The ubiquitous use of concrete in modern infrastructure and architecture often symbolizes urbanity; it also connotes modernity, civilization, culture, and human pride in technology, alongside efficiency, industry, and progress. Concrete can also be quite ugly (many people find it aesthetically repellant) if not ecologically unsustainable. As Adrian Forty notes, concrete manufacturing accounts for up to 10 percent of all the world’s CO₂ emissions, contributing to drastic changes in our planet’s climate conditions. With somewhere between 1.5 and 2.5 billion tons of cement manufactured each year, the unsustainability of our global concrete production is inarguably shocking; and since concrete often weathers badly in comparison to stone or other building materials, the ecological problem of its manufacture is compounded. With the demand for cement estimated to double by 2042, as Forty observes, we should be concerned that despite continued technological advancements, our apparently insatiable desire to build with concrete is becoming a serious problem.

Forty’s concern about the sustainability of concrete as a building material is compelling, particularly coming from an author who has written a 300-page book celebrating the rhetorical meaning of concrete in our recent history. This ambiguity about the value of concrete, if seemingly contradictory, reveals the challenges facing architecture and architectural historians today. Many building construction techniques developed in the modern era have initiated unsustainable practices that are consuming world resources at an alarming rate, permanently altering the physical makeup of our planet and not necessarily for the better. How are we to wrestle with such substantive human problems while maintaining our fetishistic love for industrial technologies and materials? This is a question that Forty’s book challenges us to consider.

Structured into ten readable chapters that explore concrete from its roots in building structure to more recent uses as predominantly nonstructural interior surface treatments, Forty’s book investigates a fascinating if problematic set of texts on the cultural politics of concrete. In the first several chapters, he outlines the political, cultural, and spiritual dimensions of the use of concrete in the modern era. Chapter 1, “Mud and Modernity,” examines the material in terms of post-and-beam and bearing-wall reinforced structures, structures that appear to him at the same time both “modern” and “primitive.” The work of Auguste Perret is featured in this chapter, as are the tilt-up, “low-skilled” constructions of Rudolph M. Schindler. Here Forty is interested in how concrete lends itself to the “self-built” and thus the recovery of premodern techniques within modern building. Le Corbusier’s Unité d’Habitation, with its play between “crudity and finesse,” as Le Corbusier had described, along with Louis Kahn’s Salk Institute, further exemplifies Forty’s theme that concrete has the most to say when it appears to be both primitive (i.e., from mud) and modern (i.e., having industrial form). Forty builds on this idea in his next two chapters, arguing that although concrete consists of natural materials, in its synthetic manufacture it takes on a new quality that maintains a very particular relationship between the natural and built worlds.

Concrete does not have a predetermined form. With the inclusion of structural reinforcement material, it can appear seemingly formless, even in its permanent solid state, a characteristic the expressionists arguably sought to exploit. Many of its surface effects are constituted in response to formwork. As such the formwork not only plays a significant role in the sensibility of the final material quality but is also a significant limiting factor in the overall form that can be produced. It is the formwork—its material construction and lineaments—that in many ways defines the shape or figure of a concrete building.

One of the chief virtues of Forty’s book is that it recognizes both formal and material characteristics while extending its view far beyond the formed material itself, advancing a theory of the ways in which our reception of concrete is shaped by cultural, political, social, and economic parameters. One example he uses to illustrate this idea beautifully is the Lloyd’s of London Building by Richard Rogers Partnership, where the building’s concrete structure is constructed in the image and shape of a steel-and-cast-iron frame. Through various means of manipulation, the concrete appears to be something it is not. As this example shows, concrete is what we choose to make of it. It is legible, not in a technological materialist sense,
but through the cultural rhetoric of its material effect.

The cultural legibility of concrete perhaps became most salient in the mid-twentieth century. As Forty discusses in chapter 5, “Politics,” in the postwar years, concrete was markedly associated with social progressiveness, whether in the context of social democracy or communism. In the early Soviet Union, the use of concrete was explicitly ideological. Lenin’s view of the “indissoluble unity” of the proletariat resembled the organic, continuous nature of concrete. In Fyodor Gladkov’s 1925 socialist-realist novel *Cement*, the protagonist Gleb Chumalov takes as his slogan: “We produce cement. Cement is a firm bond. Cement is us, comrades—the working class” (Forty, 147). If, during the Cold War, the Soviet Union was seeking a model of architectural standardization to represent “a single system of construction for the whole country,” concrete, prefabricated in the factory by working-class laborers, proved to be the right material for the job.

Although these broader analyses are compelling and fairly convincing, *Concrete and Culture* is at its most successful when it concentrates on specific building projects, often reaching surprising conclusions through Forty’s thoughtful investigations: for example, in his analysis of João Batista Vilanova Artigas’s Faculty of Architecture and Urbanism Building in São Paulo, Brazil, wherein the structural concrete legs curiously seem to take the shape of two inverted pyramidal forms diminishing to a point. As Forty notes, the device of twisting the axis of a pier through 90 degrees was sampled from the work of Italian engineer Pier Luigi Nervi, making the building the result of a global discourse of engineering expertise meeting the particular context of not-yet-industrialized Brazil. In this case, he argues, the “crude ness of the execution” of the structure in São Paulo was a product of the “backwardness” of Brazilian building practices, which depended upon the abundance of “unskilled labour” (which, in this book, he refers to as women and immigrants) coupled with “human inventiveness” exhibited by the influence of Italian engineers. Whether the Latin Americans as a whole can be characterized as both “primitive and sophisticated,” as Forty suggests based on this one example, remains unclear, and I would argue that broad-stroke stereotypes such as these are recurring challenges throughout this otherwise fascinating book.

A similar issue crops up in Forty’s discussion of Tadao Ando’s Rokko apartments in Kōbe, Japan. Here Forty points to the suppression of chamfered corners on concrete columns and walls, along with the extremely smooth, sharp, and carefully formed large expanses of concrete surfaces with their great attention to mass and detail, as an example of Japanese “perfectionism” (129–30). It might be acceptable to associate Japanese culture with the trope of perfectionism through the study of one example of Ando’s work, but with no mention here of Louis Kahn’s buildings as a foil to this discussion, the analogy rapidly appears spurious. Kahn is recognized for inventing concrete details not dissimilar to those of Ando. When Kahn chamfered the corners of his concrete walls and columns at the Yale University Art Gallery, he recognized that such “trade standard” construction ruined the sharp lines of the building’s modern rectilinear form, diminishing the contrast of light and shadow. Kahn never chamfered the corners of his concrete again and always insisted that his concrete columns and walls be cast with perfect sharp-edged corners. In this case, perfectionism was not associated with being Japanese; it was a characteristic of a modern aesthetic more closely associated with internationalism than with any specific global region or cultural identity. Not to discuss the impact of Kahn’s work alongside Ando’s seems problematic and is perhaps a result of the mammoth task Forty has undertaken in his quest to cast such a wide net over his subject.

Unlike much of Forty’s past work, which is unassailably exhaustive and precise in its original research, bringing forward a cornucopia of nuanced detail about a new subject, this book on concrete is, as he admits, quite different. It is fluid and loose, moving quickly from example to example in a form similar to stream of consciousness. Each chapter offers a set of very reasonable interpretations within a general theme, but none delves for very long into any sustained territory or proposition. As Forty notes in his introduction, there was no need to write an exhaustive research account on concrete—its building history and its architecture; this task has already been done. Instead, this book sets out to discuss the cultural history and ideology attributed to the material throughout the past century. In so doing, it will appeal to a wide audience since it does not get bogged down in excessively detailed scholarly research. Its scholarship is one of ideas and understanding attributable to a highly experienced writer who, as he explains, set out to write a book in a manner similar to Graham Greene’s description of an “entertainment,” giving [Forty] reason to travel widely, and justifying a visit more or less anywhere” (Forty, 7). I am not certain I agree, however, that this approach is a valid basis for writing a book nor that it does justice to the topic addressed. Concrete is a ubiquitous material widely employed over vast global terrain; it can be found in every country, in every city, almost every place. We are linked together through its common visual and material language, one that changes little from one global locale to another. What is truly admirable about this book is its premise that building materials—even utilitarian ones such as concrete—can be legible, providing knowledge of the way we are in the world, our culture, hopes, visions, and deeper human concerns and interests. The rhetorical value of concrete in modern culture and society is at the heart of this book, but, in the end, Forty remains generally ambiguous as to that value in light of the ecological problems he acknowledges we face. Given the ubiquity of concrete and the common understanding we have of it, will we continue to use it despite its ecological challenges? Or will concrete, as a material symbol of modernist progress, become a thing of the past? My suspicion is that we will continue to use concrete universally (as Forty correctly notes is happening extensively in China at the moment), but we will begin relying more on technological innovations to achieve more acceptable levels of ecological sustainability within its manufacture. I do not believe humanity has any intention of reducing its material consumption.
(using concrete or otherwise) nor of curtailing its desire to territorialize the space of this planet (or others). The human need to colonize the environment seems inherent to our nature and, I suppose for architects, the very basis of our profession.

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**Note**

1. Forty notes that in the manufacturing of cement, even the “greeneest of means” produces nearly 2,000 pounds of CO₂ per ton of cement (70).

William A. Gleason
**Sites Unseen: Architecture, Race, and American Literature**
New York: NYU Press, 2011, 288 pp., 37 b/w illus. $23 (paper), ISBN 9780814732472

Dianne Harris
**Little White Houses: How the Postwar Home Constructed Race in America**
Minneapolis: University of Minnesota Press, 2013, 366 pp., 148 b/w illus. $39.95 (paper), ISBN 9780816654567

Mabel O. Wilson
**Negro Building: Black Americans in the World of Fairs and Museums**

While scholarly interest in the critical intersections of race and architecture is by no means new within the humanities, there are hints of some new horizons in contemporary scholarship. Earlier studies in North American architectural history have primarily focused on the nineteenth and twentieth centuries, including the racial segregation perpetuated by urban renewal policies. Sociological studies have tended to focus on the structural and institutional causes of racism or have presented ethnographic accounts of minority groups that proved their resilience under oppression. More recent studies have built on these investigations with new cross-cultural and transnational analyses, as well as brought the material environments produced by such processes under greater scrutiny. For example, in the past ten years, scholarship in visual studies has isolated the hegemonic function of whiteness in visual contexts seemingly unmarked by the presence of white and nonwhite figures. Martin Berger’s *Site Unseen: Whiteness and American Visual Culture* is representative of such scholarship, and his work has paved the way for both William A. Gleason’s *Sites Unseen: Architecture, Race, and American Literature* and Dianne Harris’s *Little White Houses: How the Postwar Home Constructed Race in America.* While Gleason most closely emulates Berger’s theoretical approach (as evidenced by the similar titles and methodologies of both works), Harris takes Berger’s conceptual focus on whiteness in American visual culture and extends it through a sustained archival study of material culture taken from everyday life. Also anchored by a deep analysis of historical archives, Mabel O. Wilson’s *Negro Building: Black Americans in the World of Fairs and Museums* will no doubt become a fundamental reference book for future studies of black self-representation in the field of architectural history. Her work follows that of scholars who have used material culture to describe the historical transition of public debates between and within racial and ethnic groups in the United States.

Gleason’s *Sites Unseen* is a thematic exploration of the racial discourses perpetuated in houses, or what he calls “American vernacular forms,” created between 1850 and 1930. He concentrates on the representation of these architectural vernacular forms in literature, although he also includes other fragments of material culture that contain images of architectural space such as architectural pattern books. The central argument of *Sites Unseen* is that depictions of architectural space in literature and in architectural pattern books directly enabled readers to negotiate the set of racial identities that emerged in the post-Reconstruction period, the time Gleason associates with the “pattern book era.” This period began when the loss of black liberties forced racial lines to be redrawn in the American South. While citizens struggled to consolidate new political identities in light of recent changes, architectural pattern books presented a concise visual summary of the social norms contained within domestic architecture. Gleason’s study is concerned with the construction of racial identity in the Americas, which include the United States, the Gulf of Mexico, Hawaii, and other territories. In order to demonstrate the formative role of architecture in constructing racial identity, Gleason interprets both novels and architectural pattern books as social texts that clarify the racial content of everyday spaces. This textual approach encompasses the meaning of cottage houses for the white and nonwhite readers of Hannah Craft’s slave narratives; the racial nostalgia surrounding Charles W. Chesnutt’s literary reconstruction of slavery and Reconstruction-era porch culture; the imperial politics evinced in the bungalows recorded by Richard Harding Davis and Olga Beatriz Torres in travelogues of trips taken from Central America to the United States; and the floating Oriental signifiers of the Hawaiian interior spaces depicted in Earl Biggers’s *Charlie Chan* novels and Frank Lloyd Wright’s turn-of-the-century Usonian houses.

Gleason’s focus on (mostly) familiar spaces is an effective strategy for recovering the architectural contributions of social minorities, who produced few commissioned projects and were routinely shut out of property ownership after Reconstruction. While buildings are expensive, architecture in the form of the social texts Gleason describes was almost equally accessible to the rich and poor, a fact that expands the potential for marginalized groups to make claims on membership in the American body politic. Chapter 1, in which Gleason studies the architectural settings depicted in Hannah Craft’s mid-nineteenth-century novel *The Bondwoman’s Narrative,* illustrates this situation beautifully. According to Gleason, Craft synthesized the central character’s desire for a quaint and safe cottage with the literary models of cottage life outlined in Charles Dickens’s *Bleak House* and Andrew Jackson Downing’s *The Architecture of Country Houses,* despite her status as a runaway slave. In