintings depicting the *qin, qing* playing and dancing, panpipes, female instrument player, and dancing respectively
6	Li Shuang	Flute, panpipes, *xiao* (a vertical bamboo flute)
7	Li Ji	Music playing; panpipes, flute, and *xiao*
8	Yangfei	Music playing and dancing; vertical *konghou, xiao*, and five-string *pipa*
9	Li Hui	Vertical *konghou*; music playing and dancing;
10	Li Xianhui	Seemingly a music band painted on the north wall of the tomb chamber
11	Li Xian	*Pipa*, and flute
12	Li Chongrun	Vertical *konghou* and qin
13	Wu Huifei	Waist drums
14	Li Xian	*Sheng*, cymbals, flute, *qin, pipa*; dancing
15	Tombs of No. 10 Shaanxi Cotton Textile Factory	Vertical *konghou, pipa*, and *qin*, *bili*; dancing
16	Su Sixu	Vertical *konghou, qin, bili*, panpipes, bent-neck pipa, sheng, cymbals, flute, Chinese cymbal; dancing
17	The Songs	*Sheng* blowing and dancing
18	Zhang Quyi	Music playing and dancing painted on the east wall of the tomb chamber
19	Tombs of Zhujiadao Village	Vertical *konghou*, bent-neck *pipa, sheng*, flute, Chinese cymbal, cymbal, *bili*; dancing
20	Gao Yuangui	Dancing painting
21	The Family Tombs of the Weis at Nanliwangcun	The crooked neck *pipa*, vertical *konghou*, and *qin*
22	The oldest Princess of Kingdom Tan	The remaining of dancing paintings
23	Yang Xuanlue	Waist drums

Fig. 1.

Fig. 2.

Next, let me briefly talk about these instruments.

The vertical *konghou*

Nine tombs found in the Xi'an district contain wall paintings that concern the vertical *konghou,* including the tomb of Li shou (Fig. 1) and the tomb of Yanfei (Fig. 2).

The vertical *konghou*, also known as "vertical-headed *konghou*" and "foreign *konghou*", was first recorded in Suishu: music, stating: "Nowadays the instruments such as bent-neck *pipa* and the vertical *konghou* are all originated from the West Region instead of China".[2] About its shape, Du You in *Tong Dian*, described it in this way: 'The vertical *konghou* is loved by the Emperor Hanlingdi of the Han Dynasty. It has bent neck, long body and twenty strings. It should be put vertically in front of the chest and played by both hands. Such way is called playing the *Konghou*.[3] *Hou Han Shu·Wu Xing Zhi* also recorded: 'Emperor Lingdi is fond of foreign clothes, (…) the vertical *konghou*, foreign flute and foreign dance, so his relatives, the nobilities, followed suit'.[4] Emperor Hanlingdi, Liu Hong, was in power from 168 to 188, so we can learn that the history of the vertical konghou in China was at least 2,000 years old.

Pipa

The *pipa* is mentioned in 10 parts in those wall paintings, among which the five-stringed *pipa* took three parts; the bent-neck *pipa*, four parts; and for the other three parts, it can not be easily decided which type of pipa they depicted.

The five-stringed *pipa* and the bent-neck *pipa* in the tomb of *Li Shou* (Fig. 1); the five-stringed *pipa* in the tomb of Yanfei (Fig. 2); the bent-neck *pip*a in the tomb of Weishi (Fig. 3) at Nanliwangcun, Changan district of Xi'an.

Fig. 3.

Fig. 5 (Left).

Fig. 4 (Below).

The bent-neck *Pipa* does not derive from China. *Tong Dian* says: 'The bent-neck (*pipa*), big in shape, comes from the foreign countries and is known as being made in China'.[5]

The five-stringed *pipa*, also simply called, "the five-stringed", is frequently recorded in the history book of our country. *Tong Dian* states it as: 'The five-stringed *pipa,* which is small in shape, is passed the Northern Country'.[6]

The five-stringed *pipa* was introduced in Central Plains by *Qiuci* around the second half of the fourth century when *Lv Guang* defeated *Qiuci* in the North Wei (386~534) Dynasty. Then the foreign music basked in a great boom in the North Qi Dynasty after the middle of the sixth century. Having experienced its development during the Han and Jin Dynasties (265–420), the *Qiuci* music became prosperous from the Northern and Southern Dynasties (420–589 to the Sui Dynasty 9 (581~618). The *pipa* was one of the most important instruments during the time.

Sheng

Five examples of *sheng* can be seen in the paintings. The tomb of Li Shou and the tomb of *su sixu* (Fig. 4) all have an image of a *sheng*. *Sheng* is a traditional Chinese instrument. *Qing* music (Qing Shang music) during the Northern and Southern Dynasties was played with the *sheng*.[7] However, foreign music of the Middle of Asia and Southern Asia was first introduced to Xinjiang and the Gansu Corridor, mixed together with the local music there. The new integrated music was later brought back to the middle part of China. Out of them "*Qiuci* music" and "*Xiliang* music" were the most famous. As the *Jiutangshu*: *Music part II* recorded: 'Since the Zhou (557–581) and the Sui Dynasties, there have been hundreds of types of orchestral music, but most of the kind were *Xiliang* music. *Qiuci* music is mostly played by the drum and enjoyed by all kinds of people'. While in the both types of the music, the *sheng* played a part.[8]

Fig. 6.

Qin

There are six examples of *qin* the paintings. They can be found in the tombs of Li Shou and *su sixu* (Fig. 4). The *qin* is a traditional Chinese instrument.

Flute

The six examples show flute in the paintings. They are included in the tombs of *Li Ji* (Fig. 5) and *Li Xian* (Fig. 6). *The Jiu Tang Shu: History of Music* states: 'The flute was invented by the artisan of Emperor Hanwudi. It began in the middle part of Qiang'. In fact, the flute has more to do with the nomad so it existed in ancient China and the Middle and West of Asia, spread and improved in those regions. Around the sixth to the seventh century, the flute was widely adopted in music playing in every country.

Fig. 7.

Fig. 8.

Fig. 9.

Panpipes

Four examples present panpipes in the image: the tombs of *Wei Guifei* (Fig. 7) and *Li Shuang* (Fig. 8). The *Tong Dian: Music part IV* states: 'the panpipes were depicted in *Shiben*: "It was made by Shun, and looks like the wing of phoenix and has ten tubes with the length of two inches"'. Cai Yong said: 'the panpipe is made of bamboo with a big part at its bottom. The biggest one has 23 tubes and smallest, 16 tubes. The longer one has the low keys and the shorter, the high keys. The bottom part of the panpipe is filled with wax and the quantity of wax can be changed concerning with the specific situation'. Like the Flute, the panpipe was owned in both China and Western Countries. The Anguo music in the Middle of Asia has a strong connection with the panpipe, which became very popular in the North Dynasty. *Qiuci* music, *Gaochang* music, *Shule* music, and *Xiliang* music all involve panpipe playing.

Cymbal

The Cymbal appears three times in the images. The tombs of Zhujiadao Village (Fig. 9), *Li Xian* (Fig. 10) and *su sixu* all have the Cymbal. Tong Dian states: 'The cymbal, also known as the Cupreous Plate, came from Xirong and Nanman. It has about a couple of inches long and looks like bubbles in the water, covered with fur, and can play music while being hit'. The word *Xirong* means the nationalities in the Western Regions, thus the cymbal must be the Western instrument. *Xiliang* music, *Tianzhu* music, *Qiuci* music, *Anguo* music, and *Kangguo* music all contain cymbal playing. The history of the cymbal in the Central Plains can be traced back to around 350.

Bili

The *Bili* is described three times. The tombs of Zhujiadao Village, the Tenth Cotton Factory of Shaanxi (Fig. 11), and *su sixu* all present the images of the *bili*. *Jiutangshu*: *History of music* recorded: 'The *bili*, also *beili* as its name, came from the middle part of Hu and has a sad sound'.

Fig. 10.

Fig. 11.

Chinese Cymbal

The Chinese Cymbal is shown twice. It can be found in the tombs of Zhujiadao Village (Fig. 9) and *Su Sixu*. *Jiutangshu: History of music* states: 'The Chinese cymbal, as big as a man's hand, is several inches thick, connected with leather, and can replace an applaud while hitting'.

Waist drums

Waist drums are mentioned twice: in the tombs of Yang Xuanlue (Fig. 12) and Wu Huifei (Fig. 13). The Geishas in the images placed the waist drums in front of their chests and hit them with their hands. The waist drums, as the instrument in the Middle of Asia, mainly focus on melody, are the important instruments to adjust the rhythm of music.[9]

Qing

Only the tomb of *Wei Guifei* (Fig. 14) has an image of a *qing*. It is also a traditional Chinese instrument. According to the history, the *qing* was made by a man named, Shu. It was believed that the Sibing Stone can be used to make the *qing*. Now the stone is mainly from Huayuan rather than Sibing.

Fig. 12.

Fig. 13.

Only found in the tomb of Wei Guifei (Fig. 15), the image of musical instrument Ya Zheng, was recorded in the history books of *Tong Dian, Jiu Tang Shu*, and *Xin Tang Shu*. In his famous book, *Yue Shu*, the Chinese scholar, Chen Yang (during 1064–1128), described the Ya Zheng in this way: 'In the Tang dynasty, people pressed bamboo pieces to play the musical instrument, hence, the name of Ya Zheng'. Having obtained its own name, Ya Zheng, as a new member of the Zhu, a kind of ancient Chinese musical instrument, became popular both in royal and folk music playing. People usually use short sticks to play Ya Zheng and Zhu. The detailed information about the this picture can be referred to my paper, 'A study of the musical instrument, Ya Zheng, from a wall painting in the Tang tomb'.

Fig. 14.

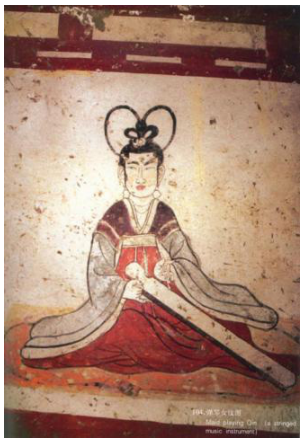


Fig. 15.

Analysis of the Musical Images

Now, I'd like to introduce several typical images in the music playing paintings. The first painting is from the tomb of *Li Shou* (Fig. 1).[10] The four women, standing in the left of the painting, are wearing long dresses that almost touch the floor, having neat buns and an elegant manner. Two of them are holding musical instruments in their hands and another two, probably as the singers, are empty handed. In front of them, five musicians with instruments sit on a rectangular-shaped carpet. In their hands, there are the *sheng*, five-stringed *pipa*, bent-neck *pipa*, vertical *konghou* and qin. Nearby, a lady appears to be dancing. However, this painting is in poor condition, and only part of the dancing woman's long dress is evident.

The second picture shows the musical image in the tomb of *Li Xian* (Fig. 10).[11] As the oldest brother of Emperor Tang Xuanzong, *Li Xian* had a great talent for music. He was depicted as an excellent flute player in *Xin Tang Shu: Music.* He had been asked by Xuan Zong to be in charge of the Fandi music and compete with the royal music.[12]

This painting consists of three parts. The left part of the painting has four audiences: a noblewoman with two female servants beside her and a male servant behind her leisurely sitting there and watching the performance. In the right, is a six-member band for accompaniment. The band is divided into two rows kneeling and sitting on the square carpet. The Han instruments they played contain the *sheng, qin*, and flute; while the foreign instruments they played had the *pipa* and cymbals. The excavation report stated that the woman at the far right, with her arms flexing in front of her chest, was probably holding a circular drum and hid her hands in her sleeves, touching the surface of the drum.[13] I do not agree with this explanation, for she can't play the drum comfortably with her hands hidden inside her sleeves if the woman were a drummer. Besides, since this part of the painting did not flake, the drum should be shown in the painting if there was one. I think that it is more likely that the woman was an accompanying singer. Mao Qiling (1623–1716), a famous scholar in the Qing Dynasty, explained in his work, *Xi He Ci Hua*, vol. 2, that in the Chinese ancient music and dance 'a dancer is just dancer, and a singer is just singer. He does not change his

role'.[14] The woman was sitting in the band but did not hold any instrument in hand, thus she should be a singer. In the middle of the painting, there were a man and a woman *pas de deux*.

The third painting, found in the east of Xi'an city, is the musical image in the tomb of *Su Sixu* (Fig. 4).[15] At its centre, there is a foreign bearded dancer with deep eyes and a big nose, twirling around, together with the orchestra band at both sides. To his right, five musicians are standing, and three of them are sitting knee to knee in the first row with one playing the *bili*, one playing the seven-stringed *qin*, and one, the vertical *konghou*; another two musicians are standing in the second row. One of them is playing the panpipe, and the other, raising his right hand in a singing position; on the left, there are a total of five musicians. Three of them are sitting in the first row, holding the *pipa*, *sheng* and cymbals respectively; and another three are standing in the back row, with one playing the flute, a second the Chinese cymbal, and the third is raising his left arm forward, seemingly a singer.

The last painting, found in Zhujiadao Village of Fuping County in 1994, is the musical image in a tomb of the Tang Dynasty (Fig. 9).[16] At the far left of this wall, the painting shows a seven-member orchestra band. They are sitting in a square carpet in three rows. The instruments demonstrated in the first row are the *pipa* and vertical *konghou*; in the second row, the Chinese cymbal, flute, *bili* and *sheng*; and the last row, the cymbal. In the centre of the painting, a woman is dancing elegantly, with other two women standing behind her, probably as accompanying singers.

Musical Exchanges between the Huren and Han

The music history of China was created by the people of all races. During the Han and the Tang Dynasty, because of the regimes of the Central Plains governing the Western Regions, the frequent commercial trade exchange, Buddhism rapidly spreading, and more and more the minority nationalities residing in the Central Plains, the influx of Western music into China appeared on an unprecedented scale.[17]

The earliest time when the Western Region music went eastward at a large scale was around the fourth century. The traditional "Elegant Music" became unpopular because of the wars, the change of the regimes, and the disregard of the royalty. The ruler began to turn to Western music. Hence, Western music became very popular in the Central Plains. In the music production of the Sui and Tang Dynasties, Western music was at an advantage.

Let's check the Table 1:

- I divide the paintings into three periods.
- The first period is made up of Number 1 to Number 12.
- The second period, Number 13 to Number 19.
- The third period, Number 20 to Number 23.

The first period started from 631 to 706. The paintings of this period are characterised by solo instrument playing, solo dancing, and the Center Plains dancing. Foreign instruments are also depicted, but mostly alone. The scene showing the foreign and Chinese instruments played together can only be found in the musical image of *Li Shou's tomb*.

The scenes of solo instrument playing include the Geisha playing the *pipa* (Fig. 16), and the vertical *konghou* (Fig. 17) in Li Simo's tomb and the images of people holding the *Pipa* (Fig. 18) and flute (Picture 6) in *Li Xian's tomb*.

A description of the music playing and dancing in the wall paintings during this period of time can only be seen in the Yanfei's tomb (Fig. 2) and the Li Shou's (Fig. 1), which shows the scene of foreign and Chinese instruments played together. Figure 2 presents the vertical *konghou, xiao* and five-stringed instrument; while Figure 1, the *sheng,* five-stringed instrument, bent-

Fig. 16.

Fig. 17.

Fig. 18.

neck *pipa*, vertical *konghou* and *qin*. So it can obviously be seen that at that time the foreign instruments (the vertical *konghou* and *pipa*) had been adopted in the palace but were not very popular yet. The traditional Qishangyue in the Center Plains was still popular. The music in Xi'an district during this period of time presented the respective survival of foreign and Chinese music.

The second period is made up of by Number 13 to Number 19, which lasted from 738 to 756. The wall paintings at this period of time mostly depicted the mixture of application of the foreign and Han instruments together and the Hu-style dancing. Four out of the six paintings show singing, music and dancing together, probably for the sake of presenting splendid musical performance of the Tang Dynasty. This time period is also the time when the foreign and Chinese instruments began to be mixed well. The Chinese and foreign music played together and showed in the paintings is a representation of the style of the time.

The third period of time is from 756 to 864. The paintings in this period usually show a few Geishas and hardly describe the great scenes of the dancing and instrument playing in the beginning of the Tang Dynasty. For this period of time just saw the post Anshi Rebellion, which caused a serious damage to the society, and thus led to a gradual decline of the Tang Dynasty.

Although they only reflect a particular scene of the painting, the musical images found in the wall paintings in the tomb of Tang Dynasty in Xi'an district are the indispensible sources of studying music and dance or the communication between China and western countries in the Tang Dynasty.

References

[1] Li Xingming. 2005. A Study of the Wall Painting of the Tomb Chamber in the Tang Dynasty. Xi'an: Shaanxi People's Fine Arts Publishing House. 409–423.

[2] Li Fang. (In the Song Dynasty). 1960. Tai Ping Yu Lan, 567 [M]. Beijing: Zhonghua Book Company, 2564.

[3] Wei Zheng, et al. (In the Tang Dynasty). 1973. Sui Shu, 15 [M]. Beijing: Zhonghua Book Company, 378.

[4] Du You. (In the Tang Dynasty). Tong Dian, vol. 144 [M]. 1988. Wang Wenjin et al., (rev. ed.). Beijing: Zhonghua Book Company, 3680.

[5] Sima Biao. (On the Jin Dynasty), with Liu Zhao (Annotations). 1965. Hou Han Shu, vol. 13 [M]. Beijing: Zhonghua Book Company, 3272.

[6] Du You. (On the Tang Dynasty). Tong Dian, vol. 144 [M]. 1988. Wang Wenjin et al. (rev. ed.). Beijing: Zhonghua Book Company, 3680.

[7] Du You. (On the Tang Dynasty). 1988. Tong Dian, vol. 144 [M]. Wang Wenjin et al. (rev. ed.). Beijing: Zhonghua Book Company, 3680.

[8] *Jiu Tang Shu*, Vol. 29: Music Part II.

[9] Zhou Weizhou. 2012. A Study of Musical Images in the Tombs of the Soghdiq people of China During the 6th and 7th Centuries. [J] *Culture and History* (April).

[10] Heritage Management Committee, Shaanxi Provincial Museum. 1974. *Tomb Excavation Briefing of Li Shou. Cultural Relic*, 9th ed., 71–88.

[11] The Shaanxi Institute of Archaeology. 2005. *A Report about Excavation of Li Xian in Tang Tombs*. Science Press, 150–155.

[12] Ouyang Xiu. 1975. Song Qi (On the Song Dynasty). *Xin Tang Shu*, vol. 22. [M] Beijing: Zhonghua Book Company, 475–476.

[13] The Shaanxi Institute of Archaeology. 2005. *A Report about Excavation of Li Xian in Tang Tombs*. Science Press, 152.

[14] Mao Qiling. (In the Qing Dynasty). 1983. Xi He Ci Hua. [M] Selections of *Jing Yin Wenyuan Si Ku*. The Commercial Press, 1494–565.

[15] The Working Team for the Tang Tomb Research at the Shaanxi Institute of Archaeology. 1960. *A Briefing about Cleaning Work of Wall Paintings in Su Sixu's Tombs excavated at in Western Suburb of Xi'an. Archaeology*, 1st ed., 30–39.

[16] Jing Zengli and Wang Xiaomeng. 1997. *The New Excavation of Wall Paintings in Tang Tombs at Fuping County. Archaeology and Cultural Relics*, 4th ed., 8–11.

[17] Wang Kunwu. 1996. *A Study of the Yan-music and Miscellaneous songs and Words in Sui-Tang and Wudai Dynasties*. Beijing: Zhonghua Book Company, 26–35.

The Rijksmuseum's Multimedia Tour on Instruments and Music

Giovanni Paolo Di Stefano
Rijksmuseum, Amsterdam, The Netherlands

Introduction

The Rijksmuseum is internationally renowned for its collections of visual and decorative arts, especially for the masterpieces of 17th-century Dutch painters such as Rembrandt van Rijn and Johannes Vermeer. The Museum collection boasts over 6000 paintings as well as one of the largest European collections of works on paper (over half a million prints, about 50,000 drawings; 140,000 photographs). Visual arts are displayed alongside coeval furniture, ceramics, silverware, textiles, jewels, ship models and, of course, musical instruments. These objects are exhibited in fitting coherence, thus forming a mutual context in their historical and social background, in order to give a feel of beauty and a sense of time from the Middle Ages to the present.

Curating a musical instrument collection in a big art museum offers a number of possibilities in terms of interdisciplinary approaches, collaborations, outreach, visibility, and financial resources, which are often hardly possible in musical instrument museums. Furthermore, in fine arts-oriented museums, musical instruments can greatly enrich the visiting experience by adding an acoustic dimension to the collections of visual arts. To this end, the Rijksmuseum is a very good example, because it preserves and displays a large collection of musical iconography as well as a remarkable collection of early musical instruments.

Musical themes were particularly appreciated by 17th-century Dutch artists. According to some estimates, musical subjects roughly represent 12 per cent of all Dutch 17th-century paintings, and in the instance of some particular painters, this number rises as high as 30 percent or more. Vermeer is probably the best example: of his 34 surviving paintings, 13 include musical instruments or musical scenes.[1]

Fig. 1. The launch of the Rijksmuseum's multimedia tour (beta version) on 19 May 2017. Photo by Jan-Kees Steenman.

In the last years the Rijksmuseum has worked on projects to bring actual music to the music-themed paintings and to the instruments displayed in the galleries. After having considered several options, in 2017, the Museum launched a multimedia tour which focuses on the musical collections. The contents of the tour were developed, between 2015 and 2017, by the present writer together with Renate Meijer (Rijksmuseum, Education Department), Lucia Strazzeri (Rijksmuseum Intern), Irene Constandse and Esther Darley (external consultants).[2] The technical and functional aspects were developed by the Dutch company NothernLight in cooperation with Kiss the Frog Interactive Media, Big Orange Audio Experiences and Captain Video. In January 2018, the app underwent a technical make over by Fabrique and Q42.

The Rijksmuseum's multimedia tours

During the last 10 years, museums have been increasingly using smartphone apps to give visitors tools for a successful experience.[3] Most of these apps include more information than the traditional audio tours, and some of them can even be a useful resource on the collection beyond the museum walls.

The Rijksmuseum's multimedia tours are available through an app for smartphones and tablets that can be downloaded free of charge via Apple's App Store and Google Play. Thus, by connecting to the museum's free Wi-Fi, users can take a multimedia tour by using their own device. The tours are also available through the digital devices that can be rented at the Museum's entrance. The app, which has been developed with the support of the Dutch telecommunications company KPN (one of the Rijksmuseum's principal sponsors) can be used both inside and outside the Museum. It is divided into three sections:

1) Multimedia tours;

2) Rijksstudio, which is the Museum's digital database of about 660.000 objects. Rijksstudio allows users to create a photo collection of their favourite objects. Pictures can be downloaded free of charge and users can share their photo collection with friends and other users through Facebook, Pinterest and Twitter;

3) E-Tickets: this section allows users to book their entrance tickets through the app.

Since 2014, the Museum has been developing 22 tours with different duration (45, 60 or 90 minutes). Among these, there are 10 general tours of the main sections of the Museum collection.[4] Additionally, the app includes four thematic tours.[5]

For its multimedia tours, the Rijksmuseum works with four main archetypes or "personas" of museum visitors: "culture snackers", art lovers, teachers and schools, families with children, professionals. Each tour includes a selection of about 20 objects and takes the user on a zig-zag route through the Museum galleries. An indoor GPS of sorts, powered by Dutch company Movin, allows users to find directions within the galleries. For this purpose, 300 beacons have been installed around the Museum. Beacons are small devices that transmit small amounts of data within a range of about 70 meters. They connect with the app so that any user can access an interactive map with the updated route information of the tour. The visitor's position is highlighted in blue on the map. A red pointer shows where the visitor has to go. The blue area on the map changes when the visitor moves from one room to the other. Red squares on the map show where the objects are displayed in the gallery.

The objects in the multimedia tour carousel are in the same order as the exhibition rooms. Furthermore, the very artefacts that have been included in the tours are also visually highlighted through the multimedia-tour mark, which is printed on the object label. This helps the user to find the object while walking through the gallery. A horizontal carousel, on the lower part of the screen, allows the user to swipe left or right for the previous or the following full-screen picture of the object and multimedia-tour stop. Of course, visitors can follow the entire tour or make their own choices and select their favourite objects on the screen.

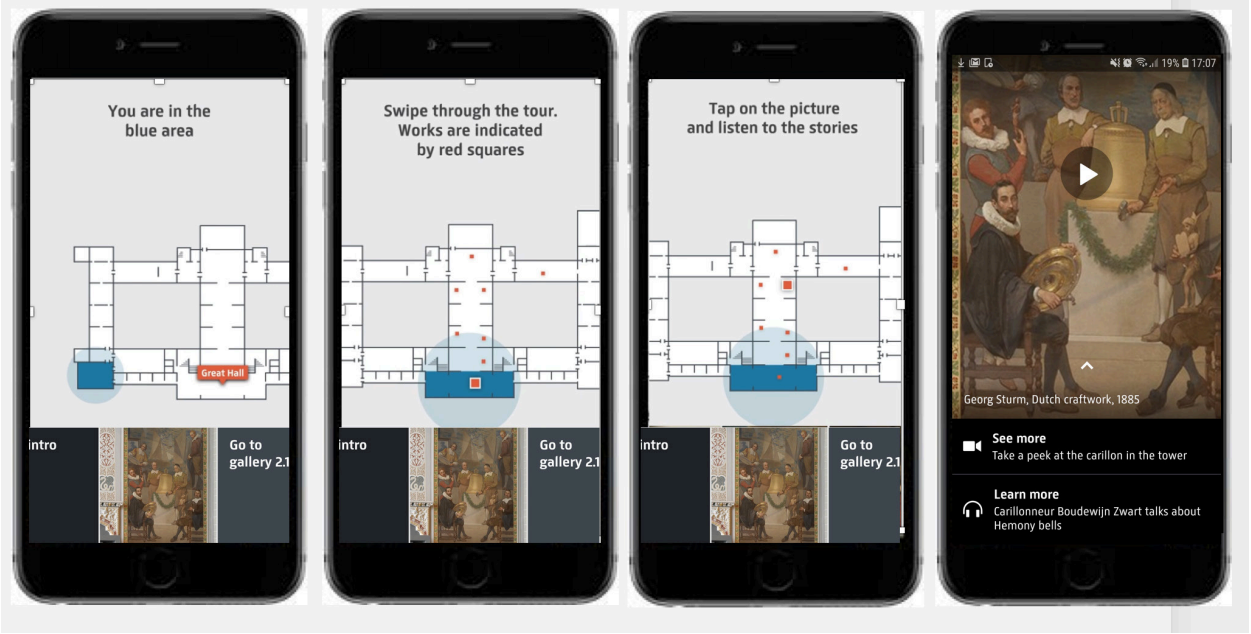


Fig. 2. The interactive map showing the visitor's position and the location of the objects in the galleries.

The tours are voiced by well-known Dutch actors, such as Barry Atsma and Anna Drijver, and dubbed in eight other languages (English, French, Spanish, Italian, German, Japanese, Chinese, Russian).

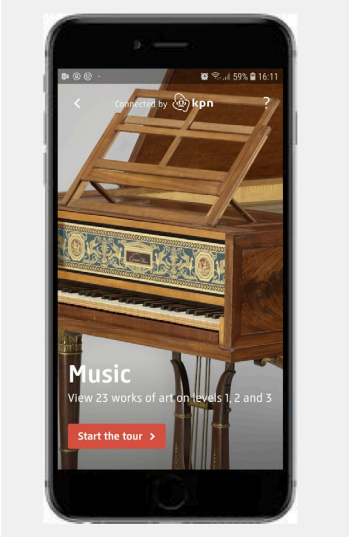


Fig. 3. The home-page view of the Rijksmuseum's music tour.

The multimedia music tour

The multimedia music tour puts a focus on the musical element in the Rijksmuseum's collections and brings together musical instruments and visual arts to help visitors explore connections and interactions among these objects. To this end, the tour includes 23 objects: 9 paintings, 12 musical instruments and two other music-related artifacts (a giant metronome and a gamelan miniature model). These objects belong to different ages and are consequently exhibited in four different galleries on three different display floors. The duration of the tour is approximately 90 minutes.

All artefacts are presented in chronological order and have been selected to showcase some of the most relevant moments and themes of the history of music in the Low Countries from the late 16th century to the late 19th century, such as music and the Protestant Reformation between the 16th and 17th centuries; music and symbols in paintings of the Dutch Golden Age; musical instrument-making in the Low Countries in the 17th and 18th centuries; musical genres between the 17th and 19th centuries; non-European music and music from the Dutch colonies.

The contents have been mostly designed to target the general public, that is visitors who do not have any specific musical background. At the same time, effort was made to make the tour appealing to visitors with some musical knowledge. The tour aims to encourage an original and diverse approach to the collection; a close observation of the objects; the understanding of the past for comparison with the present; an introduction to the history of music and music culture in the Netherlands; the understanding of acoustical problems and themes related to historical musical practice, sociology of music, ethnomusicology, musical iconography, organology.

As with all Rijksmuseum multimedia tours, each object offers three layers of content that can be selected by scrolling up or down on the device's touchscreen.

The first layer of content ("Introduction") is a short 3D-audio description which includes general information and contextualisation on the object. The audio-text answers some of the following, common questions: what is the object? when and where was it made? what do we know about its maker? what do we know about its former history? what makes this object so special or relevant to the history of music in the Netherlands? which features are relevant for a better understanding of this object?

The second layer of content ("See more") includes videos and animations focusing on specific features of the objects, it explains specific technical issues, and makes connections between the object and other artefacts in the collection.

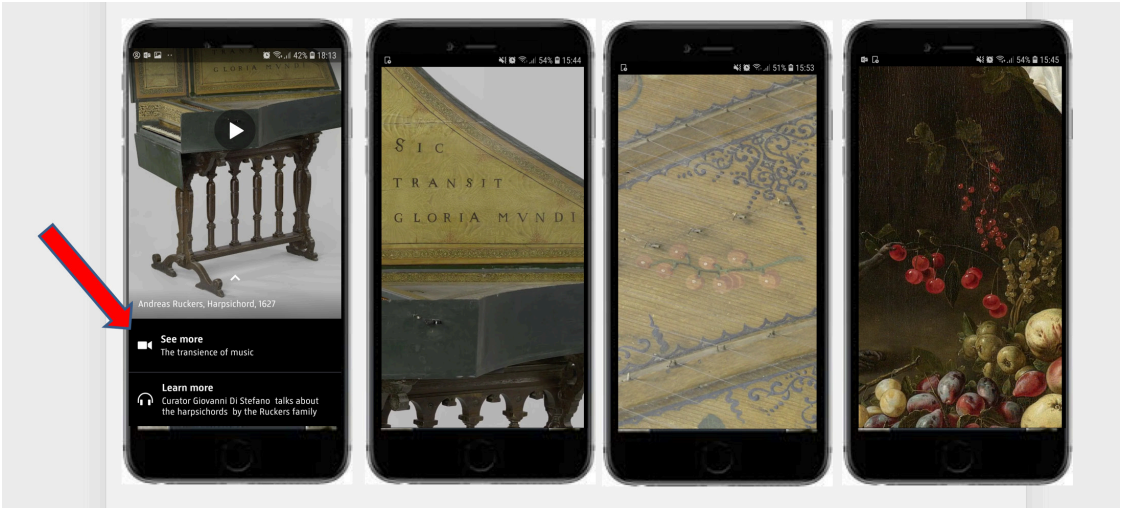


Fig. 4. The "See more" layer for the 1627 Andreas Ruckers harpsichord.
The video focuses on the Latin motto traced on the instrument's lid as well as on the decoration of the soundboard and its symbolism.
The animation shows the thematic connection between the decoration of the harpsichord and the vanitas still-life painting by Adriaen van Utrecht (1644) which is displayed in the same exhibition room.

The third layer ("Learn more") is an in-depth audio-interview to an expert or VIP testimonial. Musicians, music historians, performers, conductors, dancers, musical instrument makers, music organizers, art historians, museum curators have been asked to tell a short story to help the understanding of the artefact and let the visitor look at the object in a broader way. Among the musicians who have contributed to the tour, there are some famous Dutch

and international performers such as organist and conductor Ton Koopman, viol player Jordi Savall, conductor Daniele Gatti, violinist Janine Jansen, pianist Ronald Brautigam, harpist Lavinia Meijer, and many others.[6] Some of the musicians have provided their own musical recordings which have been included within their talk. A few of these recordings were specifically played for this project on museum instruments or on modern replicas of the instruments described in the tour.

The experts' contributions make the tour more appealing to visitors and help users get closer to the object through the storytelling technique. In choosing the storytellers, effort has been made to select a number of profiles as diverse as possible and to offer different kinds of approaches to the topics.

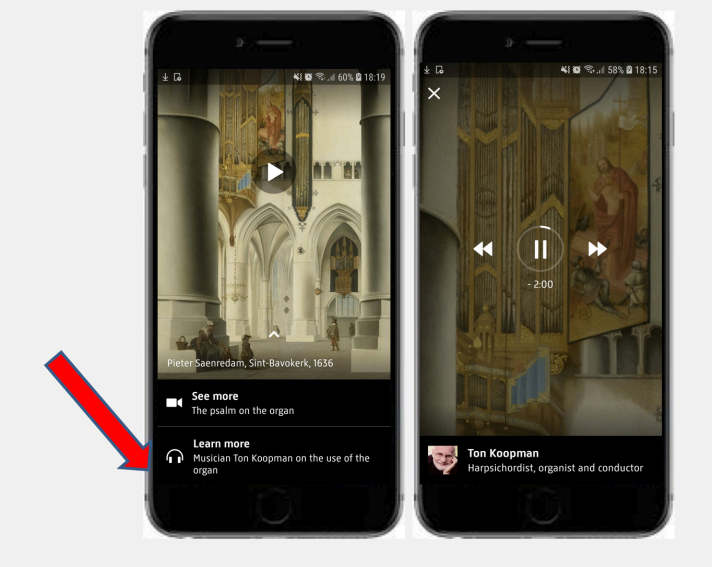


Fig. 5. The "Learn more" layer for the 1636 painting by Pieter Saenredam representing the organ of the Sint-Bavokerk in Haarlem. Organist and conductor Ton Koopman talks about the use of the organ in Dutch churches in the early 17th century.

Contents are minimized (about one minute for the "Introduction" layer, 30 seconds for the "See more" layer, 2 minutes for the "Learn more" layer). In order to make the tour more engaging, all stops include musical samples and recordings.

References

1 For further discussion on these topics see Edwin Buijsen and Louis P. Grijp, eds. 1994. The Hoogsteder Exhibition of Music & Painting in the Golden Age, The Hague: Hoogsteder & Hoogsteder; and Marjorie E. Wieseman, ed. 2013, Vermeer and Music. The Art of Love and Leisure, London: National Gallery Company.

2 For a wider description of the project see Strazzeri, Lucia 2016, La musica nelle collezioni del Rijksmuseum di Amsterdam. Progetto per un percorso multimediale, M.A. thesis, Palermo: University of Palermo.

3 See Silvia Filippini-Fantoni and Jonathan P. Bowen. 2008. "Mobile Multimedia: Reflections from Ten Years of Practice", in Loïc Tallon and Kevin Walker, eds. 2008, Digital Technologies and the Museum Experience: Handheld Guides and Other Media, Altamira Press: Lanham, 79-96.

4 These tours are Highlights of the Dutch Masters of the 17th Century; Highlights of the Middle Ages and Renaissance; Highlights of the First Half of the 17th Century; Highlights of the Second Half of the 17th Century; Highlights of the 18th Century; Highlights of the 19th Century; Highlights of the First Half of the 20th Century; Highlights of the Second Half of the 20th Century; Highlights of the Asian Pavillion; Highlights of the Special Collections of Decorative Arts and Historical Objects.

5 The five thematic tours are: Highlights (Gems of the Collection through the Ages); The Museum's Building (Architectural Highlights of the Rijksmuseum); Rembrandt, the Netherlands' most famous artist and his pupils; Colonial Past. Dutch Colonial History: trade, exploitation, cultural exchange, slavery; Music: Musical Instruments and Musical Iconography.

6 Other contributors include: the carilloneur Boudewijn Zwart, the singer Leonore van Sloten, the film director Maarten de Kroon, the song specialist Martine de Bruin, the Early Music Festival director Xavier Vandamme, the oboist Han de Vries, the harpsichord player Menno van Delft, the amateur singer Tessel Grijp, the musicologist Marieke Lefeber, the dervish Tahsin Sürücü, the jazz trombonist Erik van Lier, the recorder player Lucie Horsch, the military band conductor Harry van Bruggen, the historian Paul Knevel, the composer Sinta Wullur, the museum curator Jannine Hövelings, and the present writer.

ISSN: 2959-8834

ISBN: 978-2-491997-82-3

DOI: 10.46477/978-7-5706-0762-4 (e-book)