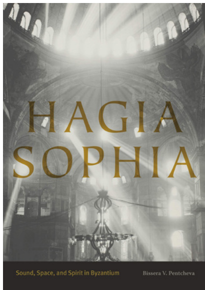
Echoes of Byzantium: Review of Cappella Romana, *Lost Voices of Hagia Sophia*, and Bissera V. Pentcheva, *Hagia Sophia*

Joseph Clarke

Lost Voices of Hagia Sophia, Cappella Romana dir. Alexander Lingas, 2019, Blu-ray and compact disc.



Bissera V. Pentcheva, *Hagia Sophia: Sound, Space, and Spirit in Byzantium* (University Park, PA: Pennsylvania State University Press, 2017).

To "transcend the textual and plunge into the rich sensorial realm of the past culture of Byzantium": this is the alluring promise of the recent album by the vocal ensemble Cappella Romana.[1] The recording presents a series of chants for the feast of the Exaltation of the Cross selected to demonstrate the stylistic breadth of sacred music sung throughout the Byzantine Empire's thousand-year history. All of the selections were once sung at the cathedral of Hagia Sophia in Constantinople, the renowned sixth-century cathedral commissioned by Emperor Justinian I and built by architects Isidore of Miletus and Anthemius of Tralles. A showpiece of choral artistry, the album is also an important work of historical research. The chants were painstakingly transcribed by Cappella Romana's director Alexander Lingas, a music scholar who also studied theology under Metropolitan Kallistos (Ware) and is now an expert in the historical performance of Byzantine hymnody.

Men's voices predominate in the album but there are some higher voices as well, reflecting the presence of women, children, and castrati in the singing corps at Hagia Sophia. Highlights include a matins antiphon in the late Byzantine kalophonic or "beautiful sounding" style, the hymn "Your Cross We Worship" (sung at the festal Divine Liturgy in place of the Trisagion), and a breathtaking thirteen-minute Cherubic Hymn in which a motif of halting ascent is repeated in intricate, dissonant permutations to produce a sense of gradual expansion through waves of rising sound.

The marketing campaign for *Lost Voices of Hagia Sophia* has tended to gloss over its artistic and scholarly contributions, however, and instead to emphasize its technological novelty: these chants were digitally manipulated to "place" them in the acoustic environment of Hagia Sophia, making the recording a vivid acoustic rendering of the cathedral. Publicized at its 2019 release as "the first vocal album in the world to be recorded entirely in live virtual acoustics," *Lost Voices* acquired even more significance retrospectively in July 2020, when Turkey converted the former cathedral from a museum into a mosque.

Are the simulated acoustics a gimmick or a source of real artistic value? Hagia Sophia has always loomed large in the collective consciousness of Orthodox Christians and is sometimes treated with an extreme veneration bordering on idolatry. The possibility of hearing its "lost voices" could certainly be taken as an invitation to suspend critical judgment and escape from present tribulations by immersing oneself in

[1] Bissera V. Pentcheva, "Icons of Sound: Hagia Sophia and the Sensorial Manifestation of the Divine," liner notes to *Lost Voices of Hagia Sophia*, 9.

an idealized "virtual" Byzantium. Listening to the album this way, however, would miss the substantial insights it can offer. After all, the eminent liturgical scholar Robert Taft has pointed out that "in no liturgical tradition is liturgical space such an integral part of the liturgy as in the Byzantine, and in no tradition has one edifice played such a decisive role as Justinian's Hagia Sophia."[2] As one of the most voluminous churches ever built—and, at the time of its construction, the single largest interior space in the world—Hagia Sophia has a highly distinctive sound. It is reasonable to hypothesize that this sound has influenced the form of Eastern Christian worship, and that a digital recreation of the cathedral's acoustics might help us learn more about this influence.

To consider what the album can reveal about the historical interplay of music, architecture, and liturgy in the development of Byzantine Christianity, a little background will be helpful. In the 1970s, the term "soundscape" was popularized by Canadian composer R. Murray Schafer to describe the distinctive sounds associated with a given place. Since then, the evolution of stereo and surround sound technology has helped fuel public appreciation for the spatial qualities of recordings (and, in the process, has boosted the popularity of new age music, a genre whose influence on *Lost Voices* should not be overlooked).[3] Sound art has become a recognized field of artistic experimentation, and "sound studies" has emerged as an academic subfield drawing together scholars of musicology, media studies, architecture, anthropology, and literature, along with acoustic engineers and other technical experts.

One result of these pursuits is the interdisciplinary "Icons of Sound" project founded several years ago at Stanford University by art historian Bissera Pentcheva and audio engineer Jonathan Abel, who both collaborated on the production of *Lost Voices*. Pentcheva's 2017 scholarly book on architecture and liturgy at Hagia Sophia was an especially important influence on Cappella Romana's recording. The book argues that for Byzantine worshipers, the artistic value of Hagia Sophia lay not in what it looked like as an inert building, but rather in the distinctive ways it manipulated ambient acoustic and luminous energy by reflecting the sound of the liturgy and the light pouring in through the windows. Pentcheva's book emerges from her earlier research on the materiality of Byzantine artifacts and their embodied experience by worshipers, in contrast to an older academic tendency to study art and liturgy in isolation from one another.[4]

Her highly empathetic reading of Hagia Sophia is illustrated by a wealth of carefully selected color images. Alongside overall views of the interior are numerous vignettes that capture ephemeral conditions: a ray of sunlight streaming through a cloud of incense, for example, or the golden fringe produced momentarily when the sun just grazes the ornamental relief sculpture on a marble wall. While Pentcheva's use of medieval Greek terms and phenomenological jargon may be off-putting to nonacademic readers, her writing still conveys a vivid sense of the cathedral's ambient properties, including its sound. The cathedral is one of the most reverberant spaces for singing imaginable. Pentcheva pays special attention to the dome's acoustic impact: "Hagia Sophia's domed and double-shelled structure shapes a luminous void… When singing is exhaled in it, it can produce a synaesthetic radiance that

© 2021 The Wheel.
May be distributed for noncommercial use.
www.wheeljournal.com

[2] Robert F. Taft, S.J., "The Liturgy of the Great Church: An Initial Synthesis of Structure and Interpretation on the Eve of Iconoclasm," in Taft, *Liturgy in Byzantium and Beyond* (Aldershot: Ashgate: 1995), 47.

[3] *Living Stereo: Histories and Cultures of Multichannel Sound*, ed. Paul Théberge, Kyle Devine, and Tom Everrett (New York: Bloomsbury, 2015).

[4] Bissera V. Pentcheva, "The Performative Icon," *The Art Bulletin* 88.4 (2006): 631–55.

© 2021 The Wheel.
May be distributed for
noncommercial use.
www.wheeljournal.com

both activates the cupola and 'rains' down on the faithful below." (187) She describes this effect as a manifestation of *empsychosis* or "inspiriting," the descent of spirit into matter.

Beneath Pentcheva's suggestive writing and imagery, her claims about the acoustics of Hagia Sophia are carefully circumscribed. She acknowledges that there is insufficient evidence to establish that the sonic effects in the church were the result of deliberate design. This proposition would not be credible given the state of acoustic knowledge in the sixth century. Nor does the book attempt to show that the church was *uniquely* suited to produce the effect of "synaesthetic radiance" she identifies. For example, would it have been less acoustically effective if it were taller, or shorter, or covered with a barrel vault instead of a dome? It is impossible to say for sure. Rather, the book seeks to reconstruct what the building was *conceived as doing* in the minds of period observers. To make this point, it creatively marshals a range of primary sources, including liturgical manuscripts, painted images of singers, and the description of the cathedral by the poet Paul the Silentiary.

One of Pentcheva's most exciting arguments is the connection she draws between the church's high level of reverberation and the fact that it was apparently built without figurative ornamentation. All the surviving evidence suggests that until the ninth century, Hagia Sophia's mosaics and carvings consisted exclusively of geometric patterns, vegetal motifs, and cross symbols rather than human figures. This visual abstraction stands in contrast to other late antique and early Byzantine churches and seems to reflect a deliberate artistic choice that was specific to this building. This ornamental approach has often been interpreted as conveying the ineffability of a divine plan that eludes human comprehension—a fitting visual program for a church dedicated to the wisdom of God, and one that may have been influenced by the mystical theological writings of Pseudo-Dionysius the Areopagite that began circulating shortly before Hagia Sophia was built.

In recent years, scholars have proposed that the church's distinctive visual effects—such as the seemingly kinetic character of the building's soaring structure and the way sunlight shim-

[5] Nadine Schibille, *Hagia Sophia and the Byzantine Aesthetic Experience* (Farnham, UK: Ashgate, 2014), 127–70.

The original ornamentation at Hagia Sophia included vegetal carvings and gold mosaics with cross symbols and geometric patterns.

mers off its gold mosaics—amount to an alternative kind of symbolic ornamentation. Pentcheva, too, maintains that the Byzantine idea of *icon* extended beyond conventional mimetic representations to include other kinds of aesthetically "performative" objects and structures. She argues that in the early Byzantine period, the social meaning of iconicity was contested, riven by fault lines that would eventually lead to the iconoclast upheaval (77). Hagia Sophia's acoustics, according to Pentcheva, were another such case of nonrepresentational iconicity. She discerns in the church a will to blur the articulation of sound, to garble its meaning deliberately, so the listener is "no longer focused on the intelligibility of words but on their sensual valence" (112), and she likens this effect to the hesitation around figurative ornamentation.[5]

Pentcheva takes the argument a step further, positing a connection between this sonic blurring and the kalophonic style of chant, which featured ornate melismatic lines prolonged by the interpolation of nonsense syllables. She argues that the reverberant acoustics of Hagia Sophia and the practice of kalophonic singing both sprang from a Byzantine "desire to break free from information and the semantics of language, transcending to a domain where sound functions in some prelinguistic manner" (104). On this point she overstates the case, as kalophonic chant developed long after Hagia Sophia was built (and after icons were added to it in the ninth century). More to the point, it is a stretch to imagine that the Church would have *wanted* sound in Hagia Sophia to be unintelligible, however compelling reverberation might be aesthetically. Consider preaching, which was not only a vital part of the Byzantine liturgy but also a highly developed cultural form that drew on the classical art of oratory. Saint John Chrysostom, in a sermon delivered in an earlier church building on the same site as the sixth-century cathedral of Hagia Sophia, called for his congregation to adopt an attitude of "intelligent listening" during the homily.[6] Surely subsequent patriarchs of Constantinople were no less eager that their words be heard and understood by the congregation.

In any case, where chanting is concerned, there is reason to think that talented singers *could* maintain enough verbal articulation that the semantic content of a hymn would not simply dissolve into a reverberant soup. The evidence for this proposition comes from Cappella Romana's album itself. *Lost Voices of Hagia Sophia* was recorded in a California studio, but Abel, the engineer, used a technology called convolution reverb to add the acoustic "signature" of the cathedral, derived from a recording of Pentcheva popping a balloon in it.[7] Abel's masterstroke was to implement this "auralization" in real time, not in postproduction. Professional singers always pay attention to acoustic feedback, adjusting their voices to suit the performance environment. In this case, the choir listened on headsets to its chanting reverberate as though in Hagia Sophia and was able to modulate its rhythm and intensity to fill this virtual space. The high degree of echo prompted a slow, majestic tempo. The result is a rich sonority saturated in so much reverberation that the words overlap and almost melt together, but thanks to the clarity of the singers and the precision of Lingas's directing, the articulation is never actually in doubt.

The album's simulated acoustics seem to refute the supposition that the liturgy at Hagia Sophia was unintelligible to Byzantine worshipers. Still, some

[6] John Chrysostom, "Homily on Matthew 5:27–37," in ed. Jaroslav Pelikan, *The Preaching of Chrysostom: Homilies on the Sermon on the Mount* (Philadelphia: Fortress Press, 1967), 112.

[7] On convolution reverb, see Jonathan Sterne, "Space within Space: Artificial Reverb and the Detachable Echo," *Grey Room* 60 (Summer 2015): 110–31.

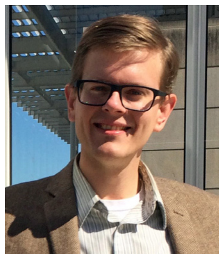
[8] See chapter 3 of Joseph L. Clarke, *Echo's Chambers: Architecture and the Idea of Acoustic Space* (Pittsburgh: University of Pittsburgh Press, 2021).

[9] Richard Taruskin, "The Modern Sound of Early Music," in *Text and Act: Essays on Music and Performance* (New York: Oxford University Press, 1995), 166.

© 2021 The Wheel.
May be distributed for
noncommercial use.
www.wheeljournal.com

humility is needed when approaching a project of this kind. We cannot really listen to mediaeval chants with Byzantine ears, any more than we can look at the church today with Byzantine eyes. It is important to keep in mind how much the Icons of Sound project owes to more recent aesthetic tendencies. In the modern period, the intentional design of highly reverberant acoustics has been deeply linked with a nineteenth-century Romantic project to reanimate the past through aesthetic immersion.[8] Yet, to quote the musicologist Richard Taruskin, "What we call historical performance is the sound of now, not then."[9] In other words, every attempt to create immersive reconstructions of sensory experiences of the past involves contemporary artistic decisions. For example, when the balloon pops that formed the basis for this album's acoustics were recorded, the church had almost no people in it. A thousand years ago, with the church full of worshipers, it would have been less reverberant because more of the sound would have been absorbed by human bodies. Then again, there would also have been *more* sound to begin with, at least in parts of the liturgy, as the vast congregation would have joined in singing responses and refrains. These factors are not—and could not be—reflected in *Lost Voices*.

The fact that the album's creation involved artistic choices and trade-offs is not a criticism but a reminder of the many layers of historical interpretation and technological mediation at work in it. Indeed, there is something appropriate about taking such an innovative artistic approach given that the cathedral is itself a technical marvel. We have long known that Hagia Sophia pushed the limits of sixth-century engineering. What *Hagia Sophia* and *Lost Voices* reveal is that the church was revolutionary in another and possibly more important way: as a sophisticated perceptual machine that powerfully reshaped the experience of liturgy. ❃



Joseph Clarke is an assistant professor of architectural history at the University of Toronto and the author of *Echo's Chambers: Architecture and the Idea of Acoustic Space* (University of Pittsburgh Press, 2021). He holds a PhD in architecture from Yale University.