

BIBLIOGRAPHY

Music & Architecture

Focusing on the 20th century to the present day

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This bibliography presents selected sources (mostly in English) in the field of music and architecture, a topic for which a growing number of anthologies and journal articles have appeared in the past two decades. Many of the sources approach the relationship between the practices through multiple case studies. Several books focused on particular artists in both disciplines have been included not because those artists are central to the study of music and architecture, but because those are the most informative examples of such books currently in publication. There exists a body of theoretical literature dealing with the spatial dimension of music in the abstract, with methods of translating music into architecture, and with the acoustics of architecture; only works addressing aspects of cultural studies have been included from that literature. Throughout the bibliography, works of particular interest from a musical and cultural perspective have been marked with an asterisk.

Alice Foundation. *Make It New: Le Poème Electronique*. http://www.alice-eindhoven.nl/index1.php?content_id=415 (accessed Oct. 14, 2008).

Web page for "Make It New," a symposium held on June 18, 2006 on the proposed reconstruction of the Philips Pavilion in Eindhoven, the Netherlands. Publication of the proceedings of the symposium is promised. Of particular interest are links to the *Virtual Electronic Poem* and an image of the original brochure for the pavilion.

Avidar, Pnina, Raviv Ganchrow, and Julia Kursell, ed. *OASE 78. Immersed: Architectuur en Geluid*. Rotterdam: NAI Uitgevers, 2009.

Banduer, Markus. *Aesthetics of Total Serialism: Contemporary Research from Music to Architecture*. Basel: Birkhäuser, 2001.

The last two chapters engage the relationship between music and architecture, taking Edgard Varèse's *Poème Electronique* as a case study. However, insights in earlier chapters exploring serialism in the works of visual artists such as Paul Klee and Piet Mondriaan are applicable to architecture.

Beirens, Maarten. "Nieuwe zalen voor de muziek van de toekomst," *Een Muziekgeschiedenis der Nederlanden: Een Vervolg, 2000-2005*. Ed. Louis Peter Grijp. Amsterdam: Amsterdam University Press (2006): 925-33.

Overview of new concert halls in the Low Countries, focusing on the Bruges Concertgebouw.

Bienz, Peter. *Le Corbusier und die Musik*. Braunschweig: Vieweg, 1998.

This book in German establishes a musical biography of Le Corbusier's life, including the influences of Romain Rolland and Emile Jaques-Dalcroze, the aesthetic of *Esprit Nouveau* and Erik Satie, and Le Corbusier's work with Edgard Varèse on the Philips Pavilion. It concludes with a theoretical section concerning mathematical and proportional relationships translated between music and architecture.

Blessner, Barry and Linda-Ruth Salter. *Spaces Speak, Are You Listening?: Experiencing Aural Architecture*. Cambridge, MA: MIT Press, 2006.

Although musical repertoire is not discussed, this book suggests new ways of understanding the relationship of listeners to performance venues through the concept of aural architecture. The “aural architect” is often not an individual, but multiple sociocultural forces, and aural architecture helps form the experiences and habits of those within it. The overlooked areas of cultural acoustics and sensory sociology (the cultural contingency of sense) offer the musicologist meaningful ways of addressing acoustics.

*Brown, David. *Noise Orders: Jazz, Improvisation, and Architecture*. Minneapolis: University of Minnesota Press, 2006.

Emphasizing the centrality of improvisation to architectural theory and practice, the author compares modern artists and architects to jazz musicians: Piet Mondriaan to boogie-woogie, John Cage to Rahsaan Roland Kirk, Louis Armstrong to Le Corbusier, and the Association for the Advancement of Creative Musicians (AACM) to Ludwig Mies van der Rohe. What emerges are possibilities for jazz to contribute to architectural practice and the development of metropolitan environments.

Bryant, David, Elena Quaranta, and Francesco Trentini. “Architecture, musical composition and performance: Some thoughts on the multiple forms of a difficult relationship,” *Architettura e musica nella Venezia del Rinascimento*. Milan: B. Mondadori, 2006.

Busch, Regina. “On the Horizontal and Vertical Presentation of Musical Ideas and On Musical Space.” *Tempo*, 154 (September 1985): 2–10.

*Carlson, Marvin. *Places of Performances: The Semiotics of Theatre Architecture*. Ithaca, NY: Cornell University Press, 1989.

Insightful work on investigating the meanings of performance spaces and their historical relationship to opera houses.

Carnegy, Patrick. “Staging the Ring at Bayreuth,” in *Wagner and The Art of the Theatre*. New Haven, CT: Yale University Press, 2006: 69-106.

Chen, Hao-Jen. *Music Minimalism and Architecture: Form, Composition and Perception*. Master’s thesis, University of California, Berkeley, 2004.

Clendinning, Jane Piper. “Postmodern architecture/postmodern music.” *Postmodern Music / Postmodern Thought*. New York: Routledge, 2002.

Copans, Richard, Stan Neumann, and Frederic Compain. *Architectures 3*. DVD. Paris: Arte France: Facets Video, 2003.

Presentation of Louis Garnier’s Opéra in Paris and other architecturally significant music venues.

*Fairs, Marcus, ed. *Dezeen: design magazine*. <http://www.dezeen.com>.

Dezeen is one of the most widely read architecture and design blogs in the English language. Designs for planned concert halls, opera houses, recording studios, and other cultural institutions appear frequently, and reader exchanges on the projects are lively.

Feddes, Fred. *Frits van Dongen: Bouwen aan Cultuur*. Rotterdam: 010 Publishers, 2006.

This monograph in English and Dutch includes discussion of the cultural buildings of contemporary Dutch architect Frits van Dongen, such as venues for classical music, pop music, musical education, theater, and film. While the author does not engage musical repertoire, the relationship between van Dongen's architecture and orchestras, audiences, cities, and multipurpose requirements is presented, as are the effects of municipal politics and cultural aspiration on concert hall architecture, the merging of classical and rock concert experiences, and issues in the renovation of extant cultural buildings. Large color photos, plans, and digital renderings give a sense of the buildings, environs, and audiences.

Forsyth, Michael. *Buildings for Music: The Architect, the Musician, and the Listener from the Seventeenth Century to the Present Day*. Cambridge, MA: MIT Press, 1985.

The author explores how architectural and acoustical characteristics of performance spaces have influenced music composition and performance, examining concert halls and opera houses and the people involved in them from the seventeenth to the twentieth centuries. The many photographs and reprints are valuable resources for further study. However, beyond the chapter entitled "Garnier versus Wagner," the book lacks in the detailed discussion of music necessary to support its argument. Potential exists for thoughtful studies inspired by the collection of data in this monograph.

Gilbert-Rolfe, Jeremy. "Los Angeles: Music and the Idea of the Centre." Chap. 4 in *Frank Gehry: The City and Music*. With Frank Gehry. London and New York: Routledge, 2001.

The author presents philosophical, aesthetic, and psychoanalytical perspectives on Frank Gehry's Walt Disney Concert Hall along with some of Gehry's other cultural projects.

Grueneisen, Peter. *Soundspace: Architecture for Sound and Vision*. Basel: Birkhäuser, 2003.

This book in German includes articles on the intersection of architecture, art, and technology, as well as on specific architectural projects for music including recording studios by studio bau:ton. Most buildings and design firms discussed are quite recent and multimedia-oriented.

*Harries, Karsten. "Theatricality and Re-Presentation." *Perspecta: Theater, Theatricality, and Architecture* 26 (1990): 21-40.

A philosopher of art and architecture, Harries argues that the architecture of the opera house is itself theatrical and turns those who enter it into actors. He also argues that the theater has been substituted for sacred architecture in its function of serving the community and that Wagner's Bayreuth was a failed substitute for the religious festival. N.B.: The rest of the issue contains information that, though not directly related to music venues, could inspire other paths of inquiry.

Holding, Eric. *Mark Fisher: Staged Architecture*. Chichester, UK: Wiley-Academy, 2000.

This book is concerned with the integral relationship between rock concerts and architect Mark Fisher's concert venues and architectural stage constructions. Color photos offer vivid illustrations. The music itself is little discussed, but political and cultural references in Fisher's work and thus the its effect on meaning in concerts and its relationship to the audience are elucidated. Of particular interest is Fisher's collaboration with Pink Floyd, especially in his live projects for the group's performances of "The Wall" (1979), which challenge the norm that rock concerts have little direct impact on the city.

Ivanov, Paul. "A Hierarchical Theory of Aesthetic Perception: Scales in the Visual Arts." *Leonardo Music Journal* 5 (1995): 49-55.

The author explores parallels between musical scale hierarchy and the perception of paintings, proposing a general hierarchical theory of perception of visual forms that may be used to analyze architecture,

sculpture, dance, etc. The approach is from a mathematical rather than a cognitive science standpoint, and the preliminary theory is not backed by evidence.

De Jong, Klaas, ed. *Music, Space, and Architecture*. Amsterdam: Amsterdam Academy of Architecture, 2012.

Karajan, Herbert von. "Technische Musikwiedergabe." In *Karajan: Eine Biographie* by Franz Endler. Hamburg: Hoffmann und Campe, 1992: 289-294.

Kennedy, Randy. "David Byrne's New Band, With Architectural Solos." *The New York Times*. 30 May 2008.
<http://www.nytimes.com/2008/05/30/arts/music/30byrn.html?partner=permalink&exprod=permalink>.

Kompridis, Nikolas. "Learning from Architecture: Music in the Aftermath to Postmodernism." *Perspectives of New Music* 31, no. 2 (1993): 6-23.

This article focuses on dodecaphonic, pop, and world music, and judgments of the repertoire are meted generously throughout. Although the article purports to highlight the insights that the study of architectural history can lend to music, it is mostly useful for gaining relevant background on postmodernism in architecture.

Kronenburg, Robert. *Live Architecture: Venues, Stages and Arenas for Popular Music*. New York: Routledge, 2012.

*LaBelle, Brandon. *Background Noise: Perspectives on Sound Art*. New York: Continuum, 2006.

Of primary interest is Part 4 (Public Supply: Buildings, Constructions, and Locational Listening), which seeks to locate the architectural features of sound in sound installation and its origins in Iannis Xenakis' multimedia architectural projects. Parts 5 (Soundmarks: Environments and Aural Geography) and 6 (Global Strings: Interpersonal and Network Space) are also pertinent.

LaBelle, Brandon and Steve Roden, ed. *Site of Sound: Of Architecture and the Ear*. Los Angeles: Errant Bodies Press, 1999.

---. *Site of Sound #2: Of Architecture and the Ear*. Los Angeles: Errant Bodies Press, 2011.

An anthology about experimental music, sound art, and audio theories. Authors include composers, sound artists, and architects concerned with architectural and acoustic space, sound sculpture, field/environmental recording, and site specificity.

Lord, Peter and Duncan Templeton. *The Architecture of Sound: Designing Places of Assembly*. London: Architectural Press, 1986.

Martin, Elizabeth, ed. *Architecture as a Translation of Music*. New York: Princeton Architectural Press, 1994.

Articles by ten musicians and architects explore the language, philosophy, and character of the subject referred to here as "music + architecture." The three chapters grouped as "Instrument as Architecture" are of particular interest.

Morgan, Robert. "Musical Time/Musical Space." *Critical Inquiry* 6 (1980): 527–38.

*Muecke, Mikesch, and Miriam S. Zach, eds. *Essays on the Intersection of Music and Architecture*. Ames, IA: Culicidae Architectural Press, 2007.

Most of these essays were presented at the June 2006 conference "Architecture | Music | Acoustics" at Ryerson University. Sven Sterken gives a useful non-mathematical overview of Iannis Xenakis's theory of music and architecture. Other highlights include discussions of the concert halls of Frank Gehry and Louis Kahn and of Gehry's Experience Music Project, designs for grand piano cases by major architects, an analysis of the Helmut-List-Halle (Graz, Austria) and its relationship to music and social practice, and the translation of Miles Davis's jazz rock fusion into architectural ideas.

*Newhouse, Victoria. *Site and Sound: The Architecture and Acoustics of New Opera Houses and Concert Halls*. New York: Monacelli Press, 2012.

The essential book on the recent boom in opera house and concert hall construction, with particularly interesting insights into new complexes in Asia and the Middle East. Includes a history of performing arts spaces.

Ng, Tiffany. Music+Architecture. <http://pinterest.com/carillonista/music-architecture/>.

The present author's comprehensive and ever-growing collection of graphical links to information about new concert halls and opera houses worldwide, with a focus on Asia and the Middle East.

Ono Imaah, Napoleon. "Music: A Source of Inspiration and Harmony in Architecture – An African View." *International Review of the Aesthetics and Sociology of Music* 35, no. 2 (Dec. 2004): 169-182.

Page, Christopher. *Discarding Images: Reflections on Music and Culture in Medieval France*. New York: Oxford University Press, 1993.

Perez-Gomez, Alberto. *Charles-Etienne Briseux's Musical analogy and the limits of instrumentality in architecture*. Lincoln, Nebraska: Hixson-Lied College of Fine and Performing Arts, The University of Nebraska-Lincoln, 1999.

Radice, M.A. "Theater Architecture at the Time of Purcell and its Influence on his 'Dramatick Operas'," *Musical Quarterly* lxxiv (1990): 98–130.

*Ripley, Colin, ed. *In the Place of Sound: Architecture | Music | Acoustics*. With Marco Polo and Arthur Wigglesworth. Newcastle, UK: Cambridge Scholars Publishing, 2007.

This volume presents articles that developed from presentations at the June 2006 conference "Architecture | Music | Acoustics" at Ryerson University. Ripley gives an informative introduction to this "new field of study." Highlights include the creation of virtual "ghost-spaces" by acoustic phenomena that distort architectural space, the use of musical principles in architectural design, the rise and fall of the concert hall as a primary space for listening, and the use of loudspeakers in sound installations. The articles are of variable quality, but present interesting ideas with potential for further development.

*Schafer, Kimberly. "A Sense of Place and Nostalgia: The Auditory Cultures of Interwar American Universities." PhD diss., University of Texas at Austin, 2010.

The histories of university campus planning and architecture play into the issue of nostalgia as Schafer

questions the assumed categories of noise, sound, and music through the marching bands, glee clubs, and bells whose fluctuating categorization was affected by nostalgia, Progressive ideology, and modes of listening.

*Small, Christopher. *Musicking: The Meanings of Performing and Listening*. Hanover: University Press of New England, 1998.

Small traces the history of the concert hall, its cultural symbolism, and its impact on how audiences act and listen.

Thompson, Emily. *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933*. Cambridge, MA: MIT Press, 2002.

Trachtenberg, Marvin. "Architecture and Music Reunited: A New Reading of Dufay's 'Nuper Rosarum Flores' and the Cathedral of Florence." *Renaissance Quarterly*, 54:3 (2001): 740-775.

*Treib, Marc and Richard Felciano. *Space Calculated in Seconds: The Philips Pavilion, Le Corbusier, Edgard Varèse*. Princeton: Princeton University Press, 1996.

This book offers a comprehensive history of the Philips Pavilion, covering its commission, design, construction, multimedia experience, music, and reception, with a final chapter that places the project within the history of Le Corbusier's works and architectural history. It also includes a brief analysis of the music by composer Richard Felciano. The many photographs, film stills, sketches, and score reproductions constitute a rich resource for this subject.

Vidler, Anthony. *Warped Space: Art, Architecture, and Anxiety in Modern Culture*. Cambridge, MA: MIT Press, 2000.

Wagner, Richard. "The Festival Playhouse at Bayreuth," in *Richard Wagner: Prose Works*. Trans. William Ashton Ellis. New York: Broude Brothers, 1966: 333-340.

*Watkins, Holly. "Schoenberg's Interior Designs." *Journal of the American Musicological Society* 61, no. 1 (2008): 123-206.

This article explores the concepts of exteriority and interiority in the music of Arnold Schoenberg and the architecture of his close friend, Adolf Loos, comparing their respective treatments of space. Watkins shows "how the multiple modalities of musical space in Schoenberg's works are related to the constitution of subjective interiority and to the lived environments of urban and residential space."

Wheatley, John. "The Sound of Architecture." *Tempo* 61 (242): 11-19.

Wright, Craig. *The Maze and the Warrior: Symbols in Architecture, Theology, and Music*. Cambridge, MA: Harvard University Press, 2001.

Xenakis, Iannis. *Musique, Architecture*. Tournai, Belgium: Casterman, 1971.

The composer-architect explains the mathematical relationships between music and architecture in this book, which is divided into two parts, "Musique" and "Architecture." Of particular interest is his discussion of the Philips Pavilion.

Xenakis, Iannis. *Music and Architecture: Architectural Projects, Texts, and Realizations*.

Translated with commentary by Sharon Kanach. Hillsdale, NY: Pendragon Press, 2008.

This volume brings together Xenakis' writings on architecture, and Kanach's commentaries explore the reciprocal influences of music and architecture in his oeuvre.

Yin, Qian. *Endless Performance: Buildings for Performing Arts*. Shenyang, China: Liaoning Science and Technology Publishing House, 2012.

The Chinese counterpart to Victoria Newhouse's book on new opera houses and concert halls worldwide, but focusing on factual information and photographs rather than criticism and historical context. In both Chinese and English.