# MONUMENTS FOR THE EARS – PERFORMANCE AND DIDACTICS OF ACOUSTICAL EVENTS AND MUSICAL CULTURE FROM THE PAST

Signals, music, and other acoustical events were used through all times in rituals, for communication and representation. Presentations of rulership were based on acoustic components significantly<sup>1</sup>. »If historians could learn to listen, they might close the gap between now and then just a little, but enough to write a history of listening – adding a new dimension to the reconstruction of former living conditions, habits, patterns of rulership and the driving forces behind historical proceedings in general«<sup>2</sup>. Originals of ancient Roman panpipes like the found from Eschenz (ct. Thurgau/CH) or replicas of historical organs owned by the Römisch-Germanisches Zentralmuseum (RGZM) exemplify such acoustical documents of the past. They enable us to conduct archaeoacustical experiments and thus open new horizons of research in music archaeology. On this basis, we might be able to refine our understanding of historical auditive codes. To succeed, projects dealing with sources of music-archaeology must be based on common standards.

# **MUSIC ARCHAEOLOGY**

»Music archaeology« or »archaeomusicology« has been developed continuously since the 1980s. »In its broadest sense, music archaeology is the study of the phenomenon of past musical behaviours and sound«<sup>3</sup>. It is a multi-disciplinary field of research<sup>4</sup> that spans from musicologists, musicians and instrument-builders to archaeologists, philologists and historians. Music archaeology deals with archaeological finds of musical instruments, sound producers and other documents that concern the past musical life, e.g. pictorial and written sources. It focuses on research themes that are dealing with their original sociocultural context<sup>5</sup>. One emphasis is laid on replicating such finds and playing them, too. »When original sound artefacts (or their replicas) are concerned, their acoustic function and the basic acoustic characteristics of a once performed music can also be reproduced and analysed afterwards«<sup>6</sup>. Hence, results might give new insights into sound, loudness, performance practices, traces of destruction and repairs on the original objects, and sometimes even about the kind of music they were made for originally. »Additionally, acoustic spaces, such as architectural structures, caves, and other natural places, are the subject of music archaeological studies«<sup>7</sup>.

Today there are some research groups that are dealing within the field of music archaeology such as the International Study Group on Music Archaeology (ISGMA)<sup>8</sup>, International Society for the Study of Greek and Roman Music and its Cultural Heritage (MOISA)<sup>9</sup> or the International Council for Traditional Music (ICTM)<sup>10</sup>. These organisations lead to further studies, projects and conferences.

# **OBSERVATION IS SUBJECTED TO CONSTRUCTION AND INTERPRETATION**

Observation, interpretation, thinking and learning vary between individuals and are influenced by their respective cultural backgrounds, social groups, personal knowledge, age, personal abilities and beliefs. Especially the contemporary European society has adapted to creations, impressions and attitudes provided by the mass-media. This has strengthened stereotypes – just think of the infamous sword-and-sandal movie pictures (*Sandalenfilme*). Ancient cultures and their legacies, respectively objects, are interpreted by most visitors, laymen mostly, first and foremost in front of their own background of learned observation and interpretation. This automatically evokes certain expectations even before knowing more about the original historical context and especially their original socio-cultural background. This is significant in the case of sounds and music. They are mostly consumed passively in mass-media as also in museums, be it an exhibition or any other kind of museum events. These circumstances are easily neglected when dealing with original objects of music and sound, which is why it might be doubtful that visitors would integrate their hearing experience into their historical knowledge properly<sup>11</sup>. Anyway, most visitors are used to modern sounds and contemporary music. So, their ears are mostly attuned to stereotypes created by the mass-media.

# AUDIBLE OBSERVATION AND EVENTS OF LISTENING

On the one hand, the hearing of sound is physically influenced on pre-processing and filtering of auditive signals through the human's auditive system. On the other hand, the appraisal of acoustic sensations is influenced by personal experience and culture – e.g. »sounds of war« can instil fear in survivors. The term »audible event« describes how a physical source is experienced by individuals. It differs in time, space, room, volume, colour of sound, tone and transparency.

# THE PRODUCTION AND INTERPRETATION OF »ANCIENT SOUNDS«

First, the musician playing the replica of an ancient musical instrument is also a modern human and most interpretations are equivalent. Christian Ahrens argues for bonds created by inspiration from »traditional music«, influencing the process of recreating »music from antiquity«<sup>12</sup>. Every musician plays in a different way based on his or her individual abilities, training, and personal background. It is obvious that this has been quite similar during the past – especially if you think of musical contests within antiquity. The big difference today is not the individual style of musicians but the conditions of performance and perception. Increasingly, music within everyday life becomes a »digital object« rather than a live event. That is true for dance music mostly. But also, a lot of other events require music, e.g. religious service, military or state protocol, even private feasts like a marriage. If you try to play e.g. a song for a marriage from the past nowadays within the context of a concert or museum event, the character of »functional music« is lost. Yet another problem is playing a reconstructed musical instrument of the past. In many cases, we do not know how exactly it was played, because there is no »living tradition« concerning the technique of playing in former times. To fill this gap music-ethnological documentations and studies are of great help, if a similar instrument still exists somewhere else, like the different kinds of lyres and lutes still played in African countries. If not, one should be open minded towards the instrument itself. »The instruments here seem to make guidelines: they present their specific properties to the musicians or encourage them to a particular way of interpretation«<sup>13</sup>. Furthermore we are not in possession of notated music from every period and if so, mostly Kunstmusik (music of the elites) has been preserved (writing vs. oral tradition). But music and sound of the past consisted of »folk music« (Volksmusik) btw. »traditional music« (Traditionelle Musik) mostly. In cases of not knowing of what was originally played on a certain instrument, it is up to the player to evoke sounds that reflect the abilities of the instrument. Music archaeologists try to create an »authenticity of sound« rather than »music of the Stone Age«<sup>14</sup>.



**Fig. 1** The Roman boxwood panflute (1<sup>st</sup> century AD), found at Eschenz (ct. Thurgau/CH). – (Photo D. Steiner, Amt für Archäologie Thurgau).

# CASE EXAMPLE: »ONE-PIECE BOXWOOD PANPIPES«

In 2004 a completely conserved ancient panflute (syrinx) was found during an excavation in Eschenz (ct. Thurgau/CH; **fig. 1**). It had been made of one single piece of boxwood. The flute possesses seven drilled pipes and dates around 50-60 AD<sup>15</sup>. Especially this kind of panflute was quite sure an instrument for signalling connected to work and everyday life<sup>16</sup>. Similar flutes of the same type dating to different periods were found in Great Britain, France, Belgium, Germany and the Netherlands. Immediately after its discovery the panflute was examined, measured, CT scanned, and conserved. A copy was made of plastic. To reconstruct its authentic sound, flute makers produced exact copies using the original material. Finally, the ensemble for Early Music »Musica Romana«<sup>17</sup> recorded an album called »Symphonia Panica« playing one copy of the ancient panflute of Eschenz amongst other reconstructed instruments of the Roman period. One recorded piece of music is currently played within the exhibition of the Historisches Museum Thurgau in Frauenfeld/CH<sup>18</sup> along with the original artefact, so that visitors also might gain an auditive impression side by side to the visual impression of the instrument.

### **DESIGNING »AUDITIVE EVENTS«**

One way for introducing visitors to the auditive past might be to play with stereotypes or clichés they might hold on the music of a certain era, just think of soundtracks of the aforementioned swords-and-sandals. It is not as wise curator who tells his visitors simply that the sounds they are listening to are historical accurate and authentic. Instead, he or she might explain the scientific process of reconstruction step by step, including the recreation of the playing techniques. A further step towards quality of auditive museal live events would be hiring professional musicians and music archaeologists, which is, of course, a matter of reimbursement of expenses.



Fig. 2 The up-to-date reconstruction of the organ of Aquincum ( $3^{rd}$  century AD), as presented at the RGZM's exhibition until mid-2017. – (Photo A. Minack).

# CASE EXAMPLE: »ORGANS FROM ANTIQUITY AND MEDIEVAL AGE«

Since 2012 the RGZM owns two new reconstructions<sup>19</sup> of elaborated and complex musical instruments. One has been made after of the famous organ of Aguincum (3<sup>rd</sup> century AD), which was found in an archaeological excavation<sup>20</sup> (fig. 2). The other organ has been constructed mainly based on written and pictorial sources of the medieval era, and additional information derived from original fragments<sup>21</sup>. Before then, the RGZM owned another, guite different, reconstruction of the organ of Aquincum (Budapest) made in the late 1960s<sup>22</sup>. This instrument is not on display for the time being but its existence offers the possibility of expounding different states of awareness towards the experimental archaeology and music archaeology: »The direct technical and audible comparison as well as the contrasting demonstration of acoustic spaces that are differing for decades or centuries becomes possible within a museum that collects playable instruments of different eras«<sup>23</sup>. Among others, the organs are currently used in the project »Musizierpraxis zwischen profanem und sakralem Gebrauch im westlichen Europa und Byzanz«<sup>24</sup>. On part of the most visitors these reconstructions are considered curiously and turn out even to be a reason to join a guided tour on which you can watch somebody playing and listen to the sound of the instruments.

Doing so, a museum implements its contemporary function of the museum as a place of science and learning as well as experience. Music engages the listener's emotions and does not need any translation<sup>25</sup>. Furthermore, in the age of the internet and YouTube recordings and concerts of Early Music can reach huge audiences worldwide.

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#### Notes

- 1) Rühling 2015b, 433.
- 2) Müller 2011, 28-29.
- 3) Both 2009, 1.
- 4) Eichmann 2011, 1.
- 5) Eichmann 2011, 2.
- 6) Both 2009, 1.
- 7) Both 2009, 1.
- 8) Homepage: www.musicarchaeology.org (22.06.2020).
- 9) Homepage: www.moisasociety.org (22.06.2020).
- 10) Homepage: www.ictmusic.org (22.06.2020).
- 11) This does, of course, not include sounds or soundtracks that are used to evoke feelings within an exhibition and therefore have no need to approach to the original sound and music of the period and culture the exhibition deals wit.
- 12) Ahrens 1976.
- 13) Kühn 2014, 55-56.
- 14) Rühling 2010, 74.

#### References

- Ahrens 1976: C. Ahrens, Volksmusik der Gegenwart als Erkenntnisquelle f
  ür die Musik der Antike. Die Musikforschung 29, 1976, 37-45.
- Both 2009: A. A. Both, Music Archaeology: Some Methodological and Theoretical Considerations. Yearbook for Traditional Music 41, 2009, 1-11.
- Brem/Rühling 2012: H. Brem / S. Rühling, Panflöte. Zur kulturgeschichtlichen Einordnung der Flöte von Eschenz. In: Tasgetium II. Die römischen Holzfunde. Archäologie im Thurgau 18 (Frauenfeld 2012) 88-91.
- Eichmann 2011: R. Eichmann, Einführung in der Musikarchäologie. Deutsches Archäologisches Institut, Orient-Abteilung. www.musi arch.de (09.01.2012).
- Kühn 2014: T. Kühn, Resonanzkörper. Musikinstrumente als Werkzeuge der Vergegenwärtigung. In: K. Hoins / T. Kühn / J. Müske (eds), Schnittstellen. Die Gegenwart des Abwesenden. Schriftenreihe der Isa Lohmann-Siems Stiftung 7 (Berlin 2014) 34-64.
- Müller 2011: J. Müller, The Sound of Silence. Von der Unhörbarkeit der Vergangenheit zur Geschichte des Hörens. Historische Zeitschrift 292/1, 2011, 1-29. DOI: 10.1524/hzhz.2011.0001.

- 15) Brem/Rühling 2012, 88-89.
- 16) Brem/Rühling 2012, 89-91.
- 17) Homepage: www.musica-romana.de (22.06.2020).
- Homepages: www.historisches-museum.tg.ch (22.06.2020) and www.archaeologie.tg.ch (22.06.2020).
- 19) Reconstruction as meant here: complete or partly copy of archaeological finds, written or pictorial sources made mostly with the original materials. Not to be confused with a reproduction, imitation or model, which e.g. are normally made with modern materials or just used to show the way of functioning of an object.
- 20) Nagy 1933.
- 21) Rühling 2015a.
- 22) Walcker-Mayer 1970.
- 23) Kühn 2014, 54.
- 24) Rühling/Pietschmann 2015.
- 25) Rühling 2015b, 435.
- Nagy 1933: L. Nagy, Az Aquincumi orgona. (Kész. Modestus és Probus consulsága idején, Kr. u. 228. évben). Az Aquincumi Múzeum Kiadványa 2 (Budapest 1933).
- Rühling 2010: S. Rühling, Wie klang das Mittelalter? Ein kleiner Beitrag über Musikarchäologie und historisierende Musik. Zillo Medieval 1, 2010, 74-75.

2015a: S. Rühling, Ein offenes Ohr für die Vergangenheit. Rekonstruktion und experimentelles Spiel antiker und byzantinischer Orgeln. In: R. Eichmann / L.-Ch. Koch (eds), Musikarchäologie. Klänge der Vergangenheit. Archäologie in Deutschland Sonderheft 07/2015 (Darmstadt 2015) 91-98.

2015b: S. Rühling, Mächtige Klänge im Museum. Nachbauten historischer Orgeln im Versuch. Die Tonkunst 9/4, 2015, 433-435.

- Rühling/Pietschmann 2015: S. Rühling / K. Pietschmann, Musizierpraxis zwischen profanem und sakralem Gebrauch im westlichen Europa und Byzanz. www.byzanz-mainz.de/no\_ cache/forschung/a/article/musizierpraxis-zwischen-profanemund-sakralem-gebrauch-im-westlichen-europa-und-byzanz/ (22.06.2020).
- Walcker-Mayer 1970: W. Walcker-Mayer, Die römische Orgel von Aquincum (Stuttgart 1970).

### Zusammenfassung / Summary

# Denkmäler für die Ohren – Aufführungspraxis und Didaktik akustischer Ereignisse und musikalischer Kultur aus der Vergangenheit

Signale, Musik und andere akustische Ereignisse wurden zu allen Zeiten in Ritualen, zur Kommunikation und Repräsentation verwendet. Echte oder replizierte historische Musikinstrumente veranschaulichen solche akustischen Dokumente der Vergangenheit. Sie eröffnen neue Perspektiven in der Musikarchäologie sowie in der Kommunikation mit dem Museumsbesucher. Um erfolgreich zu sein, müssen musikarchäologische Projekte auf gemeinsamen Standards basieren. Am Beispiel verschiedener Nachbauten – einer römischen Panflöte sowie antiker und mittelalterlicher Orgeln – wird aufgezeigt, wie sich die zeitgemäße Funktion des Museums als Ort der Wissenschaft und des Lernens sowie der Erfahrung umsetzen lässt. Musik bietet einen einfachen Zugang für alle und braucht keine Übersetzung. Darüber hinaus können Aufnahmen und Konzerte der Frühen und Alten Musik ein riesiges Publikum weltweit erreichen.

# Monuments for the Ears - Performance and Didactics of Acoustical Events and Musical Culture from the Past

Signals, music, and other acoustical events were used through all times in rituals, for communication and representation. Genuine or replicated historical musical instruments exemplify such acoustical documents of the past. They open new horizons of research in music archaeology as well as visitor communication. To succeed, projects using sources of music archaeology must be based on common standards. Dealing with several examples of recreated musicals instruments – a Roman panflute and ancient and medieval organs – the article demonstrates how the contemporary function of the museum as a place of science and learning as well as experience might be implemented. Music is easily accessible and does not need any translation. So, recordings and concerts of Early Music can reach huge audiences worldwide.