ancient society, beliefs, rituals, and monuments, as well as their pioneering role in Christian archaeology, most notably the (re)discovery of the Roman catacombs. This meticulous monograph recognizes Spanish antiquarians for their pivotal contributions to Renaissance humanism, finally allowing them to take their rightful places within the sixteenth-century European republic of letters. For ecclesiastics like bishop Antonio Agustín, a key figure in the field of Renaissance numismatics, who accomplished seminal work on Roman law throughout his years of service in the Papal curia, or Dominican friar Alfonso Chacón, an expert on ancient epigraphy well known for his detailed study of Trajan’s column and for his history of the papacy, love of antiquity never contradicted their Christian faith. The two were never mutually exclusive. Rather, these churchmen sought to reconcile the two traditions by devoting scholarly attention to early Christianity, an interest that distinguishes early modern Spanish scholars from other European humanists of their time. Morán acknowledges but also slights this distinctive characteristic by focusing exclusively on the pagan Roman past.

Ultimately, one cannot help but sense that the author considers early modern Spain to have been something of a cultural backwater, a mere sub-province of Italy. This deeply engrained notion, still prevalent among numerous scholars of the Spanish Renaissance, especially Latinists and art historians, tends to view Spanish artistic and cultural productions through an Italian lens, comparing and judging Spanish art against the benchmark of Italian achievements. Therefore, all the large-scale collectors of antiquities and major connoisseurs of the Roman world Morán features in his book had direct and sustained contact with Italy, living there for a number of years alongside both its ancient and modern treasures. These men, who usually fulfilled diplomatic and administrative duties for the Spanish monarchy, either as ambassadors or viceroys (of Naples, most of the time), appear to have developed during their stay a marked taste and genuine passion for antiquity, and they imported to their Iberian palaces statues, sculptures, and medals, which they did not find or, according to Morán did not bother to seek, at home.

How quickly these carefully assembled collections were dispersed and for the most part lost by the end of the seventeenth century further confirms, in the author’s opinion, the superficial imprint of the classical legacy in Spain. The fact that the overwhelming majority of early modern Spanish collectors preferred medals and inscriptions over statues is an indication to Morán that their love of antiquity was superficial, an appreciation strictly and basely historical rather than aesthetic. This was their one major flaw, according to the author, who never seeks to understand or explain their underlying motives. They treated those precious Roman remains as archival sources of information rather than as objects of beauty—just as any self-respecting modern art historian would do.

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Guy Nordenson, editor
Seven Structural Engineers: The Felix Candela Lectures

Historical surveys of modern architecture often begin with a celebration of eighteenth- and nineteenth-century structural engineering, citing works such as the iron bridge at Coalbrookdale and the frame of the Home Insurance Building. But as the narratives advance into the twentieth century, such illustrations become less frequent, leaving awkward thematic gaps and a view of architecture that accounts poorly for structure, construction, and materials. Efforts to reframe the story have been hampered by a lack of publications bridging the disciplines of architecture and engineering. Andrew Saint’s recent Architect and Engineer: A Study in Sibling Rivalry makes a valuable contribution to this end. For its part, the Museum of Modern Art has published the Felix Candela Lectures, which were presented from 1998 to 2005 in conjunction with the schools of architecture at MIT and Princeton University and the Structural Engineers Association of New York. Organized by Guy Nordenson, professor of architecture and structural engineering at Princeton, the lecture series offered a forum for distinguished engineers and scholars to share their thinking with a general audience. This proved to be a challenge, and the speakers took a variety of approaches in presenting their work, ranging from straightforward, chronologically organized descriptions to thematic and theoretical presentations. Interesting to review, these presentations are instructive as one considers how best to weave the subject of structural engineering into architectural history.


In his introduction, Nordenson seeks to devise a critical language for the art of structural engineering that accounts for the discipline’s fusion of aesthetics and empiricism. Drawing on sources familiar to a museum audience, ranging from Octavio Paz on Marcel Duchamp to the poetry of William Carlos Williams and Stéphane Mallarmé, he locates the achievements of structural engineers “in the realm of things and order” (23), and sees their focused engagement with things as broadly expressive of human values (14). The argument is dense for a short essay but invites discussion.

Nordenson also addresses the problem of visibility in structural engineering. While familiar terms of object and authorship can be applied to certain buildings and structures, such as those designed by Dieste, Isler, and Menn, they are less useful in regard to the collaborative practices of Balmond, Robertson, Kawaguchi, and Schlaich. Robertson’s contribution to a building...
such as the Bank of China Tower in Hong Kong, for instance, is mostly hidden from view, and it is difficult to isolate from that of the architect I. M. Pei. Nordenson employs the phrase “invisible creativity” to describe such work. As a suggestive parallel in art, where the unseen is of critical importance, he offers Duchamp’s enigmatic mixed media work, *Etant donnés: 1° la chute d’eau, 2° le gaz d’éclairage* (1946–66), which must be viewed through a keyhole.

Anderson’s essay summarizes the principal themes of his excellent book on Dieste and demonstrates concisely how the late Uruguayan engineer’s innovative and elegant structures, composed of reinforced masonry vaults, reflect the ideals of a “principled builder,” ideals for which he is admired by many architecture students today. In sharp contrast to the modest scale and utilitarian purpose of Dieste’s work, Balkmond is known for his collaborations with formally adventurous architects such as Rem Koolhaas (Seattle Public Library, CCTV Headquarters in Beijing) and Daniel Libeskind (Victoria and Albert Museum addition, unrealized). His essay describes his intellectual trajectory, from his grounding in the hierarchical, regularized world of Cartesian geometry to his embrace of nonlinear and fractal orders, which he presents at greater length in his book *Informal* (2002).

Of the essays in the collection, Leslie E. Robertson’s suffers most in the translation from its original format as an illustrated lecture. Nevertheless, his remarks offer glimpses into his collaborations with architects and the methods he employs to predict the behavior of tall buildings under wind loads. Design process is also central to Isler’s discussion of his thin-shell concrete structures. He emphasizes the importance of analogical thinking informed by observation of nature and the value of physical modeling, underscoring Nordenson’s point that the art of structural engineering requires direct and profound engagement with things rather than abstractions.

Kawaguchi organized his essay by material type, ranging from hardest (stones in a bridge in Beppu, Japan) to softest (a 100-meter-long inflatable fabric carp). His close attention to methods of construction is shared by all of the collection’s authors.

Menn finds the art of bridge design in the balance of economy and aesthetics, coupled with a sympathetic response to the site. He illustrates these ideals with examples of his work but reserves his strongest words for a critique of his profession’s over-emphasis on quantitative analysis and standardization at the expense of practical experience and creativity. He calls on educators to foster both. Schlaich, along with the other authors in the collection, would likely agree with Menn’s views on education, adding that it is important that structural engineers consider the social implications of their work. He argues that light, efficient structures, such as pre-tensioned cable-net roofs, have ethical value in an age when the management of material resources and labor has environmental and cultural consequences. Billington and Garlock, too, invoke the ethical dimension of the art of structural engineering in their concluding chapter. Asserting that “its goals of efficiency, economy, and elegance correspond to those of societies based on conservation of limited resources, accountability of public funds, and responsibility for encouraging the creation and preservation of art,” they see structural art as a symbol of free, democratic societies. (172) This is a noble aspiration for a world focused on the bottom line. Eugène-Emmanuel Viellet-le-Duc, who similarly understood structural art as an expression of profound cultural values, must be smiling in his grave.

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We know architecture first-hand, as a three-dimensional experience; we know it also, as Mary N. Woods observes in *Beyond the Architect’s Eye*, through photography. Photographs have often captured the essence of buildings in ways that transcend our first-hand experiences, transforming them into indelible memories. Indeed, much twentieth-century modern architecture is known to us through the iconic images of photographers such as Ezra Stoller, Bill Hedrick, and Julius Shulman, who worked with and for architects.

Woods, professor of the history of architecture and urbanism at Cornell, challenges the canonization of this kind of architectural photography, especially in so far as it often erases human presence and gives us instead an abstract aesthetic of line, plane, curve, and volume—“eye candy or soft pornography,” she calls it (xii). In doing so, she invokes one of the great photographers of the 1930s, Berenice Abbott, who demonstrated in her own work the medium’s power to depict, as Abbott put it, “the intersection of human beings and solid architectural construction all impinging upon each other in the same time” (xiii). Woods is also writing, to some degree, in the spirit of the *Architectural Review*’s famous (or infamous) “Manplan” series (1969–70), which sought to shift architectural photography’s focus from depicting buildings as heroic objects to picturing the life around them, including the myriad social problems (education, urban protest, work, etc.) that are embedded in spatial structures. Hostile responses from the journal’s readers, architects mainly, made this a short-lived experiment.1

Woods’s aim in *Beyond the Architect’s Eye* is to use photography to place architecture in space and time—in the passage of time, the specifics of location, the cultural matrix of place, including the history of social class, race, politics, and economic transformation that create the dense meaning of a building’s presence in history. Such an approach parallels to some degree changes that have taken place already in art history, literary studies, American studies, and photographic studies, where the object of study has been

Notes

Mary N. Woods

Beyond the Architect’s Eye: Photographs and the American Built Environment