When, after the French Revolution, the Academy of Architecture consolidated with the Academy of Painting and Sculpture in Paris, the École des Beaux-Arts was born, thereby positioning architecture as an ally of the arts. Just a few years later, in 1794, the École Polytechnique was chartered to train engineers. With this distinction in training, the dual professional contributions to the planning and design of buildings began, as did the more rigid alignment of architects with aesthetic and cultural considerations and of engineers with problem-solving and utility. As Spiro Kostof observed, industrialization made technical demands on architecture that required active participation by another discipline, namely, engineering, thus allowing architects to assume credit for elevating their field beyond the level of mere building.

The author, who is best known for his monograph on Richard Norman Shaw (New Haven: Yale University Press, 1976) and The Image of the Architect (New Haven: Yale University Press, 1983)—a logical companion to this book—begins with buildings in France, Great Britain, and the United States that exhibit substantive contributions by engineers, from their structural innovations to the use of materials not previously associated with architecture in these countries, such as iron and concrete. Subsequent chapters focus more deeply on applications of iron and concrete. Duly revising the history of American architecture by tracing the contributions of their engineers to Albert Kahn’s and Frank Lloyd Wright’s work in concrete, Saint aptly observes that the two architects acknowledged their collaborations with the engineers in their offices far more than have architectural historians. A chapter on bridges is followed by an intriguing group of essays on twentieth-century buildings that relied heavily on engineers, such as the Sydney Opera House and the Centre Pompidou. After examining the wide variety of pedagogical methods and educational settings in which architects of the past hundred years have been trained, Saint concludes with a question that might have opened the book: “Were architects and engineers once the same?”

Writing for upper-level undergraduates, graduate students, and faculty, the author offers clear, jargon-free prose in a generously illustrated and meticulously captioned volume. Mostly in black and white, the illustrations are generous in scale, more often than not filling half the page. The author’s scholarship is evident in the thirty-two pages of detailed notes. The index, which files building names under localities, is complete.

I remember the apology that Chicago architecture mavens frequently offered for William LeBaron Jenney’s buildings, such as the Home Insurance and Manhattan Buildings, explaining that he attended the École Polytechnique, rather than the École des Beaux-Arts. This book might be required for them, as well as for any reader not appreciative of the inseparability of architecture and technology.

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