embrace of modernist design through the century. Schlichting sees the extent of that embrace: the popularity of functionalist, often quite austere, design caused the “near-death experience” of this very building in the 1960s (a nerve-racking story for any preservationist that Schlichting tells clearly in the final portion of the book). He does not indicate, however, that even in 1910 the lofty reputation of Ecole-trained architects did not suit all those participating in the “Age of Energy.” Instead, many industrialists saw “order and dignity” and expressions of “corporate strength” (135) not in classicist forms but in the clean, unadorned functionalism of exposed concrete-frame or even prefabricated structures. Schlichting associates American interest in the International Style only with the later influence of H.-R. Hitchcock, Philip Johnson, and the European modernists, overlooking the fertile cultural ground laid for their ideas earlier in the twentieth century.

The costly sculptures and adornments of Grand Central Terminal in some ways contradict the notion of a truly modern business enterprise, yet the railroad’s directors saw them as worthwhile expenditures. Why, exactly? Why should a “gateway” to New York City—arguably the newest of world capitals in 1910—take the most traditional of architectural forms, imitating the Columbian Exposition’s White City of 1893, and not celebrate the modern building methods and materials that made it possible? Why did its creators look backward for ways to express progress, success, and civic betterment? For that matter, why did “raw business logic” (as Schlichting somewhat simplistically characterizes the change) eventually prevail and finally bring functionalist design to mid-Manhattan after World War II (181)?

I think we need to explore more fully the ways in which titans of industry and city planners of the early twentieth century thoroughly and perhaps deliberately combined progressive and retrogressive social agendas. The “chaos” that many affluent Americans saw in their cities gave rise to very mixed responses to modernization, many of which are difficult to reconcile and are actually obfuscated by reliance on terms such as an “age of energy” (we might ask if this term would have had a clear meaning for those to whom Howard Mumford Jones applied it [7]). For example, the City Beautiful Movement did bring vast improvements to social conditions in many cases, but, as the author indicates, it actually may have worsened the lives of the poorest urban citizens. Yet Schlichting does not help us understand this amalgam of social impacts. Even as he acknowledges that the beautification of Fifth and Park Avenues was hardly an egalitarian gesture, Schlichting seems to accept the uplifting rhetoric of Warren and his employers with little critical reassessment. A similar elision shapes his description of the railroad’s creation of wealthy commuter suburbs to the detriment of Manhattan’s residential neighborhoods. And, as much of a “stirring triumph” (114) as the technological innovations of Vanderbilt, then of Wilgus and Warren, may have been, these, too, were not the result of entirely progressive impulses. To create Wilgus’s building, the New York Central borrowed excavation techniques then being used to dig the Panama Canal, and the canal itself borrowed methods used in contemporary factories. All reflect not simply an arbitrary enthusiasm about technological scale—the creation of unprecedentedly large structures and productive operations—but about certain ways of managing workers, patterns of corporate or government investment, and the cultural authority of engineers.

A structure as deeply rooted in the power structures of American society as this one might tell us a great deal about how we should build, or rebuild, our cities in the future. How do our most heavily capitalized buildings embody collective, or, alternatively, class difference? The book contains telling anecdotes: the original Grand Central relegated immigrants traveling from Ellis Island to points west to a special basement room, where their “gross uncleanliness” would be hidden from middle-class suburban commuters (53). But more general themes rest just below the surface in this story: shifting public conceptions of corporate greed and notions of public and worker safety and other such stewardship roles that companies and government bodies might or might not fulfill. All are reflected in the massive and massively complex structure of Grand Central Terminal and deserve to be articulated as we today reassess some of our most closely held notions about American enterprise and its material expressions. There are great amounts of data compiled here, presented in very accessible form and offering rich raw material from which we may now craft a fuller sociological picture of such American ambitions.

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Surveys

Giovanna Curcio and Elisabeth Kieven, editors
Storia dell’architettura italiana: il settecento

Notwithstanding its building boom, eighteenth-century Italy failed to produce anything comparable to the quadrumvirate of “genius” architects that had graced the preceding century—Bernini, Cortona, Borromini, and Guarini. This recent addition to Electa’s ambitious series on the history of Italian architecture—two multi-authored and abundantly illustrated volumes on the settecento edited by Giovanna Curcio (University of Venice) and Elisabeth Kieven (Biblioteca Hertziana, Rome)—reflects that historical or, perhaps more accurately, “historiographical” fact. Four of the twenty-six chapters are devoted exclusively to individual architects—
Juvarra (Millon), Fuga (Kieven), Vanvitelli (Garms), Piranesi (Dal Co)—mostly names less familiar to nonspecialists than were the Baroque progenitors. Piranesi is the one exception, but his reputation is based not so much on architectural activity as on his prints.

One might, therefore, think the eighteenth century in Italy not a period of architect-luminaries. Juvarra, of course, left major monuments in Turin and in Spain, and his huge graphic output is still being studied and published. But even he, for all his undeniable importance, does not now hold quite the same hero status in the pantheon of architectural history as his predecessors. His Savoy royal hunting lodge at Stupinigi, on the outskirts of Turin, has achieved canonical rank in art history survey texts, but this spectacular site remains little visited except as the venue of an occasional megaexhibition. Nor has Vanvitelli's gargantuan palace-exercise on the scenography of absolutism at Caserta, near Naples, gained for its designer fame extending much beyond the restricted realm of specialists. In Rome, the eighteenth century produced two of the most beloved and romantically charged urban accouterments anywhere in Europe—the Spanish Steps and the Trevi Fountain. These cinematic splendors are "must see" entries on the list of every first-time visitor to the city and they have been well studied, but their architects are little known by nonseicentesisti.\(^1\) We might therefore imagine this relative lack of looming personalities to be a disadvantage as the editors of the volumes under review sought to organize the vast material representing the varied architectural output of the century—but such is not the case here. Curcio, Kieven, and their twenty-three author-collaborators astutely turn this historical given to advantage. Not the creative giants but the century itself, in its manifold architectural expressions, becomes the principal protagonist.

Curcio's introductory essay embodies this approach. Perhaps inspired in part by Pevsner's book on the emergence of new building types in the eighteenth century, she sees a clear departure from the abstract and extravagant conceptions of the Baroque in which quasi-autonomous intellectual notions are superimposed over a preexisting world, as one might see in Bernini's Colonnade for Saint Peter's Square or Cortona's tidied-up urban space in front of his façade for Santa Maria della Pace. Instead, architecture of the new century was called to meet the demands of a new sort of state building aimed in theory at establishing "good government and public happiness." By the eighteenth century, "[n]o longer did the conception of those grandiose machines capable of translating a program into reality concern the architect. It was rather his task to resolve the increasingly specific questions brought to the fore by the new specialists" (I: 33). Engineers, mathematicians, surveyors, physicians, and other practitioners in technical fields established the needs architecture was called to fulfill, and political elites deployed newly invigorated state apparatuses in the effort to strengthen the means of social control through the instrument of architecture. The consequences of this novel understanding of architectural production register in the wide range of building types included throughout this two-volume history, which include prisons, theaters, cafés, poorhouses, academies, cemeteries, hospitals, bridges, libraries, aqueducts, light-houses, stock exchanges, water reservoirs, and granaries. Churches, palaces, and villas still predominate in the discussion, as evidenced by a quick glance at the illustrations, but fully a third of the buildings examined represent types other than ecclesiastical edifices and aristocratic dwellings. This datum aptly reflects a general trend within the discipline of architectural history toward the study of social forces and institutions as expressed in architectural form.

We can track this turn with reference to key texts that have helped shape our perception of eighteenth-century architecture in Italy. Only about 10 percent of Brinckmann's examples are from this class of buildings (Albert E. Brinckmann, Baukunst des 17. und 18. Jahrhunderts in den romanischen Ländern [Berlin, 1919]). Elling's anecdotal and idiosyn-
catic volume, an exception for his time, provided a more generous view of the built environment of seventeenth- and eighteenth-century Rome, with about a third of the structures he examined coming from this underrepresented group (Christian Elling, *Rom. Arkitekturens liv fra Bernini til Thorvaldsen* [Copenhagen, 1950; English ed., Boulder, Co., 1975]). Wittkower included only five types other than churches, palaces, or villas in his survey of Italian art and architecture from 1600 to 1750 (Rudolf Wittkower, *Art and Architecture in Italy, 1600–1750* [Baltimore, 1958]). Pommer mentioned only one such building in his study of eighteenth-century architecture in the Piedmont (Richard Pommer, *Eighteenth-Century Architecture in Piedmont* [New York, 1967]). Blunt's edited volume treated a mere sixteen out of a total of 293 examples (Anthony Blunt, ed., *Baroque & Rococo: Architecture & Decoration* [Cambridge, Mass., 1978]). Gabetti discusses only a handful in his short survey (Roberto Gabetti, “*Architettura italiana del seicento*,” in Federico Zeri, ed., *Storia dell’arte italiana: dal cinquecento all’ottocento* [Turin, 1982], 2: pt. 2, 661–721). Varriano gives about 5 percent of his text to the same neglected building types (John Varriano, *Italian Baroque and Rococo Architecture* [New York, 1986]). Matteucci, author of the most recent comparable text on eighteenth-century Italy, devoted about 17 percent of her illustrations to this category (Anna Maria Matteucci, *L’Architettura del settecento* [Turin, 1988]). In historiographical context, therefore, Curcio and Kieven's contribution to the study of eighteenth-century Italian architecture provides a more representative view of the total built environment of the period, one decidedly closer to that experienced by most people of the time, who surely did not live out their lives only in palaces and churches. Readers may still wish the editors had opted to be even more inclusive and had incorporated a chapter on vernacular architecture. The work of the Annales School on the history of private life has awakened us to this issue and its architectural expression (Philippe Ariès and Georges Duby, eds., *A History of Private Life*, 5 vols. [Cambridge, Mass., 1987–1991]). The studies of Gianighian, Pavanini, and Goy on Venetian vernacular housing and Lombardi's inventory of the full range of housing in Rome would have provided the basis for a chapter devoted to the lower end of the hierarchy of building types (Giorgio Gianighian and Paolo Pavanini, *Dietro i palazzi: tre secoli di architettura minore a Venezia, 1492–1803* [Venice, 1986]; Richard J. Goy, *Venetian Vernacular Architecture: Traditional Housing in the Venetian Lagoon* [Cambridge, 1989]; Ferruccio Lombardi, *Roma: palazzi, palazzetti, case: progetto per un inventario, 1200–1870* [Rome, 1992]). Also regrettable is the lack of even a single example of factory architecture. But it should be noted that, given the scope of the project, no claim to completeness could be made.

Curcio and Kieven have shaped their book into three parts: one on the professional practice of architects, one divided by states and time periods, and one devoted to individual architects. In each of these sections the reader will find a liberal embrace of a range of building types, but this is not the only welcome achievement of the guiding hands of the editors. Throughout, we encounter abundant treatment of architectural drawings and engravings, many of them illustrated in color, for example, Juvarra's spectacular plan for a royal palace and gardens for three illustrious personalities—the young architect's 1705 entry for the competition at the Accademia di San Luca, a conception that eventually took revised shape at Stupinigi. Here we can see coming to the fore Kieven's expertise as a specialist on Roman architectural drawings as established in several important publications of recent years. There are also numerous newly drawn plans and a strong group of subtle color plates (many of them by photographer Andrea Jemolo), primarily of interiors or exterior details. Two full-page photographs of the impossibly lacy perforated vault of the Parmese church of Sant’Antonio Abate (based on Ferdinando Bibiena's original design) are particularly striking.

Another important strand running through the book that suggests editorial encouragement is the unusual emphasis, for such a survey text, given to the technical aspects of architectural design. Reproduced here, for example, are the thirteen full-page engraved plates from Masi's 1788 manual on the theory and practice of civil architecture, among them didactic illustrations of types of composite beams and trusses, structural lesions in masonry walls and means for shoring up failing structures, numerous examples of construction tools, equipment, and machines, even pulleys, and the recommended knots employed in the use of ropes (Girolamo Masi, *Teoria e pratica di architettura civile per istruzione della gioventù specialmente romana* [Rome, 1788]). Chapters by Curcio and especially by coauthors Carlo Baggio and Enrico Da Gai explore this technical aspect of construction in their respective essays. The latter two authors focus on the design of domes and the tentative developments leading toward a more scientific understanding of structural mechanics. In the same part, Hellmut Hager's entry on the architectural academies in the major cities of the Italian peninsula provides a professional context for the technical practice of architectural design and construction. John Pinto's chapter on architecture designed by Italian architects working beyond the Alps demonstrates that some of the most important buildings of eighteenth-century Europe are in this category and that justice cannot be done to a survey of the period without reference to this work. The response of architects like Chiaveri (in Saxony) and Rastrelli (in Russia) to local conditions of taste, climate, and design traditions resulted in synthetic works of significant originality.

In the middle section of the book, which comprises the bulk of the text, four chapters are dedicated to architecture in the Papal States, while the other regions are covered individually in eleven successive chapters, each authored by a specialist. This provides
the reader an opportunity to assess the vitality of architectural design in these provincial areas. Although readers will appreciate the chapters on the less well-known regions, Giuseppe Dardanello’s entry on Sabaudian Piedmont and the joint contribution of Maria Giusfré, Erik H. Neil, and Marco R. Nobile on Sicily testify to the extraordinary developments in those antiquities of Italy. One wonders in that regard that Vittone did not rate a monographic chapter of his own, together with those that constitute the last section of the book. But this was surely just one of many difficult decisions the editors had to make. Their monumental publication is a worthy contribution to the study of the architectural production of an epoch that has too often in the past been relegated to the status of an epigone but which is better seen as the finale of a centuries-long design tradition central to Western culture. Curcio and Kieven and their authors have helped further the continuing effort to illuminate Enlightenment Italy with the scholarly attention it deserves.

A full bibliography and comprehensive index help make the volumes accessible to readers seeking particular information.

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Note

James L. Garvin
A Building History of Northern New England

James L. Garvin, State Architectural Historian in the New Hampshire Division of Historical Resources, has written a study of the traditional and evolving practices of carpenters, masons, building suppliers, and tradesmen in that state and, to a lesser extent, in its neighbors Maine and Vermont. While A Building History of Northern New England is written primarily for owners wishing to understand the construction, form, style, and finish of an older house, Garvin’s work is the first important synthesis of much new research into New England building practices in decades. It joins several recent studies of the peculiarities of traditional American building in other states and regions, and plays counterpart to Thomas Visser’s 1997 typology of New England barns and Thomas Hubka’s older work on the connected farm buildings of this same region.

In 1963, Garvin felt a lack of books “to make sense out of the complex artifacts” of domestic architecture in his charge as curator at Strawberry Banke museum in Portsmouth. The bibliography of his new study shows all the “effort and intelligence that were focused on old buildings” (at least up to 1925 or so) “during the last decades of the twentieth century” (vii). While he summarizes changing building technologies and design ideas common to the Anglo-American world, the vernacular of northern New England is captured in some fifty of Garvin’s detailed drawings and perhaps a hundred of his own photographs—all but one of New Hampshire buildings.

The book is organized around three basic questions: How is a house built? Why does it look the way it does? And how can we tell its date? Garvin’s answers follow evolutions in building technology and style, and the temporal constraints of both in changes to certain features over time. The first of three main chapters is devoted to materials and technology—two forms of log building and several forms of timber framing and later wooden construction over three centuries; roofing and walling materials, moldings and turnings; stone, brick, and concrete masonry materials and their uses; interior finish from plain or decorative plaster to plasterboard; household hardware, as well as the materials and products of the painter and glazier.

Garvin draws on modern studies of building technologies (and the documentation of historic-structures reports). This is perhaps the first general work to differentiate between scribe rule, used for most colonial hewn frames, and square-rule framing using a carpenter’s square on straight timbers (based on the work of Jack Sobon), or to show the several forms of cut nails resulting from improvements in the machines that made them (as detailed by Maureen Phillips). While Garvin still attributes the balloon frame to a New Hampshire man in Chicago (rather than seeing it as an evolution from cheap plank framing, as I think is more likely), his discussion of northern New England’s own plank walling draws on more than two decades of his own and others’ solid research. His knowledge of brick making and masonry, about which he has previously written, is especially good. Its governmental regulation is shown in a provincial seal with “NH” stamped into several c. 1716 bricks of the Macheadris-Warner house in Portsmouth, N.H. (50), which is a very recent discovery. Beyond assimilating new information about building techniques in this region, the value of this chapter is the span of time it covers. Generally, handwork is privileged over that of the machine, so an emphasis on the colonial and early national periods is not unexpected. But later nineteenth- and early-twentieth-century industrial materials and their manufacturing practices are also well described in a useful primer of materials and methods.

Many of the best qualities that mark his summary of three centuries of building technology are seen in his analysis of building form and style. The second chapter incorporates into the region’s standard canon the “square plan” house. A photograph of one “three-room, square-framed dwelling dating from the late eighteenth century” is shown with a typical plan of this “vernacular house type” throughout New England, although it remained “unrecognized as a distinct form until the 1980s” (96), when scholars found several while investigating one donated to Old Sturbridge Village.