

The Cadolzburg Experience

On the Use of Sound in a Historical Museum

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ABSTRACT

The museum at Cadolzburg Castle in Germany, opened in 2017, uses a sound installation to present aspects of the building's history that could not be materially reconstructed. In this article, the curators and the sound artist explain how the installation alternates between sound effects and musical signifiers to engage visitors with their environment and to spark reflection on the problems of "authenticity" in museums. While the musical thread offers quotes from musical styles representing the castle's history, the sound thread gradually deconstructs a "castle soundscape" inspired by film soundtracks.

CONTEXT

To the extent that historical museums anchor their narratives in objects from the past, they seem to privilege the visual and tangible over the auditory—except for the rather short span of history since the invention of sound recording. In museums dealing with earlier periods of history, sound is likely to become a mere transmission channel for written text or an ornament, with a decorative rather than discursive function. However, in certain cases, "immaterial" sonic exhibits can add a semiotic dimension to material objects that help to spell out the histories associated with these objects. As a case in point, this article presents a sound installation Gerald Fiebig created for *A Castle and Its Lords—The Cadolzburg Experience*, a museum that opened in 2017 in the former Cadolzburg Castle in the town of the same name near Nuremberg, Germany. While based on historical facts related to the castle and its owners, the sound installation offers "ways of thinking and understanding which are non-hierarchical and decentralized, and privileging allegorical and arbitrary associations, correspondences, and resonances"

[1], qualities attributed by museologist Michelle Henning to new media installations, based on in-depth analyses of works such as *Orbis Pictus Revised* by Tjebbe van Tijen and Milos Vojtechovsky.

"In exhibitions, museum items are mostly presented in a one-dimensional way, especially if they serve as proof for a master narrative" [2]. This critique, raised in a recent museological manual by the pan-European research group *Euro-Vision—Museums Exhibiting Europe* (EMEE), is addressed in the Cadolzburg museum. The curators subscribe to the EMEE's agenda by aiming "to present objects in a multi-perspective way" [3]. The sound installation contributes to this goal.

In the case of Cadolzburg, this is particularly important because the history of both the castle and its original owners, the Hohenzollern dynasty, goes far beyond the Middle Ages and into modern times. The earliest documents mentioning the Hohenzollern burgraves of Nuremberg as owners of Cadolzburg date back to the mid-13th century. The oldest known stone buildings of the castle date from this time as well. Over the following centuries the buildings were expanded to reflect the status of their occupants. The Hohenzollern went on to become kings of Prussia and, after 1871, German emperors. Germany fought, and lost, the First World War under the reign of the Hohenzollern. After a short span of democracy, the Nazis came to power in 1933 and turned Cadolzburg Castle—which had served various administrative functions in the previous centuries—into a school for the Hitler Youth. In the final days of World War II, on 17 April 1945, there was a firefight between Nazi forces barricaded in the castle and approaching U.S. troops. A fire resulted, causing severe damage to the castle, especially to the state rooms on the upper floors [4].

After 1945, various attempts were made to rebuild the ruin, often aimed at a straightforward reconstruction of a supposed "original" state, sometimes substituting imagination for documentation. Set the task of creating a museum offering a high degree of emotional involvement not only for experts but also for a wider public, the curators were faced

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with the question raised by their colleague Fritz Backhaus: “How does one deal with the dilemma that authenticity is a kind of myth, but one that, precisely through its myth-like quality, sparks emotion and imagination?” [5]. While relevant to museology in general, this question has gained particular urgency in the German discourse on museums and memorial sites for Jewish life, as virtually all such places in Germany were subject to acts of destruction by the Nazis. Similarly, with Cadolzburg Castle, which was destroyed as a direct consequence of its use by the Nazis, any attempt to re-create a harmonious image of a distant past would be tantamount to playing down the fascist atrocities. Backhaus concludes: “One consequence is not to accept authenticity as a given, but to make visible the layers and superimpositions. . . . In the museum, there are no purely authentic places, merely ‘staged authenticity.’ But it should offer the visitor the chance to recognize it as staged” [6].

Thus, instead of immersing visitors in a simulation, the Cadolzburg museum offers visitors the experience of following the research and decision-making involved in creating the exhibition. This approach multiplies the modes and contexts in which visitors can engage with the museum. As research by museum scholar John H. Falk and his colleagues has clearly shown, “learning in and from museums is not just about what the museum wishes to teach the visitor. It is as much about what meaning the visitor chooses to make of the museum experience” [7]—whether the visitor wants to gain factual knowledge about knights or learn about how curators work.

One example of this approach is the carved wooden ceiling that represents a didactic conception, not only a reconstruction. Visitors can see the various colors in which the ceiling might originally have appeared: It could have been whitewashed, dark or partially colored—documentation exists for all these variations. What is authentic is the discovery of such gaps and the scientific and museological approaches to them in order to impart the complexity of historical research to the visitors of the museum.

SOUND DESIGN

In another part of the building, the sound installation *Cadolzburg Echo Space* by Gerald Fiebig serves the curatorial strategy in a slightly different way. The sound exhibit, disseminated via four wall-mounted speakers, is installed in the part of the castle that suffered the most damage from the 1945 fire. In order to commemorate the fact that the fascist use of the castle nearly caused its destruction, this part of the building, as shown in Fig. 1, retains its ruin-like look.

The distance between the colorful pop-cultural images of life in a me-

dieval residence—knights, jesters, feasts, hunting, song and dance, etc.—and the grim materiality of the room is quite dramatic. The sound installation takes this distance as its subject matter in two ways. The 12-minute audio, which is projected into the room once every hour, consists of two alternating threads, one with music, the other with sounds. The sound thread starts off with a 30-second soundscape of a medieval castle, including the sounds of horses, a crackling fire, barking dogs and crowing roosters, as well as cannon shots and a swordfight. Visitors will recognize what the soundscape stands for while being aware that this is not an “authentic” recording but rather a cue for questioning the origin of our common ideas about the Middle Ages. How do we know what a castle sounds like, or rather, what sort of soundscape we would expect there? Most probably from fictional film soundtracks. Instead of embarking on the impossible mission of reconstructing an “authentic” medieval soundscape, the sound thread of the installation deconstructs the film soundscape we all know.

Sound designer Heiko Schlachter [8] composed the soundscape from a commercially available sound library. Widely used in film and TV productions in the European market, the library sounds are aimed at a high degree of recognition among museum visitors. The soundscape segment alternates with the musical thread, but each time the soundscape segment is repeated, one element of the sonic scene is left out: One by one the birdsong, the crackle of fire, the barking of dogs, the shouts, the steps, the horses drop out until only swords and cannons remain. This emphasizes the artificial character of the audio, because in a field recording it would be impossible to neatly “switch off” individual sound objects. In an intuitive and playful way (visitors may want to guess “what’s going to disappear next”), the installation pays tribute to the insight that recorded sounds—like all other records (written, photographic, etc.)—are never simply fragments of



Fig. 1. Visitors enter at the top of the stairs. The speakers are placed approximately at the level of the black cube in the center. (© Bavarian Palace Department. Photo: Sebastian Karnatz.)

an authentic real, but are signs, as film sound theorist James Lastra has noted: “Those aspects of a sound which mark it as authentic are never simply self-evident ‘attributes’ of that sound. Only their inscription within a system allowing or requiring them to become perceptible gives them a semiotic import within that system” [9].

Another element of the installation further emphasizes that our listening experience is always mediated—not only through signs, but also through technology. The gaps left by the successive dropping-out of one “castle-sound” signifier after another is filled by a sound we could never hear without technological aids: the bats that today inhabit the castle. Before construction work began on the museum, biologist Detlev Cordes had checked the old buildings for endangered bat species to ensure the work would not destroy the bats’ habitat. Each bat species has its own characteristic (ultrasonic) call pattern; biologists identify species using devices that record the bats’ echolocation calls and transpose them into the human hearing range. *Cadolzburg Echo Space* uses recordings made by Cordes during his research in the castle. This sound element, which adds further significance to the “echo” in the title of the installation, catches visitors’ attention and sparks their curiosity: While surprisingly similar to certain bird calls, the bat sounds, when heard for the first time, are not at all easy to categorize. Textual information in the exhibition space solves the puzzle of the sounds’ origin.

MUSICAL CONTENT

In the musical thread that alternates with the sound thread in the installation, the “echo” can be understood in a more metaphorical way. The musical “echoes of the past” are sonic signifiers that allude to various important points in the history of Cadolzburg Castle and the Hohenzollern dynasty. The chosen period styles and instrumental timbres are so markedly different from one another that even visitors with no musical knowledge are likely to grasp the historical distance between them.

The year 1157, when the castle is first mentioned in documents, is represented by vocal music of the time, arranged by the early music ensemble Per-Sonat and performed by Sabine Lutzenberger. The year 1246, when the Zollern, later to be called Hohenzollern, are first documented as owners of the castle, is represented through a 13th-century recorder piece performed by Elisabeth Haselberger. The next musical quote is a Renaissance lute piece played by the ensemble Landshuter Hofkapelle. It references the reign of Albrecht Achilles (1440–1486). As one of the most important exponents of the Hohenzollern dynasty in the late Middle Ages, he also significantly expanded the castle.

In 1721 Johann Sebastian Bach dedicated his six Brandenburg Concertos to Christian Ludwig zu Brandenburg-Schwedt (1677–1734), a Prussian prince from the Hohenzollern lineage. The Hohenzollern had already expanded their influence to Brandenburg around 1415. This important aspect of their history is alluded to with an excerpt from the harpsichord cadenza from the first movement of Brandenburg Concerto No. 5, played by Wolfram Oetl.

year 1740 marks the ascension of Frederick II—later Frederick “the Great,” and also a member of the Hohenzollern dynasty—to the Prussian throne. Taking time off from establishing Prussia as a major European power, Frederick played and composed for the flute. This point in history is marked musically by Frederick’s own Solfeggio No. 15, performed by Simone Eder.

With the founding of the German Reich in 1871, the Hohenzollern became emperors of Germany, which marked the height of their power. The song *Heil dir im Siegerkranz* became their imperial anthem. In the Cadolzburg installation, the song is heard in an instrumental piano version by Oetl. Possibly surprising and slightly unsettling for many visitors, the tune is the same as that used for the British anthem; this may prompt reflection on the constructedness of national identities. (In the 19th century, the same tune was also used for the anthems of Russia, Bavaria and Switzerland.)

In 1933, Hitler came to power in Germany, and the Hitler Youth took over Cadolzburg Castle. The partial destruction of the castle in 1945 was a direct consequence of this. Therefore, the musical signifier for this event no longer refers to the Hohenzollern history. Instead, it dramatizes the clash between modernity—represented by Anton Webern’s Cantata No. 1, Op. 29, in a version for soprano (Lutzenberger) and piano (Oetl)—and fascism, heard as a crescendoing marching drum in a piece arranged and performed by Heiko Schlachter that eventually drowns out the 12-tone piece. While dodecaphony is an obvious emblem of modernism here, the choice of a piece by Webern (rather than by Schoenberg, for example) was partly inspired by the fact that Webern was shot by U.S. troops in 1945 under circumstances that were similarly tragic and futile as the destruction of Cadolzburg.

Eventually, the musical and the sound thread fuse as Lutzenberger improvises vocals alongside the recordings of the bats. This final part signifies the opening of the museum in 2017, with the history of the building finally being represented within its walls.

CONCLUSION

The work of sound artist and researcher John Kannenberg with the sounds of museums challenges the traditional notion that museums are rather silent spaces: “They’re really not though, once you actually start to listen to them. And their sounds profoundly affect our experiences inside them” [10]. This insight is of particular relevance when the sounds are not just “side effects” of the presentation of material objects, but the actual objects being presented, as in the case of *Cadolzburg Echo Space*.

The experience of the space in which the exhibit is installed is indeed affected by its acoustic quality. The destruction of interiors in the fire of 1945 has resulted in a large, empty room that is characterized by a rather strong reverberation, similar to that inside a church. This exhibition space exemplifies what Kannenberg says about the acoustics of museums:

When we step into any large, resonant space, like a canyon, or even a parking garage, we’re often tempted to yell into the distance just to hear our own echo, to feel the sound of

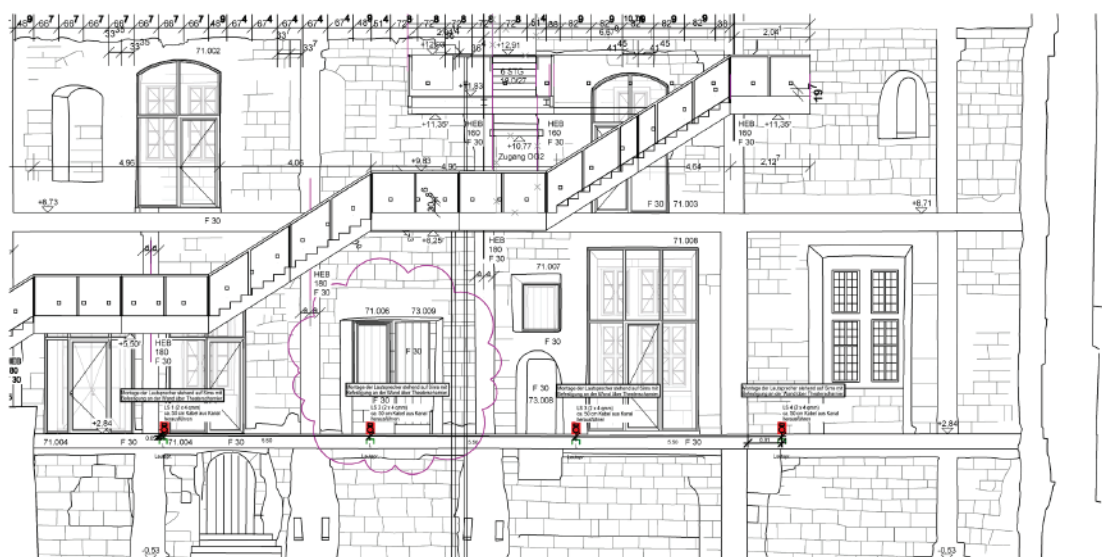


Fig. 2. As visitors enter the hall from the top of the staircase (top right in the sketch), they hear the reverberated sounds of the installation projected from the speakers near the floor. (© Bavarian Palace Department. Sketch: Ingenieure Bamberger and Georg Sturm.)

our own voices calling back to us. We want to use sound as a means by which to determine our place in the world.

Museums are similarly resonant spaces. But we want them to be culturally resonant as well [11].

Cadolzburg Echo Space works with both the acoustic and the cultural echo effects mentioned here. Following a design by sound engineer Georg Sturm [12], the curators had the four speakers installed near the floor of the room, as shown in Fig. 2. When visitors enter the hall from the top, they hear the sound of the installation with the echoes caused by the sound traveling upwards. As the visitors descend the staircase, they approach the source of the sounds.

These sounds were recorded with a very close microphone position. Lastra states that such “closely miked sound, with a relatively ‘context-less’ signature, corresponds to sound considered as an intelligible *structure*—as a signifying element within a larger system” [13]. The process of recording sounds in one space, thus decontextualizing them, and playing them back in a different location and new sonic context parallels to a certain extent the museum curator’s work of selecting and (re-) contextualizing physical objects. Furthermore, the various degrees of echo and reverberation heard by visitors, depending on the visitors’ positions in the room, signify the play of distance and approximation between historical events and our present.

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Manuscript received 22 December 2016.

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