since Vitruvius. Despite the fact that Alberti included no fewer than 128 citations of Pliny, as we learn only from an endnote, “Pliny has been largely ignored in studies of De re aedificatoria” (94). In accord with Pliny’s celebration of utilitarian public works, Alberti commended aqueducts and military roads as evidence of man’s capacity to tame nature. Alberti also chose to celebrate the luxurious private houses of ancient Rome. Like most of his contemporaries, however, he excluded Pliny’s moralizing condemnation of such magnificence, amending the text to suit his own arguments.

Pliny’s multifaceted text inspired authors with a variety of interests. Filarete, writing in the 1460s, employed the Natural History to illustrate the ideal patron, while the unknown author of the Hypnerotomachia Poliphili (generally thought to be Francesco Colonna), published in 1499, drew upon Pliny for many of the marvels that populate his sensory architectural narrative. The architect Francesco di Giorgio Martini and the humanist Ermolao Barbaro the Younger each sought out practical information in Pliny on construction methods, materials, and engineering. Both Fra Giovanni Giocondo, responsible for the first illustrated edition of Vitruvius (1511), and Cesare Cesariano, responsible for its first Italian translation (1521), used Pliny to elucidate Vitruvius’s cryptic terminology and confusing passages. Fane-Saunders offers a clear treatment of Pliny’s book as a fascinating yet elusive text while also conveying the richness of Pliny’s original writings.

Pliny remained important into the sixteenth century, although after two decades of working with Andrea Palladio to produce an illustrated commentary on Vitruvius, Daniele Barbaro ultimately argued that it was Vitruvius who should be considered “the true authority” (201). Nevertheless, in the absence of archaeological evidence, Pliny provided Barbaro with the critical means to reconstruct the ancient Roman house. Pliny was also the ultimate source for the re-created ancient atrium of the Farnese Palace by Antonio da Sangallo the Younger in Rome and the atria of the Vicentine palaces illustrated by Palladio in his Four Books on Architecture.

In the three chapters of part III, Fane-Saunders examines architectural drawings and built works after Pliny’s descriptions. Pliny’s passages on the marvels of the eastern Mediterranean captured the attention of architects and humanists, including Cirico d’Ancona, who traveled east to study the region’s ancient monuments using Pliny as a guide. Copies of Cirico’s lost drawings include views of the Parthenon and a temple at Cyzicus, said by Pliny to have contained gold filaments set within the masonry joints. Leonardo da Vinci’s reconstruction of the marvelous rotating double theaters built by Curio in Rome reveal his acquaintance with Pliny’s text. But it was the extended Sangallo family of architects, Antonio the Younger in particular, who examined Pliny’s text with the greatest care, reconstructing the monuments he described in more than forty drawings. Antonio’s drawings reveal his struggle to reconcile the conflicting accounts of Pliny and Vitruvius, and he translated Pliny’s descriptions of foreign wonders into graphic reconstructions inflected by more familiar Roman remains. Fane-Saunders’s detailed discussion of Antonio da Sangallo the Younger’s investigations is a particularly valuable contribution in the absence of the yet-to-be-published volume on Antonio’s drawings of antiquity.3 While buildings described by Pliny appeared first in drawings, some achieved built form later in the sixteenth century. The group pyramids of the Porsena tomb are among the multiple visual allusions to Pliny in the enormous wooden model of Saint Peter’s completed under Antonio da Sangallo the Younger in 1539. The stepped pyramidal form topping the Mausoleum of Halicarnassus became a recurring motif in sixteenth-century tomb designs, from unbuilt projects by Raphael and members of the Sangallo circle to realized works in northern Italy.

Winner of a Society of Architectural Historians/Mellon Author Award and the 2018 Phyllis Goodhart Gordan Book Prize from the Renaissance Society of America, Fane-Saunders’s book provides a comprehensive guide to the Renaissance afterlife of Pliny, demonstrating the ubiquity of Pliny’s text in Renaissance architectural investigations. This fascinating and engaging study reveals how eager investigators of differing tastes interlink. This focus can be explained by the availability of technological aids such as acoustic modeling software for reconstructing historical soundscapes and geographic information systems for creating sound maps that visualize auditory relationships. Within this literature, Deborah Howard and Laura Moretti’s Sound and Space in Renaissance Venice, which examines music in Counter-Reformation churches, is by now a classic, while Niall Atkinson’s The Noisy Renaissance, investigating how Florence’s residents experienced their city’s acoustic topography, provides a more recent example.3

To this literature, Bissera V. Pentcheva’s Hagia Sophia: Sound, Space, and Spirit in Byzantium brings a welcome addition that considers how sonic, visual, and, to a more limited extent, olfactory phenomena worked together to convey a dense

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Bissera V. Pentcheva

Hagia Sophia: Sound, Space, and Spirit in Byzantium

University Park: Pennsylvania State University Press, 2017, 304 pp., 50 color and 42 b/w illus. $64.95 (cloth), ISBN 9780271077253; $34.95 (paper), ISBN 9780271077260

Over the past decades, art and architectural historians have shown ever-increasing interest in how users of monuments and cities have historically experienced these spaces sensually. Especially for premodern contexts, this is a challenging endeavor: first-person accounts are virtually absent, and scholars are often limited to textual sources that need to be mined and read against the grain. Many sensory studies in architectural history focus on sound, carrying other sensory modalities and ways in which sound, sight, smell, touch, and taste interlink. This focus can be explained by the availability of technological aids such as acoustic modeling software for reconstructing historical soundscapes and geographic information systems for creating sound maps that visualize auditory relationships. Within this literature, Deborah Howard and Laura Moretti’s Sound and Space in Renaissance Venice, which examines music in Counter-Reformation churches, is by now a classic, while Niall Atkinson’s The Noisy Renaissance, investigating how Florence’s residents experienced their city’s acoustic topography, provides a more recent example.3

To this literature, Bissera V. Pentcheva’s Hagia Sophia: Sound, Space, and Spirit in Byzantium brings a welcome addition that considers how sonic, visual, and, to a more limited extent, olfactory phenomena worked together to convey a dense
web of meanings. The book integrates five different areas of exploration: Hagia Sophia’s material fabric, the liturgy’s written stage directions, the musical design of chants performed there, conceptual imagery found in Psalter marginalia, and a digital reconstruction of the church’s acoustics (9). Using a broad array of sources (Paul the Silentiary’s famous ekphrasis, the hymnody, Anacreontic poetry) and methodologies (textual and musicological analysis, participant-sensation, acoustic modeling), Pentcheva explicates “how the experience of the Hagia Sophia allowed the Byzantine participants in the liturgical ritual to be filled with the spirit of God, and indeed to become his image on earth” (6).

The first chapter, “Sophia and Chorus: The Making of Sacred Space in Byzantium,” explains how it was not Hagia Sophia’s location or its visual impact alone that transformed the building into transcendent space, but also the sound and movement (choros) emanating from the altar and the ambo (the choir’s platform under the soaring dome). Pentcheva pinpoints three types of movement reflecting a cosmic model: circular, as evoked by the structural characteristics of both architecture and music; helicoidal or spiral; and to-and-fro between the terrestrial and celestial spheres, as evoked by the rising notes reflected down from the dome. Several miniatures provide evidence for Byzantine conceptions of movement and space in the religious context. Hagia Sophia thus “gives a plastic articulation of Christianized Neoplatonic ideas about divine wisdom (soφia) as sacred space” (14).

In the second chapter, “Inspiriting in the Byzantine Consecration (Καθηδρισία) Rite,” the author describes how the church was formally imbued with divine energy. She draws on liturgical studies as well as textual and pictorial evidence from medieval Psalters. Following a step-by-step explanation of the altar’s consecration ritual, which included washing, incensing, and chanting, Pentcheva turns to the elaborate *allelonía* verses sung in responsorial form between soloist and choir at the consecration’s annual commemoration ceremonies. Here, she argues that nonsensical syllables inserted into the hymnodic text “disintegrate the linear composition of meaning in order to produce a sound that functions outside the register of human speech and semantics” (70). Hence, “the Holy Spirit enters the phenomenal world as a visual memory stirred by intertextual references, as a diffusing scent, and as a reverberant sound blurring the intelligibility of human speech” (74).

Chapter 3, “Icons of Breath,” elaborates how participants in the liturgy performed chants with aspiratory nonsensical syllables as a means of inspiriting (*empeirhósis*), not only to animate the church space but also to partake in divine Pneuma and liken themselves to the image of God (*eikon ton Theou*). Pentcheva presents a strong argument for a performative, nonrepresentational icon existing alongside a mimetic, representational one, tracing the concepts of likeness and mirroring from the Old Testament up to medieval exegeses and in graphic formulas such as the cross and Christograms. This chapter makes an important contribution to Late Antique image theory and pushes scholars to consider complex linkages among image, music, and ritual.

Chapter 4, “Aural Architecture,” offers a discussion of acoustics in the design of modern churches and concert halls as background to a description of Stanford University’s research project Icons of Sound, initiated by Pentcheva and engineer Jonathan Abel in 2008. The project included on-site acoustic measurements and a digital reconstruction of Hagia Sophia’s highly reverberant acoustics, and in 2011 it culminated in a live concert by Capella Romana, during which Hagia Sophia’s acoustics were convoluted with the sung hymns so that the researchers could examine the church space’s psychoacoustic effects on performers and audience.

A phenomenological approach to Hagia Sophia’s visual and material characteristics informs chapter 5, “Material Flux: Marble, Water, and Chant.” Here, the author links sound and sight, arguing that the “liquid” behavior of sound and the “aural perception of ‘wetness’ . . . is visually substantiated by the wavelike patterns of the marble revetments and by the shifting intensity of sunlight, which causes stone to appear incandescent at certain moments of the day and to take on the appearance of rivers of molten metal” (121). Material flux, then, consists of surface changes that “confuse the perception of what is solid and what is liquid” (121). With this argument, Pentcheva offers a new perspective on Hagia Sophia’s marble revetments and their bookended panels. Methodologically, her argument draws upon what sensory anthropologists have called participant-sensation, with the scholar immersing herself in the environment to experience optical phenomena such as liquecence, glitter, and shadow (deftly illustrated by her own photographs), and linguistic analysis of relevant terms (such as the root *marmar*, from which are derived *marmaros*, marble; *marmaros*, to quiver, and *marmaryngia*, glitter) employed by Paul the Silentiary. As for these phenomena’s meanings, “the poetics of water in Paul the Silentiary and the psalmody . . . uncover a perception of divinity as a disembodied and liquecent voice, an *aouamētrē* [disembodied voice] reflected in the *echos* of human chant while simultaneously visualized in the wave pattern of Hagia Sophia’s marmoreal interior” (148).

The next chapter, “The Horizontal Mirror and the Poetics of the Imaginary,” takes up in greater detail the phenomenon, introduced in chapter 1, of the mirroring (*eospotron*) of optical and aural reflections. The various mirroring dynamics encompass the divine and the angelic within human performance; psalmic “poetry as a mirror tracing the desires and fears of one’s soul” (157); liturgical objects, with their Christological scenes inviting worshippers to imitate the apostles; the reflective surfaces of liturgical silver and the wine in the chalice; phenomena such as glitter and sound reverberations; and the sung *kontakion* of the prodigal son inviting worshipers to mirror his repentance.

In the book’s final chapter, “Empathy and the Making of Art in Byzantium,” Pentcheva analyzes a moment of empathy between different artistic traditions—that is, how the paganizing literature of the Anacreontes resonates in Paul the Silentiary’s ekphrasis and erotic poetry, how both conceptualize creativity in terms of mirroring, inspiriting, and imitating, rather than original invention. Somewhat abruptly, she then turns to Botticelli’s paintings as an example of how *empeirhósis* in Renaissance painting was equated with lifelikeness and pictorial naturalism, in contrast to the Byzantine manifestation in nonmimetic optical phenomena. Aby Warburg’s *Pathosformeln*—artists’ and viewers’ empathetic response to past artistic traditions—serves to anchor Pentcheva’s claim that Hagia Sophia unites
“Christian, Neoplatonic and sympotic notions of choros, Sophia, mirroring (epi-tron), and empsychosis, which collectively lead to the experience of a temporal di-vination” (185).

In her conclusion Pentcheva offers thought-provoking suggestions about how scholars should approach images and monuments: not as static objects, but as performances, as aesthetic totalities, and as “augmented spaces” featuring multiple spatial and temporal dimensions.

This handsome volume reflects the author’s deep and sustained engagement of more than a decade with the sensory world of Byzantine worshippers as they experienced objects, ritual performance, and Hagia Sophia’s architectural setting. She displays great erudition in her use of approaches, concepts, and terminology from an expansive range of fields: phenomenology, film studies, speech act theory, musicology, literary analysis, acoustics, and more. The chapters’ structure and Pentcheva’s beautifully poetic yet lucid writing style allow readers to easily navigate the densely constructed argument; still, a glossary of Greek terms would have been helpful for non-Byzantinists. Scholars and students of architecture, music, acoustics, ritual, and sensory anthropology will benefit greatly from Hagia Sophia: Sound, Space, and Spirit in Byzantium, and we can hope that Pentcheva will continue this line of investigation to explore eventually the tactile and gustatory aspects of a synesthetic experience of Byzantine objects and architectural spaces.

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Notes
2. Sound samples are available on the project’s website: http://iconsofarm.stanford.edu.

William E. O’Brien
Landscapes of Exclusion: State Parks and Jim Crow in the American South
Amherst: University of Massachusetts Press, 2016, 208 pp., 50 b/w illus. $39.95 (cloth), ISBN 9781625341556

Dell Upton
What Can and Can’t Be Said: Race, Uplift, and Monument Building in the Contemporary South
New Haven, Conn.: Yale University Press, 2015, 280 pp., 59 b/w illus. $35 (cloth), ISBN 9780300211757

In late July 2018, someone shot at a historic marker commemorating the place along Mississippi’s Tallahatchie River where Emmett Till’s mutilated, bullet-riddled corpse was found. Till, a fourteen-year-old African American boy, was abducted and viciously murdered by two white vigilantes in the summer of 1955. Vandalism stole the site’s first sign and then shot up a second one. A third marker had been erected and dedicated only five weeks before the 2018 incident by the Emmett Till Interpretive Center, located in the nearby Sunner, Mississippi, courthouse where Till’s murderers were put on trial. A similar spate of vandalism befell a marker sponsored by the Mississippi Freedom Trail, a historical initiative dedicated to marking important sites of civil rights struggles in the state. That marker is located at the former site of Bryant’s Grocery in Money, Mississippi, where Carolyn Jones, a white woman, falsely claimed that Till made sexually explicit gestures toward her while he was visiting the store to purchase candy. Incensed by the child’s alleged behavior, which transgressed the code of racial apartheid that kept black residents in fear and poverty—and, more important, separate and in their place—Bryant’s husband and brother-in-law kidnapped Till, who was in the area visiting family while on holiday from his Chicago home. The two men beat and shot the teenager, then threw his weighted-down body into the river. Till’s killing made national headlines when his mother, Mamie Till Bradley, requested an open casket at his funeral to expose the barbaric treatment of her son. The haunting photographs of Till and his grieving mother stunned the nation. Equally incomprehensible were the acquittals of his murderers four months later by an all-white, all-male jury following a five-day trial. These events proved that racial violence had not abated since the Civil War and the end of slavery, and that justice was still unattainable for black Americans. The case galvanized activists of the burgeoning civil rights movement.

The installation of the Till markers constructed a poignant commemorative geography of events of the civil rights era, and yet this project has been met with a mixed reception: many want to call attention to Till’s violent death as a reminder of the lives destroyed by systemic racial violence and inequality, but others are disinterested in remembering how violence and injustice functioned as catalysts in the crucible of the South’s long history of racial domination. It should be noted that along with the Till markers, other signs denoting sites of Mississippi’s civil rights struggles have also been routinely defaced, stolen, or destroyed. The vandalization of these markers illuminates how racial divisions and racially motivated violence persist long after the civil rights victories of the 1960s.

As the first generation of civil rights leaders and rank-and-file activists pass away (Mamie Till Bradley died in 2003), various groups have made efforts to commemorate this important chapter in U.S. history, erecting monuments, memorials, and markers in public spaces around the South. This initiative, undertaken mostly by black southerners, has not progressed without robust debate within the black community (concerning, for example, exactly who and what should be remembered) and political wrangling with white citizens and politicians who have their own opinions and desires regarding how southern history should be represented. This fraught intersection—where the historical geography of racial segregation and violence meets the commemorative landscape of the American South—is the subject of two probing histories on race, commemoration, and public space: William E. O’Brien’s Landscapes of Exclusion: State Parks and Jim Crow in the American South and Dell Upton’s What Can and Can’t Be Said: Race, Uplift, and Monument Building in the Contemporary South.

The violence against black communities around the Mississippi delta, including Till and his family and friends, ensured their obedience to a regime of white supremacy that has sustained deep social, political, and economic inequalities ever since the nation’s founding. European colonialists conceived racial difference to create hierarchies that would enable the exploitation of people and the expropriation of land. What is relevant to scholars of the built environment is how