Design Book Review

by the way

Critics' Compendia
Richard Ingersoll on Banham's and Rowe's collected writings

Teutonic Tectonics
reviews by Harry F. Mallgrave, Marco Pogacnik, Adolf Max Vogt, Michael J. Lewis, Mitchell Schwarzer, and Kenneth Frampton

Twilight of the Gods: A Finale
Anthony Alofsin reviews Neil Levine's The Architecture of Frank Lloyd Wright

Work Place
Leland Roth reviews Margaret Crawford's Building the Workingman's Paradise

Plus recent "miscellaneous" work, including street furniture in Barcelona, books and bikes in Beijing, an adobe house on the Tex-Mex border, a video folly in Groningen, and more.
Modern European Architectural Theory

Selected Titles from the Getty Research Institute for the History of Art and the Humanities

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Modern Architecture: A Guidebook for His Students to This Field of Art
Otto Wagner

Introduction and translation by Harry Francis Mallgrave

Wagner's manifesto—presented here in the first new English translation in almost ninety years—is a concise, impassioned plea for an end to architectural eclecticism and for a more rational approach to design suited to contemporary needs, materials, and technologies.

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Modern Functional Building
Adolf Behne

Introduction by Rosemarie Haag Bletter, Translation by Michael Robinson

Written in 1923, this eloquent text clarifies the ideals of German Modernism at their very inception. Behne advocates a functionalism that is not technocratic but comparable to the social ideals espoused by Max Weber and Georg Simmel.

"Haag Bletter's text is sharp in critical and rich in bio-bibliographical information. It will be a reference not only for Behne but on the terminology of functionalism as well."

—Stanislaus von Moos, Universität Zürich

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ISBN 0-89236-363-0, cloth, $40.00
ISBN 0-89236-364-9, paper, $24.95

Building in France, Building in Iron, Building in Ferroconcrete
Sigfried Giedion

Introduction by Sokratis Georgiads
Translation by J. Duncan Berry

With this text, Sigfried Giedion positioned himself as a fervent advocate of modern architecture, exalting Le Corbusier as the artistic champion of the new movement. Giedion himself worked on the innovative design of this book, and his extant design boards appear in an appendix.

1995 - 248 pp.; 162 b/w illus. (TEXTS & DOCUMENTS)

Modern European Architectural Theory

1828-1847
The German Debate on Architectural Style
Heinrich Hübsch, Rudolf Wiegemann, Carl Albert Rosenthal, Johann Heinrich Wolff, and Carl Gottlieb Wilhelm Bötticher

Introduction and translation by Wolfgang Herrmann

Heinrich Hübsch's provocative argument that the technical progress and changing living habits of the nineteenth century had rendered Neoclassical principles antiquated is presented here along with lively responses to his essay by architects, historians, and critics over two decades.

"Through its publications in the TEXTS & DOCUMENTS series, especially for its publication of Wolfgang Herrmann's translations and critical introduction In What Style Should We Build?, the Getty Research Institute is filling lacunae in our scholarly resources. For that we thank them."

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1992 - 214 pp.; 22 b/w illus. (TEXTS & DOCUMENTS)

1866-1909
Hendrik Petrus Berlage: Thoughts on Style, 1886-1909
Introduction by Ian Boyd White
Translation by Ian Boyd White and Wim de Wit

Hendrik Petrus Berlage created a series of buildings that witnessed the gestation and birth of architectural modernism and a body of writings that probed in depth the problems and possibilities of this new style. As this volume demonstrates, Berlage's writings inform his architecture to the same extent that his buildings reflect his aesthetic deliberations.

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1928-1947
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ISBN 0-89236-363-0, cloth, $40.00
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1902
Style-Architecture and Building-Art: Transformations of Architecture in the Nineteenth Century and Its Present Condition
Hermann Muthesius

Introduction and translation by Stanford Anderson

This pivotal text is Hermann Muthesius's classic criticism of nineteenth-century architecture. It represents one of the earliest attempts to define the elements of architecture according to modernist notions of realism and simplicity.

"Production of the Muthesius book was indeed timely. I, too, believe that the craft, the hands on, and the 'making' of form and space give the human feeling, touch, and emotion to a building. It was gratifying to read that somebody else had thought about that a long time ago."

—Frank Gehry, architect

1994 - 142 pp.; 7 b/w illus. (TEXTS & DOCUMENTS)
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Our goal has always been, simply, to provide writing of conscience and curiosity, inspired by the presence of new books. By joining the Friends of DBR, you will belong to a special group of people committed to improving the intellectual climate of the design fields.

Sincerely,

John Parman
Copublisher
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A few minutes late is an academic privilege; a day late implies a dollar short; a week late requires at least another week to invent suitable excuses; a month late invites oblivion; and a year late absolves various attritions with the prospect that the subject’s time has come around again. When we promote DBR as the magazine with the “latest” critiques of architecture and the design fields we must insist on the superlative. The essays and reviews collected in this issue do not fit any single theme and in some cases deal with books that have been on the shelves for quite some time: they have become unintentional digressions that in their tardiness force us to wonder why we were in such a rush in the first place. Where did we want to get anyway? Over the years circumstances (beyond our control, naturally) have coerced us to believe that, while having no claims to being fashionable, it is always better to be late than never. And it must be said that delay is inherent to the printed word, which categorically comes after the fact (a sentiment that I am sure sounds more convincing when uttered in French).

Faced with the prospect of introducing the miscellaneous persuasion of this issue of DBR, I came across two fairly recent (and never too late to review!) books that might contribute toward its overall digressive tone. Both are collections of essays written during the past fifty years—not exactly fresh print—that in their “by the way” clustering of commentary help clarify the limits (or lack thereof) of architectural culture. The late (and here no disrespectful pun intended) Reyner Banham and the still very lively Colin Rowe, both British post-colonials who discovered America in different ways, have had an enduring influence as writers and educators on how architecture is approached in this country. Banham, an engineer by vocation and an active member of the Independent Group (the English forerunners to Pop Art), was almost always an advocate of the pragmatic and circumstantial. Rowe, initially schooled as an architect and retrained after a war injury at the Warburg Institute as an art historian, enjoys ruminating on conceptual oppositions (the programmatic versus the paradigmatic, the fox versus the hedgehog, talent versus ideas, etcetera) for which a rich display of erudite details can be summoned to discredit either extreme.

For Banham, architecture was an evolving phenomenon in which technological innovations and popular adaptations were constantly stretching its criteria. For Rowe, by contrast, architecture remains a relatively exclusive domain requiring proper initiation and subsequent distillation.

The ideological positions of both men are evident in their writings, though the two were not famously at odds with each other. Their paths crossed at the Architectural Review in the mid-1950s, and each demonstrated an awareness of the other’s contributions. In a 1988 article, Banham confessed, in reference to the role

A CRITIC WRITES: ESSAYS BY REYNER BANHAM, selected by Mary Banham, Paul Baker, Sutherland Lyall, and Cedric Price, foreword by Peter Hall, University of California Press, 1996. 351 pp., illus., $39.95.


of Henry-Russell Hitchcock: “We have both contributed to the postmodern phase, since Colin Rowe, the true founder of postmodernist thinking in the field, was Russell’s student, and Charles Jencks, the most fluent exponent of the approach, was mine.” In fact, in the introduction to the Rowe essays, editor Alexander Caragone calls on Banham as a witness to explain Rowe’s identity as architecture’s ennobled: “Who is Colin Rowe? you will ask,” Banham wrote in his review of the book British Buildings: 1960–1964 (London: A. & C. Black, 1965), published in the magazine New Society in 1966. “He is in fact the most in-group of all the groupy people represented here; the only living British critic or architecture pundit to become not only the object of a secret-type cult, but also an anti-cult.”

Rowe appears a little kinder when, in a comparative review of Banham’s The New Brutalism: Ethnic or Aesthetic (New York: Reinhold, 1966) and Robert Venturi’s Complexity and Contradiction in Architecture (New York: Museum of Modern Art, 1966), published in the New York Times in 1967, he defined Banham as one who believes that “modern architecture should be and can be, exactly what it claimed to be, i.e., an objective approach to building deriving from an unprejudiced scrutiny of facts.” But anyone who knows Rowe’s take on the Modern Movement as “the architecture of good intentions” can only imagine him sneering under his breath.

Aircraft hangar with clam-shell doors at Moffett Field, Sunnyvale, California, 1932; Norris Dam, Tennessee Valley Authority, 1936; and fins on a Chrysler New Yorker, late 1950s. (From A Critic Writes.)
While Banham wrote for professional magazines and the popular press alike (for over thirty years he contributed regular columns to the New Statesman and the New Society, in addition to Architect’s Journal and the Architectural Review), Rowe had a minor involvement with the bbc radio and the Architectural Review in the 1950s but otherwise has had an almost exclusively academic audience since the 1960s. Like a natural scientist captivated by the world’s endless variety of life forms, Banham exhibited a boundless fascination for anything that was designed, from French fries to automobile fenders to highrises. Meanwhile, Rowe has devoted himself to the gratifications of a connoisseur of architecture and urban design, trying to extract lessons of quality from canonical examples.

Having interviewed both of them on different occasions, I find one remark by Banham, again in reference to Hitchcock, quite applicable to either: “He loved buildings … and next to buildings he loved gossip, which is the other essential for a good architectural historian.” Consummate gossips in both cases, addicted conversationists, I could rarely get either to answer a question without being side-tracked into personal details, irrelevant anecdotes, or arcane analogies. “By the way” becomes a slogan for knowing something beyond the answer—that is to say, there’s always room for a little more gossip.

Banham was frankly one of the most prolific journalists in the field, producing hundreds of articles (including several for Design Book Review), never missing a deadline, his writings always bolstered by research and, most of all, a distinctly rambunctious style. He was committed to exploring architecture as technique, returning critically to the legacy of the great grain silos in upstate New York which served as formal generators of the Modern Movement, taking people into the mechanical systems of buildings, extolling the beauties of military aircraft hangars or of the Norris Dam, and generally chiding architects about their technical naiveté. The compilation of his essays, A Critic Writes—a title which infers that he has stopped gabbing and taken pen to paper—is organized by decade, each briefly summarized by his wife, Mary Banham. The volume contains Banham’s rich historical forays into the work of Adolf Loos, Paul Scheerbart, and Buckminster Fuller; assessments of the work of James Stirling, Frank Gehry, and Renzo Piano; vindications of people such as Henry Hoare (the middle-class patron and designer of the 18th-century English garden Stourhead); and ponderings on new terms in design such as “ergonomics” and “bricolage.” His final essay, “A Black Box: The Secret Profession of Architecture” (published posthumously in New Statesman, in 1990), seems directed at the sort of in-grown discussions carried on by Rowe: “[Architecture] could permit itself to be opened up to the understandings of the profane and the vulgar at the risk of destroying itself as an art in the process. Or it could close ranks and continue as a conspiracy of secrecy, immune from scrutiny, but perpetually open to the suspicion, among the general public, that there may be nothing at all inside the black box except a mystery for its own sake.”

Banham’s concern was that an obsession with disegno, the achievement of a style of architectural drawing that has reigned since the 16th-century Italian masters, favors a few rare talents but is probably leading the field to extinction. Rowe, in counterdistinction, seems to revel in disegno, finding in the ambiguities of mannerism much of the hope for contemporary formal ideas. If Banham’s book is unpretentious as a source of theory, it nonetheless serves as a rich sample of the variety of issues and attitudes affecting the design fields during the second half of the 20th century. Rowe’s essays, by contrast, usually begin with some philosophical pretext but rarely concern 20th-century life.

Rowe’s various musings are appropriately entitled As I Was Saying: Recollections and Miscellaneous Essays, and are organized into three volumes, subtitled “Texas, Pre-Texas, Cambridge,” “Cornelliana,” and “Urbanistics.” Volume one contains the most famous of the pieces, “Transparency: Literal and Phenomenal, Part II,” coauthored by Robert Slutzky in 1956 and unpublished until 1971, when it appeared in volume 13–14 of Perspecta, the Yale architectural journal. (Parts one and two of “Transparency” were republished this year by Birkhäuser Verlag, with new commentary by Bernhard Hoesli and an introduction by Werner Oechslin.) Rowe’s explanation for the fifteen-year delay in the original publication of “Transparency II” (which even by DBR’s standards is quite late) involves suspicions of Sir Nikolaus Pevsner’s objections to its appearance in the Architectural Review.

By the Way
And here begins a subtext of persecution (well known to anyone who has undergone faculty politics) which occasionally becomes a source for vindictiveness.

Most of the essays in *As I Was Saying* are introduced by Rowe's own remarks—apologies for errors in the original texts and explanations for the context in which the pieces were written. Particularly enjoyable is his prefatory remarks to his years in Cambridge, England, where he was exceptionally productive until the arrival of Peter Eisenman and Jacqueline Robertson, and from "thenceforth . . . conversation usurped the role of writing." The autobiographical detours are many and often a great read. Rowe relishes in being present at an architectural catharsis, such as the British discovery of Pierre Chareau's Maison de Verre in 1959, when he and Jim Stirling were taken there by David Crowe, whose uncle was a friend of Dr. Dalsace. Sadly missing is an account of his delivery of Eisenman to the Holy Grail of Giuseppe Terragni's Casa del Fascio in Como.

Rowe's world view is festooned with genealogical connections—through friendships, marriages, and schools—which make architecture seem the product of a fairly autarchic society. Some of his stories, while told with great verve, don't play as well as others, such as the merciless portrait of Jean Murray Bangs, the domineering wife of Harwell Hamilton Harris and the unlikely muse of the mythical "Texas Rangers." In attempts to demystify the brief presence in Austin in the mid-1950s of Hoesli, John Hejduk, Robert Slutzky, Werner Seligman, Lee Hodgden, John Shaw, and himself, Rowe describes their congregation as ephemeral and in no way a concerted effort of the henpecked Harris. The "Texas Rangers" was more of a goliardic saga, which in truth began with the reunion in the 1960s of most of the same characters at Cornell, where Rowe arrived in 1962.

In 1967 the Museum of Modern Art sponsored the exhibition "The New City: Architecture and Urban Renewal." The Cornell team was charged with the redevelopment of Harlem. The figure/ground depicts sixteen typical blocks in a general scheme to preserve and improve the street grid. Some blocks show backyards converted into playgrounds and the placement of public buildings in settings that would appropriately convey their social importance. The aerial perspective shows four such block renovations. (From *As I was Saying*, volume 3.)

He maintained an intense pedagogical presence at Cornell through the late 1980s. Perhaps his strongest legacy as an educator is his gestalt approach to objects in space as conveyed in his essays on transparency. Volume three of *As I Was Saying*, "Urbanistics," mostly composed of his students' work, shows how deeply he ingrained the pursuit of figure/ground studies as the source of urban design solutions. Through the study of the negative space of historic cities and the mastery of the metric scanning of Renaissance facades, Rowe discerned the formal ingredients that inspired the best modern architecture and can still inspire formal decisions. The question of the section, a messy matter better left to those of Banham's ilk, does not arise in these studies of facades, plans, and urban spaces. More important to Rowe is the cultivation of a refined studio language. The three-volume set of his assorted writings might stand as evidence for what so nagged Banham, for it is a most elegant representation of a dying breed, left in the wake of the art of gossip: the gentleman architect.

—Richard Ingersoll
More Ways Than One

Jay Powell

Most current theories of architecture read as malapropisms of other areas of study; whether or not they are directly related to the experience of architecture often seems irrelevant to those doing the theorizing. The thinness of such theories (evidently stretched too far from their sources) is at least consistent with the bulk of built work: both enterprises smack overwhelmingly of greed, flimsy construction, and a short life span. Architecture, once valued for its permanence, has suffered in our mediatised culture in which everything is reducible to an image, instantly conjured on television, computer screens, and in our memories alike. Images are cheap, and words forgettable. We can see anything and everything, yet still—see nothing. Architecture in this context is forever relegated to misquote, misrule, and misanthropy.

From time to time, a gifted architect or scholar tries to haul architecture from the brink of debasement by reminding us of the power of words and ideas—intangibles which can easily overturn the image when skillfully deployed. In Thirteen Ways: Theoretical Investigations in Architecture, Robert Harbison reintroduces the sensuality of architecture as an antidote to the chill of poorly wrought theory and badly conceived work. The "theoretical investigations" of the subtitle must be a trick to persuade some of his more esoteric colleagues to read the book. The book is a study of intentions, assumptions, and evasions in architecture, delivered in a disarmingly conversational tone. Harbison's more subtle intention resides in the book's title, which refers to the poetry of Wallace Stevens. Thirteen Ways fits within the tradition of the architectural treatise, though it has more in common with poetry than with poetry's early sparring partner, philosophy. Harbison's book is a happy report that poetry is still alive as an essential part of architecture, and is necessary for architecture to make full sense of itself.

Like serious poetry, this writing is sweet to the ear but challenging to the mind. Thirteen Ways is a string of ten essays on fairly common subjects related to architecture: sculpture, machines, the body, landscape, models, ideas, politics, the sacred, subjectivity, and memory. The relationships shared by the examples and ideas in each chapter are direct and indirect, associative and metaphorical—already a departure from contemporary architectural polemics which often insist upon the atomization of subjects as the key to understanding them. Like Roland Barthes' reminder of the pleasures of the text, Harbison's is an erudite homage to the lasting pleasures of architecture, in counterdistinction to its fleeting value as entertainment.

Though Harbison misses a few important architects and styles, past and present, he quite liberally and impressively digresses into an assortment of allied topics, especially painting, sculpture, and film. For example, in the chapter on landscape, he offers short but cogent discussions on the work of Carlo Scarpa, Cedric Price, Santiago Calatrava, and Alvar Alto, as well as East African villages, the Japanese tea ceremony, 18th-century French paintings of idyllic peasant life, and the construction of movie sets. Every construction is an insertion, and architects must be fully attuned to the meeting of old and new, existing and invented, giving equal amounts of care and attention to each condition.

Similarly, in the chapter "Models," Harbison circles around his stated topic, passing by Guarino Guarini and the mannerist arts along the way, which leads to the subject of cinematic spaces as they relate to the work of Bernard Tschumi. The theme of insertion arises again, but in counterpoint to a broader discussion of intellectualism and the range of outside influences on architecture. In a later chapter, entitled "Ideas," Harbison observes that "cleverness is not unknown as a disguise for a deep cultural disquiet." With characteristic understatement, he identifies this stubborn symptom of architectural malaise while forming an opinion on Peter Eisenman's "constructed" position. The chapter continues headlong into a revealing tour of late mannerism, with a net result of Eisenman and his cohorts coming off as rational mannerists, the dying gasp of modernism. None of this is ever bluntly stated, as Harbison prefers to leave all serene and open to further cogitation. In this fashion, Thirteen Ways resonates with the building and thinking of the project of architecture.

Just as a good architect can create memorable, moving experiences out of nothing, Harbison works his tale nearly exclusively with words. Despite the book's heretical elision of almost all images, it remains image-filled nonetheless, owing to the author's idiosyncratic and associative discursiveness, his well-known poetic and writerly ways. Each chapter opens with a strong image conveyed by sharp, iconic statements. Harbison's rather personal narrative technique serves as a reminder that stories are the basis of all exchange. We all always only tell stories. Poetry was founded on this insight, and other human "fictions"—history, literature, politics, and even philosophy—have never left off the search for the "true" story. In the book's short afterward, the author concludes that architecture is so slippery that it must be approached from many different directions. Harbison's vehicle of choice is his writing, which adroitly carries his expansive knowledge as well as a sense of the witty, thoughtful writer himself. Thirteen Ways reads as something "biographical"—less than perfect but alive.

Jay Powell

is an architect at the firm of Gordon H Chong + Partners in San Francisco, and is a contributing editor to DBR.
August Reichensperger: The Gothic March on Heathen Germany
Harry Francis Mallgrave

“The Politics of the German Gothic Revival: August Reichensperger,
Michael J. Lewis, Architectural History Foundation/MIT Press, 1993, 299 pp., illus., $50.00.

Reichensperger engineered the overturning of Gottfried Semper’s Romanesque-inspired scheme for the Nikolaikirche, Hamburg, 1844 (left), in favor of George Gilbert Scott’s design, under construction, 1845–63 (right). (From The Politics of the German Gothic Revival.)

"A repulsive and legalistic Sophist"—thus wrote the respected collector and medieval scholar Sulpiz Boisserée (to his diary) of his ideologically kindred but always caviling colleague August Reichensperger. Boisserée’s rather pointed epithet raises an interesting procedural question: How does one go about writing a biography of a man who, with all the self-anointed conviction of Ezekiel, presumes to address the rules of architectural design with the authority of God, the State, Eternal Truth, and Eternal Damnation?

The answer is: relatively well, if not piously, judging from Michael J. Lewis’ sometimes infuriating, sometimes engrossing study, The Politics of the German Gothic Revival: August Reichensperger. This is a meal of a book with a hearty entrée to digest. A dessert need not be ordered.

August Reichensperger (1808–1895) was a central, if not the pivotal, figure of the German Gothic revival, a movement with many parallels and connections to its English counterpart. He was a Rhine-lander, born during a period when this region was under French political and cultural control, although it was ceded to Prussia in 1815. Reichensperger was a lawyer and politician by trade. Moving among district courts, he first served as an attorney and then as an assessor. In an early pamphlet of 1833 he defended the French legal code against the promise of Prussian bureaucratic reforms. Five years later he read a book by the curious revolutionary Joseph Görres, a Catholic theologian and a champion of all things Rhenish, Reichensperger saw the light.

The bulk of his artistic training seems to have taken place on a single trip he made to Rome in 1840 with Wilhelm von Schadow, director of the Düsseldorf Kunstakademie. There, Reichensperger met many of the Nazarenes (Germans who painted religious subjects in an archaizing manner) and also visited Pompeii and Paestum. Yet his defining moment as an architectural enthusiast resulted more from political than aesthetic events. In 1840 Friedrich Wilhelm IV inherited the Prussian crown and, with it, the rule of a tense Rhinelan. As a conciliatory gesture, this romantic offered funds for the resumption of work on the Cologne Cathedral, which had been halted in 1560. The Lutheran Prussians proudly saw this gesture as a grand overtowertoward Prussian-dominated German statehood. The Rhenish rather preferred to see the cathedral as a symbol of Rhenish Catholic authority, the emblem of their ethnic cultural autonomy.

Reichensperger, who had already become politically active in the Gothic cause, waited no time in seizing the day. With his rhetorical fervor and penchant for pamphleteering, he was able to raise consciousness and to sanction the cause of absolute fidelity to the most original Gothic plan. When construction on the cathedral resumed with much fanfare on September 4th of 1842, his reputation as an apostle of Gothicism was made.

Although Reichensperger went on to parlay his tactical maneuvering into a successful political career—he served in the National Assembly in 1848, in the Prussian Parliament during the 1850s and 1860s, and in the National Reichstag in the 1870s and 1880s—he never lost his zeal for promoting Gothic architecture and its presumed social and ethical reform. He meddled in the Hamburg competition for the Church of St. Nicholas in 1844–45; his aligned forces were instrumental in having the winning design of Gottfried Semper overturned in favor of a Gothic scheme by the Englishman George Gilbert Scott. In 1845 he published his first book devoted to Gothic architecture, Die christlich-germanische Baukunst und ihr Verhalten zur Gegenwart (Christian-Germanic architecture and its relation to the present). More than a plea for stylistic reform, it condemned secular society in general and urged a return to medieval institutions, piety, and even the labor and material of its economy. The book was a pure Puginian broth: his direct translation of whole passages of Augustus Pugin’s 1841 The True Principles of Pointed or Christian Architecture, as Lewis accurately reports, bordered on plagiarism. Reichensperger followed his English mentor once more in 1854 with Fingerzeige auf dem Gebiete der kirchlichen Kunst (Tips for ecclesiastical art), a "how to" manual of design, aimed in part at patrons and clerics.

But such learned literary discourses were almost secondary to the many fronts on which he waged his political-artistic campaigns. Perhaps the most famous, if not bumptious, of Reichensperger’s many public crusades was his spirited oration before the Prussian Parliament in 1852 in which he, in a debate on the state budget, furiously took on the entire architectural establishment. In this speech, widely reported...
and commented upon in the press, he insisted on closing the doors of Karl Friedrich Schinkel’s still-sacrosanct Architectural Academy, and on “returning the professorial chairs to the medieval lodges and buckling the aprons back on the teachers.” As appealing as this advice might seem today in view of our own declining standards in architectural education, it should be noted that Reichensperger in his religious warfare never condemned the taking of prisoners. A favorite word throughout his writings was the adjective heidnisch (heathen)—a term that could be applied to anyone who was not fully committed to returning, body and soul, to the 13th century.

With such an interesting and controversial figure as his subject, Lewis does an admirable job in carrying out some good old-fashioned scholarship (finally, a book with no references to Foucault or Lacan!). His research is exhaustive, generally careful in its details, somewhat restrained, and most successful when he is disinterring various neglected architects and debates of the 19th century. His early chapters on architectural reform and the situation in England are excellent in their range of topics and in the incisiveness of their discussion, as is his honest and extended outline of Reichensperger’s systematic architectural beliefs. However quixotic this reformer may appear to us today, there was still a method to his madness: a well-conceived and coherent theory that underscores the Ruskinian power of a conventional (yet regional) architecture, and that aspires to become a culturally recognizable (and stabilizing) underpinning of society. How strange such an idea must sound in our similarly quaint and undirected times of academic multiculturalism!

Despite Lewis’ many accomplishments, I have a few reservations about this book. The first concerns his habit of exalting Reichensperger’s beliefs by often casting dispersions on all opposing ideologies. Thus, for example, Semper’s winning scheme for the Hamburg church competition is dismissed simply as “a strange union of a longitudinal and a central plan”; important Prussian state architects who practiced within the tradition of Schinkel (including Heinrich Stack and Friedrich Augustus Stüler) are reprimanded for their “picturesque mania” and “permissive eclecticism”; classicism has become “stagnant”; and the entire Rundbogen movement is deemed “overly permissive and inclusive.” Such judgments are unnecessary unless the author is prepared to argue the issues at length. History is not always a contest between the good and the bad, not to mention the ugly.

My second concern is how the author’s fixation on the style debate sometimes clouds the complexity of the actual discourse. This is indeed a difficult trap for all historians venturing into this realm. The prolonged and distended architectural discussion that began in the 1820s and took place throughout Europe was certainly a “style debate” on a certain level (as modernist caricatures have always presented it), but it also had nuances and important permutations that are inevitably filtered out when the focus is entirely (as it is here) on Gothic versus non-Gothic design. Behind Semper’s “strange union of a longitudinal and a central plan,” for instance, lay a sophisticated theory of ecclesiastical design reform that ultimately derived from the learned writings of Christian Bursen who, unfortunately, is not mentioned in this book. In an interesting way, then, the Hamburg competition could be seen as an ideological clash between Rhenish and Prussian approaches to church reform, and not simply as a style debate. Also, Semper did not win the vote of the jury’s subcommittee of architects simply because (as Lewis implies) one member of the group was a childhood friend of the Dresden architect. Rather, this seven-member panel was given the specific task of analyzing the entries based on the very concrete parameters of the competition program (architectural judgments can and do exist on this level). The fact that Scott’s design for a Protestant church fell far short in meeting the required seating capacity and was tailored in plan to a Catholic liturgical service did influence this subcommittee’s decision. Still, the Hamburg competition was, like much of 19th-century German politics, a very nasty affair, and I for one would have liked to see a little more of its fervid and outlandish discourtesies revealed. Indeed, where is Lewis’ discussion of what happens to architecture when its designs are judged entirely in a tendentious manner—that is, when placed under the thumb of divine religious sanction?

Finally, Lewis occasionally slips in a generalization or two that disrupts the reader’s rhythm. Hegel was hardly an “apologist for . . . liberal Prussia,” and the Rundbogen was not simply “the creation of the Karlsruhe architect Heinrich Hūbsch.” Those were real clubs and sabers that Prussian soldiers and cavalrymen were flailing at the bodies of political protesters in the conservative name of Hegelian state authority. And when the long awaited study of the Rundbogen by Kathleen Curran appears, much additional light will undoubtedly be shed on the details of this last movement. Much of it will be complementary to Lewis’ own findings.

But these are relatively minor reservations, and I raise them only because of the otherwise high level of scholarship evident in this text and its importance for understanding this fertile aspect of 19th-century European culture. Significant and talented architects are reconsidered after too many years of neglect: Georg Gottlob Ungewitter, Theodor Bülow, Friedrich Schmidt, and Conrad Wilhelm Hase. Perhaps the most interesting aspect of the study is Lewis’—too brief—discussion of the various Reichstag competitions. In these concluding pages I was altogether
astounded to read of the warm exchanges of ideas between Reichensperger and the much underrated architect Paul Wallot, the baroque-inspired victor of the competition for the national parliament that Hitler burned in 1933 to seize totalitarian power. Lewis renders the Reichensperger-Wallot correspondence vivid and real, Wallot, among many other names raised in this book, cries out for more exhaustive treatment.

Perhaps we can induce Lewis to focus his considerable historical talent next on a biography of Wallot?


Solid-Clad Arguments on Theatricality and Temporality

Marco Pogacnik

The current understanding of the work and cultural role of Gottfried Semper might be seen as the culmination of two recent rounds of study, the first of which began with Martin Fröhlich’s 1974 publication based on the Semper projects archived at the Swiss Federal Institute of Technology (ETH), entitled Gottfried Semper: Zeichnerischer Nachlass an der ETH Zürich: Kritischer Katalog (Basel: Birkhauser Verlag). This publication coincided with the seminar “Gottfried Semper and the Mid-19th Century,” held at the ETH, and presaged various other projects, such as Wolfgang Herrmann’s study, Gottfried Semper im Exil (Basel: Birkhauser, 1978), a large exhibition in 1979 in Dresden honoring the centenary of Semper’s death, and its accompanying catalog Gottfried Semper, 1803–1879 (Munich: Callwey, 1979). Several other publications further reflect the extent of the research dedicated to the 19th century, notable among them Eva Börsch-Supan’s Berliner Baukunst nach Schinkel 1840–1870 (Munich: Prestel Verlag, 1977) and the volume edited by Robin Middleton entitled The Beaux-Arts and Nineteenth-Century French Architecture (London: Thames and Hudson, 1982). And finally, there is Herrmann’s 1981 work based on the Semper manuscripts housed at the ETH, Gottfried Semper: Theoretischer Nachlass an der ETH Zürich: Katalog und Kommentare (Basel: Birkhauser, 1981), recalling the earlier inquiries initiated by Fröhlich.

In the last decade, the second round of Semper studies might be characterized, as scholar Harry Francis Mallgrave notes in his latest work, Gottfried Semper: Architect of the Nineteenth Century, by an awareness that “the principles of modernism were intellectually tested and codified” during the second half of the 19th century. With the archives all but exhausted, Semper continues to dominate 19th-century architectural studies but now within the framework of a revised genealogy of modernism: the 19th century is no longer considered an unfortunate collision or a futile masked ball in which the heroic aspirations of Claude-Nicolas Lévioux and his revolutionary architecture come to a head with the equally heroic ambitions of the modernist vanguard. The recent studies of Mitchell Schwarzer, Werner Oechslin, and Roberto Gargioli and Giovanni Fanelli reflect this changed perspective, positioning the principle of cladding or masking, and the role of Semper as key to understanding developments in 20th-century architecture, from the work of Otto Wagner to that of Adolf Loos, Frank Lloyd Wright to Mies van der Rohe.2 Mallgrave’s Gottfried Semper must be read within this revised history of modernism. It is a follow-up to his English translation (in collaboration with Herrmann) of Semper’s The Four Elements of Architecture and Other Writings (New York: Cambridge University Press, 1989), as well as the anthologies Otto Wagner: Reflections on the Raiment of Modernity (reviewed on page 12) and Empathy, Form, and Space: Problems in German Aesthetics, 1873–1893, both of which he edited for the Getty Center in 1994. (Mallgrave serves as architecture editor for the Getty’s Texts & Documents Series.) A well-balanced assessment of Mallgrave’s most recent book should take into consideration his important previous achievement in separating Semper’s architectural work from his theoretical reflections, a blurred issue which plagued all previous studies. With an original point of view, the author hypothesizes an analogy between the “principle of cladding,” the poetics of the “total work of art” of Richard Wagner, and the “Dionysian-Apollonian” notion of Friedrich Nietzsche. He approaches these themes with arguments pertain-
ing to the scenographic character of Semper’s grand urban projects, such as the centers of Dresden and Vienna, and his specific interest in the theater as a building type, focused in references to his longstanding friendship and repeated collaboration with Wagner. Mallgrave’s thesis is sustained by the conclusions of other recent books on the 19th century, such as the important research on Schinkel by Helmut Börsch-Supan, Kurt W. Forster, and Barry Bergdoll who focus on the Prussian architect’s activities as a painter and scenographer.3 Mallgrave’s reading is convincing, even if the trope of theatricality leaves an array of other “knots” untied.

The notion of monument is central to Semper’s first book, Der Stil in den technischen und tektonischen Künsten oder praktische Ästhetik: Ein Handbuch für Techniker, Künstler und Kunsträuber (Style in the technical and tectonic arts or practical aesthetics: A handbook for the technicians, artists, and patrons of art). In the first of two volumes, devoted to the textile arts (published in 1860), Semper writes: “The apparatus of the festival, its improvised structure . . . characterizes the solemn occasion. The exaltation of the festival . . . with carpet coverings, flower and leafy cladding, festoon and crown decorations, ribbons and trophies: these are the motives behind the permanent monument.” He continues, “The architectural style of the theater is also like this, so characteristic of historical epochs, born from a wooden platform that was richly clad and decorated.” Citing these passages, Mallgrave maintains that “monumental architecture, as [Semper] viewed it, is no longer the construction of an edifice, but rather the masking or veiling of constructive parts in a dramatic conundrum or artistic play . . . In short, monumental architecture was born out of this same theatrical instinct; both arts embraced the same goal to mask the reality of their respective subject matter.”

This brings us to the center of both Semper’s thought and Mallgrave’s argument, i.e., the notion of cladding as “mask” and masking as the annulment of reality and materials. Instead of the common English translation of Semper’s Vernichtung as “destruction,” Mallgrave considers the term “denial” more appropriate. He states, “In this context . . . it seems to refer less to reality’s destruction than to its theatrical suspension, such as when a theater-goer puts aside everyday worries during his or her absorption in the unreal world of the stage.” Some questions immediately arise, however, such as: Why is a theatrical scene necessarily considered unreal, or the “suspension” of reality regarded as theatrical? Why should the theater make us forget our daily lives? If the notion of theatricality lends itself adequately to describe the allegorical programs Semper used for the Museum and Opera of Dresden and for the museums of Vienna, or for understanding his affinity for Wagner, it is less convincing as a means of interpreting Semper’s image of the improvised structure erected for solemn occasions as the demonstration of the theatrical vocation of the architect.

When Semper wrote of the festival apparatus as

the motive behind the permanent monument, he used a few substantiating images: the Egyptian temple, born from an improvised market; funerary monuments that imitate wooden funeral pyres; Solomon’s temple deriving from a tent; and, finally, the theater born from the richly decorated wooden platform. Semper concludes with these words, in Der Stil: “Using these examples it was my intention above all to make a reference to the principles of external decoration and cladding of the structure needed for these improvised festival buildings and that is associated always and everywhere with the nature of the circumstances.” For Semper, then, the monumental motive is reducible not solely to “theatrical instinct” but rather to the more general circumstances of an event—circumstances which are capable of profoundly affecting the individual and his relation with the collective (e.g., the market, death, a pact between God and man, the theatrical mise-en-scene). The work of every architect, musician, playwright, or artist is predicated on these occasional circumstances.

An event represents a material need or an opportunity contingent on art, but art must also enable us to forget the event or occasion in order for it to re-emerge as a monument and as an autonomous formal artifact. In the monument, architecture celebrates a festival that Semper describes as the “Mysterium der Transfiguration,” the mystery of the destruction and transfiguration of the Urteilen, or originary forms, in a process that witnesses the continual passage of forms from one material to another. Semper described this process as Stoffwechsel, or material changes, and Metamorphose, in the tradition of Goethe. Citing a passage from Semper on “the pleasures of masking, the smoke of the candles, and the caravalesque atmosphere (as ritual instruments) for the deconstruction of reality,” Mallgrave correctly identifies the “Orphic-Dionysian” character of Semperian images. But this represents only one side of the problem, that events are the pretext for the work of the artist.

The other aspect of Semper’s reflection concerns architecture’s destiny in modernity. According to Semper, there is no form that can exclude itself from the continual process of destruction/masking, i.e., the decomposition and recomposition of original types. If the artist exempts himself from this task, others will quickly take his place and eliminate his role. It is with this fundamental issue that Semper, starting with the Universal Exhibition of London in 1851, begins to formulate his architectural theory, opening a theme that remains relevant. He muses, “But while our industry continues to occupy itself without a precise direction, it is fulfilling, without knowing it, a work that is of great merit—that is, the disintegration of traditional types through their use of ornament.” 6

NOTES
1. Other noteworthy texts include: Ludwig Grote, “Funktionalismus und Stil,” in Historismus und bildende Kunst, edited by Grote (Munich: 1975); Werner Hager and Norbert Knopp, Beiträge zum Problem des Stilpluralismus (Munich: Prestel,


4. Among some of the areas which have still not received sufficiently scholarly attention are Semper's debt to the work of Quatremère de Quincy (cf, Sylvia Lavin, Quatremère de Quincy and the Invention of a Modern Language. Cambridge: MIT Press, 1992); the influence of German philologist and archaeologist Karl Otfried Müller, who first applied the term "teutonic" to aesthetic fields; the relationship of Karl Böttcher's Tektonik to Semper's attempts to elaborate a notion of cladding with respect to the dialectic of Kunstform–Kernform (external form–internal form); and the analogous concepts of "cloth-tablecloth" of Joseph Paxton and lasten-stützen (last carried–last carrying) of Jacob Burckhardt; and Semper's connection to the debate on the Rundbogenstil and Heinrich Hübsch, which is touched upon in Wolfgang Herrmann's translation of and commentary on Hübsch’s 1828 tract, In What Style Should We Build? The German Debate on Architectural Style (Santa Monica: Getty Center, 1992).


Otto Couture: Wagner's Mixed-Matched Attire

Mitchell Schwarzer

Can modern architecture speak for itself? This question has often been posed as a critique of historicism, which can be described as a form of linguistic evasiveness. To many architectural historians, realism (or Sachlichkeit)—in distinction to historicism—signifies a liberation from the muteness engendered by a lack of rational will (or false tongues) brought on by archaic stylistic allegiances. Realism yields the plain-spoken truth of technology and utility. Yet the realist argument is sustained by the profound essentialism of the modern individual who can fully articulate his up-to-the-moment desires and needs. So-called "realist" architecture thus represents an onerous condensation of space and time, of matter transfigured within the developing consciousness of absolute humanity. Its problematic stance recalls Sigmund Freud's statement in The Interpretation of Dreams (1900): "If our bedclothes fall off in the night, we may dream, perhaps, of walking about naked."

In order to be real, must architecture forsake wearing clothes in the daytime? In Vienna at the turn of the century, this question occupied a prominent place in architectural discourse. Interestingly, in almost all cases, it was answered in the negative. Theories advocating architectural attire are evident in the thinking of all the well-known realist architects of the modern era in Austria—Otto Wagner, Josef Hoffmann, Josef Olbrich, and even Adolf Loos. The essays collected in Otto Wagner: Reflections on the Raiment of Modernity, edited by Harry Francis Mallgrave, scrutinize the issue of realism and attire from the discursive relations positioned around Wagner at the turn of the century. For the architectural historians who have contributed to this volume, Wagner is an intellectual thread that links various positions of assimilation and rejection concerning the emerging bourgeois industrial culture.

Many of the essays direct their attention to the extraordinary explanations made for outfitting buildings for the light of the modern day. Decoration and ornament, as Mallgrave reminds in the introduction, individualize architecture. They complement Sachlichkeit. Architectural clothing becomes important for both protecting traditional cultural values and nourishing a modern artistic temperament. This situation was not limited to Austria or even Germanic Europe. As contributor Ákos Moravánszky notes, Hungarian national realism and Czech cubism exemplify Wagner's concept of architecture as structure and mask.

A blended garb of art and construction attires all of Wagner's architecture. On the one side are inclinations toward a vocabulary of symbolic motifs and ornaments aimed at expressing individuality. On the other are collectivist demands for constructional economy, efficiency, practicality, convenience, and
health. Wagner's designs strive for a concordance between the aristocratic spectacle of cultural ennoblement and the bourgeois drama of utilitarian realism; thus, it is not surprising that he never employed fully naked iron members. His architecture stands out by virtue of its sophisticated stone and masonry clout. With regard to this matter, Fritz Neumeyer informs that Wagner was caught up in the ongoing struggle between traditional craftsmen and modern engineers. Trying to avoid both extremes, he chastised romantics and rationalists alike as enemies of the architectural art.

Much like the German architect Hermann Muthesius, Wagner argued not for a pure Sachlichkeit but rather, for a sächliche Kunst. Similar to Muthesius, Wagner stood in awe of the great technological achievements of the 19th century and their dramatic display of rationality and functionalism. Still, as Stanford Anderson points out, both architects accepted the limits of their realist programs. They sanctioned the role of speculative innovation from a functional base. In this sense, Wagner's architectural realism may be understood through its constant symbolic exploitations of function.

Why did Wagner reject a pure Sachlichkeit? Probably for many of the same reasons that he avoided other reductionist schema. As August Sarnitz points out, Wagner's synthesis of structure and dressing purposely refrained from radical reductions of building to premodern and nationalist frameworks, as epitomized by the Heimatsstil (regional style). For Wagner, modern architecture as a form of individuality was constituted by heterogeneity amidst anonymity, an axiological dialectic that denied resolution in any strict set of forms. Wagner's embrace of the Great City notion and advocacy of a free, universal man clearly opposes, as Iain Boyd Whyte reminds, local/ regionalist theories argued by contemporaneous architects like Hendrik Petrus Berlage. Distinct from Berlage's impressionism, Wagner maintained that modern architecture must be realized within the complex and international arena of artistic and technological relations.

Is a strict definition of architectural realism possible? In J. Duncan Berry's analysis of the origins of the concept of Realismus, he invokes three non-architectural sources: a native German movement descending from mid-century Republican political programs; French impressionism, in particular its origins in the paintings of Gustav Courbet; and literary socialist realism, as found in the novels of Emile Zola and his German adherents like Michael Georg Conrad. These factors—in addition to the sources of architectural realism in technology, economics, and sociology—point out that the concept of realism is discursive rather than denotive. A grand theory of architectural realism in a denotive sense would only replicate the totalizing efforts made in favor of architectural modernism during much of the 20th century. Instead, a discursive understanding of architectural realism promises to question customary historiographic categories and assumptions. To say this is to suggest that the historian's activity multiplies the conceptual dimensions of a term like "architectural realism" rather than provides essentialist closure. This is the cumulative effect of the historical positions contained in Otto Wagner: Reflections on the Raiment of Modernity. Mallgrave and his essayists have brought the otherness of historicism which horrified traditional scholars of architectural modernism into dialogues with realism, effectively dressing the body of architecture in literary costumes.

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An Epoch-making Text: Muthesius' Stilarchitektur und Baukunst

Adolf Max Vogt

Of the German texts that definitively changed the course of modern European architecture, the work of the Viennese architects Adolf Loos and Otto Wagner come to mind, and also certainly that of Berliner Hermann Muthesius. Thus, it is not surprising that the Getty Center for the History of Art and the Humanities Publications Program (directed by Julia Bloomfield, Thomas F. Reese, Salvatore Settis, and Kurt W. Forster, with Harry F. Mallgrave as architecture editor) chose Wagner's Modern Architecture and Muthesius' Style-Architecture and Building-Art to be among the first of its titles in its Texts & Documents Series—launched in 1988 in order to offer "neglected, forgotten or unavailable writings in English translation." Neither of these German texts, both published in 1902, were as accessible in their original forms as Loos' writings.

Muthesius at least does not need a completely new outfit to travel to the English-speaking world. From 1897 to 1904, he lived in England on an official mission as a cultural observer—or architectural spy, as some sarcastic British commentators would have it. In those years, Prussia still viewed itself as a parvenu among the big European powers, wanting to model itself, above all, after Great Britain. Accordingly, Muthesius was installed as an attaché at the German Imperial Embassy in London, where he proceeded to

By the Way
perform his duties above and beyond the expectations of his superiors. During his term, he researched and wrote the three-volume book Das Englische Haus (The English house), which remains a splendid declaration of affection for the architecture of the British people.

The late dean of German architectural history, Julius Posener (who spent many years in England), describes in From Schinkel to the Bauhaus: Five Lectures on the Growth of Modern German Architecture (London: Architectural Association, 1972) the political and cultural uniqueness of Muthesius' mission, amplifying his own comments with the following quote from early 20th-century English architectural historian William Richard Lethaby:

The first thing in the arts which we should learn from Germany is how to appreciate English originality. Up to about twenty years ago there had been a very remarkable development in English art of all kinds. For five or six years, round about the year 1900, the German government had attached to its Embassy an expert architect, Herr Muthesius, who became the historian (in German!) of the English free architecture. All the architects who at that time did any building were investigated, sorted, tabulated and, I must say, understood.

Herr Muthesius, who not only sorted but understood his English contemporaries, began to devote his attention to his native Germany toward the end of his London mission. The outcome was Stilarchitektur und Baukunst, a combative piece of writing no more than fifty pages long which makes its case through words alone. Stanford Anderson, who translated and introduces the text, points out that Muthesius wrote this brochure after having written Contemporary English Architecture and Recent Religious Architecture in England, though before the better-known The English House. Muthesius' first commentary on the German situation thus occurred in the middle of his working through of his passion for English culture. Anderson thereby concludes that Muthesius became able to judge the situation of his own country in a relaxed and forceful manner only after being able to submerge himself in a foreign culture and to address the reasons for his fascination with it. He had thus developed a basis of evaluation upon which he could rely when he began to write about and even censure the work of his own compatriots. This basis consisted of building patterns which, although created in a foreign country, emerged from the same northern European climate. His awareness of the two nations' shared basic conditions—intensified by the presence of the Gothic style, also a northern phenomenon—gave him the courage to voice two positions which were bound to shock and provoke the cultured members of the German bourgeoisie. First, he critiqued the Germans' enthusiasm for Hellenic Greece which, as Anderson rightly notes, amounted to an "idealistic fabrication of Greece." Anderson pinpoints the source of the classical revival in turn-of-the-century Germany: "The prime movers . . . were perceived to be Johann Joachim Winckelmann and the classicizing search for stylistic purity: agents undermining artistic creativity by elevating the imitation of ideal models." Second, Muthesius took issue with what is often called the "ladder of styles." Observes Anderson, "From Muthesius' perspective, art and handicrafts lost their footing and survived only in the imitation of an ever broader range of historical forms. A degenerate battle of the styles ensued, leaving the inevitable—at that moment only recent—arrival at nothingness!"

Muthesius found in the English Arts and Crafts movement ideas that could both liberate the continent from the imitative veneration of classical Greece and prevent if from sliding off the ladder of styles into "nothingness." (Muthesius was later instrumental in the founding of the German Werkbund in 1907 which, like the Arts and Crafts, was aimed at reconciling modern production with individual artist's intent.) Anderson writes, "The expanded goal of the new [Arts and Crafts] movement would be the creation of a contemporary middle-class art, characterized by sincerity, Sachlichkeit, and a purified artistic sensibility. The crafts and the free architecture of England . . . offered precedents; the challenge was to achieve this
art under modern conditions without sliding off into secondary considerations and superficialities [i.e., art nouveau]."

Anderson’s translation of the text is exact and painstaken, as sensitive as his commentary is. What is especially noteworthy is that he ventures to render meaning to the word Sachlichkeit with multiple variants: he initially translates it as "scientific objectivity," later as a "strict matter of fact," then as "practical (sachisch)" and sober thought," and finally, as "the Real." Sharing his insight, Anderson understands that in certain cases a single equivalent word does not suffice and requires instead an approximation, a circuitous approach, a nuanced addition. For Muthesius himself, the word Sachlichkeit is indeed a fundamental concept deserving of multifaceted elaboration.

Anderson uses illustrations sparingly in his commentary, perhaps too sparingly. A few images of design projects by Muthesius would have helped readers to appreciate him not only as a theoretician but as an architect. Virtually the only illustrations offered are reproductions of the covers and title pages of the first (1902) and second (1903) editions, which Anderson summons to support his interesting observation of the shift in Muthesius’ thinking that occurred during the brief interval between the publication of the two. The 1902 edition bears various decorative devices, which Anderson sees as indicative of Muthesius’ earlier sympathy for art nouveau; meanwhile, the more straightforward, text-only presentation of the second edition a year later reflects his different, more sachisch attitude. The two book designs reveal even more—namely, that

Muthesius’ generation of architects regarded typography as a kind of architctura minora or two-dimensional building. They recognized that both the art of building and the art of typography depend upon serial elements (whether windows or letters, both subject to repetition) for its articulation. Sensitivity to the connection between content and its typographic expression has ebbed and flowed over the course of written history; when it is completely absent (as is commonly the case today), a thoroughness, "essentialness," or Zeitgeist is lost. The editors of the Getty Publication Program are apparently well aware of this. Their enlistment of an able designer such as Lorraine Wild (who designed the Text & Documents Series with Laurie Haycock Makela) proves this easily. At last we have a book about design that dares to desire—and receive—its own successful design and modern interpretation. This modest, attractive volume is a fitting complement to Anderson’s adept and creative translation and commentary.

**Teutonic Tectonics**

**Michael J. Lewis**

Before a theorist could imagine German architecture, he had first to imagine Germany. Prior to 1871 Germany existed as a culture and a historical concept but not as a nation, and even after unification German national identity remained a shifting, unsettled affair, as it has been again recently. This gave to German architectural theory a peculiarly searching quality, as it mused about the form of a modern German state and of modernity in general.

What a theorist proclaimed about German architecture—its origins, its rules and its ultimate meaning—had political ramifications that ranged far beyond the selection of style and the correct form of the classical orders. The shape of an arch might say something about the shape of Germany. Since 1814, when Joseph Görres declared the fragmentary Cologne Cathedral a metaphor for Germany, the Gothic style was identified with a particular vision of Germany: decentralized, democratic, nostalgic. Later the round-arched Rundbogenstil became the style of liberal progressives, while Prussian conservatives came to prefer the absolutist imagery of the baroque. In the 1870s events came to a head with the dramatic debate over the form of the German Reichstag. Lured into placing its best architects on the jury, the Gothic faction was kept out of the competition and was forced to throw its support George Gilbert Scott—a brilliant architect but a foreigner. This fatal blunder and the resulting triumph of the classicists was the climax of the German battle of the styles, and ended the century-long effort to identify German nationhood with medievalism.

Such is the background for Mitchell Schwarzer’s book German Architectural Theory and the Search for Modern Identity, whose subject is the architectural debate in the German-speaking states between 1820 and 1910. This is not, it should be emphasized, a comprehensive survey of German architectural thought in that period. For that, a reader should turn to the late Hanno-Walter Kruft’s A History of Architectural Theory from Vitruvius to the Present (English edition, New York: Princeton Architectural Press, 1994), whose survey of German theory is

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**GERMAN ARCHITECTURAL THEORY AND THE SEARCH FOR MODERN IDENTITY,**

Heinrich Hübsch's offered examples of various facades, for a state building, church, schoolhouse, and so on, in his 1828 tract *In What Style Shall We Build?* (From Heinrich Hübsch 1795–1863.)

reliable and concise, if dry. Instead Schwarzer picks up those strands of architectural thought that relate to the formation of modern German identity. Four chapters lay out the basic themes—the battle of the styles, the consequences of the Industrial Revolution, nationalism and internationalism, materials and structure—while a final chapter shows how these themes are subsumed in the proto-modernism of the turn of the century.

The book is based on Schwarzer's doctoral dissertation (completed at MIT) but it is quite readable and free of that unmistakable tone—that mixture of pedantic assertiveness and bet-hedging defensiveness—that usually marks a dissertation turned into a book. Schwarzer has gone beyond a cautious recitation of his sources to make a bold synthesis, which is apparent in the generous sweep and confidence of his writing. He hits his stride in chapter four, "Freedom and Tectonics," where he makes an original claim that the tectonics debate lies at the very heart of German architectural thought. From the beginning of the 19th century, he argues, German theorists struggled with two competing conceptions of architecture, a materialistic and an idealistic, using Greek architecture as a kind of case study. Should the canonical Doric temple be read as a system of forms that arose logically out of the physical nature of marble construction, or should it be read as a set of idealized expressive elements? This philosophical debate—by nature incapable of definitive resolution—was nevertheless a convenient marker for architects to stake out their polemical positions. When Otto Wagner sought to find forms for iron construction which suited the demands of both utility and expression, he affected a vocabulary of radical change—although the terms of the debate were at least a century old.

Given the complexity of this story, it is striking how well Schwarzer manages to tell it without images, for apart from the clever illustration on the cover (a modern steel bridge with Gothic gateways) the book has none whatsoever. Perhaps this withholding has to do with the economics of publishing, but it makes for an unnecessarily severe book. Many of Schwarzer's theorists fretted over subtle variations of the same architectural elements, while applying the same limited set of terms—such as "truth in materials" or "cladding"—to buildings of violently different character. Since these terms had quite restricted meanings that applied to specific historical forms, they need to be illustrated for modern readers who will not have the instant frame of reference that readers from that time period enjoyed.

The truth is, architectural theory is often advanced as much by published images as by words, and sometimes far more effectively. Heinrich Hübsch's doctrine of the Rundbogenstil—the adaptability of round-arched construction to all modern building types—was expressed far more succinctly and vividly on a single lithographed sheet of his designs than it was in his rarefied 1828 tract *In Welchem Style sollen wir Bauen?* (In what style shall we build?), whose title is regularly quoted though the book is rarely read. But Schwarzer is as interested in buildings as he is in words about buildings. His method is to look exclusively at the literary debate about architecture; buildings themselves are strikingly absent. It is certainly a valid approach to trace the intellectual pedigree of ideas as they move from the writings of one theorist to another; in a field such as philosophy, for instance, which is a kind of protracted conversation across the centuries, it is the logical method. But architectural theory does not progress from writer to writer, like a baton passed between relay runners; rather, it snakes its way between theory and action, back and forth. Architectural theorists respond to the words of their predecessors, as well as to their buildings. And here Schwarzer provides only part of the picture.

Of course it is a truism that theory and practice interact, but the tension between them was exceptionally sharp during 19th-century Germany, much more so than in France or England, for the simple reason of German poverty. Germany had been devastated by the depredations of the Thirty Years' War, and two centuries later still lagged behind its neighbors. The Industrial Revolution came relatively late, and up to the moment of unification Germany was still overwhelmingly rural in character. Likewise, medieval building practices, above all half-timber construction, persisted well into the 19th century. While the German theorist, like his French counterpart, might muse learnedly about the meaning and proportion of the classical orders, he seldom had a chance to build in monumental cut stone. His classicism was likely to be a veneer of stucco, applied to a building of brick and timber. Even David Gilly, the mentor of Karl Friedrich Schinkel and the founder of the Bauakademie, about whom Schwarzer has much to say, devoted a substantial part of his *Handbuch der Landbaukunst* (1797–98) to providing advice on building with mud brick and straw roofs. And Friedrich Weinbrenner, a theorist who ought to be
but isn't included in Schwarzer's discussion, was an experienced carpenter-builder before he imbibed the heady atmosphere of the German colony in Rome.

This backwardness was not irrelevant. Much of the elastic permissiveness in German architectural theory, and much of the willingness to embrace modern forms, comes from the need to apply classical models and doctrines in a country where the classical masonry-building tradition was weak. Surely an architect who has been brought up to think in terms of joinery and wood construction will bring a different attitude to classicism than one who has been taught to think in terms of massive construction and monumental masonry. With the tensile freedom of wood construction comes a certain freedom of mind, a habit of thinking elastically about form that cannot be choked by subsequent schooling in the fussy modules of the orders. And ironically it was Germany, with its experience of carpentry, which provided some of the most thoughtful insights into the modern use of iron (the same is true of the United States, another wood-building culture). If there is such a thing as Teutonic tectonics, and Schwarzer makes a strong case that there is, then wood ought to loom in the story.

This backwardness also added a certain poignancy to the German embrace of modernity. For Germany, modernization was not solely a leisurely intellectual debate about where to take architecture: it was an affair of great urgency, of catching up to what France and England already enjoyed. It was also a matter of state policy, which was embodied in the architectural bureaucracies of the various German states whose employees were that characteristically German creation, the artist as civil servant. The German building inspector, or Baurat, was as likely to work to improve the quality of Prussian brick-laying—as Schinkel did—as he was to muse about the meaning of the orders.

This attitude permeated Germany's schools of architecture, beginning with the establishment of the Bauakademie in Berlin in 1797. This school and its successors were polytechnical schools rather than academies of fine arts, and offered a hierarchy of technical courses, progressing through mathematics and the natural sciences, with design coming only at the end. This was quite different than the Ecole des Beaux Arts, where monumental design was the heart of the education. Inevitably, the treatment of architecture as a technical and scientific discipline rather than as a fine art affected the attitude of theorists toward change and the authority of the past. These were not the conservative academies of popular imagination, laying down with sclerotic rigidity the inanities of the past while manifesto writers outside the academies pushed ahead fearlessly. In Germany, the visionaries and radicals were likely to be found within the academy, and often in positions of privilege—as was the case for Gilly, Schinkel, Wagner, and Semper.

Precisely because there was no clear understanding of what Germany or "Germanness" meant, these theorists felt free to assimilate the range of new historical and anthropological insights in the early 19th century. They were more likely to be aware of the range of architectural styles, and to see with detachment the way in which historical forces acted upon them. At Karlsruhe, in particular, Hübsch and Friedrich Eisenlohr taught design as an objective process, in which the historical styles were essential components—neither less nor more important than hydraulics or statics. As a consequence, German theorists were among the first to assimilate one of the central insights of 19th-century thought: the understanding of history not as mythic cycle but as process. This explains Germany's special interest in the idea of architectural development: rather than imagining architectural styles as closed systems, which might be used arbitrarily, German theorists in general were more likely to recommend styles as points of departure for further development. In other words, they were more likely to think of architectural history in the dynamic terms of Darwin than in the static categories of Linnaeus.

This accounts for several oddities of German theory, including the repeated German interest in creating an "objective" set of rules of architecture that could be understood without invoking the authority of historical precedent. It also helps explain the German predilection for the Romanesque, a style that was felt to be incomplete and therefore capable of further development, unlike the Greek or Gothic which had reached a point where no further evolution was possible. Finally, it accounts for the repeated German interest in crossbreeding styles to create hybrids, even though these were invariably sterile, such as Friedrich Bürklein's additive Maximilianstil, a synthetic style that drew variously on antique, medieval, and Renaissance prototypes.

Ultimately German Architectural Theory and the Search for Modern Identity would have been fuller and more persuasive had Schwarzer looked outside the parameters of written theory to consider the peculiar culture of architecture within the German academy. In this respect alone, perhaps, it suffers from its origin as a dissertation. Still, the book is a welcome contribution to the small but growing English-language literature on German architectural theory. Until recently this topic was ignored or, worse, read backwards in order to trace the lineage in a Biblical sense—who begat whom—of International Style modernism. Schwarzer is among of the first to view it on its own terms and has mastered a ponderous body of literature to do so. For this he is to be congratulated—although a few photographs still would have been nice.

The Dialectics of Functionalism: Adolf Behne & Sigfried Giedion
Kenneth Frampton

Over the past eight years, the Getty Center for the History of Art and the Humanities has been making available in English for the first time several seminal texts on modern architectural theory. Not least among the many merits of these translations and facsimile editions, issued under the rubric of the Texts & Documents Series, are the extensive scholarly introductions that accompany each volume, setting each work into the cultural context from which it emerged. This is particularly so in the case of the two most recent additions to the series: Rosemary Haag Bletter’s introduction to Adolf Behne’s 1926 Der moderne Zweckbau (The modern functional building), which expands on the culture-politics of Weimar Germany after the barbarous watershed of the first industrialized war, the 1914–18 conflict that turned postwar Berlin into a battleground of rival political factions; and Sokratis Georgiadis’ gloss on Sigfried Giedion’s first book of critical consequence, Bauen en Frankreich, Bauen in Eisen, Bauen in Eisenbeton (Building in France, building in iron, building in ferro-concrete) of 1928, which traces the tortuous intellectual process by which ferro-vitreous and reinforced concrete construction came to be accepted in the first quarter of this century as the dual technological means with which to continue the evolution of architectural culture.

German culture seems to have experienced the impact of modernization in ways that were more traumatic and intense than that of any other developed nation. The constant struggle of German-speaking intellectuals (whether German, Austrian, or Swiss) to comprehend and assimilate the sociocultural impact of modernity suggests much. This observation applies to architectural theory as well as to philosophy, as we may judge from the complex and conflicted career of Behne, who was a prolific writer from the time of his first book, Zur neuen Kunst of 1915, published when he was thirty, to the advent of the Third Reich in 1933 when he was categorically silenced as a contemporary critic. After this imposed “closure,” he could express himself only through academic historical studies, largely in the field of fine art. Between 1910 and 1933, Behne authored well over five hundred critical essays on art, architecture, and film. The bibliographic appendix that accompanies the new translation of Die moderne Zweckbau lists a meager thirty-seven pieces that were written between 1934 and 1948, the year of Behne’s death at the age of sixty-three.

That Behne was caught in the maelstrom of German culture-politics long before 1933 is indicated by the way in which he was politically divided in his effort to establish a broad ideological basis for modern cultural production, particularly as applied to architecture and art. Thus, Behne’s disquisition on the functionalist line in architecture was influenced by the Social Democratic policy of developing Marxism into a form of popular socialism (Volkissozialismus) as a revisionist counter-thesis to the dominant capitalist system. Behne’s commitment to a socialist restructur- ing of society from the bottom up is confirmed by his involvement with the Volkshochschule movement which "evolved [in Germany] in the second half of the 19th century and was based on Scandinavian models," writes Bletter. Meant to further the education of the public at large, Volkshochschule courses "did not require entrance examina- tions, nor did they lead to diplomas." She compares its teaching approach to American adult education as well as to the turn-of-the-century art education movement in Germany which was aimed particularly at engaging young people. "Behne taught from the beginning until the end of his career within this open-ended, unstructured, and completely non- hierarchic educational program," informs Bletter.

He was involved with the pre-1914 proto-expressionist Choriner Kreis, a group of artists, writers, and editors which included Max Beckman and Bruno Taut and gathered regularly in Chorin (near Berlin). He was influenced at the same time by Friedrich Naumann’s Christian Socialism and, like Giedion, was exposed in his art historical studies to the teaching of Heinrich Wofflin and further to Georg Simmel who had a decisive impact on his political formation. Shaped to an equal degree by his architect father and his initial study of architecture, Behne, despite his wide interests, operated most effectively as an archi- tectural critic, as the pages of Der moderne Zweckbau amply testify. As a result, he emerges in the 1920s as a more dialectical thinker than Giedion, as we may judge from the following passage, which is remark- able given its date and his expressionist affiliations:
Functional deliberations are correct so long as they concern a specific matter, and they go wrong as soon as things have to fit together.... Hugo Häring and Hans Scharoun sometimes choose different widths for their corridors, allowing them, like arteries, to narrow, to shrink, in places where there is less traffic. This is allowed provided that traffic always follows this same path until the end of the building [but it becomes] antifunctional as soon as the traffic finds different conditions... whereby it could be heaviest in precisely those places where the plan requires it to be lightest.

Behne went on to argue that a close organic fit between form and function was inadvisable since such a fit tended to prevent work from meeting the living, changing requirements of the society. "In such a case," he wrote, "it is questionable whether the mechanical structures of rectangularity are not socially more correct in functional terms." Behne discriminated between the rationalist (Le Corbusier) who by according priority to type risked descending into formalism, and the romanticist (Häring) who by emphasizing organic function risked rendering his work inaccessible to society at large. Such reflections brought him to the following formulation:

Form is nothing more than the consequence of establishing a relationship between human beings. For the isolated and unique figure in nature there is no problem of form. Individuals, even individuals in nature, are free. The problem of form arises when an overview is demanded. Form is the prerequisite under which an overview becomes possible. Form is an eminently social matter. Anyone who recognizes the right of society recognizes... universally valid rules, rules that do not arise from its functional character (Zweckcharakter) but from the requirement of this whole... A one-sided fulfillment of function (Zweckerfüllung) leads to anarchy.

Later in the same text, he continues:

It seems to us that all building contains an element of compromise; between purpose and form, between individual and society, between economy and politics, between dynamics and statics, between forcefulness and uniformity, between mass and space—and that style in each case is nothing more than the particular version of this compromise.... The necessary and only sound approach is to reject aesthetic speculation, formalism, and doctrine, but it seems to us quite a frequent error to make this rejection from an anti-aesthetic point of view, even if we inveigh against the aestheticism of aesthetes one hundred times a day. Rejecting aesthetic demands (which is not the same as aesthetic speculation) would be to saw off the branch on which one sits.... But if we accept the demands... of an architectural whole, the bringing together of forms—even genuinely sound ones—does not suffice. The demand for unity is through and through an aesthetic or artistic demand and to assume that all strictly sachlich works "in themselves" would form a unity, even if they were developed in a vacuum, is to draw a false conclusion. The task is not merely an overview of new buildings but also an overview of their landscape or urban environment.

In this passage, written before the large-scale mass housing schemes that were built in the Weimar Republic throughout the second half of the 1920s, Behne already casts doubt upon the productive norm of die Neue Sachlichkeit, the so-called "New Objectivity" which sustained the largely left-wing architectural production of the period—in particular, the various Siedlungen designed by such architects as Walter Gropius, Otto Haesler, Ernst May, Fred Forbat, and Hannes Meyer. Thus, in Behne's book, Neues Wohnen—Neues Bauen (New dwelling—new building, 1927), the term Sachlichkeit simply indicated that the design was to be derived from the Sache, the object. In his words, "Each Sache is a nodal point of relations between human being and human being..... To work sachlich means therefore to work socially in each discipline. To build sachlich means to build socially." In his text "Von der Sachlichkeit," also written in 1927, Behne made it clear that the different Sachen of any design brief would have to be carefully weighed against each other if a truly integrated and balanced solution was to be realized hence, his rejection of the then-prevalent Zeilenbau method of laying out standard flat-roofed, open-ended housing blocks. He regarded this whole approach as far too dogmatic since it was determined almost solely by optimizing criteria for sun-penetration, cross-ventilation, and economic production. These values were achieved to the exclusion

By the Way
of broader cultural factors, such as the representation of the overall unity of the Siedlung from an urbanistic standpoint.

While Giedion would also concern himself with mass housing in his diminutive booklet Befreites Wohnen (Liberated dwelling) of 1929, his first significant publication, Bauen en Frankreich, published the previous year, has little to say about housing, save to remark on the importance of the "collective will" in a passage that was virtually a paraphrase of Behne: "Command of a collective, formative will connects the exhibitions, with bridges, railroad bridges, machines, vehicles, in short with the entire field of anonymous design." Anonymous design was already a key theme in Building in France, as it would be in his later magnum opus, Mechanization Takes Command, published in 1948. This preoccupation surely derived in part from Joseph August Lux's 1910 book, Ingenieur Aesthetik, which was also the source for the dialectical role that the title term would play in Le Corbusier's Vers une architecture of 1923. In his introduction to Building in France, Georgiadas traces the way in which this notion has its primitive origins at mid-century in Karl Bötticher's prophetic Schinkelfest address of 1846, in which he asserted that the already degenerate and eclectic "battle of styles" would only be settled by the emergence of a third style, based on iron construction. Georgiadas follows all the subtle and skeptical vicissitudes through which this thesis discussion during the second half of the 19th century (via such distinguished authors as Cornelius Gurlitt, Heinrich Pudor, Richard Strieter, and Alfred Gotthold Meyer) to emerge at the end of century in the pro-industrial ideology of the Deutsche Werkbund, founded in 1907.

The architect Hermann Muthesius, part instigator of the Werkbund along with Friedrich Naumann and the furniture-maker Karl Schmitt, makes his own contribution to this debate in his 1902 book Stilarchitektur und Baukunst (translated into English by Stanford Andersen under the auspices of the Getty's Texts & Documents Series in 1995; see review on page 13). Muthesius circumvented, as it were, the endless German argument as to relative status of iron versus stone in the creation of architecture by stressing the new institutions and instruments of the early 20th century rather than dwelling on the mode of construction. He writes:

If we wish to seek a new style—the style of our time—its characteristic features are to be found much more in those modern creations that truly serve our newly established needs, as for example in our railway terminals and exhibition buildings, in very large meeting halls, and further, in the general tectonic, in our large bridges, steamships, railway cars, bicycles and the like. It is precisely here that we see embodied truly modern ideas and new principles that demand our attention. Here we notice a rigorous, one might say scientific, objectivity (Sachlichkeit), an abstention from all superficial forms of decoration, a design strictly following the purpose that the work should serve. All things considered, who would deny the pleasing impression of the broad sweep of an iron bridge? Who is not pleased by today's elegant landau, trim warship, or light bicycle?

It is exactly this ideological parti pris that informs the substance of the 1913 and 1914 volumes of the Deutsche Werkbund Jahrbuch, dedicated to "Art in Industry and Trade" and "Transport," respectively. Gropius will enter the tectonic fray at this point with his 1913 Jahrbuch essay "Die Entwicklung Moderner Industriebaukunst" (The development of modern industrial building) in which the anonymous reinforced concrete grain silos of the United States are compared for the first time not only to the finest contemporary German industrial building but also to the remote monumental architecture of Egypt. As we know from Vers une architecture, the silos constituted the ultimate demonstration of the engineer's aesthetic as far as Le Corbusier was concerned. Because comparable works could not be found in France, this aspect of anonymous engineering culture was ignored by Giedion even though over half of Bauen en Frankreich was devoted to works in reinforced concrete.

In Building in France, Giedion, without once mentioning the term "constructivist," places the entire onus of building on the act of construction and the heroic "neutral" sachlich figure of the constructor rather than either the architect or the engineer. Influenced by the fact that Auguste and Gustave Perret had styled themselves professionally as constructeurs rather than as architects, Giedion would categorically associate the time-honored tradition of architecture with one singular material, namely stone, and go on to argue that the undeniable dematerializing impulse of modern culture in general could only be fully embodied (or rather, disembodied) in iron construction: "In the air-flooded stairs of the Eiffel Tower, better yet, in the steel limbs of a pont transbordeur, we confront the basic aesthetic experience of today's building; through the delicate iron net suspended in mid-air stream things, ships, sea, houses, masts, landscape, and harbour. They lose their delimited form: as one descends, they circle into each other and inter-mingle simultaneously. One would not wish to carry..."
The significance of the terms sure, craftsmanship vitreous construction in the previous age was vital. Now the end would not seem so complete.

For Giedion, as for Muthesius, the advent of ferro-vitreous construction in the arcades, market halls, railway stations, department stores, and exhibition buildings of the 19th century has signified the shift from craftsmanship to industrial production. Moreover, as he put it, whereas stone can only resist compression favoring compact mass and definitive spatial enclosure, "iron can be stretched and drawn together. It resists extension and pressure and hence bending. The significance of iron is: to condense high potential stress into the most minimal dimensions. . . . The wall can become a transparent glass skin."

Needless to say, all of this has long since been integrated into general architectural history, not least because of Giedion’s own partial reworking of Bauen en Frankreich in English as the Charles Eliot Norton Lectures in Poetry, which he delivered at Harvard University over the school year of 1938 to 1939 at the invitation of Gropius. When these lectures were published under the title Space, Time, and Architecture in 1941, Giedion consolidated his position as the international magus of the Modern Movement. In terms of canonical illustrations, many key works went straight across from the pages of Bauen en Frankreich into Space, Time, and Architecture, among them (as one might expect in terms of dematerialized structures) the Bibliothèque Saint-Geneviève (1850), the Bon Marché store (1876), the Galerie des Machines (1867), the Eiffel Tower (1889), and the Marseille Pont Transbordeur (1905). The seminal pre–World War II works of Auguste Perret, Tony Garnier, and Le Corbusier also cross over without any noticeable variation, while other pieces that were featured in Bauen en Frankreich were quietly dropped, such as Henri Sauvage’s Rue des Amiraux Apartments (1925) and Eugène Freyssinet’s airplane hangars at Chartres (1924). All in all, reinforced-concrete engineering structures are not well represented in Bauen en Frankreich. We learn little about François Hennebique, who was key to the French prowess in béton armé. We learn even less, strangely enough, about the great Swiss concrete engineer Robert Maillart—a lapse which Giedion promptly redresses in Space, Time, and Architecture.

It is interesting to note the extent to which Bauen en Frankreich associates the technical triumph of reinforced concrete with Le Corbusier alone. At the same time, Giedion was aware that reinforced concrete would not likely—and certainly not exclusively—fulfill the promise of mass-produced houses as set forth at the end of Vers une architecture. He evidently recognized that concrete, with its requirement of casting, was inimical to industrialization and even antithetical to the dematerializing drive of the modernist Zeitgeist. As he put it toward the end of Bauen en Frankreich, "There is a certain inherent rigidity in ferro-concrete. We know how difficult it is to demolish or even just to alter buildings in this material. Our dwellings should not be rigid, they must be allowed a certain free play to change, for they do not always serve the same function."

Behne would articulate the same point in somewhat different terms but it is Giedion who ultimately presides over the ideological diffusion of the Modern Movement after 1945. Both his longevity and genius for the polemical presentation of "anonymous" cultural history broadened the intellectual appeal of his architectural historiography. Bauen en Frankreich, brilliantly designed by László Moholy-Nagy, presented the world with a rhetorical discourse that could be read more effectively in terms of captions, footnotes, and illustrations than it could be pursued sequentially as a text. As Georgiadis puts it, "Giedion found the limitations of the book medium too rigid, too inflexible, and ultimately too tyrannical for the 'grasping' of the new architecture. Hence, the non-frontal illustrations, the multiple partial views of the same object as in cinematic stills, combined with rapid changes in textural tone and pace from descriptive to analytical and from prosaic passages to a poetic expression, underlined by sans serif block titles and subtitles." It is this, surely, in addition to their common interest in anonymous history, that endeared the book to Walter Benjamin—and it was their mutual feeling for the unconscious processes of technology that led Benjamin to quote from Bauen en Frankreich in his unfinished Passagen-Werk. In his last project, Benjamin cites Giedion (as well as Lux and Meyer) as he threads his way back through the tectonic arguments of the 19th century. A greater retroactive compliment at the end of our century—from a lost, unpublished, unfinished manuscript to an equally lost, though fortunately republished, canonical text—would be hard to imagine.

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Pablo Picasso’s objections to theories of cubism could just as easily apply to interpretations of Frank Lloyd Wright’s architecture, which has undergone a similar degree of scatter-shot analyses over the years. Among the “what-not” variety of interpretations might include: hagiographic views of genius; biography as the key to art; intellectual history rooted exclusively in 19th-century ideas; and psychological theories often mixed with cosmological analysis.

The latest attempt to analyze Wright’s work comes from Neil Levine whose magnum opus, The Architecture of Frank Lloyd Wright, emphasizes psychological theories to explain unconscious intentions. There is much to admire in this highly intellectual book. Mentored at Yale by Vincent Scully, Levine has emerged as the most articulate propagator of Scully’s approach in which the history of architecture is presented as a grand elegiac sweep from the physical world to the cosmos.

Levine originally intended to expand upon Scully’s earlier monograph Frank Lloyd Wright (New York: George Braziller, 1960) and to elaborate upon Norris Kelly Smith’s psychologically oriented study, Frank Lloyd Wright: A Study in Architectural Content (originally published 1966; revised edition, New York: American Life Foundation, 1979). But his project grew in scope and he assumed the role of providing a new standard for interpreting Wright’s work. Hyped as a redefinition of our understanding of Wright and as the first in-depth study of the architect’s entire career, the book does not provide the overview and reinter- pretation that has been anticipated.

In this hefty tome, Levine does introduce readers to projects and buildings by Wright that have been long neglected, particularly those of the 1940s and 1950s, produced in the last decades of his life (he died in 1959). The photographs are stunning, a delight to peruse, while the text moves it far beyond the coffee table. The best passages are those that pull together the constituent facts about a particular commission and superbly describe the experience of moving through Wright’s spaces. Few scholars have the visual acuity and verbal agility of Levine. The theoretical analyses into which these descriptions are forced, however, often subvert their clarity, producing the kind of blinding force that Picasso noted.

Levine works out his theories by treating several themes, but they are often difficult to disentangle and not all are followed throughout the book. I extracted the following themes (each of which I will discuss in turn) as a guide for readers:

- reasons for the resistance to Wright’s ideas (later in his career) in academia and within the profession;
- recasting Wright as a classical architect;
- deciphering the shifts in Wright’s life and their effect on his work;
- oppositions between abstraction and the imitation of nature which Levine compares to oppositions between culture and nature;
- postulations of psychological and phenomenological complexes underlying Wright’s work;
- Wright’s position in relation to other masters of modernism.

Levine introduces his study by pointing out several reasons for the eventual backlash to Wright’s ideas, despite his status as one of the most renowned American architects of this century. The author claims that many simply grew weary of Wright’s notorious arrogance, simultaneously admiring yet resentful of an influence that was so widespread it had become subliminal. Levine quotes Philip Johnson as saying he was “annoyed” by Wright’s immodesty and contempt for others, and recalls a dig Johnson made in an address to students at Harvard’s Graduate School of Design in 1954, in which he called Wright “the greatest architect of the 19th century.”

Levine sets out in the first two chapters of the book to rehabilitate Wright within the canon of classicism. The reasoning, generated in the heyday of postmodernism, stems from the idea that classical architecture is the true architecture of American democracy, and Wright, as the most famous American architect, is a classicist despite his own protests. His use of Beaux-Arts planning techniques and imitation of nature confirm the classicism of his work. With his latent classicism revealed, Wright can take his proper place in the pantheon of American architects which includes Charles Bulfinch, H. H. Richardson, and McKim, Mead and White.

Wright’s views of abstraction, however, stood in direct opposition to classical mimics. He did not imitate nature as demanded by classical theory; he used it as a metaphor for abstracting forms to their pure essences. He combined these essences with his social, aesthetic, and spiritual views, resulting in artistic syntheses that were both evolutionary and revolutionary. Painting Wright as a classicist and focusing on representation—tactics once very current in postmodern discourse—might be tiresome to readers today, but fatigue might be unavoidable for a book with essays published over the course of the last decade, during which time many fashionable trends of thought have lost their novelty.

Levine’s main thrust is in interpreting Wright’s artistic developments in psychological terms, invoking such notions as sublimation, repression, and transference. So pervasive are these terms that it is difficult to resist using them when analyzing this long and complex book. To them must be added, however, fantasy, wish-fulfillment, and denial.

Levine focuses on a limited number of buildings to support his theses, which has the effect of making the foot fit the shoe. For example, in the early chapters, Levine overstates the significance of Wright’s design for the Milwaukee Public Library and Museum (1893). Hardly a “sketch,” as Levine describes it, the drawing is in fact a brittle perspective tossed off by Wright for reasons unknown but taken up by Levine because of its symmetrical, classicizing parti and classical vocabulary. He devotes an undue amount of attention to the Winslow House in River Forest, Illinois (1899–94), reducing all of Wright’s developments until 1909 as a working out of the ideas prefigured in this single example. Writing from a position that straddles postmodernism and...
poststructuralism, Levine’s analysis exhibits the kind of linear evolution usually associated with modernist criticism. More importantly, by limiting his selection to single buildings or pairs of buildings, he inadvertently raises the suspicion that, if more or different projects from within the same time frame were examined, entirely different conclusions could be drawn. Especially egregious is the complete omission of some major projects, such as Crystal Heights (1939), the mixed-use complex for a site in Washington, D.C.2 Though it remained unbuilt, it was one of the largest commercial projects Wright ever conceived. He himself thought it one of his most important, and Henry-Russell Hitchcock drew particular attention to it as a forerunner to Wright’s future work.

Another problem with Levine’s method is that, despite its depth, it overlooks some important studies on Wright. While his research is thorough, he does not engage in a dialogue with any significant recent scholarship on Wright. He mentions in a note that James O’Gorman’s Three American Architects: Richardson, Sullivan, and Wright, 1865–1915 (Chicago: University of Chicago Press, 1991) came out too late to use, even though it precedes this publication by five years. Edgar Kaufmann’s many contributions figure little in Levine’s work—not even his brilliant treatment of Wright’s concept of plasticity as applied to the Unity Temple in Nine Commentaries on Frank Lloyd Wright, first published in 1978 and reprinted in 1989 by the Architectural History Foundation and MIT Press. My own study of Wright’s travels to Europe in 1910 and their impact on him—completed in 1987, available as a dissertation in 1989, and published in a slightly different version in 1993 as Frank Lloyd Wright: The Lost Years 1910–1922 (Chicago: University of Chicago Press)—was also described as appearing too late. However, the author does cite it numerous times (when it is convenient for his arguments), while avoiding its premises and related studies. As a result, his readers do not find out about Wright’s engagement with feminism through the translations of Ellen Key that he and Mamah Borthwick Cheney published; nor do they learn the story of his Wasmuth publications, or the shifts in his work—accounts of which are all far more factual and detailed than Levine acknowledges.3

Levine’s account of the shift in Wright’s thinking that occurred in 1909 at the conclusion of his Oak Park years and its impact on his work during the critical transition from 1910 to 1922 falls short in several respects. For example, the turning over of his practice in 1909 before he left for Europe is no longer a mystery: it is known that several architects turned him down until Herman von Holst accepted. His conjecture that Wright would have prolonged his European trip is contradicted by the architect’s own letters. And in discussing Wright’s assessment of the Renaissance (not actually written while he was in Europe but after his return to the United States), Levine abridges Wright’s quotes and misses the full impact of his rebuttal to this great tradition in Western culture. For Wright, the “true Renaissance” of modern architecture was being brought home by new schools in Germany and Austria, particularly the Secessionists who were interested in forms that recalled the origins of architecture. Levine is correct in pointing to the rupture from Oak Park—when Wright abandoned his family and eloped with Mamah Borthwick Cheney—and his return to the States in 1910 as the beginning of his defensive character and his declaration of himself as an artist existing outside the confines of society. But he concludes that Wright’s “work would emerge directly out of the contact with nature that he now saw as the sole and eternal source of art.” Although this is the crux of what follows in Levine’s book, the opposite occurs in Wright’s experimental work which continues into the early 1920s. Wright returns not to embrace nature more thoroughly but to abstract the forms of nature and human culture to their purest, most reduced essences. Beyond nature is the platonic essence of form that Wright equates with emotional, psychological, and spiritual factors. No speculation is needed on this point: Wright spells this out in his important theoretical statement, The Japanese Print: An Interpretation, published in 1912, just after his return from Europe.

Levine next focuses on Taliesin, Wright’s home and studio in Hillside, Wisconsin (begun in 1911), and gives it the paradigmatic treatment he gives the Winslow House. He sees Taliesin as embodying “nature,” which Levine claims “now replaced culture as the direct source of Wright’s architectural ideas.” There are a number of problems with this claim. Why must there be, except for polemical purposes, a dichotomy between nature and culture, with one excluding the other? Moreover, it’s worth noting that Wright’s early residential designs were often limited by their flat urban lots, but when he was confronted with complex topographies, as for his Glaser House in Glencoe, Illinois (1905), he consistently engaged the nature of the site. To assert that Wright suddenly puts nature at the center of his inspiration after almost fifteen years of practice in which he constantly cites nature as his inspiration implies that Wright repudiates his previous practice. The stone walls and plinths at Taliesin do appear to emerge out of the ground, conforming to the images of organic architecture that Wright had been articulating for ten years. When Wright describes Taliesin as his first “natural house,” he does not repudiate his earlier work or the positions they represent but rather, claims this legacy for himself.

Furthermore, Levine takes the phrase “natural house” out of context from Wright’s An Autobiography (originally published 1932, revised edition, New York: Horizon Press, 1977). Wright actually wrote: “Was there no natural house? I had proved, I felt that there was, and now I, too, wanted a natural house to live in myself.” Rather than connect the natural house to the imitation of nature at the heart of classical theory, Wright goes on to say, “Yes, there must be a natural house, not natural as caves and log cabins were natural but native in spirit and making, with all that architecture had meaning whenever it was alive in times past.” Wright
moved his architecture in the direction of "times past" after his return from Europe, for he found in that direction the archaic forms of non-Western cultures, uncorrupted by modern materialism.

Although Levine claims that Taliesin embodies nature, he also says that we cannot see this representation of natural forms because it is repressed and sublimated. This repression occurred, according to Levine, as Wright's response to the Taliesin tragedy in which his lover and others were murdered in 1914. This is an ingenious notion, but the argument—that you cannot see what is invisible because it is repressed—is tautological. Taliesin, one of the great country houses of American architecture, is clearly reliant on the idiom of Wright's prairie houses, recalling the most traditional language of domesticity which provided the security he had lacked creatively and personally. Wright's own descriptions of it as a refuge and fortress dedicated to myth only reinforce its conservative expression.

Wright's design and construction of Taliesin is not a directive for the future of architecture but a recall of what it once was—mythic and sheltering. Unfortunately for Wright, he lived in a society that opposed the very roles he claimed for himself and his field. Taliesin is a termination, not a beginning, and in no way a model for the future. What sprung from it—Midway Gardens in Chicago (1913–14), the Imperial Hotel in Tokyo (1913–23), the A. D. German Warehouse in Richland Center, Wisconsin (1915–21)—were experiments at variance with Taliesin: they were expressed in a new language, not so much about nature and space as about universal essences. Wright found these essences in the exploration of primitivism, a call to pure origins beyond style and taste. Although this yearning is at the core of all of Levine's subsequent analysis of representation in Wright's work, he himself sublimates and represses the emergence of Wright's primitivist phase.

Midway Gardens, the seminal building created at the beginning of Wright's primitivist period, does not receive any mention, an omission that is all the more curious given that even the classical architect Allen Greenberg described it as one of the major buildings of early 20th-century American architecture. Levine's failure to provide an adequate context for how Wright's work evolved in the 1910s severely impairs his subsequent discussions of important work such as the Hollyhock House in Los Angeles (1918–21) and the Imperial Hotel. Levine's treatment of the Hollyhock House relies heavily instead on the pioneering study of Kathryn Smith, adding little to her work while failing to recognize the building's manifestation of Wright's exploration of primitivist forces during the 1910s.

With regard to the Imperial Hotel, whose first scheme was exhibited in Chicago in 1914, Levine entirely misses its Secessionist details as a result of his failure to acknowledge Wright's European experience and experiments in ornament. Although he mentions in passing the prototypical plans of Japanese temples, Levine repeats Hitchcock's error in focusing on the hotel's plan as a regression to Beaux-Arts planning. He also ignores the fact that the figural sculpture at the Imperial Hotel is entirely conventionalized, and makes the groundless contention that the artwork symbolizes Japan's willingness to join Western Allies in World War I. But more important is the omission of the surface treatments throughout the hotel in which diagonality is thoroughly developed. It is in these surface patterns, which originated with Midway Gardens, that Wright worked out the formal strategies that would migrate into his plan configurations in the 1920s.

Levine, however, misses the connection between these designs and the diagonal planning that is so important to his subsequent discussions. A study of the detailed ornament of either Midway Gardens or the Imperial Hotel would have revealed that the patterns were anything but "repressed," as Levine claims; nor can they be called "tentative." Rather, they were the subject of hundreds of studies showing a continually evolving complexity using geometry to create a fresh language of form.

Instead of analyzing the design in the context of Wright's development, Levine sees the Imperial Hotel as a built metaphor for the volcanic Mount Fuji. He asserts that, by making physical the natural threat of the volcano, Wright had exorcised the irrational power of nature over him. The complex explorations of rotational geometry in Wright's surface ornament "express the turbulent and tilting folding action of earthquakes." Seduced by and relying heavily on Wright's own mythologizing of the Great Kanto earthquake of 1923 (which the just-completed hotel survived), Levine reduces the entire meaning of the building to psychological terms. This is a fascinating idea, a real act of creative imagination that is worth considering, but unfortunately, it remains unsubstantiated.

As Levine's study proceeds chronologically into the 1920s he starts breaking new ground. Most importantly, he introduces numerous projects and buildings that have floated unexplored in Wright's oeuvre. His account of the A. M. Johnson Compound in Death Valley is highly informative, offering new material and convincing explanations about this unusual project. He allows
this exotic work to be understood as a con-
tinuation of his interest in aboriginal primiti-
ivism—in this case inspired by the region’s
indigenous Native American culture. Yet he
swiftly returns to psychological interpreta-
tions, which are increasingly overlaid with
attempts at phenomenological analyses.
Somehow Wright’s “resignation” and accep-
tance of nature’s immutable forces become
central to his designs, ultimately producing
in the 1930s “a new psychological complex-
ity” along with a concession of the limits of
human intervention in the affairs of
nature. Levine claims this “shift” results in
Taliesin West (Wright’s home in Scottsdale,
Arizona, begun in 1938) and Fallingwater in
Bear Run, Pennsylvania (1934–37), but
more importantly, according to the author,
it leads to a “temporal dimension” in his
work and “reengagement with history.”
Again, Levine’s heavy reliance on psycho-
logical factors that are not fully corrobo-
rated by biographical facts or collateral
sources pushes this work into speculation.

Levine concentrates justifiably on
Fallingwater in some of the most rhapsodic
passages in the book. After pulling together
the story of the building’s creation, he bril-
liantly describes the approach to and move-
ment through the house. He sees the
totality of the experience as a metaphor for
the passing of time, a physical manifesta-
tion of a “temporal dimension,” which he
proceeds to analyze in phenomenal terms.
In the course of his description, he ascends
just as Wright did on occasion to pinnacles
that resemble symbolist poetry. Writing
about the constant flow of the stream and
the change of seasons, Levine explains,
“The question one constantly asks is not
where this or that begins or ends, but when.
And the answer is never.”
Taliesin West receives similar treatment.
It exists not only in a “temporal dimension”
but in a mythic, geological, and proto-
historic landscape. Not surprising is
Levine’s acknowledgment that the analysis
owes much to Scully’s The Earth, the Temple,
and the Gods: Greek Sacred Architecture (New
Haven: Yale University Press, 1962). A dis-
cussion of the Guggenheim Museum fol-
ows, and after a brief and informative
history of its construction, Levine reads the
building as an upside-down ziggurat.
Nothing is ever simple or straightforward
in Levine’s psychological and phenomeno-
logical analyses. Wright wanted people to
start their visit to the museum on the top
to the museum and wind down the spiral while looking
at art along the walls, across and

Don H. Choi

The Influence of Japan on Frank Lloyd Wright

Although a topic of longstanding
interest to scholars and admirers of
Frank Lloyd Wright, Kevin Nute’s
Frank Lloyd Wright and Japan: The
Role of Traditional Japanese Art
and Architecture in the Work of
Frank Lloyd Wright is the first
book-length treatment of the subject.1
Previous opinions about the de-
gree and kind of influence that Japan had on Wright range from Clay
Lancaster’s emphasis on the importance of the Ho-o-den, the Japanese
building at the 1893 Colombian Exposition in Chicago, to Henry-Russell
Hitchcock’s assertion that Japanese woodblock prints, not Japanese
architecture, were in fact the primary influence.2 Wright’s own written
references to Japan varied greatly in tone and content, and he fre-
quently denied any influences. “Resemblances are mistaken for influ-
ences,” he wrote, claiming that Japanese architecture served as a
demonstration of his principles rather than a model for his work.3

Nute makes two major contributions to the debate. First, he expli-
cates the specific avenues through which Wright came to know Japan.
Each of the first eight chapters treats one theme or episode in Wright’s
experience of Japan, including the Ho-o-den and the woodblock prints,
plus Wright’s visits to the country and his acquaintance with the work of
art historians Ernest Fenollosa and Okakura Kakuzo; Edward Morse,
author of the widely read 1886 book Japanese Homes and Their
Surroundings; and Arthur Dow and his theory of composition. For exam-
ple, in chapter two, “Japanese Homes: The Japanese House Dissected,”
Nute observes that several passages from Wright’s 1932 An Autobi-
resemblance to the descriptions of Japanese houses in Morse’s book.
Nute further compares the horizontal, door-head level wooden rail
(kamai) typical of Japanese domestic interiors to the horizontal rails in
the living room of Wright’s Francis Little House. He also notes the simi-
larity between the Japanese straw tatami floor mats and the planning
module evident in Wright’s later house designs, concluding:

As the most detailed source of information on Japanese domestic archi-
tecture available to Wright prior to his first visit to Japan, then, it seems
that Japanese Homes may well have exercised a formative influence on
his perception of the Japanese house—to the extent that by the time he
finally saw the real thing in 1905 many of his views on the subject would
appear to have already been firmly established.

Nute’s clear and copious drawings effectively convey his points but
his chronological correlations are less convincing. For instance, he com-
pares a house plan from Morse’s 1886 book with a house design by
Wright published in a 1938 issue of Life magazine. Moreover, the fifty-
through space. Levine sees this movement pattern as existentially loaded, reading it as the terrain of rebirth. "By inversion, the circulation pattern in Wright's design implies completion and self-fulfillment along with prospect of continuous renewal," he writes. This is part of "the experience in the immediacy of the present... a voyage of discovery that always returns to a point where knowledge and experience gained can be utilized and again shared with others." The expanding spiral ultimately insures "that no repetition of the experience will ever be the same." But what experience anywhere is ever exactly repeated?

The bouncing between solid scholarship and fantastic interpretation is accompanied by prose that is alternately clear and turgid. For the clear portions, readers should turn to Levine's treatment of the Masleri Memorial in Venice (1952-55), the Marin County Civic Center (1957-70), and the intriguing projects for Baghdad, which included a master plan for the city (1956) and an opera house and cultural center (1957-58). These, along with his pioneering study of the A. M. Johnson Compound, are significant contributions to our knowledge of Wright's output during the middle of the century. Even though scholars will challenge some of the author's interpretations, particularly his overemphasis on the symbolism of the Baghdad projects, readers learn much about these sites, commissions, and their fate. But after accomplishing the feat of pulling together this material for the first time, Levine's prose becomes opaque as he returns to participate in the latest fads of critical discourse. Claiming that Wright's V. C. Morris Shop in San Francisco (1948-49) is a critique of transparent functionalist architecture and thereby of modern architecture itself, he asserts that "transparency involves an often unstated psychological dimension of vision. The hypostatization of the view in modern architecture reinforces the putative sense of mastery in the subject of the gaze and turns its object into a commodity fetish." In a short space Levine has included all the buzzwords (transparency, gaze, commodity, fetish) currently circulating in the trendiest discourses in art history and cultural theory. These terms may signal hot issues for theorists, but they leave those interested in Frank Lloyd Wright in the cold.

In his final chapter, "Conclusion: Wright and His/story," Levine defines his subject as the "other" in modern architecture, which he qualifies as being a double or complement to modernists and a necessary gadfly. However, he never situates Wright outside of architecture and within the broad stream of modernism, as one might expect. If Wright indeed is the "other," Levine offers no profound sense of the significance of this status with respect to that of the other modern masters. In particular, he never explores the paradox of Wright and Picasso, the two most significant figures of modernism in the 20th century. Both were similarly preoccupied with the essence of forms, continually disassembling and reassembling them in their respective creative pursuits. But both were also markedly different. Wright moved from conventionalizing forms of nature ultimately into pure abstraction—a leap that Picasso never made. It would be fascinating to explore why, without publishing a manifesto, Picasso created a true revolution in the arts while Wright, publishing several, called for a revolution that never fully succeeded.

Instead of examining the broader context of modernism, Levine returns to Wright's conflicted relationship with academia. He notes that his curse of having been labeled a genius exacerbated his isolation, for it made his work "unteachable and inimitable." Nevertheless, his influence was pervasive, Levine maintains, whether or not it was acknowledged. This influence, however repressed, can be detected when Wright's designs are compared with the work of great modernists such as Mies van der Rohe, Alvar Aalto, Louis Kahn, Le Corbusier, James Stirling, Philip Johnson, Paul Rudolph, and even Robert Venturi. On first glance, the comparisons Levine year lapse between the publication of Morse's book and Wright's autobiography does not prevent him from comparing statements found in each. By the time Wright's views on Japan found their way into his writings, any number of sources could have contributed to them.

Nute's second major contribution appears in the last section of Frank Lloyd Wright and Japan, in which he considers Wright's appropriation of specific Japanese architectural elements. Perhaps the most striking is his comparison of Wright's Unity Temple (1905) with the Tairyu-in-byo, a mausoleum structure built at Nikko in 1653 to commemorate the shogun Iemitsu. Wright designed the Unity Temple just after returning from Japan, and Nute describes certain remarkable conceptual and formal resonances between the two. He notes that Wright seems to have arrived at a deeper level of interpretation, writing: "In fact, far from simply borrowing, or even 'adaptting,' these forms, he seems to have been generally engaged in abstracting analogous form-ideas: a quite distinct process carrying with it an implicit awareness, albeit imprecise, of the essential concepts which these form ideas embodied."

Nute thus goes beyond delineating influence based on superficial similarities to examine the shifts in the basic process by which Wright learned and designed. Japanese design was relevant to Wright because it supported what Wright already knew: "Like so many Westerners both before and since, then, Wright appears to have seen in Japan essentially what he wanted to see," writes Nute.

Yet there are some problems with Nute's book, stemming from its structure. By devoting each chapter to a different topic, Nute addresses a wide range of previously slighted issues, but each essay remains essentially independent, reading as discrete parts that don't add up to a greater whole. This fragmented structure makes it difficult for Nute to evaluate the changes in Wright's overall attitudes towards Japan, which are revealed in the many contradictory comments he made over the course of his long career. Nute provides both the historical context and several concrete examples of the role of Japan in Wright's work but ultimately presents a set of snapshots rather than a comprehensive assessment of this course of development. Still, it is possible that Nute's failure to produce a unified text may be blamed on Wright himself, who displayed a maddening perversity in his life and career. After all, what is one to make of a man who could proclaim, in his Autobiography, about the Japanese: "Such people! Where else in all the world would such touching warmth of kindness be probable or even possible?" and then three hundred pages later warn, "the fanaticism and cruelty of Orientals is something we can stay away from but that we can't change by fear of us or of our power any more than we can level their eyelids to a perpendicular with their noses?"

NOTES
1. The question of Frank Lloyd Wright's relationship with Japan arose as early as 1900; see Robert C. Spencer, Jr., "The Work of Frank Lloyd Wright," Architecture Review 7, no. 6 (June 1900).

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Levine draws comparisons between Taliesin and this 1913 collage by Picasso, entitled Student with a Newspaper. (From The Architecture of Frank Lloyd Wright.)

makes are exciting, even dazzling, but under closer scrutiny, many of them fall apart. For instance, he compares the many textures and planes in Wright's Taliesin in Wisconsin with a 1913 collage by Picasso, entitled Student With Newspaper, in which the artist employs various materials such as oilcloth and wallpaper and a pointillistic painting manner to portray a beret-topped figure reading a newspaper, folded to read "urnal" instead of "journal" (as a pun on "urnal"). But the elements and shapes of Taliesin are not assembled as a collage, like Picasso's artwork; they are tectonic expressions of the nature of their materials. Levine makes too much of what is ultimately a superficial resemblance between Taliesin's contrasting materials and shifting planes and the variety of materials that Picasso uses. Wright is working with mass, Picasso with the picture plane. Wright's effects are earth-bound seriousness, Picasso's a flauting of illusionism and fun. Levine claims that the publication of the Guggenheim Museum, V. C. Morris Shop, and First Unitarian Church in Shorewood Hills, Wisconsin, in a 1948 issue of Forum magazine "set the stage for the organic expression" of buildings like Le Corbusier's chapel at Ronchamp (1950–55). But for all anyone knows, Le Corbusier was oblivious to Wright's work in 1948, and without a doubt he did not need Wright for his work to achieve the organic metamorphosis it had been undergoing for years and which found ultimate expression at Ronchamp. Levine's comparison of George Gund Hall at Harvard's Graduate School of Design (by John Andrews, 1968) to Taliesin West shows

Like the epithet applied to Wright, Levine's work is "unteachable and inimitable." Without question, The Architecture of Frank Lloyd Wright will serve as a reliable resource for stimulating speculations, beautiful description, and additional scholarship on Wright's later work. But readers will still need to look elsewhere to grasp the full range of the richness of his creative processes and to determine his problematic place in the pantheon of modernists in the 20th century.

NOTES
2. My thanks to Mina Marafat for reminding me of this important project and its absence in Levine's text.
3. Mamah Borthwick and Wright collaborated on publishing works of the leading feminist Ellen Key, including The Morality of Woman and Other Essays, translated by Borthwick (Chicago: Ralph Fletcher Seymour, 1911). For the role of feminist ideology in Wright's break with bourgeois life, see my Taliesin: To Fashions Worlds in Little," Wright Studies 1 (1991): 44–65. For the details of Wright's misadventures with the publication of his famous Wasmuth folios, see my Frank Lloyd Wright: The Lost Years, 1910–1922 (Chicago: University of Chicago Press, 1993).
6. For the problems with Levine's comparison of the influence of Taliesin West on Gund Hall at the Harvard Graduate School of Design, see my comments in Harvard Design Magazine (Summer 1997): 76–77.

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Architecture for an Elite

FOR MORE THAN A DECADE, THE ARCHITECTURAL HISTORY FOUNDATION SPONSORED THE PUBLICATION OF A SERIES OF MONOGRAPHS THAT ADDRESSED THE OFTEN PERPLEXING RELATIONSHIP IN AMERICAN ARCHITECTURE BETWEEN MODERN FUNCTIONS, CONSTRUCTION METHODS, AND SOCIAL CONDITIONS AND THE HISTORICALLY INSPIRED FORMS THAT PERSISTED WEL INTO THE 20TH CENTURY. IN ADDITION TO RICHARD LONGSTRETH'S OUTSTANDING STUDY OF TURN-OF-THE-CENTURY ARCHITECTURE IN THE SAN FRANCISCO BAY AREA, THE SERIES INCLUDES THE FIRST SCHOLARLY PORTRAITS OF BERTRAM GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVES. GROVE
who were generally adherents of the Modern Movement, were uninterested in matching the tight, orderly disposition of Rogers’ picturesque elements. Despite the fact that almost every one of Rogers’ buildings at Yale is designed around a courtyard with only a few, often gated, entrances allowing access into these privileged spaces, the sense of urbanity evoked by his streetscapes has rarely been matched—and certainly never by the generation that followed him.

Unfortunately, the book is marred by repetitiveness, a confusing chronology, and at times strange organization. For example, Rogers’ commercial works are included without explanation in a chapter entitled “Civic Architecture.” Moreover, Betsky does not appear to understand entirely Yale’s social as opposed to intellectual character during the interwar decades. Was Rogers’ success really as crass a matter as the university president James Rowland Angell and his trustees’ facilitation of the “Old Boys’ Network” (Betsky’s capitalization)? Or were they attempting to ameliorate the often gaping division between students who were products of both private and public schools (not to mention the open prejudice experienced for decades by students of Jewish or immigrant backgrounds)? The highly moral tone of the individuals involved would suggest the truth of the latter.

It may be Betsky that himself is torn between his own appreciation of the university and the advantages of his education there, and his recognition of the obvious elitism of both the institution and its architecture. (Ironically, within the university itself this elitism is mitigated by the equitable access to the very buildings that reinforce its patrician image to the outside world.) Betsky exhibits the sort of appreciation for Rogers that only a graduate of Yale could summon. The book is bound to be flawed by the author’s lack of distance from his subject, while at the same time, it is immeasurably enriched by his familiarity with and evident affection for Rogers’ finest work.

NOTES

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Timothy Butler

A Place in the Sun

During the 1950s, the sleepy town of Sarasota, Florida, became one of the most visible and productive outposts for what could be called, for lack of a better term, an American avant-garde. In his book The Sarasota School of Architecture, 1941-1966, Florida architect John Howey provides a long overdue account of how a small cadre of architects concocted an invigorating hybrid of European high modernism, regional and vernacular influences, and technological bravura to bring this small town on the Gulf of Mexico to the attention of the international architectural community in the middle of this century.

In three brief chapters, Howey narrates the story of how the late Paul Rudolph—then a young, brash designer with prodigious graphic abilities—joined forces with the older Ralph Twitchell, a well-connected Sarasota architect and builder. After the interruption of World War II, Twitchell and Rudolph set about designing a series of houses in and around the town. Projects like the unbuilt though extensively published Finney House and Guest House (1947) established a clear direction for the duo’s subsequent output and launched them toward celebrityhood.

Those familiar with Rudolph’s later brutalist works in concrete may be surprised by his early Sarasota designs. The Finney House bears a striking resemblance to Mies van der Rohe’s canonical Farnsworth House, which was designed around the same time. But whereas Mies considered the roof, floor, and supports as an irreducible trio to be brought into studied equipoise, the Finney House uses the same elements as a starting point for a vigorous exercise in formal elaboration. With the roof and floor planes liberally eroded, the alternately opaque and transparent enclosure advances and recedes as the house’s volume is extended over a wedge-shaped channel of water. While this interplay between interior and exterior can be seen as a response to Sarasota’s warm, breezy climate, the house’s spatial organization is equally the product of Rudolph’s precocity as a designer.

Shortly after the Finney House, Twitchell and Rudolph built the Healy “Cocoon” House (1950). Built on a small lagoon, the tiny house sports a catenary roof whose flexible panels were “sprayed with a special saran-vinyl plastic roofing material used to ‘mothball’ U.S. Navy ships after the war.” Rudolph later acknowledged that the structural heroics of the Healy House’s tensile roof were a bit out of scale for the diminutive building, but that he simply “couldn’t wait” to attempt such a design.

This headlong rush to explore and exploit new materials and processes is typical of American postwar architecture culture. An emphasis on lightness, strength, and economy—mandated by the wartime production of planes and ships—promised a robust realization of the machine aesthetic formulated by the European avant-garde in the early decades of the century. Like their European predecessors, the Sarasota School drew freely on an ad hoc mixture of methods and imagery associated with industry. Projects like the Finney and Healy houses exude the wide-eyed optimism of America on the brink of prosperity and the space age.

The chapters on the Twitchell-Rudolph partnership are Howey’s best. In concise, documentary-style prose, he captures the focused but casual atmosphere in Sarasota which nurtured the small circle of architects, builders, industrial designers, and photographers responsible for this “school.” This moment of creative ferment was a brief episode in American
architectural history, an interlude between the end of World War II—when American productive capacity and technological know-how was first unleashed to spur domestic growth—and the onslaught of the large-scale exploitation of these forces, which culminated in the massive assembly-line production of suburbs and strips in the subsequent decades. In his excellent introduction, Richard Guy Wilson writes of Sarasota today and the all too evident “impact of the developer sans architect. . . . In its native haunt the Sarasota School now appears as an archaeological artifact overwhelmed by suburban boxes.”

As the Sarasota School begins to lose momentum, so does Howey's account. To his credit, he offers a broad sampling of projects by lesser-known architects, emphasizing the heterogeneous character of the group's output. Victor Lundy's work in particular, with its soaring, billowing enclosures and unabashed expressionism, serves as a counterpoint to the more orthodox tectonics favored by most of his colleagues. Howey also recognizes modest works, like Mark Hampton's Galloway's Furniture Showroom (1959), whose directness and economy of means make it come out looking better than Rudolph's Milam House (1960), an overwrought work with a one-liner, mannered facade fitted with an oversized brise-soleil.

Of the more recent works by Sarasota architects Howey seems hard-pressed to say anything beyond their surface appearance: Lundy's mixed-use tower in Bangkok (designed in 1992 but as yet unbuilt) has a “distinctive silhouette [which] will be recognizable from different locations”; Gene Leedy's First National Bank of Cape Canaveral (1963) "catches the passing driver’s eye both day and night"; and the “verticality against the strong horizontality of its site” gives Frank Smith and Bert Brosmith's 1963 Sarasota Juvenile Detention Facility “a sense of balance.” In attempts to place this work in the larger context of architectural culture, Howey lambasts "postmodernists, as Venturi and others called themselves,” for their "new vernacular veneer approach" which provides "inexpensive ‘novelty’ coverings to sell . . . bulk building products." However, with his superficial analyses of the later Sarasota buildings, he fails to sufficiently distinguish them from those he criticizes for selling “novelty coverings.”

While there is some truth to the generalization that the postmodern movement became a largely spectacle-driven organ of greedy corporate forces in the 1980s, the fine line between contrived novelty and true innovation does not coincide as neatly with the modern-postmodern divide as Howey implies. He cites as central to the Sarasota School's beliefs a call for "constant renewal through continued experimentation and expansion of building vocabularies.” However, much of postwar cultural production was undeniably driven by the insatiable search for the “new,” with which comes the notion of obsolescence as a corporate strategy. In its many incarnations, modernism factored in a good amount of flash—a flash that was especially amenable to the architectural press which began to play an increasingly important role in reinforcing a more consumer-oriented profile for architecture. Howey even quotes Sarasota architect William Rupp frankly acknowledging that Rudolph was hired to design a speculative house in nearby Lido Shores "to attract attention from the road and in the architectural journals.” Clearly the pursuit of architecture as fashion was well established before the ascendancy of postmodernism.

Today, the open plans, outboard shading devices, use of industrial materials, and other modernist innovations found in the early work of the Sarasota School are again enjoying popularity. The recent "Light Construction" exhibition at the Museum of Modern Art in New York, for example, featured many projects with an obvious affinity with the early Sarasota work. (Most of the examples in the exhibition, incidentally, were European, in line with Howey's contention that "no focus now exists in Sarasota or the United States to create a consistent work environment in which to produce worthy architecture.”) Meanwhile, two high-profile projects by Norman Foster, the Mediatheque in Nimes (1993) and a house for a young family in Sauerland, Germany (1995), bear an uncanny resemblance to Rudolph's remarkable "Umbrella House" (1953), a pristine, jalousie-windowed box tucked under a delicate, slatted sun screen. As Howey correctly sensed, the time is ripe for a critical reappraisal of the work, ideology, and methods of the Sarasota School and of this unique moment in modern American architectural history.

TIMOTHY BUTLER was born and raised in St. Petersburg (near Sarasota), Florida. He works in the New York office of Toshiko Mori, where he is project architect for a new guest house adjacent to Paul Rudolph’s 1957 Burkhardt House in Sarasota.
The projects gathered in this section seem a disparate bunch—a rooftop bar in Mexico City, a bookshop in Beijing, a tin house in Texas—but their heterogeneity is precisely what links them.

We decided to gather works that are miscellaneous with respect to the norms of what usually gets published. The following projects are notable for their immediacy, modesty, "quickness," or smallness. Not to be mistaken as incidental, these works are deliberate "asides," admirable for their very ad hoc, simple, or fleeting qualities.
Warehouse buildings, with their simple forms, materials, and technology, are the archetype of the inexpensive and fast building. Metal is probably the cheapest thing you can side a structure with (and wears well in the long run). Prefabricated components and repetitive framing systems allow for the efficient use of labor. The transfer of the logic of large industrial buildings to small domestic houses is only a question of scale: what the “warehouse house” lacks in crazy plan gyrations of conventional houses, it makes up for in luxurious and uninterrupted height and space.

But this leap cannot occur in many places because of deed restrictions and style ordinances. Aside from warehouse districts, the only residential neighborhoods that have managed to evade such strict controls are lower-income areas—historically ignored by developers preoccupied with continuing the strongly suburban-looking forms in more “desirable” neighborhoods.
Asian cities today are rarely defined by clear and consistent spatial structures. The region's recent economic development has eliminated the last hope of preserving the homogeneous urban fabric of many historic cities; in the case of Beijing, the ideal plan once consisted of the low-density si he yuan, or courtyard houses. Today, it is a mosaic of diverse spatial schemes.

Without a singular spatial definition, a city is still able to function and often function well. This phenomenon raises the question: Is the contemporary city and its life in fact organized more effectively by the dimension of time than that of space? A temporal city, where speed can be of more significance than location, embraces an architecture that moves and changes and is ephemeral.

Despite its European origins and extensive use throughout the world, the phenomenon of the bicycle in China is unrivaled: nowhere else is its assimilation into daily life as complete. More than a means of transportation, it has become integral to the character of Chinese life. This Beijing bookstore occupies what was once a passageway in a 1957 office complex. Its other original passageway remains a busy traffic corridor, always filled with bikes. The design for this compact bookstore, which demanded spatial flexibility, borrows from the bike, with bookshelves with large wheels that enable them to revolve around the circular steel columns that support the lanternlike mezzanine above.
In order to constitute a cultural fact, architecture is obliged to transcend the merely constructive, becoming an expression of human feelings and attitudes, fusing an inherited tradition with the peculiar characteristics of the prospective site.

Architecture should not be a rude imposition or negligent of the site's origins—of its history, processes, and stories of how it acquired its unique character. Architecture is not static; it demands evolution and transformation. Indeed, one of the functions of architecture is to recreate traditions, which are continually modified, even by alien cultural experiences. It is necessary to synthesize a variety of trends within universal culture without losing a specific identity, independence, and character. This reinterpretable, synthetic task enables architecture, free from both nostalgia and acultural internationalisms, to build contemporary and future society in terms of both values and images.
Simple outdoor structures, known over time as follies, provide a kind of architectural pastoral. The structures themselves may embody natural processes—the slope of the land, the tilt of the compass, and the direction of summer wind and rain—while standing respectfully erect and separate from all these forces. A prerequisite for celebrating the natural world is an understanding of its defining elements and our experience of them.
Design originates at the tension-charged nucleus of complexity. This approach allows a pure and explosive moment of designing, excluding any impediment to the conception of architecture.

Pressures inherent in the situation—clichés, codes, rules, and regulations—do not exist at the moment of designing. The necessary rationalization and structuring of architecture occurs only later, as the next step.

This small waterside structure is a video vestibule, accommodating up to forty people. The design is translation of the emotion produced by the videos played inside. Crossed pillars, arches, and a wavelike roof compose the box—the simplest and most characteristic way for our culture to enclose space. The stressed seams of the box become its decoration. The rawness of the surface corresponds to the abrupt assemblage of industrial elements. The uninhibited and rebellious composition of the box turns it into a sculpture. The room opens and closes in response to the video programs and the activity surrounding it.
Accidental & Incidental Reflections

Accident: “attribute of a subject”
Incident: “attaching itself as a privilege”

Both words come from the Old English *kad*, meaning “to fall.” The slippery slope of the design process allows us to stumble upon the unexpected, to celebrate chance. Each fall is the discovery of an attribute, a potential privilege.

“Incidental” architecture asks for the suspension of disbelief. Like archaeology and research, it requires that we honor what we find. But unlike these more scientific pursuits, the mysteries of the accident and the incident continue to unfold over time. Are we inside or out? Has someone just left, or is she just about to arrive? Long after the design is complete, the surprises continue to be reflected back through ambiguities, depths of surfaces, unpredictable plays of shadow and light.

For this renovation of the original Hamm's Brewery, a concrete structure dating from 1910, our archaeological approach yielded a result that speaks of time past and present: Layers of previous renovations were selectively removed, revealing elements and moments that contrast with and are complemented by new materials, lighting, and other details, defining a continuous “edge” between the old and new. The corridors act as interior streets. Bold accent colors, muted neutral tones, and subtly canted walls shape the communal areas, while a simple architectural language allows individual tenants a degree of unique spatial expression.
If you look at the way life was lived in a Shaker community or a traditional Japanese inn, you find a sense of order and discipline that makes excess and clutter impossible. And with this comes a sense of peace, of quietness and grace. Minimalism is an attempt to recapture that essence, not in the sense of historical revivalism but in a philosophical approach.

This does not necessarily imply any kind of deprivation or poverty. The simplicity of calm—and the sense of space and repose that comes with it—can be seen as embodying the essence of a kind of modern luxury: one that has nothing to do with ostentation or overt display, but is about doing even the smallest things well.
People, objects, and architecture always precede or follow each other, in time ultimately being superimposed one on another.

Every design work is primarily concerned with being a utensil, a useful instrument.

The *raison d'être* of these "utensils" is associated with their hollowness, with their capacity to contain and be independent, to be separate from the ground and individually meaningful to its users.

The aim of urban furniture or microarchitecture is to serve, contain, and preserve.

Monumentality is not dependent on size but on form and interior energy.

An object should be impersonal and atemporal, so that others may make it their own.
Our preoccupation is the void. To construct the void is to construct space; it is to allow space to be seen, it is to enable the solid to breathe. Density can only be perceived through void—*the critical space*.

*Spatiality is our measure.* The relationship between entities allows the void to have a measure. The perception of spatiality relies on the autonomous character of each entity measured against each other and the void. *Measure—a tool for perception.*

Perception of the visible/inherent. Architecture cannot always allow for the visible to be its originator the inherent needs to be searched. *Space is visible in a section, inherent in a plan.*

The plan is the abstract plane which holds together autonomous entities linked through voids, giving it a perceptible event. Constructing the void as the event of space.

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**Atelier Seraji / Nasrine Seraji-Bozorgzad**

Temporary American Center, Paris, built 1991, demolished 1994

The winning entry in an open competition, the Temporary American Center, occupied a triangular site in the 12th arrondissement lent by the city of Paris. It housed its offices, exhibitions spaces, meeting rooms, workshops, and other various activities.
To keep costs low for people who cannot afford even one wooden beam, we must remember basic building technologies. The adobe structure with barrel vaults and domes is a fundamental building type which, though limiting with respect to the length of a room's span, still manages to produce a highly acute sensation of space. Where the vaults intersect, or in the narrow arched doorways, we feel a mysterious stimulus, quite childlike, reminding us of our smaller body. Meanwhile, a domed intersection yields an inexpressible feeling of grandeur.

Perceiving outdoor spaces through small windows and narrow doorways also shifts our value of the space that surrounds us and of the space that is visible beyond. Small spaces can be pleasant and enriching if they look out to large and roofless outdoor rooms or patios. People have forgotten how to appreciate the pleasures of the small, enclosing, embracing space.
work place

Leland M. Roth

Margaret Crawford's *Building the Workingman's Paradise: The Design of American Company Towns* is the first major treatment of its subject since the voluminous reports of the Bureau of Labor in the 1920s. The definition of company towns that Crawford uses, as she indicates, is that provided by the *Encyclopedia of Social Sciences*: "a community inhabited by chiefly by the employees of a single company or a group of companies which also owned a substantial part of the real estate." Crawford's book is full of helpful insights but it should be read at the outset that, despite its title, it has little to do with the physical design of these industrial communities. Moreover, it is not a truly comprehensive study but is more accurately an examination of communities built largely between 1880 and 1930—parameters which Crawford clearly states in her introduction. Neither of these caveats should suggest that the book is flawed, but only that expectations should be adjusted.

Crawford's stated objective is to bridge the gap between studies written from an architectural standpoint, which tend to focus on physical elements to the neglect of economic or social factors; and those written by economists and labor historians who focus exclusively on social issues with little regard for or understanding of architecture or planning. She severely criticizes the methodology of most architectural studies which try to interpret economic history or labor policy through analyses of planning or architecture. Her broad approach, by contrast, encompasses such issues as the impact of different types of industries and regional locations on the form of company towns. She is successful in addressing the larger national economic, labor, and social issues prevalent at the time, while explaining the significance of individual examples.

Crawford is particularly interested in the "new" company town type that emerged around 1900 (and continued through the late 1920s) as a result of the efforts of not only the industrialists but of the Progressive movement and social reformers. She examines the contributions of these principal agents—capitalists, workers, and reformers—including Progressive planners and architects as exemplified by Grosvenor Atterbury. After the mid-1920s, Crawford argues, nationwide changes in wages and in methods of consumption (such as lay-away, credit, and installment buying, even for the purchase of homes) gave workers benefits that were previously attainable only through the enlightened paternalism of a few companies.

The book is divided into two major sections. The first, comprising four chapters, is more general and theoretical in nature, falling somewhere between labor and economic studies and architectural/planning studies. Chapter one surveys New England textile towns which, Crawford notes, began with Braintree Ironworks' company settlement in 1845. Her discussion begins in earnest with the company towns created after the Industrial Revolution, as American entrepreneurs endeavored to duplicate the English factory model. She contrasts the industrial idealism propounded by Alexander Hamilton with the social utopianism of Thomas Jefferson. The former encouraged wealthy capitalists to build a few carefully planned and highly centralized industrial cities, as was attempted in 1792 at Paterson, New Jersey, under the sponsorship of the Society for Useful Manufactures. Meanwhile, the latter favored only the most essential manufactures in small industrial facilities scattered across a rural landscape, as in the case of the mill village built by Colonel David Humphreys at Naugatuck, Connecticut, in 1802. Crawford contrasts the idealism of both of these models with the far more practical, small-scaled, ad hoc approach taken by Samuel Slater in the spinning and weaving mills he built in Rhode Island beginning in the 1790s. But social problems arose in these early small mill villages, regardless of their varied and considered approaches, as a result of their isolation. They were remotely sited, to be near available water power. Mill owners dictated working and living conditions, and laborers had no means to modify or protest them, short of violence. The workers' geographic isolation prevented them from forming labor organizations as urban artisans were doing at the time. Crawford notes the establishment of a pattern, by Slater and others, of a lack of farsighted physical and social planning. The provision of water power alone dictated where mills were built; the rest was left largely to speculative builders and expediency. The famed social and literary pursuits of the young women workers at the mills in Lowell, Massachusetts—such as the literary journal Lowell Offering which so impressed Charles Dickens on his visit in 1841—Crawford observes, were supported by outside agencies, not the company.

The author goes on to describe the difference after the Civil War between a harsh paternalism that emphasized profits and a more enlightened paternalism wherein companies set up educational programs and other social benefits to forestall strikes. She also notes the dozen or so unusual situations in which the company owners lived in or adjacent to their towns. Their more direct knowledge of working conditions led to the establishment of more elaborate social programs. The industrial towns of Willimantic, Connecticut, and Hope Dale and Peacedale in Massachusetts, with their public libraries and meeting halls donated by their resident mill owners, stand out in this group and remain highly livable communities today. She extends her discussion in chapter two to the broader and related issues of welfare capitalism and housing reform that continued past the end of the 19th century.

Chapters three and four deal with the role of architects and planners (then aspiring to elevate their professional status) in the design of company towns. She examines the impact of the English Garden City ideal on their concepts of how to shape the "scientific" and "new" company town.
to give it its own unique and recognizable style. In particular, she draws attention to the limited impact of the design reforms attempted by McKim, Mead and White at Echota, New York, for the Niagara Power Company, and by Frederick Law Olmsted in his plan of Vandergrift, south of Pittsburgh, for the Apollo Steel Company. In both cases, the designers' proposals were hampered or undone by corporate officers unwilling to follow their professional advice. In Vandergrift, for example, the high cost of Olmsted's curvilinear streets, which conformed to the topography, led to the abandonment of his innovative plan after only half of the town was constructed.

With her social approach, Crawford clarifies why a series of labor strikes at the Colorado Fuel and Iron mines at Ludlow, Colorado, which occurred yearly from 1909 through 1914, culminated in the mowing down of workers with high-powered rifles and machine guns on April 20, 1914. The dissatisfaction with living conditions that led to labor unrest and then the slaughter of striking workers in what became known as the Ludlow Miners' Massacre prompted a new era of company town design. The public outcry caused absentee owners to redress the poor housing conditions of the workers and to solicit the expertise of planners and designers. Indeed, during the next several years (from 1915 to 1918), as American industry became entrenched in production for World War I and found itself faced with a severe housing crisis, the advice of professional designers and planners became increasingly vital. The models for wartime and postwar industrial towns, Crawford proposes, were provided in three communities built early in the century—ironically, during a bleak period for labor: Fairfield, Alabama (1909), Torrance, California (1910), and Goodyear Heights, Ohio (1913), which all involved professional planners and architects. Each provided for different densities and varieties of housing and traffic, focusing on village centers that contained common services and street plans that recognized the natural topography. Ultimately, these communities were unique and identifiable, equal to or surpassing the character of adjacent housing developments. Today, many are still highly desirable residential enclaves.

The four chapters in the second half of the book are case studies of the work of four major designers and planners who were active in the creation of company towns between 1909 and 1935: Grosvenor Atterbury, Bertram Goodhue, John Nolen, and Earle S. Draper. In the chapter on Atterbury, Crawford focuses on Indian Hill Village in Worcester, Massachusetts (1915), commissioned by the Norton Grinding Company. In his plan, the major and minor thoroughfares adjust to the curve of the hill overlooking the factory, and lead to a central village square. Great care was taken to minimize disturbance to the existing woodland on the hill. The village integrated mature trees into its landscaping and thus had the appearance of having been there a long time. The gambrel-roofed, colonial revival style of the houses further reinforced the town's well-established look. This concept of contextual response also appeared in Goodhue's town of Tyrone, New Mexico (1915), for the Phelps Dodge Copper Mining Company. This plan, too, focused on a central plaza, framed by buildings that incorporated Spanish colonial details. Housing was patterned after local adobe construction, rendered in hollow clay tile blocks covered with tinted stucco.

Crawford goes on to discuss several of John Nolen's plans for industrial towns, including the large multi-industry town of Kingsport, Tennessee, begun by New York investors in 1915 but expanded in scope after World War I. Nolen devised a large but sensitively articulated street plan with major arterials and minor streets conforming to the landscape. Of note is his recommendation of the development of a "Negro section" on a desirable parcel, noting it should avoid what he called the squallid "nigger town" character all too common in the South. His clients, however, decided "it was too bad to give the colored people such a fine piece of land." Crawford gives particular attention to Nolen's planned wartime communities, especially his thoughtful plan for Union Park Gardens in Wilmington, Delaware, with streets oriented toward a meandering, central park strip.

The final major chapter examines Earle Draper's planning career, focusing on his plan for the textile town of Chicopee, Georgia, begun in 1925 for the Johnson & Johnson Company for the manufacture of cotton gauze bandaging. Draper's goal was to create a perfected microcosm of the southern Piedmont landscape. The streets of the town wind around the gently rolling hills, leading to a broad central band of wooded open public space. Using stone retaining walls for terracing, Draper devised irregular house lots, creating varying heights for the individual houses. Crawford traces Draper's career through his years as director of the Tennessee Valley Authority's regional planning and housing programs, discussing his design for Norris, Tennessee (1932–33), whose pastoral character derived from the best qualities of Kingsport and Chicopee.

Regrettably, Crawford gives little attention to the designs of specific buildings or landscapes. For example,
no extended discussion is given to the physical planning or the architectural design of the town of Pullman, Illinois (1879–93). Instead, the author chooses to direct attention to the public perception of this “model” company town, and to the effect of the Pullman riots in 1893, when wages at the plant were cut while rents in the company-owned houses remained at their inordinately high level. Notable was the approach taken in 1906 by the newly formed United States Steel Company, which consciously tried to avoid mistakes of Pullman and its controlling paternalism. In creating their new steel town of Gary, Indiana, at the southern tip of Lake Michigan, Crawford informs that the company developed its own plan (without the help of professional designers or planners) consisting of a relentless and unmodulated grid of streets, dispensing with such amenities as parks and recreational facilities, which the company intended for the community to create for itself. They allowed housing to be built by speculative builders, and made it available to employees and outsiders alike. The intention was to do as much as possible to quell ideas that the company was the landlord.

Crawford’s analyses of the physical aspects of the towns may be lacking in places, however, there are many instances in which her attention to social and labor issues clarifies our understanding. For example, we benefit from her notation that Olmsted’s beautifully planned Vandergrift was open only to the steel company’s skilled workers and professional employees; the far larger number of unskilled workers “had to fend for themselves in Rising Sun, a ramshackle settlement on the other side of the railroad tracks.”

Sadly, the number of illustrations is severely limited and are sized too small, making it impossible to see the details of landscape or street plans. The book does not provide a list of illustrations, and only those that are provided by agencies are accompanied by source credits. The failure to indicate the source of illustrations is especially troublesome with regards to the historic and period views. And there are almost no recent photographs (except of Draper’s work) although Crawford notes in the preface that she visited virtually all of the sites discussed in the book. Neither does she provide any significant discussion as to how these communities have fared over the last half century, either physically or socially. She does make some brief closing references to events that occurred in a handful of company towns in the 1980s and 1990s, for example, the shift to high-tech industries in New England towns like Nashua, New Hampshire, as well as the complete ownership of Kannapolis, North Carolina, by the Cannon family and Cannon Textile Mills up until as recently as 1982, Gilchrist, Oregon, is another former company town whose recent fate Crawford discusses, but her treatment requires a correction: the family-owned mill and town, built in 1937, was sold to the Crown Pacific Lumber company in 1991, and not to the Bechtel Corporation, as she informs. Crown Pacific in turn sold the houses to a corporation comprised of the children of the town’s and mill’s original founder. Property lines had never been surveyed for the individual house lots but once these were established, the houses were sold to their respective occupants, most of whom are still employees at the mill, which remains in operation.

Another criticism is that, although Crawford discusses Norris, Tennessee, she offers no comparable discussion of the worker towns that were built as part of the important Works Projects Administration during the Depression. Though perhaps construed more as work camps than as towns, some examples are pertinent to this study, such as the “camps” established for the construction of Boulder Dam in Nevada and the Bonneville Dam in Oregon, which were designed by professional architects and landscape architects and whose original buildings remain in use. Nor does Crawford examine the many carefully and professionally planned war-industry housing complexes built during the first and second world wars. A last disappointment is the omission of a bibliography that consolidates the many excellent sources she has consulted, which are otherwise scattered throughout the endnotes.

In the final assessment, however, this is an fine book. Perhaps it is only the expectations raised by the title that cause puzzlement: a more accurate title would convey that this is a socioeconomic study of American company towns built during the Progressive era. The intellectual direction of the book may be better understood by knowing that this volume is one of the first in Verso’s much-anticipated Haymarket Series, which promises to offer “studies in politics, history, and culture . . . representing views across the American Left . . . of interest to socialists,” testifying “to the living legacy of political activism and commitment for which [the Haymarket martyrs] gave their lives.” Crawford’s book will likely find more readers in the fields of industrial landscapes and labor relations than in the area of design history. It is, in any case, an important source on corporate patronage in the urban realm and on the power relationships between labor and capital, between designer and user.

NOTES

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the city that is not a city

René Davids

The road north from Valparaíso, Chile's principal seaport, winds around rocks, escarpments, and small beaches until it reaches the mouth of the Aconcagua River which yawns at the Pacific Ocean. The landscape softens and widens and a collection of extraordinary buildings gradually comes into view. The ensemble is known as Ciudad Abierta, the Open City, in Ritoque, but this is no ordinary city. There are no subdivisions, malls, industry, or commercial buildings, and no police or fire department. One hears the murmur of the Pacific rather than the rush-hour traffic. Along the oceanfront, a train passes by but doesn't stop because there is no railway station. The Open City has a palace but it is not the house of the king, governor, or mayor; it is a meeting place for the people. Other public places include agoras, a music hall, even a cemetery, but these remain mostly empty for the Open City's population is a fluctuating one, reaching one hundred people at its peak.

This is a city without a center, a periphery, or an apparent plan. Paths take the place of streets, and hospedería ("hospitality" houses) of individual residences. These communal houses are not typical beach or vacation houses. They don't have porches, yards, or panoramic windows facing the ocean. The wind blows the sand, and sometimes rain, into the casually composed buildings. Made of wood, brick, concrete and whatever other materials (often recycled) happened to be available, most of the structures look fragile, fractured, complex, and light. To some, the Open City resembles a South American shantytown, but to others, the deliberateness of the designs is clear: the buildings appear to be in the process of becoming something other than what they are, like works in process, in an arrested state of mutation and flux.

The Open City is the collective work of the Escuela de Arquitectura de la Universidad Católica de Valparaíso, under the leadership of Alberto Pendleton, who was appointed its director in 1982. In 1970 Cruz and other faculty members, including a poet, an engineer, a painter, and a sculptor, bought oceanfront land in Ritoque and embarked on a creative journey which continues to this day.

This utopian project derives inspiration from sources as diverse as Baudelaire, Rimbaud, Lautremont, Mallarmé, the Aeneid, and the "discovery" of America. The dunes at Ritoque are at the mercy of the wind, signifying an incessant return to ground zero, to new beginnings. "Metaphorically related to the sand, which erases footprints, paths, and directions to present a clean surface upon which to walk or write, the mental attitude of the work at the Open City is one which prefers, instead of the stability of acquired knowledge, the adventure of an incessant 'returning to not knowing,'" writes Ann Pendleton-Jullian, the author of The Road That Is Not a Road and the Open City, Ritoque, Chile.

The School of Architecture at the private Catholic University of Valparaíso is organized more like an explorers' club than a conventional design school. Students are assigned tasks rather than courses, and much of their activity is centered on investigations of the city of Valparaíso. An important part of their learning experience are journeys of discovery, travesías and what they call Phlénotés—poetic collective acts named after Edgar Allen Poe's comparison of poetry with the flight of the butterfly—encompassing recitations, improvised performances, group writings, card games, and tournaments. Contacts with other schools of architecture are as rare as lectures or exhibitions by outsiders. The school has bizarre initiation rites, "such as when several professors, on a trip by boat to the south, insisted that the students throw their identification cards, driver's licenses, and any other forms of artificially imposed personal identification in the sea."

In an article that appeared in the Harvard Architecture Review in 1993, entitled "The Valparaíso School," Fernando Perez-Oyarzún discusses the implications of the Ciudad Abierta for studies in other schools of architecture. In his view, this program resolves the conflict between those who believe that all architectural projects involve research and those who believe that most practice lacks the rigor to warrant this assumption. According to Perez-Oyarzún, the aim of the Open City is not to transmit a body of knowledge but to foster a search for new problems and new solutions. Thus, the production of architecture itself becomes the main subject of study. Asserting that this task has not been assumed with enough conviction by most architects and scholars, he writes, "The main core of architectural activity, namely the project itself, remains largely unconsidered from the point of view of research."

There are other schools of architecture that incorporate the making of buildings into their curriculum. For example, the Hospedería de la Entrada is the first building seen from the highway when approaching the Open City. This five-bay wooden structure "is about occupying the dunes, about the transparent qualities of the space and light over the sand," writes Pendleton-Jullian. (From The Road That Is Not a Road)
The hospedería La Alcoba is formed by a series of interconnected above-like spaces which spiral around a central stair that leads to an upper deck. The house is essentially a series of vertical “masts” which frame bilowing wall panels. (From The Road That Is Not a Road.)

under the direction of Sam Mockbee, Auburn University offers a rural studio that gives students the opportunity to design and build affordable housing and other small-scale projects for some of the poorest citizens of Hale County in Alabama. The students at Auburn do not find inspiration in poetry, as those at Valparaíso do, but in helping people in need. Still, it should be noted that the rural studio is only a part of an otherwise standard curriculum. What is exceptional about the Chilean school is the commitment to building as a fundamental architectural inquiry.

Given this fact, it is strange that members of the group have been largely unsuccessful in carrying their ideals into practice. Miguel Eyquem and Arturo Baeza, both professors at Valparaíso, for example, were prominent members of the team that designed one of the biggest expansion projects of the city of Santiago, the Remodelación San Luis, begun in the mid-1960s. Intended for a population of seventy thousand, it was planned as a conventional modernist cluster of towers and slabs in a park, in this case, following a plan characterized as el zapato (the shoe), with orchards between the various buildings. The plans never materialized as such, and the point blocks that were actually built are among the least appealing of all modern residential towers in Santiago. Similarly, another major urban renewal project for Santiago, the Remodelación San Borja, did not result in any architecture of distinction, despite strong participation from the Valparaíso group. Outside of the works produced in Ritoque, only a few private houses, mainly for the members themselves, are of any interest.

In “La Ciudad Abierta en Valparaíso,” a chapter in the book Casas y Escritos (Santiago: Editorial Lord Cochrane, 1989), Enrique Browne argues that the peculiar conditions of this experimental city—economic self-reliance, the absence of a separate client body or contractual relationships—and the removal of the architects’ activities from the professional to the artistic sphere—render its lessons inviable outside its closed world. The School’s professed desire to pose problems rather than solve them compounds the unfeasibility of its teachings in the real world.
are often brief and diagrammatic, while her sentences long, confusing, and repetitious. For example, comparing Paolo Soleri's Arcosanti to the Ciudad Abierta, she writes: "Although the project exhibits a similar drive to reattach man to nature, Arcosanti is so completely embedded in a nostalgia for the ideal ecological state of man in relationship to nature, and in utopia making, that it reduces the nature it is in search of reattachment with to a commodity." (Where was the editor?)

By producing work collectively, the architecture school at Valparaiso challenges the notion that an organic or expressionistic idiom is the exclusive terrain of individual artists. Yet Pendleton-Jullian never explains how the collective achieves its formal consensus. How do they arrive at these forms? Nor does she describe the organizational structure on the job site. Are these forms the inevitable result of the school's process or could they have been produced by other means? The built reality of Open City is also not evident from the book's illustrations: photographs are dark and grainy (evocative of wind-swept sand), contributing to its poetic image, but survey drawings of the buildings and a more specific discussion of the various construction techniques would have provided an interesting complement.

Especially troubling is the author's notion that the school's approach, in its reverence to the natural world, is comparable to that of the continent's indigenous populations. Like Native Americans, members of the Valparaiso group consider themselves guardians and not owners of the land. Pendleton-Jullian sees virtue in the absence of individual ownership in Ritoque, but the degraded environments left by communist regimes in Central Europe, for example, prove that collective ownership by itself guarantees nothing. Moreover, she never raises the question of why the architecture school should settle a fragile coastal ecosystem, particularly considering Valparaiso's desperate need for revitalization. Settled in the 16th century by Spaniards, the city was an important trading port for hundreds of years as a stop along the route past the Cape Horn. Decline set in after the opening of the Panama Canal in 1914 and has persisted to this day. The Open City is yet another example of designers' preference for inventing the new rather than repairing the existing. The sprawling and ecologically intrusive character of the Open City settlement is never addressed.

Pendleton-Jullian compares the architecture of Ritoque to that of utopian communities. She invokes Charles Fourier's phalanstères (later built by Jean-Baptiste-André Godin in the small French town of Guise) and Robert Owen's squares in New Harmony, Indiana, as examples in which the physical model proscribed communal participation. In the author's opinion, at the Open City this relationship is reversed: the community creates the physical city. "While other utopian models remain fixed in their size, form, and organization, the Open City is open. Its physical size, form, and organization change," she writes. But in her binary reading, she inadvertently accepts the power of form to determine (rather than suggest) human action. Buildings do not proscribe communal participation or specific behavior—a point demonstrated by the frequent "reprogramming" of use that many structures experience. Nor do buildings remain static over time. The Ritoque experiment may be of a communal, participatory nature, and may have a loose organization of buildings to show for it, but these don't necessarily imply an open, flexible system of beliefs.

In fact, while critics of the Open City usually note the absence of civic institutions, more telling is the absence of social and cultural diversity. Women don't seem to figure significantly in this group. A prominent structure in Open City is a monastery, the building type found in nearly all utopian communities, where women share their beliefs and ideals by sharing their living quarters. So while the Open City's structures are physically dispersed and open-ended, the culture which informs them is as homogeneous and inbred as that of the nearby fishing villages. While the Open City's creators and proponents consider variety and tolerance essential to any city, theirs, ironically, has neither.

Pendleton-Jullian's failure to challenge the work and its intellectual assumptions could have been partially redressed had she included an annotated bibliography, summarizing previously published critical views of the Open City. Still, it must be said that she has accomplished her objective of conveying the aura and ambition of the work at Ritoque. At a time when most of the built environment is the product of either mindless speculation or self-aggrandizing architects, the Open City is an admirable outpost of resistance. Pendleton-Jullian deserves credit for bringing its creativity, consistency, and perseverance to the attention of the world.

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By the Way
The poet Eavan Boland was born in Dublin in 1944 but her family moved in 1949 when her father, a diplomat, was posted abroad. She returned as a teenager, attended college, and began her apprenticeship in poetry. In An Origin Like Water: Collected Poems 1967–1987 (New York: W. W. Norton, 1996), she writes, "I began in a city and poetic world where the choices and assumptions were near to those of a nineteenth-century poet. I came to know history as a woman and a poet when I apparently left the site of it. I came to know my country when I went to live at its margin. I grew to understand the Irish poetic tradition only when I went into exile within it." In Object Lessons: The Life of the Woman and the Poet in Our Time Boland develops the story of her acquisition of her craft and the moment in social and political history when this occurs. And it is a propitious moment, she writes:

In previous centuries, when the poet's life was an emblem for the grace and power of society, a woman's life was often the object of his expression. . . . As the mute object of his eloquence her life could be at once addressed and silenced. By an ironic reversal, now that a woman's life is that emblem of grace and power, the democratization of our communities . . . makes a poet's life look suspect, can make it appear, to a wider society, elite and irrelevant all at once.

So, what she has gained as a woman, she has not necessarily gained as a poet, and the ambiguity of this situation is crucial, "for anyone who is drawn into either of these lives, the pressure is there to betray the other: to downsize or simplify, to resolve an inherent tension by making a false design from the ethical capabilities of one life or the visionary possibilities of the other."

Object Lessons simplifies nothing. Its public form we would call an apologia, which is an ethical statement inherent in the generalizations of her subtitle—the woman, the poet, our time. It is not merely a memoir of Boland's life and experience; nor is it the deep, complete form of autobiography we call a confession. As an apologia, it naturally lends itself to both feminist and colonialist readings. Boland herself, however, calls it a book of "turnings and returnings." It is not laid out in a narrative line, nor is it organized rhetorically, as ethical arguments usually are. It is imagistic, elliptical, repetitive, layered—a short book that seems thick.

In various pieces I have returned to the same themes and their interpretation, often to the exact room and the identical moment in the suburb when the light goes out of the sky and the dusk comes. I will need the reader's patience as . . . I go back to the visionary place, the obstructed moment. Not so much because of an aspiration to give a definite shape to the book but because each revisiting has offered me another chance to clarify the mystery of being a poet in the puzzle of time and sexuality and nationhood.

The obstructed moment and the visionary experience both take place in the Dublin suburb of Dundrum, four miles from the center of the "eloquent literary" city but far outside its culture and traditions; and they occur one evening when she sees in an older neighbor, also a suburban wife and mother, her own real future. That night, Boland tries and fails to write a new kind of poem, one that allows her to use her real life, sex, and mortality, as opposed to the changeless, conventional figures of women, the erotic objects, bequeathed by tradition. "I want a poem I can grow old in," she realizes. "I want a poem I can die in." But to find it she must move spiritually much farther than she has moved physically. It means she has to repudiate two literary traditions that have complemented each other nicely for almost two hundred years: the origin of poetry in a romantic childhood, and the city as the place in which to make it. Object Lessons is most moving and original as Boland's meditation on time's relation to place, the relation of place to art, and art's relation to work. The message is that work alone, if in the wrong place at the wrong time, is not always enough.

Boland begins working to acquire a place in time almost as soon as she returns to Dublin:

I began to watch places with an interest so exact it might have been memory. There was that street corner, with the small news-agent, which sold copies of the Irish Independent and honeycomb toffee in summer. I could imagine myself there, a child of nine, buying peppermints and walking back down by the canal. . . . It became a powerful impulse, a slow and intense reconstruction of a childhood which had never happened. A fragrance or a trick of light was enough. Or a house I entered which I wanted not just to appreciate but to remember, and then I would begin. . . .

With this passage, Boland acknowledges that the garden of childhood that is the paradise lost is not available to her. But she does not choose to be the Irish type of wanderer in exile, either. Rather, she chooses to try to create in her memory a "personal" tradition, or a ritual that feels like a history. She writes:

Language. Ownership. My childhood had been tormented by those fractions. The absence of my own place had led to the drying up of my own language. The shorthand of possession, the inherited nicknames for a sweetshop or a dead tree . . . I understood now that they could not happen because the inheritance had not happened.

After midnight the city was quiet. I wore high heels, tipped with steel. I could hear them clicking and ringing as I set out for home. My flat was near enough to Stephen's Green to make it a short walk, and a safe one. It was not stone or water which moved me as I went along, nor light, nor even the combination of it all. It was the recurrences: the same granite rise of the bridge at Baggot Street, the same pear tree at the top of Waterloo Road. . . . A few more minutes and I came to the raised front gardens of the half street where I lived. . . . By the time I reached the front door I would be fluent in streetlamps and the color of iron under them. I would know that the copybook waited for me, and the pen. And I was full of the new knowledge that language can reclaim location.

But not entirely. As she is layering her memory with these images, building the city of her mind, she is also reading English poetry and acquiring the public tradition that "revered the boy child who had so often in its history given it glamour and purpose":

If poetry was a kingdom where the boy child was the favored one . . . then I could not live there. And that I hardly wanted to think about. . . . I walked more at night. The city was safe and almost empty after eleven o'clock. I would come to Stephen's
Green and begin a slow, purposeless round of the railings there. . . . I did not understand life. It was, increasingly, a series of places and purposes I had failed to find. A childhood. A country. And now the suspicion was growing in my mind that I would not find a language either. . . . In the middle of an emblematic nation, at the heart of a formidable tradition of writing, I was lost.

Boland does not "flee the city" in order to "return to nature" or "find herself." Object Lessons preserves all the tension in her situation by resisting clichéd resolutions, and also by refusing to narrate everything. In one of her epiphanies, she marries and moves to Dundrum and begins raising her children. As she writes Object Lessons, however, she is perfectly aware of the implications of this move because the literary difference between the city and suburb has been clear in English literature at least since Charles Dickens' 1861 novel Great Expectations, in which Wemmick, the law clerk, commutes on foot each evening from the precincts of Newgate Prison to the suburb of Walworth, where every man's home is his castle. Wemmick's castle is one he built himself, and Pip, the narrator, says it is "a little wooden cottage in the midst of plots of garden, and the top of it was cut out and painted like a battery mounted with guns. . . . It was the smallest house I ever saw; with the queerest Gothic windows (by far the greater part of them sham), and a Gothic door, almost too small to get in at." The house has a moat and drawbridge: "The bridge was a plank, and it crossed a chasm about four feet wide and two feet deep." When he shows Pip the bower he has built on a small artificial lake behind the house, Wemmick says, "I am my own engineer, and my own carpenter, and my own plumber, and my own gardener, and my own Jack of all trades."

He is even more than that. In town he is the dour clerk of the implacable criminal attorney Jaggers, but at home, he is the doting son of his deaf, enfeebled father, whom he calls "the Aged P." Wemmick takes real satisfaction in this compartmentalization of himself. As he walks into London in the morning, he loses his filial softness: "Wemmick got dryer and harder as we went along, and his mouth tightened into the post-office again." Wemmick is quintessentially Dickensian—sentimental, divided, and dark, all at once—and his cottage represents a lot of what high urban culture has thought about suburban retreats—that they are fake, pretentious, laughable, whether they are miniatures like Wemmick's or the quaint cottages of Newport, Rhode Island.

Pip is a divided character, too, but he is a different 19th-century type: the young man from the provinces who comes to the city to make himself and his fortune. The provinces represent innocence to the city's experience, boredom to its energy, a belief in progress and transformation to the city's material limits and disillusionment. The suburb is never central to narratives of the ethical ambiguities of ambition. The "literature of the suburbs," if such a thing exists, seems to have developed much later and to be of two different types: first, the New Yorker short story, with John O'Hara, John Cheever, and John Updike writing about adultery, alcohol, and anomie; and second, the paperback romances sold at supermarkets and Hallmark stores in every mall. In the anthology The Sex of Architecture (New York: Abrams, 1996), contributor Joan Ockman suggests why suburban literature seems so diminished. Her essay, entitled "Mirror Images: Technology, Consumption, and the Representation of Gender in American Architecture Since World War II," holds the Lever House against Levittown. The first represents the city, important architecture, capitalism, technology, and the man in the gray flannel suit. The second, an equally rationalized separate realm, represents the suburban woman as homemaker. Lever House is production, Levittown consumption. But this binary neatness is smudged when we realize that the Lever House is not producing ballistic missiles and computer chips; it is marketing soaps and toothpaste to the grocery stores where pulp romances are also sold, not as art but as entertainment—soap operas in a different packaging (and, to be fair, no more and no less formulaic than their male counterparts, the narcoleptic thrillers of Tom Clancy and John Grisham).

Though Dundrum is not exactly Levittown, it is a different kind of place than the cities—London, New York, Dublin—that Boland has known.

None of it prepared me for a suburb. There is, after all, a necessity about cities. By the time you come to them, there is something finished and inevitable about their architecture, even about their grime. . . . A suburb is altogether more fragile and transitory. To start with, it is composed of lies in a state of process. The public calendar defines a city; banks are shut and shops are opened. But the private one shapes a suburb. It warms and warms on christenings, weddings, birthdays.

What saves Dundrum from being a category or a ghetto for Boland is the intimate reciprocity of her life and her art: "I had found a world, and I had populated it. In doing so, my imagination had been radically stirred and redirected. It was not, of course, a simple process. . . . It would be wrong, even now, to say that my poetry expressed the suburb. The more accurate version is that my poetry allowed me to experience it." This is, I think, what we all want from art, whether we make it or not: the delivery of our lives from received ideas, our experience in all its own originality.

As Boland's story suggests, there is no archetype of the "young woman from the provinces." But this doesn't cause her to idealize the suburb, as Irish poetry idealized the nation, in the figure of a woman. The suburb simply satisfied her need for a change after the literary city failed her, and "a suburb by its very nature—by its hand-to-mouth compromise between town and country—was particularly well suited to transformation." It also gave her an "illusory permanence" by giving her a sense of repetition which matched what she already understood in the power of metered repetitions and had tried to acquire on her ritual walks through the city.

She found lessons in another set of objects—the domestic contents of French genre painting, especially by Jean-Baptiste-Siméon Chardin—which, in her suburban routine, suggested to her a new way to work:

From painting I learned something else of infinite value. Most young poets have bad working habits. They write their poems in fits and starts. . . . But painters follow the light. They wait for it and do their work by it. They combine artisan practicality with vision. In a house with small children, with no time to waste, I gradually reformed my working habits. I learned that if I could not write a poem, I could make an image, and if I could not make an image, I could take out a word, savor it and store it.

There are other elements to Boland's story—her grandmother's death in silence and anonymity; her father's own professional relationship to words; the absence of older Irish women writers for her to look to; and more. But what she offers here about her essential situation, in both history and the suburbs, is quite enough because she has revealed her life and her art in the full light of change.

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quiet suburbs and sprawling regions

Frank Edgerton Martin

For every generation of planners and architects, there are a few books that offer the promise of changing the way neighborhoods, suburbs, and entire regions are regarded. To students like myself in the 1970s, the common-sense, clearly written urbanism of Jane Jacobs and Kevin Lynch served as rallying points, reminders of our responsibility and ability to build humane cities. Two recent books, D. J. Waldie’s *Holy Land: A Suburban Memoir* and Myron Orfield’s *Metropolitics: A Regional Agenda for Community and Stability*, may well be similar milestones in the literature of urban planning. Interestingly, neither Waldie nor Orfield are designers or planners. Waldie is a city employee and Orfield a Minnesota State Representative. Though their books are very different in language and methodology—one is a personal remembrance of life growing up in a quintessential California suburb, the other a policy-oriented case based on socioeconomic data—they both challenge our ideas about the history and future of suburban design and regional planning.

Waldie is a middle-aged man who has lived his entire life in the same house in Lakewood, a post-war suburb of Los Angeles which, with its mass-produced housing and aging population, is now experiencing the economic stagnation and empty-nest effect that inner cities have known for decades. Orfield’s *Metropolitics*, by contrast, is based on demographics rather than memories, vividly documenting in maps and argument how older, lower tax-base suburbs like Lakewood are becoming increasingly different from new, tax-rich suburbs where high-paying jobs, freeways, and a stable, mixed tax-base converge. While Waldie debunks the idea that all suburbs are homogeneous and bland, Orfield shows that not all of them are rich and exclusive.

Both a personal and a civic memoir, *Holy Land* subverts the insipid suburban stereotype by uncovering Lakewood’s rich layering of stories, memory, and architectural innovation. Bridging the city’s physical features with his own experiences and those of his neighbors, Waldie provokes readers to ask bigger questions about our own communities, whether old or new. By taking a very personal approach, Waldie shows how diversity and history can be found in even the most humble, nondescript settings. In so doing, he contributes to a bold new genre of suburban writing that blends travelogue with local history, autobiography with cultural geography.

Written in the third person, *Holy Land* charts Waldie’s and Lakewood’s interwoven histories in a series of numbered passages that are a cross between Ludwig Wittgenstein’s paragraphlike propositions and Zen koans intended to instruct through paradox and irony. Waldie’s passages range from a historical account of the three developers who bought 3,500 acres of farmland in 1949, to sharply individual memories of the life and death of his parents. Indeed, the book opens with Waldie’s confession that he and his suburb have come together: “That evening he thought he was becoming his habits—or even more—he thought he was becoming the grid he knew.” Waldie writes as an ordinary citizen who takes the same orderly walk to the same orderly job everyday. “What more can you expect of me,” he asks, “than the stories I am now telling?”

In short, the author makes no large claims in this small book. With remarkable modesty, he writes at the outset, “Whether liked or disliked, it is for himself, and not for what he has done, that others judge him. He has generally done nothing at all.” Such disclaimers strengthen the
book’s power, for they make room for revelations over the small triumphs of the legions of postwar Americans—including Waldie’s parents—who built suburbia. The city of Lakewood, then, is the unifying backdrop for seemingly unrelated stories, about eccentric residents, dear friends, and the anonymous teams of workers who mass-produced houses in record time.

“What is beautiful here?” he asks early on. “The calling of a mourning [sic] dove, others answering from yard to yard. Perhaps this is the only beautiful thing here.” Waldie indirectly makes readers aware of the various biases that engender misperceptions of places like Lakewood. What may ultimately matter in the making of places are not heroic acts and beautiful monuments but the unique memories of individuals accrued over lifetimes.

As one reads Holy Land, Waldie’s personal and civic stories weave together with coherent meaning, as does Lakewood as a community and built environment. The stories and the place share a steadfast endurance, perhaps uninteresting to some but a form of historical documentation nonetheless. Waldie brings an almost mythic grandeur to Lakewood’s creation as exemplified in his blow-by-blow description of the mass production of its houses. From grading to framing to finishing, Waldie recounts how the assorted teams of specialized workers laid the foundations, erected the skeletons, and sealed the envelopes of tract after tract of standard house units in a carefully orchestrated schedule that enabled their completion in a matter of weeks. Fortuitously, in 1950 the developers hired the noted aerial photographer William Barnett to document each of these stages from the air; these evolutionary images illustrate the story.

At the time of their completion, these nearly identical houses were second only to Levittown in quantity. “He thought of them as middle class,” writes Waldie, “even though 1,100-square-foot tract houses on streets meeting at right angles are not middle class at all. Middle-class houses are the homes of people who would not live here.” Indeed, Lakewood is outdated by current real estate standards, with such inflated market requirements as spa bathrooms and three-car garages. Once an enclave of dream homes for veterans’ families, Lakewood is now a hand-me-down landscape, a less-than-fashionable place that still offers, in Waldie’s words, “the necessary illusion of predictability.” If one task of building is to create place, Waldie reminds that even forgotten, bland suburbs qualify as fully realized places—a reminder that is all the more poignant because these places are so disparaged.

The fashionable suburbs, on the other hand—those new freeway-linked, job-rich municipalities filled with 3,500-square-foot mini-chateaux and prescribed by exclusionary zoning—are what fascinate and trouble the author of Metropolitics. A far cry from the diminutive tract houses and gridded streets of places like Lakewood, the newer suburbs in the “favored quarters” (a real estate term) of America’s metropolitan areas consume a vastly disproportionate amount of regional infrastructure investment in their roads, sewer, and water systems. Located on the fringe and beneficiaries of a flush commercial-industrial tax base, these affluent suburbs also tend to have very little affordable housing. The essential effect is that inner-city families and displaced industrial workers in older suburbs—the very people who need the new service-sector jobs located on the fringe—cannot afford to live anywhere near such opportunities. Since the early 1990s, Orfield has mapped such demographic change and the growing economic disparities between the Twin Cities’ wealthy suburbs and the rest of the metropolitan region. Using census data, Orfield and his staff have created hundreds of maps using basic cartographic software. Charting information that ranges from the percentage of schoolchildren receiving free and reduced-cost lunches to the incidence of crime and tax base statistics, these maps provide a jarring portrait of change and inequality in the Twin Cities region.

For Minnesotans, the majority of whom live in the suburbs, Orfield’s outspokenness on these issues is rather like
telling the Swiss that they are no longer immune to other nations' problems. Many local groups, homebuilders and developers, suburban (Republican) legislators, city council members, and the architects who work for them are quite upset at Orfield. To be sure, there is a certain Minnesota smugness to be overcome. The state has long enjoyed its reputation as a leader in the nation in terms of education, health, and income levels, and boasts a tradition of philanthropy that has bolstered its public institutions. The region has also had, until recently, relatively few minorities. But with *Metropolitics* opening chapter "It Couldn't Happen Here," Orfield documents for those in denial how Minneapolis and St. Paul are now seeing some of the largest increases in crime and concentrated poverty in the country, in some neighborhoods showing a 50 to 70 percent increase over recent five-year periods. Meanwhile, because the suburbs in the favored quarters south and west of Minneapolis and south of St. Paul are eating up huge amounts of funds earmarked for infrastructure improvements, poverty becomes even further isolated at the core. This trend is repeated in virtually every major city in the country.

How could one bookish South Minneapolis state legislator stir up all this trouble? Orfield is the ultimate policy wonk. One brief meeting with him, and it's clear he loves numbers. But Orfield is a politician, too, and he has used his maps to speak to church, environmental, and civic organizations, many of them in the affluent new suburbs. As David Rusk, former mayor of Albuquerque and author of *Cities Without Suburbs* (Washington, D.C.: Woodrow Wilson Center Press, 1993), points out in his introduction, the political breakthrough in Orfield's work is that he has built a new coalition of legislators whose districts are hurt by regional inequity.

His "metropolitics coalition," which has been gathering momentum over the last four years, consists of legislators from the inner cities, which have experienced the greatest loss of jobs and rise in poverty; from the inner-ring suburbs (like Lakewood) which are now experiencing some of the same problems plaguing the core; and from middle-class suburbs on the fringe which need to build schools but lack the commercial-industrial tax base and high-end housing to foot the bills.

*Metropolitics* is an in-depth version of the map-illustrated stump speech that Orfield regularly uses when speaking to breakfast meetings with the Citizens' League or the Lions Club. He argues that regional equity and health can only be maintained with policies enacted on the state level which, under the Tenth Amendment, holds ultimate control over local governance. He sees vast injustice and wastefulness in the "interregional transfer of tax base from some of the most poor and troubled communities in American society to some of the most thriving and affluent." And, with a sense of urgency, he continues, "the problems associated with these patterns are more complex and detrimental than any other set of challenges facing American society."

The costs of closing and building schools alone are enormous. Between 1970 and 1990, the Twin Cities metropolitan school population fell by 81,000. During this time, the inner cities and older suburbs closed 132 schools, even though 50 new schools opened on the metropolitan fringe. Significantly, these new schools, some boasting 100-acre campuses, located in new suburbs like Chaska, Eagan, and Lakeville, continue to be plum commissions for local architecture firms. Meanwhile, the less affluent, older suburbs are left to rely on referenda to retrofit their existing schools to keep up with new technologies and learning programs. The latter strategy is usually equally effective while considerably less costly and land-consuming.

And then there are the inestimable costs that cannot be so easily mapped. "What is the human cost," Orfield asks, "of locking people in areas of concentrated poverty—in hopeless places without role models or connection to the broader economy, places with titanic levels of crime and disorder, with no way out?" He uses the demographic techniques common to market research and geography to make irrefutable claims about the growing segregation that residents in core cities have known for a long time. Orfield is, incidentally, an attorney who knows how to build a case. It's no coincidence that Orfield finds sympathetic audiences in church congregations and social justice groups, for his mission, backed up by concrete numbers, is ultimately grounded on an ethical foundation. In the end, change for Minnesota will depend on the political willfulness of Orfield's metropolitics coalition and of farmland preservation groups, which, with any luck, will successfully lobby for clear metropolitan growth boundaries, true tax-base sharing among the seven-county region's 187 municipalities, affordable housing in affluent suburbs, improved public transit, and expanded educational opportunities.

Through the support of such organizations as the Thousand Friends of Oregon, an urban-growth-control
group that now has a Minnesota chapter; and Minnesota's Land Stewardship Project, Orfield has been bringing his message to communities across the nation. With the publication of Metropolitics by the Brookings Institution, featuring equity maps of Philadelphia, Portland, Oregon, and Chicago, his message will be even more widely accessible. Orfield concludes his book with sensible advice for how to build regional political coalitions throughout the country, emphasizing the importance of understanding each region's demographics; of depicting socioeconomic data in maps; of reaching out and organizing issues on a personal level; of seeking out the region's religious community, philanthropic organizations, reform groups, and business leaders; of making sure the message is publicized and understood in both cities and suburbs; and of consistently reminding coalition builders, "It's the older suburbs, Stupid."

By the end of this century, 75 percent of Americans will live in metropolitan regions, most of which will experience the same extravagant growth that is occurring in Minnesota. From soaring urban crime to our prolonged dependence on foreign oil, urban sprawl affects virtually every aspect of American public life. Orfield helps us to see that suburbs, whether new or old, rich or poor, are very much the cities of our time and the social and political legacy we are leaving for our regions.

Both Metropolitics and Holy Land highlight places past and present that many might prefer to ignore. The simultaneous publication of these two fine books will hopefully inspire bold new approaches for grasping the great potential and dangers of suburban growth.

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SHAPING SUBURBIA: HOW POLITICAL INSTITUTIONS ORGANIZE URBAN DEVELOPMENT, Paul G. Lewis, University of Pittsburgh Press, 1996, 288 pp., $44.95 (cloth); $19.95 (paper).

Shaping Suburbia is a data-rich study about why urban regions differ. Author Paul Lewis notes that economics, public choice, and neo-Marxist theory each provide unique insights into why some cities sprawl more than others. But such broad theories cannot explain the specific actions that shape the landscape. "Why, for example, do dense, clustered 'new downtowns' experience low-density, formless sprawl?" he asks. "Why must clerical and service workers commute for long distances to some suburban employment centers, while other centers are situated adjacent to large quantities of affordable apartments and townhouses?"

Lewis is interested in the impact that public institutions and officials have on development decisions. His strategy is to study how these institutions shape the interaction between the public and private interests involved. Through detailed comparative case studies of the Portland and Denver regions, he demonstrates how the institutional configuration of a region's local governance affects the perceptions, opportunities, and actions of the parties involved. These two cities provide an ideal contrast. Oregon is renowned for statewide planning that sets clear growth boundaries while Denver, with its massive new airport set east on the prairie, continues to sprawl unchecked. In a fragmented region like Denver, Lewis notes that the typical suburban official is more likely to respond to the desires of homeowners and their self-governing associations than to regional developers. For this reason, local planning commissions and councils often resist large-scale development; by extension, they also deter social diversity and affordable housing.

Focusing more on empirical research than political critique, Lewis does not speak of the social and racial segregation that results from NIMBY planning in fragmented suburbs. His use of data is to demonstrate the subtle policy effects of different regional government structures. His ultimate, and understandable, conclusion is that municipal governments are no less than archaic, wholly unsuited to regional planning. Real and lasting change in regional growth will require state-level action of the sort promoted by figures like Metropolitics author Myron Orfield. —FEM
Not many of us give much thought to the meanings or significance of gas stations; those service-station stopovers we make all too frequently in order to keep going. But a number of popular and academic writers have found these structures worth scrutiny. In a nation as enamored of the auto as the United States, the existence of this literature should not come as a surprise. The long bibliography includes standouts such as: Fill 'er Up! An Architectural History of America's Gas Stations (New York: Macmillan Publishing Inc., 1979) by architectural historian Daniel I. Vieyra, who identifies basic building patterns and styles and makes a plea for preserving these structures; artist Edward Ruscha's famous collection of photographs, Twenty-six Gas Stations (Alhambra, CA: Cunningham Press, 1962), an artistic critique of this pervasive feature of the modern landscape; and Arnaud Sompariauc's Stations-Service (Paris: Editions du Centre Pompidou, 1993) and Bernd Polster's Tankstellen: die Benzingeschichte (Berlin: Transit, 1982), which reflect the equally auto-conscious cultures of France and Germany.

Meanwhile, members of still-young professional organizations such as the Society for Commercial Archeology, the Popular Culture Association, and the Society for Industrial Archaeology, as well as several architectural historians, have focused scholarly attention on these vernacular structures. A. L. Kerth has written about recycling them in his self-published New Life for the Abandoned Service Station (Massapequa, NY: 1974); Chester Liebs examines the development of the roadside from the perspective of a student of popular culture in Main Street to Miracle Mile: American Roadside Architecture (Boston: Little Brown & Co., 1985), as does Karal Ann Marling in The Colossus of Roads: Myth and Symbol Along the American Highway (Minneapolis: University of Minnesota Press, 1989). And for general automobile enthusiasts, there is a slew of publications devoted to anything and everything with wheels and engines.¹

THE GAS STATION IN AMERICA, John A. Jakle and Keith A. Sculle, Johns Hopkins University Press Road and American Culture Series, 1995, 272 pp., illus., $32.95.

BRUCE E. SEELY

The Gas Station in America by John A. Jakle and Keith A. Sculle clearly aims for a different audience. An exemplary exercise in scholarship, the authors' ambition is to produce the definitive scholarly study of gas stations. They combine the approaches and interests of an academic historical/cultural geographer (Jakle at the University of Illinois) and a public historian involved in preservation (Sculle, head of research and education at the Illinois Historic Preservation Agency). The authors bring some heavy postmodern baggage with them, but their thorough account offers an interesting and wide-ranging history of the development of the forms of gas stations, the reason for their development, and the significance of these structures in the developed landscape.

Jakle and Sculle have collaborated since the early 1970s, publishing numerous articles on roadside buildings over the years. Indeed, the last four chapters of the book, examining the form of gas stations, emerged from previously published journal articles. The first four chapters, however, are new and offer the authors' theoretical perspectives on the development of the gas station and the roadside in the U.S.

The opening chapter reflects the current style of academic writing: Jakle and Sculle explicitly stress that their work is postmodern in nature and offer short biographical sketches to explain how they came to be interested in gas stations. Given the reflexive assumptions of postmodern academia, this introduction seems to be requisite to understanding their work. We learn from these disclosures that this is an interesting pair of scholars: Jakle is a historical geographer who has come to view his work in humanistic rather than scientific terms, while Sculle is a historian whose dissertation was on French anticlericalism. By their own account, intellectual and professional odysseys led them to grasp the importance of the vernacular, "the mundane world of the unim-

¹ Various gas station types as identified in National Petroleum News, 1915 through 1990. (From The Gas Station in America.)
yet appeared." That may be, but Jakle and Sculle are too harsh in criticizing others who share their deep interest in the built environment. It is true, however, that only Jakle and Sculle have attempted to derive a theory of American roadside development.

Delineating this theory is the real concern of the book's second chapter. The authors propose the concept of "place-product-packaging" as its most important element. The term, borrowed from architecture, "encompasses interlinked coordinated marketing formats." In other words, in addition to standardized gas station building designs, petroleum refiners developed standardized pumps, signs, logos, trademarks, color schemes, and uniforms for attendants—all intended to work in tandem. The resultant "package" thus attracts motorists/customers by the familiarity of its total image. As the authors note, this pattern has been widely adopted by American retail and restaurant chains, many of them also located roadside. According to them, this approach to merchandising and advertising originated with the gas station.

They also show that place-product-packaging was just part of the oil industry's larger marketing strategies. Chapter three traces the history of gasoline marketing, beginning in the 1920s, when the petroleum refiners decided to stress retail distribution in response to an emerging car culture. The authors connect the evolution of gas stations with larger events such as the Great Depression and World War II, as well as postwar prosperity, the creation of the federal interstate highway system, and the OPEC oil shock of the 1970s. The large oil producers implemented various sales-boosting strategies, including full-service stations, trading stamps, maps, and other give-aways. Price wars and the acceptance of credit and bank cards followed, as did the addition of convenience stores and independent station operators. This puts Jakle and Sculle in agreement with Thomas Hogarty, who argues in Origin and Evolution of Gasoline Marketing (Washington, D.C.: American Petroleum Institute, 1981) that competition was the dominant factor shaping and reshaping gas stations.

Place-product-packaging was especially important to gasoline marketing because the oil companies operated within geographic territories—in part due to the nation's size but also as a result of antitrust rulings early in the century that divided Standard Oil into several smaller companies. For example, Standard Oil became Standard Oil of New Jersey, of Ohio, of Indiana, of New York, of California, et cetera, and each company had exclusive rights to the company name within its territory. Thus the petroleum industry was conceived geographically at the dawn of the automobile age. In chapter four, Jakle and Sculle describe the territorial ebb and flow of the large national oil refiners over time. Ironically, the most efficient refiners usually supplied every chain in a region through exchange agreements for refined products. Claims of quality differences were often meaningless, so sales success hinged primarily on consumer recognition of a company's logo and station design.

Jakle and Sculle are not the first to recognize this operating pattern. In The Age of Energy, 1899–1959 ( Evanston, IL: Northwestern University Press, 1963), the second of a massive, two-volume study entitled The American Petro-

An elaborate Greek-inspired temple of petroleum, sheathed in glazed terra-cotta tile, was built by the Atlantic Refining Company in Philadelphia; ca. 1916. (From Pump and Circumstance.)

leum Industry, by Harold F. Williamson, et al., cited all of the broader competitive forces identified by Jakle and Sculle, including the development of marketing territories and the importance of standardized stations in attracting customers. Hogarty's 1981 study also noted how oil companies sought to instill "brand loyalty" with standard designs and services as they expanded their networks nationwide after World War II. Jakle and Sculle's real contribution is to connect this approach directly to the designs of real stations.

So what did they look like? The authors offer a set of station design categories in chapter five—the curbside pump, shed, house, house with canopy, oblong box, canopy and booth, and convenience store—and they assess the relative popularity of each form over time. They build their categories using articles, advertisements, and illustrations from trade journals, especially National Petroleum News. Interestingly, they also point out that unique regional or individual stations which have often attracted popular attention (e.g., mission-style stations in California or colonial designs in New England) did not fit into the place-product-packaging framework. These designs cost more than the standard stations and rarely returned their investment.

How individual companies chose the design of their stations is the subject of chapters six and seven, and offers the main test of Jakle and Sculle's theory. They examine one large and two small companies: Pure Oil, a midwestern regional distributor, and local distributors Barkhausen Oil of Green Bay, Wisconsin, and Quality Oil of Winston-Salem, North Carolina. Pure Oil's adherence to its English cottage design, initiated in the 1930s, was aimed at establishing an appealing image, in this case by evoking a romantic sense of the suburb. It remained the company's standard form until the early 1950s.

The two local oil distributors operated quite differently than Pure Oil. In the 1920s, Barkhausen avoided adopting a standard design because of local boosterism and zoning ordinances. The stations, each custom-designed by an architect, resembled residential dwellings. Quality Oil was a Shell Oil distributor which first penetrated the Winston-Salem market with a unique, upright seashell design. But in 1933, after it was secure in the region, Quality abandoned its eye-catching design for a traditional and larger station with service bays. Eventually, the company adopted Shell Oil's standard station design. Interestingly, both Barkhausen and Quality were guided by aesthetic considerations after they had penetrated their markets. They might have agreed with the sentiment expressed in a 1930s English pamphlet, The
The Motel in America is a companion volume to the book The Gas Station in America by the same authors and is a well-researched addition to the literature on the evolution of an American roadside architecture. This time teamed with motel employee Jefferson Rogers, John Jakle and Keith Sculle open The Motel in America with a historical summary of the lodging industry in this country after 1900. Their historical treatment charts the evolution of motels around dominant phases, from their mom-and-pop beginnings to the loosely connected chain and the era of large-scale chains and franchising. They provide informative thumbnail historical sketches of all of the major hotel companies, and further devote separate, detailed chapters to the history of one early chain from the 1930s—Alamo Plaza—as well as to the dominant player in the postwar period, Holiday Inn, the "Nation's Innkeeper."

As in their book on gas stations, the authors use the place-product-packaging concept as an analytical framework for understanding how changes in buildings and design corresponded to different organizational structures. (The phrase "business-format franchising," which the authors note is used within the industry, is perhaps a more apt term.) They seek to understand why place-product-packaging won out in the motel industry, noting how motel operators were much slower to adopt this marketing strategy than gasoline retailers, to which the concept was better suited. Although the use of place-product-packaging is obvious among motels, the authors show that much more variation still existed within these chains than among gas stations; moreover, most chains were not as rigorous in adhering to its method.

This book is devoted more to the business history of the motel industry than to design or architecture, with much attention given to individual entrepreneurs and organizational arrangements. But the authors do also examine the changing forms and layouts of motels, and the evolution of the motel room. Building designs are further highlighted in the historical sketches of the chains.

Perhaps because of the size of this subject and the greater complexity and variation in motels, the book seems less satisfying than the gas station study. The authors announce at the beginning that they want to use the motel as a "window to view change in America," and they make a start in that direction. But in the concluding section, they write that they consider this book a preliminary survey to future study, leaving the project with a feeling of incompleteness. The research here is commendably thorough, nevertheless, illuminating why motel buildings—an important but little remarked upon element of the built environment—look the way they do. — BES
urbs, and central business districts. But they fail to make clear how the gas station caused or related to these developments; neither do they adequately acknowledge the range of larger forces that surely influenced their location and cycles of activity. And while the authors suggest that Champaign-Urbana is typical of American cities, this claim is not supported. More evidence from other cities is needed to verify their assertions that gas stations played a major role in forming the urban landscape.

These criticisms aside, The Gas Station in America is an interesting book with valuable ideas and information. Jakle and Sculle make superb use of trade journals, which are crucial tools for understanding many aspects of economic, architectural, and technological history. They also force those interested in these ubiquitous, apparently anonymous structures to recognize the commercial realities that brought them into existence, including the nature of marketing and competition within the industry. Their discussion of the role of gas stations in defining retailing approaches in an autocentric, mass-consumer era—and the hence in shaping the landscape at large—is well taken, even if it is not fully proved.

The main problem with this book is perhaps its overall tone. The authors' claim on the last page, that they were "gambling on subjects not highly valued in our professional circles," exemplifies several things that bothered me about this book. For understandable reasons, the authors sought to distance themselves from those illustrated histories showing gas stations with airplanes as pump canopies. Unfortunately, their insistence on the academic respectability of their topic wrings out much of the fun. This is especially ironic because they clearly harbor real enthusiasm for their subject. Early in the book, they explain how gas stations first piqued their interests, while they were on a field trip in 1973:

And there it stood! A marvelous neo-Greek revival gasoline station sat relic beside the highway, a thing in the landscape for which neither was fully prepared. Greek revival houses and Greek revival churches and Greek revival banks certainly, but not Greek revival gasoline stations. There it was with its pillars and entablature and dentilation. There was no scholarship to fall back on. How rare was this thing? There was no established sense of the normative from which to assess its uniqueness. The symbolism of its design made for interesting speculation. Who built it? When? Beyond pumping gas and profit taking, what was the entrepreneur's motivation? Should it be preserved? How did it contribute to the sense of place? What did it mean to the highway as historical display?

Sadly, the rest of the book loses this air of fascination and enthusiasm. Jakle and Sculle's evident passion is often lost in the jargon and theorizing that many perceive to be the mark of "objective" academic analysis. The authors clearly want to demonstrate the rigor expected of academic projects, which includes authorial distance from the subject—a trait noticeably lacking from the majority of the literature written for fans of the gas pump. While I strongly agree with their concluding sentiment, that "it is time to look at and take seriously the American gasoline station as a part of the American experience," I am sorry that Jakle and Sculle interpret this to mean they must hide their enthusiasm for their subject.

NOTES

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By the Way
In a short twenty years, the Centre de Georges Pompidou (or the Beaubourg, as it is commonly called, after its location), designed by Richard Rogers and Renzo Piano, has become an architectural icon of Paris—so much so that it's difficult to imagine the city without it. It receives several million visitors annually, and countless others who come to amble around its exterior plazas to watch street actors, buy souvenirs, or simply gawk at the pipes, escalators, trusses, and other exposed architectural innards that have come to epitomize the landmark. According to Nathan Silver, author of The Making of Beaubourg: A Building Biography of the Centre Pompidou, Paris, it is famous because "it is the building with its tripes outside."

In Silver's surprising account, the notorious Beaubourg, completed in 1977, emerges as a result of happenstance. If one of Rogers' children had not gotten the measles in the late 1960s, he and Piano would not have met and formed their historic partnership. Rogers probably would not have worked with Ted Happold (of the engineering firm Ove Arup & Partners), who played a key role in Beaubourg's construction, if the Chelsea Football Club had not needed a new grandstand. And if Rogers had failed to persuade a supervisor at the London post office to amend the postmark on their Beaubourg competition entry, the team would never have met the deadline (a scenario with which any charrette-frantic architect or student can identify). In Silver's story, Beaubourg comes alive, the architectural product portrayed as the culmination of a convoluted building process involving French politics, technological innovations, cross-cultural construction practices, public opinion, as well as design.

Because the author is both a practicing architect familiar with technical details and an architectural journalist (for the New Statesman) who knows how to enliven a story, his book strikes a balance between being informative and engaging. Furthermore, during much of the building process he was on familiar terms with many of Beaubourg's key personalities, giving him the proverbial fly-on-the-wall perspective at crucial moments. He relates the events surrounding Beaubourg's creation with commendable freshness, as if they happened recently instead of two decades ago. His account is based in large part on notes he took at the time and recollections he gathered from various figures within a year and a half of Beaubourg's completion. He further peppers his discussions of structural engineering with delightful anecdotes, enlightening readers as to the genesis and significance of Beaubourg.

In eight chapters (at a digestible length of less than two hundred pages), we become intimate with the prickly Pompidou Center, from its initial idea (broached by France's then-president and the building's namesake), through its selection through an international design competition to its realization. He describes briefly how the contracting job was first organized and then confounded by the vagaries of competing jurisdictions, and recounts how the key players met the various challenges of the project, including a difficult schedule and the inauguration in 1974 of Pompidou's successor, Giscard d'Estaing, who had his own ideas about the commission. He also discusses the implications of the monument beyond its completion. With an avowed "desire for brevity where appropriate" and a novelist's flair for creating an engaging atmosphere around a cherished protagonist, Silver has written a delightfully readable book that will appeal to designers, historians, architects, engineers, and general Beaubourg buffs alike.

The idea for the Pompidou Center germinated in 1969, in the aftermath of May 1968, a period of "supreme national crisis that led to utter changes in self-appraisal and self-confidence" as students and workers brought Gaullist France to its knees. Charles de Gaulle resigned as president and the newly inaugurated Pompidou looked for a grand civic project that would boost and unify the nation's spirits. However, the catalyst for Beaubourg could be traced earlier, to the mid-1960s, when De Gaulle and his planners decided to relocate the historic central markets of Les Halles to a site south of the city, demolishing Victor Baltard's historic market structures in the process. This decision angered the cultured circles of Paris; Pompidou succeeded in diffusing criticism by proposing the construction of a new monumental building in central Paris, one that would respond to two crying needs of the city: one for a high-quality, easily accessible, centralized public library, and another for a contemporary art venue that was more suitable than the Musée National d'Art Moderne ("an ugly building inconveniently located at the Palais de Chaillot").

It was Pompidou, "the arts lover [and] the autocrat," who shepherded the project along, deciding that the center's
design would be selected via an international competition. He assembled an independent team to elaborate the program and frame the competition, keeping the procedure from the Ministry of Culture for reasons that, Silver acknowledges, remain obscure. Sebastien Loste and Francois Lombard were the two key figures who translated the president's lofty vision into a brief for a multipurpose "superbuilding," aimed at "linking" artistic expression with everyday social and economic life." At the same time, they wanted to avoid "the dreaded planning disease Lombard called 'Lincoln Centeritis': liveliness for two and a half hours per evening, lifelessness the rest of the time." In July 1970, Pompidou approved the program and appointed Robert Bordaz, a highly respected civil servant, as project manager, promoting the programming team to the status of an overseeing "delegation," which kept the project administratively independent from the government's ministries. The competition was launched.

"Elsewhere, the two firms that were to win the competition," Silver writes of Piano & Rogers and Ove Arup and Partners, "were going their decidedly different ways. [The architects] were young, hungry, and short of work [while the engineers were part of a] well-developed administration" with a reputation for "enhancing and encouraging" talented professionals. Especially in the beginning of the book, the author shifts his focus from clients to architects to engineers, drawing their paths together like a deft director of an ensemble cast. Early in 1971, engineer Ted Happold read a newspaper announcement about the competition which was open only to architects. He recalled working positively with Rogers on the aborted Chelsea Football Stadium project, and also thought about bringing in his colleagues at Ove Arup, Peter Rice, who had just returned to England after working on the Sydney Opera House, and John Young. The authors make readers privy to the various exchanges and lunchtime conversations shared by these individuals and how they arrived at their decision to collaborate.

Piano and Rogers' design drew from some of their previous work, such as the "Zip-Up" series of energy-conscious buildings whose components could be easily attached, or zipped, together—in particular, their 1967 design of the Reliance Controls Factory in Swindon, Wiltshire (demolished in 1991). Beaubourg was designed according to their "kitchen-sink philosophy [whereby] what a thing was was how it should look." The key was flexibility, which meant "the opportunity for space without constraint. . . . They therefore decided to push outside all the interfering things that fill the internal body of buildings." This left them with their structural system on the outside of the building and a supremely changeable interior.

In July of 1971, the "unpredictable" jurors—architects Philip Johnson, Jarn Utzon, Jean Prouvé, Oscar Niemeyer, Emile Aillaud, and four museum professionals—reviewed 681 entries submitted from around the world. Eight out of the nine jurors voted resoundingly for Piano and Roger's "super-simple" design, for its technological boldness and innovative flexibility, as well as for Ove Arup's reputation as a building firm capable of delivering high-quality solutions. They also approved of the team's decision to leave half of the site vacant to create an urban piazza. The team's entry was further distinguished by its clear and engaging first sentence: "We recommend that the Plateau Beaubourg is developed as a 'Live Centre of Information' covering Paris and beyond."

Silver discusses these issues and events with a humorous journalistic flair. His description of President Pompidou's meeting with the design team, for instance, conveys how imaginatively he sets his stages:

Piano . . . was wearing one of the tweeds of the type known as 'thornproof' [which] went well with his longish beard. Next was Rogers, wearing a suit that French railway drivers wear, of faded denim, to which he had added a flower-power-type shirt, with no tie . . . . Finally, at the end of the row, John Young was there, wearing a red Mickey Mouse sweatshirt. No one is certain any longer whether the sweatshirt actually had a picture of Mickey Mouse on it, but it was unarguably in that category. Much later, in reflecting on the ensemble they presented, they were sure that Young's attire was the reason they clinched the job. Pompidou observed them for only a moment and then began a long and inspiring peroration about how they were going to be the cause of much controversy. . . . At the end of his speech he said, Have you any questions? The winners had been joking about the prize money and whether they would ever get it in time to prevent being brought to court as vagrants. Rogers had been the most seriously worried about the hotel bill, and it was he who said, "Yes, I have a question." Piano and Happold exchanged panic-stricken looks.

"Excuse me, but could I possibly have your autograph?" Rogers said. "It's for my children. They'll never believe we were here."

"Here" was where Beaubourg would come alive, but building professionals from a variety of organizations and constituencies would serve as midwives to its birth, causing "hundreds of trivial frictions" at the site. The construction process was a multinational one and thus informed by varying assumptions—on
the part of the British engineers from the firm with a Danish name, the British and Italian architects, the Germans doing steelwork, and a Swedish museum head. Non-French participants were sometimes confounded by their French collaborators, which included the client body, the Etablissement Public du Centre Beaubourg, and the management contractor, Grands Travaux de Marseille. Some of the confusion could be attributed to how unorthodox the project was in the first place: no real elevations were completed until nearly the end of construction, and the building employed a significant amount of unfamiliar, advanced structural technology.

In Silver's analysis of the building's construction phase, he details its numerous technological innovations, such as the gerberettes (cantilever beams that refined the Beaubourg's structural design), the famous exterior escalators, and the concrete substructure underpinning the visible design. According to this account, consideration for fire safety problems wrought changes in the final design, as did logistical problems such as coordinating the transportation of prefabricated parts manufactured off site with their later assembly and site work. Significant cost overruns and delicate political dilemmas (for example, whether the supply of steel, which is used in so many of the building's structural members, should be contracted to a German or French company) also posed major problems.

And then there was Pompidou's death in 1974. Imposing "a short by horrible period of agony and despair," writes Silver, newly inaugurated D'Eistaing threatened changes such as removing all the visible mechanical equipment from the exterior and shrinking the building by one floor. Myriad crises could have derailed the project at any point, including disputes over the distribution of fees between the architects and the engineers (not to mention the contractors), professional liability insurance, fire safety requirements, the responsibility for the interior design and furnishings; and so on.

The Beaubourg biography unfolds much like the story of a rebellious adolescent who finds even keel in the end. Chapter six, "Crises, Panics, and Smooth Going," captures the tone of the building's erection. Silver explains that much of the building's genius arose from "termite creativity: a phrase once used by film theorist Manny Farber to describe what happens (as may happen in any design endeavor) when one simply decides to pay attention to nothing but what one understands from within."

"Termitc creativity" might equally apply to Silver's underlying approach in his biography of Beaubourg. Readers benefit from understanding the processes, pains, and personalities associated with the building; by dissecting its gestation and evolution, Silver implicitly suggests that every building has a similar story, just waiting to be told by the right storyteller. In doing so, he provokes readers to ask questions about other, less monumental works before their unique stories are lost or forgotten.

What, then, falls short? The first drawback is the book's paucity of good-quality graphic images and footnotes. There are twenty-five black-and-white photos, thirteen footnotes, and an appendix that provides a helpful list of the names of those companies and major individuals involved with myriad aspects of the project. However, there is no list of figures to help readers find particular images. The quality of the photographs is disappointing, and their selection is sometimes odd. For example, why is there no photograph of the Wellesley College Science Center by Perry, Dean and Stewart (1975), a work which Silver asserts "looks like Beaubourg's unacknowledged sibling in concrete and glass"? Similarly, Oscar Nitzchke's Maison de la Publicité design for the Champs-Élysées (1932–35) is not pictured, nor is the main facade drawing of the Beaubourg, submitted by the design team as part of its competition entry, which "showed pictures snipped out of magazine photos and pasted on." Both of these would have complemented Silver's remarks about why and how the designers wanted to "hang information" on the building's facades. There are no color photographs (probably to keep the production costs of the book low), but at least one color image would have been appropriate in light of Silver's discussion of the importance of color, which appears near the end of his book. Perhaps most regrettable is the complete absence of line drawings: there is not one plan, section, or elevation from the approximately twenty-five thousand drawings that Silver reports were rendered for the Beaubourg.

The lack of footnotes is disheartening, too, even though there is no reason to doubt Silver's use of sources. He states in his introduction, "Most of my story was elicited from files of technical reports prepared by design team leaders; from research in journals, job records and sites records; and from some thirty extended interviews." Citing his sources in a meticulous, scholarly fashion might have been both cumbersome and costly from a research and editorial point of view, but there are occasions when the reader might have been led helpfully to other references. Furthermore, a bibli-
ography of major articles and monographs would have added to the scholarly quality of the work without making it overly pedantic.

The book's second weakness is its inadequate coverage of the issue of context. Given that the main reason for many people's dislike of the building stems from its disjunction with the existing historic fabric, the omission of this discussion is unfortunate. Silver quotes Rogers as admitting, "It sure isn't a popular project." The author continues, "Cancelling it [in 1974] seemed an easy way for a politician [such as Giscard] to pick up a few hundred thousand votes. Moreover, Les Halles next door was in a hotbed of trouble. Its famous market structures had been demolished under Pompidou—an appalling decision—and the redevelopment of Les Halles was linked in everybody's mind to Beaubourg."

The above quotation is one of only three places in the text where the issue of context is broached (there is no subject heading for "context" in the book's index), indicating that Silver does not seem to consider it particularly important in the making of Beaubourg. In fact, at the end of the book he likens Beaubourg's design innovations to those at Chartres Cathedral, quoting Henry Adams as having said in 1905 that "the work shows blind obedience" and suggesting that "the obedience at Beaubourg was to the principle of innovation and change." Silver affirms that Beaubourg "provided the world with the missing archetype of the ultratechnological aesthetic. This countered the stylistic interests of the rival architectural camp of the day, concerned mainly with historical allusion (otherwise known as 'blending in')."

The only other instance when he touches on this issue is in his explanation of one of the jury's selection criteria, calling for a project whose "insertion into the urban environment would take the form of a welcoming, congenial sort of architecture." Silver could have contributed more helpfully to the ongoing architectural debates over the question of "blending in" versus creating ever unique "missing archetypes" had he attempted to address the significance of this crucial monument, especially in the book's final chapter, titled "Meaning and Influence." Instead, he generalizes, dismissing those "concerned mainly with historical allusion" as simply architectural rivals and asserting that Beaubourg "gave heart to the previously less popular side, even helping to advance the egregious 'high-tech' fashion."

A third flaw is the surprising lack of recognition about Beaubourg's most recent chapter, its renovation. In "honoring the luster [that] Beaubourg has, and deserves," Silver neglects to mention how, to some degree, the bloom has come off the rose. Used by many more people than was imagined, the building that epitomized the ultratechnological aesthetic has also become more dated. Currently the Beaubourg is being renovated under the guidance of Piano and Rogers. The renovation implies that even the historically significant buildings of recent decades are in need of custodial stewardship. This is an issue of increasing concern to preservationists worldwide, as reflected in the establishment, for instance, in 1989 of the International Working Party for the Documentation and Conservation of Buildings,

Construction of Beaubourg, late spring 1975. Silver writes, "Since in principle the structural steel design had been conceived as a giant construction toy... pieces could be shipped individually." This approach presented a logistical challenge for transporting and assembling larger pieces on site, but overall made up for time losses from the construction schedule. (From The Making of Beaubourg.)

Sites and Neighborhoods of the Modern Movement (DOCOMOMO). (Founded in the U.K., DOCOMO now has over thirty national and regional working parties; the U.S. chapter is affiliated with the University of Southern California's School of Architecture and is housed at Frank Lloyd Wright's Freeman House in Los Angeles.) Similarly, in March 1995 the United States National Park Service sponsored a conference in Chicago entitled "Preserving the Recent Past," and published a handbook under the same name (Washington, D.C.: Historic Preservation Education Foundation, 1995). And in June 1995 the International Council on Monuments and Sites (ICOMOS) sponsored a seminar in Helsinki concerning the protection of 20th-century architectural heritage in cooperation with UNESCO's World Heritage Centre and the International Centre for the Study of the Preservation and the Restoration of Cultural Property (ICCROM). Although Beaubourg has not yet been nominated for inclusion in the World Heritage List, it is plausible that eventually it will be.

With Beaubourg's birth, youth, and early adulthoodvaluably accounted for, one wonders about the possibility of its retirement. How long will its services be retained? Silver says confidently that it is "one of the few cultural monuments of the 20th century that must be reckoned with," though there is no guarantee (as with any building) that it will survive and remain active into perpetuity. When preservationists and historians turn their attention to modern landmarks, their efforts will depend on information of the sort provided by Silver's unique building biography, The Making of Beaubourg, then, is not just a good read but also a call for others who have an intimate familiarity with the lives of remarkable buildings, cherished or overlooked, monumental or otherwise, to tell their stories.

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When the architect Cass Gilbert wrote in an article in *Engineering Record* in 1900 that a building is a “machine that makes the land pay,” he was recording a truth about real estate development in a rapidly growing and increasingly urban United States. In the same article, entitled “The Financial Importance of Rapid Building,” he admonished, “One must not lose sight of the fact that the machine is nonetheless a useful one because it has a measure of beauty, and that architectural beauty, judged even from an economic standpoint, has income-bearing value.” Economics and beauty, function and form continue to be crucial issues in architectural design and history. Until recently, most scholars writing about 20th-century architecture have emphasized the “measure of beauty” while ignoring the “income-bearing value” of completed buildings. Some writers did recognize the economics of buildings early on, even while formalism tipped the balance in the other direction: Winston Weisman’s classic article on the Rockefeller Center, “The Way of the Price Mechanism” which appeared in the December 1950 issue of the *Architectural Review*, examined the “cost and return” method of planning that produced “architecture based on the laws of economics, not on the canons of proportion—a 20th-century architecture growing out of the soil of contemporary civilization developing its own aesthetic as it progressed.”

With engineering and real estate specialists as the primary decision-makers behind large-scale commercial building, architects continue to scramble for “art” while piecing together the necessary technical, financial, and legal expertise needed in order for these projects to be realized. Squeezed from several directions, architects still persist in building skyscrapers, and writers continue to respond to their efforts. Three recent books take intelligent, though different approaches to skyscrapers. No single book answers all the questions, though the thorough and thoughtful coverage offered in all three cover important issues about two major American urban centers, New York and Chicago. Carol Willis’ *Form Follows Finance: Skyscrapers and Skylines in New York and Chicago* asks why central cities in America look the way they do and offers a macroanalysis of the striking differences between Chicago and New York. In *Rise of the New York Skyscraper, 1865–1913* Sarah Bradford Landau and the late Carl W. Condit take an in-depth look at the early developments that gave rise to tall buildings in Manhattan. And John Tauranac focuses on a single, iconic example in his book *The Empire State Building*, with layer upon layer of wonderful stories in what amounts to a building biography.

**FORMfollows FINANCE: SKYSCRAPERS AND SKYLINES IN NEW YORK AND CHICAGO**, Carol Willis, Princeton Architectural Press, 1995, 182 pp., illus., $22.50 (paper).


A professor of architectural history at Columbia University, Willis focuses on the economic booms and busts, zoning laws, and office logistics that determine the shape of individual buildings as much as, if not more than, architectural designs do. The title of her book, *Form Follows Finance*, a play on Louis Sullivan’s well-known maxim, is catchy but not catch-all, as she herself readily admits. Even in cases where form was directly dictated by finances, buildings were not reliably successful. Willis is primarily concerned with the ways in which real estate economics and office practicalities have fostered a standardized highrise design and how the standard solutions are modified according to their specific sites and cities. In general, her approach works well. There are no star architects in her text, or star buildings for that matter. Her careful study of real estate literature and straightforward presentation of complicated and sometimes mundane information about general occupancy rates, prime locations, economic trends, and municipal codes add substantially to other studies of skyscraper styles and techniques; they also reveal the complex reasons why certain urban districts flourish and flounder.

Throughout the book, Willis makes assertions that are too often reductionist, even if they keep the sometimes dry material lively and alert the reader to the wider implications of her study. For example, she claims, “When larger structures are permitted, cities grow faster.” I would hesitate to assert, as Willis does, that New York grew
faster and flourished more than Chicago because of less stringent zoning laws and laissez-faire development that permitted tall building. While it may be true that rentable office space grows faster when larger structures are permitted, it must be acknowledged that many other factors also contribute to growth, from transportation to communication networks, geographical location to politics. She also writes that, in order "to understand the modern city, it is speculative development we should study." Speculative development is a crucial piece of the puzzle, but even her own mentor-in-print, William Cronon, author of *Nature's Metropolis* (New York: W. W. Norton & Co., 1991), recognizes the role of many types of organizations and structures that "feed" the modern city. Still, Willis is to be commended for stressing the complex mechanisms and teamwork that build these buildings and the widely different, extra-architectural pressures that have formed skylines.

Willis' text is well integrated with her illustrations, most of which are reproduced from her own large collection of postcards. In many instances, however, it would have helped to have longer captions to orient the viewer or to recapitulate a point made in the text. Certain comparisons, like the plans of the 1924 Straus Building and the 1974 Sears Tower, drawn to the same scale, provide excellent graphic corroboration of her statements about programmatic changes in what she calls "vernacular" versus "international" style buildings. When a standard formula for tall buildings is altered to meet site conditions, she labels them "vernacular." After 1950, when "advances in technology and changes in architectural ideology liberated the tall office building from its dependence on nature and site," Willis calls them "international."

Landau and Condit's careful study *Rise of the New York Skyscraper* expands on the first, vernacular phase that Willis considers. Focusing on New York skyscrapers from 1865 to 1913, the authors cast light on a great many early tall buildings that have been overshadowed by a few attention-grabbing forms. Like Willis, the authors examine what makes "land pay" while giving substantial attention to the "measure of beauty" attributable to good design and engineering. The book is about so much more than the New York skyscraper that one almost regrets the disappearance of the long, detailed subtitles of 19th-century books, along the lines of "In Which European Commercial Buildings of the Mid-19th Century (and the Early Engineering Experiments That Informed Them) Are Explained and Illustrated, Accompanied by a Close Examination of Particular Building Types and Useful Summaries by Early Writers about Tall Buildings . . . ." You get the idea.

Landau, a professor of art history at New York University, and Condit, who was a professor emeritus of art history at Northwestern University, collaborated on this book for twelve years. The wait was worthwhile. They present engineering assessments of a half-century's worth of New York skyscrapers, for the most part in language that non-engineers can understand. (Chapter two remains a bit of a challenge, but at last we finally have a clear explanation of the difference between cage and skeleton construction.) This book is a virtual catalogue of buildings that shaped early Manhattan—most of which were demolished in the same spirit of individualism and profit-making that built them. Landau and Condit also identify the origins of some ideas about tall building which continue to affect the public's response to them. "The voluble adverse commentary of 19th-century observers deserves a major share of the blame for the negative attitude toward post-1850 architecture that persisted until the 1960s," describing the influence of journalists and critics on modern practice.

The authors divide their period into three phases: first, speculative development from 1868 to 1873, followed by fermentation and depression from 1874 to 1879, and finally, maturation after 1880. What facilitated the latter phase? Landau and Condit trace changes in metal framing, anchorage, wind bracing, fire protection, construction equipment, heating, ventilation, plumbing, elevator service, and lighting against the backdrop of the aesthetic, legal, and financial shifts of late 19th- and early 20th-century New York City. Citing primary documents, they recount the various technological and aesthetic questions that were posed, and sometimes answered, during this fifty-year time frame. Much more than the story of one building type in one city, the book is a useful reference work on significant themes in architectural and urban as well as business and engineering history.

Individual architects are not the main focus of *Rise of the New York Skyscraper*, but are important protagonists in the story nonetheless, and deserve the attention the authors have given them: Charles Atwood before his work in Chicago, George Browne Post, Bruce Price and R. H. Robertson, for example. Post's wonderful Produce Exchange (1881–84, now demolished) is given overdue recognition for its influence on works by H. H. Richardson and Louis Sullivan in Chicago. Sullivan, on the other hand, whose 1896 essay "The Tall Building Artistically

By the Way
Considered" and single New York skyscraper, the Bayard Building (1899), did not have as much influence on the development of New York commercial buildings as he is credited with: "Sullivan's influence on the appearance of the New York skyscraper was barely, if at all, perceptible."

Landau and Condit conclude their book with a close analysis of six notable works which, in their view, exemplify the "first great age" of the skyscraper. In addition to the Singer Tower (1908) and the Metropolitan Life Tower (1909), they discuss Cass Gilbert's Woolworth Building (1910-13), stating that it "was heavily influ-
enced by practical requirements and by economic inducements." It would remain the tallest in the world until the Chrysler Building was erected in 1930, which in turn was topped by the Empire State Building in 1931, marking "mid-
town as the new frontier."

The landmark Empire State Building, which remained the world's tallest until 1972, is the subject of John Tauranac's building monograph, which captures the true affection that exists for the building. Acknowledging its mis-
takes and oddities along with its triumphs, the author brings to life the story of the peo-
ple who took risks to finance, plan, build, rent, and sell this exemplary sky-
scraper.

Just as the Starrett Brothers had to excavate down to Manhattan schist to ground the column footings that would support 365,000 tons of skyscraper, so does Tauranac excavate the his-
tory of the project at Fifth Avenue between 33rd and 34th streets. He details the poli-
tics and deals that led to the incorporation of the building syndicate which funded its construction as well as the sen-
timents that pitted the garment district against "first-class" retail establishments, and the technical and stylistic devel-
opments in skyscraper building at the time. In seventeen chapters he delivers stories within stories, delightful anec-
dotes, informative tidbits about early Manhattan, and an altogether well-written, accurate history. One chapter in particular, "The Skyscraper," is a succinct, readable history of American tall buildings, and would be useful in any intro-
ductory architectural history course. (Unfortunately, the book's illustrations do not equal the quality of the writing.)

While not discounting the talents of the architects of the Empire State Building, Richmond H. Shreve, William Lamb and Arthur Loomis Harmon, Tauranac notes that Lamb's close friend, the architect Raymond Hood, claimed that "the demands of tenants probably more than the desire of avant-
garde architects were responsible for the popularity of the modern style." Willis in Form Follows Finance corroborates: "[S]tructures such as the Empire State Building . . . are magnificent not because they were designed by great architects, but because their designers worked intelligently within a formula with its own beautiful economy."

In one interesting section, Tauranac describes the industrial railway system installed by the contractor in order to distribute materials throughout the immense construction site. The varieties of transportation woven into the Empire State Building from the ground up—and the crucial role of transportation to the development of the site in general—are relevant to both Willis' and Landau and Condit's discussions. Writes the latter, "The advent of rapid transit, more than any other single factor, promoted the increase in real estate activity."

The Empire State Building may have transcended its initial iden-
tity as a speculative office build-
ing, but the fact remains that skyscrapers are first and foremost "built not for posterity but for investment," in Tauranac's words. All the authors under review here would agree with this statement. While Sir Norman Foster claims that "the quest to go higher and higher . . . is a deep primal urge that can never be fully rationalized" in his introduction to David Bennett's Skyscrapers: Form and Function (New York: Simon & Schuster, 1995), economics are still the crucial and pri-
mary motivation. Willis distinguishes between the "engi-
neering height" of a building, i.e., what is technically feasible, and its "economic height," in other words, "the number of stories that would produce the highest rate on the money invested." Landau and Condit describe the situa-
tion in New York about 1900: "[I]t paid to build as high as the technology and the financial resources allowed." To their credit, all four authors help frame big questions about building beyond what is feasible and profitable. For whom are skyscrapers profitable? And if building ever taller is in fact feasible, should we plan for or against it? These ques-
tions demand answers, preferably in advance of the quan-
tum leap toward ultra-tall structures for which financiers and their architects are all too eagerly poised.

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Plastic,
American Style

Anthony Walker

In American Plastics: A Cultural History, author Jeffrey L. Meikle uses the development of plastics and their acceptance and rejection over time as a metaphor for the society they serve. The conflicts between the actual versus perceived qualities of these modern, wholly manmade, chemical-based materials are revealing of cultural attitudes about materials in general—our expectations of them and biases about their "true" expressions. Widely disparaged as fake and artificial, plastic reflects our inclination to view what is abundantly available as banal, what is fabricated as fraudulent (and by extension, what is rare, precious, and what is natural, desirable). According to Meikle's insightful history, plastic's negative image was a later reaction: even in its earliest application, plastic served as a substitute for other materials (for example, to replace valuable ivory) for no reason other than its technical feasibility and as a celebration of skillful artifice. Taking as his starting point John Hyatt's 1869 discovery of celluloid, the first of the semi-synthetic polymers, Meikle notes that during this era, plastic was not regarded as dishonest or inferior, for "imitation" was as valid as its other "true" uses as an essential ingredient in many new technologies, such as those of the emerging film and electrical industries.

Meikle, a professor of American studies and art history at the University of Texas at Austin, traces these schisms through the 20th century, adroitly balancing the practicalities of science and industry with the hyperbole of marketing, to not mention the vagaries of cultural taste. A string of detailed studies serves as the backbone of Meikle's narrative, providing a clear picture of the conflicts between different resins suppliers, manufacturers of plastic goods, and buyers, industrial or consumer alike. While Meikle does not delve deeply into the growing scientific understanding of polymers and their chemistry, he does observe that the "trial and error" investigations in the 1920s by Dr. Leo Baekeland (chemist and founder of Bakelite Corporation) and others yielded the more precise engineering of plastics for specific functions. German organic chemist Hermann Staudinger's explanation of the macromolecular structure of polymers fortuitously coincided with the abundance of by-products from the petroleum industry, creating almost overnight a plastics industry that was able to manufacture materials to order. Meikle makes good use of the trade magazine Plastics (later to become Plastics and Moulded Trader and then Modern Plastics) to trace the mounting interest in the material. The quantity and variety of plastic grew steadily, as did the difficulty in differentiating one from another, especially after World War II, which might explain why the author's descriptions of individual types of plastic wane as he gets further into his book. (Incidentally, the industry's diversity left no specific target for attack and may have been the reason why there was little coherent opposition to plastic in its emergent years despite early ghoulish speculations about its origins.)

Despite continual scientific advances and expanding productive capacities, the plastic industry had to work hard to sell its products. With a fragmented industry and many small producers, it was left to the large materials suppliers to create demand. At the Chicago Century of Progress Exposition in 1933 the chemical giant Union Carbide displayed the all-Vinylite House to build an interest in its products, and, as Meikle describes in detail, Bakelite launched major marketing campaigns in the 1930s featuring contemporary designers who used plastic in their work. Color was a key factor in facilitating the public's acceptance of plastic. The author reports that in 1934 more than half of all the costume jewelry sold in New York City was made of brightly

AT breakfast, your wife pours you a cup of coffee; the handle she takes hold of on the percolator is made Bakelite, as well as the button under the table she presses for service, and the two light plugging from which are carried the wires to the toaster.

"Bakelite for Breakfast" advertisement, 1926. (From American Plastic.)

By the Way
It's Not What You Use, It's How You Use It

The ability to transmute materials, to blend the most useful attributes of a variety of resources with the aim of addressing the precise ambitions of the designer, has revolutionized the design process. Although the "design" of materials is hardly novel (think of glass and ceramics, which have been altered and tailored for specific applications over millennia), the ability to predetermine their performance is a result of breakthroughs in understanding matter and its molecular structure that have only occurred this century. A startling compiliation of new, technologically sophisticated materials, Mutant Materials in Contemporary Design, a catalogue to the exhibition of the same name, held at the Museum of Modern Art in 1995, urges a reconsideration of our allegiance to design based on the "truth" or unique characteristics of materials. British design critic John Glaog claimed in the early 1940s that the "limitless control" provided by plastics would undermine design discipline.¹

Moreover, Paola Antonelli, curator of Mutant Materials, posits the opposite, that they have expanded the array of possibilities.

Quoting William Duncan, author of Manufacturing 2000 (New York: AMACOM, 1994), Antonelli asserts that data will become the single most important material used by manufacturers in the future. The current age of precisely engineered materials—in particular, hybrid-material composites, many from recycled materials—has shifted the emphasis from "truth to materials" to "truth to program and process." The designer's work is made easier not only by the abundance of material choices but by advances in CAD technologies, which allow concepts to be examined from every possible angle and with three-dimensional plasticity. Moreover, laser-cutting and other techniques enable the direct translation of designs into material form, i.e., models, molds, and ultimately the final product. The nature of specific materials has become not just elusive but irrelevant.

Italian historian Ezio Manzini would agree, for he seeks to define materials by performance. Despite acknowledging Manzini as an inspiration for her project, Antonelli has organized the contents of Mutant Materials according to tangible type. Both the exhibition and catalogue are divided into traditional categories of wood, glass, metal, plastics, ceramics (many incarnations of which are composites of other materials themselves). She found it necessary to add two new classes, "Rubbers and Foams," and "Fibers and Composites," although these more ambiguous sections still do not resolve the problems of classifying objects made of modern "mutants," particularly recomposed, recycled materials. Antonelli decided not to group recycled materials separately on the grounds that sustainability and recycling are now a given. Her decision is well justified, reinforcing the idea of "truth to process" for such products represent but one stage in the creation, expiration, and reincarnation of materials. For example, Hisanori Masunada's iquom, a refined collection of tableware made of reprocessed aluminum, betrays no hint of their recycled pedigree and is rightly grouped with alternative to the fragile, expensive silk (mostly imported from Japan) and the troublesome traditional knitted stockings—could not have been more suitable.

When World War II began, the priority on the production of parachutes, ropes, and other equipment rendered a pair of nylons a precious commodity, symbolic of the sacrifices of civilians on the home front. When hosiery production resumed in 1945, pent-up demand led to stores being stormed in the "nylon riots," which lasted into the middle of 1946. Despite the enthusiasm for this wholly synthetic luxury article, rumors about the dangers of wearing nylons—that they could cause cancer, allergies, or other diseases, or would disintegrate if caught in bus exhaust fumes—surfaced even as the product was being launched. Attacks on the plastic industry continued through the middle of the century, and with increasing coordination, undertaken by writers such as Norman Mailer and Gary Snyder. Mailer was particularly unnerved by plastic, which he viewed as responsible (if not factually, symbolically) for all things environmentally and culturally pernicious in the postnuclear age.

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(From American Plastics.)

The chemical manufacturer Du Pont gambled on setting up a program of pure research and in 1928 lured a brilliant young chemist, Wallace Carothers, from Harvard to direct it. By 1930 Carothers had produced a strong, flexible synthetic fiber, extracted from initially brittle material. Around the time, Du Pont was coming under attack for wartime munitions profit-seeking and on the advice of its advertising executive, Bruce Barton, adopted a promotional campaign entitled "Better Things for Better Living Through Chemistry." Having moved on the offensive on the image front, Du Pont now had to deliver the goods: fashionable hosiery—an colored plastic. Meanwhile, Modern Plastics warned that popular jewelry was being "Ford-ized" and that a short-lived fad could hinder other consumer uses of plastic. Bakelite emphasized the material's democratizing potential, while the cosmetic industry saw plastics as an inexpensive means of putting new life in their old lines, by repackaging facial cream, for example, in colorful translucent plastic jars. By the mid-1930s, plastic Beetleware cups, plates, and bowls, first introduced in Britain in 1925, would be found in one out of every four American homes.

As an illustration of how consumer markets were created and sustained for new plastic goods, Meikle reconstructs the history of nylon, a material with many uses but associated most firmly with the chic hosiery that first went on sale in 1938. The success of nylon was a result of a number of converging factors, few of which were planned or understood at the time. The chemical manufacturer Du Pont gambled on setting up a program of pure research and in 1928 lured a brilliant young chemist, Wallace Carothers, from Harvard to direct it. By 1930 Carothers had produced a strong, flexible synthetic fiber, extracted from initially brittle material. Around the time, Du Pont was coming under attack for wartime munitions profit-seeking and on the advice of its advertising executive, Bruce Barton, adopted a promotional campaign entitled "Better Things for Better Living Through Chemistry." Having moved on the offensive on the image front, Du Pont now had to deliver the goods: fashionable hosiery—an alternative to the fragile, expensive silk (mostly imported from Japan) and the troublesome traditional knitted stocking—could not have been more suitable.

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larity that facilitated its transfer into peace-time use. Polymers were hailed as the universal material; the promise of an all-plastic world was an environment free of dirt and sharp dangerous corners. The ease of cleaning plastic surfaces ("with just a damp cloth") was heavily manipulated as an advertising angle, even if not wholly proved. Finally, or at least so it seemed, the "plastic age" had arrived, albeit several decades after its announcement in the 1920s by cultural commentators, designers, and chemists. In truth, however, the plastic age did not arrive until 1979 when the volume of plastic used in the United States exceeded that of steel.

The industry suffered setbacks when plastic products failed. Coat hangers made of thermoplastics sagged in warm conditions, Christmas light coverings melted, and corrugated glass-fiber sheets lasted only two or three years. These failures formed a cynical collective memory which the industry's critics exploited most vociferously in the 1960s. Audiences were predisposed to listen. Fatalities due to suffocation by plastic bags only exacerbated the debate, which Meikle examines as part of the split between the ever-increasing ambivalence and pervasiveness of plastics. For example, the success of Earl S. Tupper's plastic bowls and storage containers indicated that plastic was accepted as the most appropriate material for a wide range of uses. Its undeniable presence in popular consciousness is reflected in The Graduate, the 1968 film in which Dustin Hoffman's title character is offered one word of advice by a family friend: "Plastics." Meikle returns to this scene in his discussion of how plastic came to represent, most acutely for the 1960s generation, the homeliness, artificiality, and pointless predictability of American (suburban) life.

In the chapter "Design in Plastic," Meikle moves on to the idea of comprehensive plastic environments, encompassing not only furniture and objects in a setting but the setting itself. To some extent, this happened by default as the public was generally unaware of the shift from natural to synthetic in paints and other building materials that had been occurring since the 1930s. By and large, the new materials were considered a positive part of modern home decor. Decorative laminates offered many advantages, and became the desired material for worktops and "vanitory units," a term introduced by Formica in the 1950s denoting a combination of fashion and the pseudo-scientific of domestic efficiency. Still, some designers were skeptical, not only because they were uncertain about the nature of the material but because, as one writer in Design magazine observed in 1957, laminates used for fashionable purposes risked becoming rapidly dated.

To Meikle, the polarized design debates over "plastic as imitative" and "plastic as plastic" ignored a vast middle ground. He invokes an early polythene wastebasket as an example of something that was neither imitative nor breaking new aesthetic ground: it was simply itself. For intellectuals, this may be hard to accept, but Meikle's response is that, in actuality, very few people reflected on plastic's presence in everyday life. For an entire generation, the paddling pool, Barbie, and Action Man were naturally plastic. Model airplanes and other toys were also more appealing with easy-to-assemble snap-together parts—a far cry from the old hand-cut and glued balsa wood variety. Simplicity, indestructibility, and replaceability endeared plastic goods to the consumer. Many product designs, from cars to furniture, targeted these values in forms that were not merely trendy but well suited to an increasingly mobile and disposable culture which demanded goods that were light and easily transported or discarded.

Aspirations for an all-plastic home began early on. In 1954 plastic manufacturer Monsanto enlisted MIT's Architecture and Building Engineering and Construction departments to build the House of the Future, unveiled at Disneyland in 1957. It received over twenty million visitors over the next ten years. General Electric sponsored the design of the Wonder House in 1954 (erected in 1964); Buckminster

other metal goods. Furthermore, products with more apparently reconstituted origins do not necessarily signal "recycled" to the general consumer. The flecked surface of Christopher Connell's Plaky Table, for example, will not suggest the combination of ABS copolymer and polycarbonate to most; rather, it might be taken as a 1990s equivalent to the speckled linoleum of the 1950s.

Two examples which do openly celebrate the use of recycled material, however, present a problem of classification in Antonelli's system. Philippe Starck's Jim Nature television set, with its housed of pressed wood chips, and Gaetano Pesce's Seaweed Chair, a welcoming mound of waste fabric strips, both clearly express their recycled origins, relying on resins to bond their visibly identifiable reused pieces into new and functional shape. Clearly, these products share a common design process and identity and warrant shared analyses, or at least comparison. But they are classified separately—one as wood, the other as plastic—highlighting the difficulty of perceiving and interpreting new and not so new materials.

Notwithstanding the sophistication of many of these new materials, Antonelli notes that a considerable degree of hand-finishing is still required in order to ease them usefully into our lives. For example, the rubber Animal Wetsuit by O'Neill requires 120 hours of hand assembly in order to achieve the pleats that provide freedom of movement as well as maximum thermal insulation. Her acknowledgment of the role of craftsmanship in bringing these products to the public, in addition to her decision to use common, natural materials as section headings, almost seem aimed at reassuring that there is an underlying human and harmless direction to these alien materials. For instance, hand-finishing is one way of bestowing familiarity to new, "memory-less" materials—or more accurately, materials with memories that are unknown to us.

Jean Baudrillard wrote about the authentic qualities of synthetic materials in his book The System of Objects (Paris: Editions Gallimard, 1968), but ultimately what is needed in order for new materials to be assimilated into culture is time and experience. Remember that William Morris and other leading figures in the Arts and Crafts movement were concerned about "truth to materials" because of the perceived loss of quality in machine replicas of hand-crafted objects. The movement was as much about social issues as it was about design issues in its ambition to preserve the contribution of the craftsperson, the imprint of his tools and the values they represented (i.e., individuality over uniformity, art over commodity). A century later, advanced materials with an industrialized image connote high performance and stylistic contemporariness more than they implicate an anonymous design or segregated production process, which were, of course, the main causes of concern to Arts and Crafts proponents. The essen-

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Fuller's geodesic domes and Dymaxion House extended ideas first employed during the war as protective shelters for military equipment; and the Irving Air Chute Company built the Air House while Felix Druy and students at Yale created the Foam House. These buildings opened up an entirely new field of interior spaces. Often totally form-free, they challenged preconceptions about space and living patterns, since most conventional furniture would not fit environments such as these. Not all the projects were purely experimental, however; at Durango City in Mexico, a whole town was developed involving a local factory operated by Fibro-Glass, featuring structures with clip-together shells.

The broader use of plastics in the building industry was initially slowed due to the control of traditional material producers over building codes, according to Meikle. Furthermore, extending the use of plastic into the building industry would have required more elaborate marketing, concluded a 1964 report made to the Plastics in Building Construction Council, which Meikle cites. Hundreds of decision-makers, including engineers, designers, architects, contractors, clients, material distributors, and clients, would need to be "educated" as to the technical properties and potential of synthetic building materials. Thus, up until the 1970s, the application of plastics remained primarily non-structural (appearing as moisture barriers, coatings, pipes, insulation).

By this time, plastic was so commonplace that its place in the everyday world hardly warranted attention. In Meikle's contribution to Formica & Design (New York: Rizzoli, 1991), edited by Susan Lewin, he writes, "Nothing is more natural this late in the 20th century than the synthetic materials that surround us — materials whose colors, surfaces, textures, and tactile qualities would have seemed wholly unnatural when the century was young." The bright colors and inflatable furniture of the 1960s symbolizing an environment that was entirely under human control eventually gave way to more natural colors and textures in the 1970s as a reflection of mounting ecological and humane concerns, as expressed in Victor Papanek's influential book of 1973, Design for the Real World (revised edition, Chicago, 1992). But rather than regret the impossibility of the synthetic to replace the authentic, artists such as Andy Warhol exploited the synthetic nature of plastic; Claus Oldenburg used vinyl and other plastics to create oversized versions of ordinary objects, postulating a world where the machine is no longer menacingly strange but reassuringly familiar.

The pervasiveness of plastic in American culture has contributed to the stereotype that Americans are obsessed with artificiality and simulation, or as Umberto Eco would put it, "hyperreal" experiences. But as British design critic John Glaog pronounced in 1943, plastic should be understood as "what happens when the artificial becomes real." This statement succinctly captures the objective of Meikle's fine book. His final assessment is that the artificial nature of this material rests more in the mind of cultural gurus than in the consciousness of users for whom plastics are a real, essential, and normal part of everyday life. The cultural ambivalence surrounding plastics owes to a complexity of issues. Plastic represents something of our own invention, ostensibly lacking in physical limitations. Success or failure is therefore our own — a daunting and stimulating challenge which is reflected in the excessive enthusiasm of the Plastics Age and the fear of the reality we have created. Meikle quotes Ezio Manzini's Materials of Invention (Milan: Arcadia, 1986): "The proportion between what we know as deferred image and what we know by direct experience is shifting more and more in favor of the deferred image." The truth of this material thus lies in its lack of identity. Thus, its significance will not be summarized by headline-hitting phenomena, but by its nature, to quote Roland Barthes, as "the first magical substance which consents to be prosaic."

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For his liqueam tableware collection (1989), Hisanori Maruda achieves the "appearance of quicksilver" by sand-casting and manipulating reprocessed aluminum. (From Mutant Materials in Contemporary Design.)

The basic concept of "truth to materials" resides in "truth to process," the craftsman's marks having always revealed more about his tools than about the wood, stone, or metal. By the same token, design today reflects more about the process of manufacture than about the materials used.

Antonelli refers again to Manzini, quoting from his book, Materials of Invention (Milan: Arcadia, 1986): "Matter no longer appears to be the scale of our perceptions as a series of given materials, but rather as a continuum of possibilities." This almost infinite freedom from constraints validates British pop artist Richard Hamilton's suggestion, made in 1959, that the old ideas of honesty in design, truth to materials and function, and fulfillment of basic human needs would ultimately give way to an American deference to market demands. As more "smart" materials become more widely available, we can expect further dramatic developments, along the lines of anthropomorphic forms that enhance user interface, including those that can adapt their shape, heal themselves against damage, or vary their power usage according to use.

Already in use are such innovations as "shape-memory" and "self-assembling" materials used in the medical industry. Such technological advances in material design mean that product performance can no longer be assessed by formal appearance. Here, at the edge of a dramatic and exciting era for product design, Antonelli's exhibition and book demonstrate great prescience, providing considerable insight into the possibilities and challenges that lie ahead. —AW

NOTES

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We are living in an age in which history suffers constant questioning and restructuring. Told by a growing horde of philosophers and cultural critics that the idea of absolute truth is neither viable nor tenable, that each person establishes his or her own verity, that it’s basically a semantic free-for-all out there—what’s a designer to do? Despite its universal impact, graphic design (along with landscape architecture) has blissfully ducked the full onslaught of new theory that has been wreaked upon art and architecture. Feminist, deconstructivist, or even reemerging pragmatist perspectives have struck only a glancing blow at the bastion of graphic design history based on stylistic “development.” Starting in 1994, the substantive journal Visible Language dedicated three consecutive issues (July 1994, October 1994, and January 1995), edited by Andrew Blauvelt, to defining an alternative (read: new) history of graphic design. Collectively, the fifteen essays in these issues are about as good as it gets, or at least as good as it has gotten so far. But in their philosophical breadth, the editor and authors also demonstrate their own, new myopia. Again, cultural theorists and philosophers (most of them French, it seems) were invoked as conceptual panaceas: Michel de Certeau, author of The Writing of History (Paris: Gallimard, 1975), principal among them, as well as Hélène Cixous, Jacques Derrida, and, of course, Michel Foucault. (What is it with American scholars today and their need to validate their work by citing, seemingly ad infinitum, foreign voices to explain who and where we are? Is it that we lack a sufficiently broad vision to deal with the vagaries of time, space, and culture synthetically? Or is it simply that there aren’t enough American historians and critics to do the job?)

Certainly, the same few names do keep cropping up. Philip Meggs still wears the mantle of mainstream graphic design historian. His book, A History of Graphic Design (New York: Van Nostrand Reinhold, 1983), is widely adopted as a text in many academic design programs, although it is long on formal criteria and short on technology, culture, and sociology. Victor Margolin weighs in heavily on social values and political perspective, while Steven Heller tops the scale in terms of output, offering virtually his own book-of-the-month club of almost entirely pictorial products. However, not to be overlooked are Heller’s significant and more serious contributions as the organizer of numerous symposia, editor of the AIGA Journal of Graphic Design, and one of the rare liberal, social voices with a sense of history. And then there is Ellen Lupton.

Lupton has brought a welcome depth to studies in graphic design, at times individually, at times in collaboration with her husband and professional partner J. Abbott Miller. Until recently the curator of design at the National Design Museum (which everyone still seems to call the Cooper-Hewitt), a branch of the Smithsonian Institution, Lupton came to the position after a laudatory tenure at the Herb Lubalin Center of Design and Typography at the Cooper Union. There, she curated a string of solid exhibitions that ranged in subject matter from Bauhaus design theory to recent Dutch design to Jacqueline Casey’s work for The MIT Press. With Miller she curated and designed the 1992 exhibition “The Bathroom, the Kitchen, and the Aesthetics of Waste: A Process of Elimination” at the MIT List Visual Arts Center; and individ-
ually, she produced "Mechanical Brides: Women and Machines from Home to Office," an exhibition at the Cooper-Hewitt in 1993, both of which were accompanied by catalogues, published by Princeton Architectural Press.¹

Lupton also curated "The Avant-Garde Letterhead," an exhibition sponsored by the National Design Museum though shown at the American Institute of Graphic Arts in New York during the museum's renovation in the spring of last year. Its catalogue, Letters from the Avant-Garde: Modern Graphic Design, was coauthored by Lupton and Elaine Lustig Cohen, from whose collection much of the material was drawn. Lightweight in comparison to Lupton's other efforts, the book is primarily a visual document, with illustrations elucidated by extended captions and cameo historical descriptions. Its value lies not in the short texts (which offer little in the way of analyses or explanation) but in the letterheads and some related graphic pieces that "served as typographic manifestos for the avant-garde." There are, without question, some fantastic specimens, including work by such noted designers as El Lissitzky and Piet Zwart. Two characteristics come to the fore: the plethora of ruled lines—most often in black, red, and blue—and the virtual exile of lowercase type. These aggressive, dense designs dominate their pages, letterheads soundly tromping the letter, in visual weight as well as actual square inches. Among these examples, Jan Tschichold's designs offer a welcome antidote: terse, elegant, and airy, his designs engage the space of the page rather than smothering it beneath a blanket of ink. The real role of these designs, as the authors suggest, is not to introduce the firm or person in question but to advertise modernity itself.

Lupton's most recent project is the exhibition "Mixing Messages: Graphic Design in Contemporary Culture," which was on view at the National Design Museum from September 1996 until February 1997. She also wrote the companion catalogue. The installation, designed by the Boston architectural firm Kennedy & Volich, was visually stunning and probably the best architectural response to date to the problematic interior of the ornate Carnegie mansion, the museum's home. Visitors to the museum were bombarded with a density of images, as occurs in life itself. The curatorial bias shifted toward recent Cranbrook-style work as well as pop- and punk-inspired appropriations, with enigmatic overlays of type and a strong sampling of mechanical and digital reproduction techniques. The plethora of publication designs that filled one room, the wall gridded with book covers (many too high to read, alas), and the pervasive captions-as-aphorisms (many of them quite good, for example, "a book cover is a small billboard") all made for a stimulating show. "Mixing Messages" was surely popular with the (ever-mythical) general public as well as successful in establishing both the art and ubiquity of graphic design in daily life. Not everyone will necessarily agree with the premise of the show and its contents—but questions about how and why items were included and excluded are par for the course of any exhibition.

The section purportedly linking architecture and graphic design was the weakest: the only connection was the posters' original purpose of advertising lecture series or exhibitions involving architecture. The "vernacular" and "corporate" sections explained little about what the work gathered within their headings represented: were they the best, the most typical, the most available? Suspended in the "corporate" area was the tail of an airplane emblazoned with the logo for Continental Airlines on one side, and that of Federal Express on the other—a brilliant bit of graphic stagecraft suggesting just how large graphic design is in our lives. But more pointed explanations on this and other examples would have been welcome.

Underlying the exhibition seemed to be a fascination with the word as a picture, which differs markedly from the word as carrier of semantic information. A large proportion of the examples exhibited type with element layered upon element, caps floating about, circles, textures, zigzags—but only in a rare instance was any link made between the work's message and the designer's whimsy. Admittedly, in arenas such as advertising, fashion, and entertainment, the designer's conveyance of "newness" is the ultimate message, as modernity had been for the avant-garde letterhead.

Illustration, the venerable workhorse of graphic design, was almost completely absent; taking its place was the appropriated image, visual "quotations" of familiar and vague sources alike, constantly memory-queuing. How quickly such an "outsider" gesture as appropriation—the unschooled punk paraphrases and hip underground collages—becomes tamed and validated by the "Establishment"!

Amidst this graphic barge, the most memorable piece was Milton Glaser's poster for the Italian city of Rimini. A typically Push Pin School illustration showed the sea and shore for which the Adriatic city is noted. The word "Rimini" articulates the image, dipping its serif in the sea, a surrogate for the visitor being lured into the water itself. The poster's power derives not from its novelty or its attractive simplicity but from its ability to distill several different dimensions of its message into a single image with a single word. It requires no explanation, unlike many other works which are overly complex or even illegible, as in the case of the glut of distorted and bastard typefaces that filled one vestibule. With regards to the latter, it might have been a good idea for the curator to argue why society, as opposed to designers, might want, much less need, typefaces such as these. Lacking these discussions, one might conclude that the operative ideas behind "Mixing Messages" were either "if it exists, it must be valid" (that politically correct value of universal inclusion) or the makrker "it's interesting because it's new."}

Unfortunately, the publications, posters, book covers, and other material were presented without any information behind their creation. Why were they done? How did they address the motives behind them? The "openness" was perhaps deliberate, characteristic of an anti-authoritarian age in which individuals are to be allowed to interpret whatever they want (never mind those of us who would have liked a piece of the curator's knowledge). The eponymous catalogue is similarly tainted. The text outlines more than it explicates. It reads less as a book and more as a compilation of excerpts from the exhibition. Phrases along the lines of "some designers do this while oth-
ers do that” try to be equitable in their coverage but inadvertently spread the ideas too thin. Certain works and designers receive extended examinations in a paragraph or two, but no one gets any in-depth analysis. Admittedly, to do the job right would require a book four or five times longer than this volume is, and a much longer period of research. But the cursory treatment of many of the works suggests that any thesis came after the materials were assembled, rather than propelling their selection.

Lupton’s biases, both stylistic and geographic, are evident in the predominance of work by a small coterie of designers, most based in New York. They include Fabien Baron, William Drenttel and Stephen Doyle, Dan Friedman, Tibor Kalman, Marlene McCarthy, Alexander Isley, Paula Scher, and Massimo Vignelli. Lorraine Wild of Los Angeles, Swiss designer Wolfgang Weingart (who has taught frequently in American schools), and other scattered affiliates of the Cranbrook Academy of Art in Bloomfield Hills, Michigan, are among the few non-New York contributions acknowledged in the show. Is this just the way it is, or a reflection of a limited search?

Overall, Mixing Messages lacks a reasoned argument as to what constitutes graphic design today and the value system upon which this estimation might be made. The paucity of references beyond the typical design journals and monographs reveals a survey taken only within the discipline itself; and the references, in any case, tend to be based on formal issues and visual affinities rather than on the social values professed by the author. In fact, Lupton does not substantively address the subtitle, Graphic Design in Contemporary Culture, except perhaps in the book’s chapter entitled “Identity.” In the introduction, Lupton claims, “The products of graphic design, from commercial trademarks to experimental typefaces, are invested with significance by their initial makers. Once in public circulation, they are subject to change.” This claims a lot for design, as if the maker’s intention has any tenable relation to how it is perceived by others. The notion of interpretation, while a large part of the exhibition, falters in the catalogue text.

The other chapters, “The Street,” “Typography,” and “Publishing,” in addition to “Identity,” mix apples and oranges as well as messages. Typography is a vehicle by which the materials in the other categories may be created, while the street is an arena for typography, publications, and corporate identities. (Curiously, there is almost nothing on signage.) Organizationally and conceptually problematic, Mixing Messages ultimately stands subservient to the exhibition it paralleled. But despite its flaws, the book remains as a valuable chronicle of graphic design at this particular moment in time. Handsomely designed and well printed, it is the sort of book that will be more important in twenty or thirty years than it is today.

By far the most significant of Lupton’s publications to date is Design Writing Research: Writing on Graphic Design, a compilation of essays published over the last six years, including pieces by Miller and collaborative essays by the pair. Structurally, the anthology suffers the same affliction of all collected works: an only partial coherence, attributable to the fact that the essays were written at different times, for different audiences, on varied subjects. The writings are loosely gathered into three sections—“Theory,” “Media,” and “History”—though in actuality, all three themes inform all three sections, their prominence in any essay varying only by degree.

Of the three sections, “History” stands most ably alone. It consists of one long piece, “A Time Line of American Graphic Design, 1829–1989,” which first appeared in the catalogue Graphic Design in America: A Visual Language History (New York: Abrams, 1989), a companion to the exhibition of the same name, held at the Walker Art Center in 1989. Lupton and Miller’s quirky yet intriguing overview addresses such areas as fashion, graphic identity for industry, environmental signage, and political cartoons. Some might say that this broad reading does not convey a "true" history of graphic design, but few can question the thoroughness and authority with which the authors present their take. Several of the themes touched upon in this essay are expanded upon elsewhere in Design Writing Research.

In this volume, Lupton and Miller attack a series of important issues in a manner that is provocative throughout. Their subjects range from the origins and structure of writing systems, book design, the contributions (and foibles) of particular designers, subliminal messages, newspaper formulation, and vernacular sources used by schooled designers. The essays are clearly reasoned and argued, even if the authors only rarely cite scholarly sources to substantiate their ideas.

Several of the essays travel roads familiar to readers of journals such as Visible Language and some were born as exhibition catalogue texts, which means they rely on illustrative materials (provided in this book). The strength of the essays, therefore, is neither their originality nor depth, but rather, their authors’ perceptiveness and the clarity with which they present their ideas. In fact, the essays could almost convince us that research complements observation and validates interpretation, and not vice versa.

Several of the book’s more theoretical writings confront graphic interpretation based on perception free of any cultural matrix. As in Mixing Messages, the authors reveal their poststructural belief that no single voice, no single truth holds sway. Instead, they stress individual interpretation operative within a culture. In the essay “The Language of Vision” (a reference to Gyorgy Kepes’ 1944 book of the same name), Lupton and Miller take issue with writers such as Kepes, Rudolph Arnheim, Donis Dondis, and others who have “privileged” (to succumb to the poststructural habit of converting nouns to verbs) the

By the Way
senses over the intellect. “Pervading these works [Arnheim’s 1954 Art and Visual Perception and Dondis’s 1975 A Primer of Visual Literacy] is a focus on perception at the expense of interpretation,” Lupton writes. “Perception’ refers to the subjective experience of the individual as framed by body and brain. Aesthetic theories based on perception favor sensation over intellect, seeing over reading, universality over cultural difference, physical immediacy over social mediation.” While one can hardly dispute these assertions, attacking writings from several decades ago seems a bit too easy. Missing from the essay, moreover, is an acknowledgment that “sensation” is never completely subjective and is itself culturally informed (e.g., language channels perception). Lupton argues that “a study of design oriented around interpretation would suggest the reception of particular image shifts from one time or place to the next, drawing meaning from conventions of format, style, and symbolism, and from its associations with other images and with other words.” Ernst Gombrich demonstrated as much long ago in Art and Illusion: A Study in the Psychology of Pictorial Representation (New York: Pantheon, 1960). But a theory based entirely on interpretation would still need to address a complementary range of physiological processes. For example, the eye must record an image before the mind interpret it.

In the last decade, Miller and especially Lupton have become the principal apologists for the visually complex typographic that developed in the 1980s, particularly at the Cranbrook Academy of Art. A sort of Oedipal reaction to the so-called transparency of Swiss and corporate graphic design which held sway for two decades, the new complexity of Cranbrook reflected the theories then emerging in other creative disciplines. And not to be overlooked is the degree to which it was propelled by the advent of the personal computer, whose effects and even mistakes could look appealing in their freshness. New graphic design software often used boxes as the basic constructional unit. Designers, ever-fascinated by the ruled box, the overlay of text, the freedom of organization, only had to arrange their images and text on-screen—and hit “print.” There didn’t have to be any reason for what was done; it was done because it could be done. A million typefaces in a million sizes, type in a circle, perspective effects—everything suddenly became technologically possible. All the rules—literally and figuratively—could become broken as almost all of the strictures of alignment and separation so rooted in traditional typography were overwritten.

With the arrival of the visual style came the need to explain and justify it, hence the active borrowing of theories from outside the discipline. Lupton and Miller examine this phenomenon in “Deconstruction and Graphic Design,” curiously placed as the book’s lead essay although it appears to have been the last written. (The article was included in the Visible Language series on graphic design.) Lupton and Miller refer to an early issue of Visible Language (Summer 1978), entitled “French Currents of the Letter,” which traded its usual immaculate appearance for near-illegible layouts, the work of Cranbrook graphic design students. The layout makes the act of reading an almost impossible chore. Among its whimsies, the footnotes were rendered more dominant than the text. According to Lupton and Miller, the design of the issue “rejected the established ideologies of problem-solving and direct communication that constituted ‘normal science’ for modern graphic designers.” The authors do not elaborate on just why this stance is desirable. This example marks the introduction of a theoretical fallacy—that the more complex the page, the more intriguing and interesting the message. If, as the authors assert, interpretation is the ultimate goal, it would seem necessary to address the critical link between the design and its interpretation, i.e., the act of reading. The stimulus is much talked about, but what about the response, or the conveyance of the message, the intervening channel? About another work, a poster design by Cranbrook student Allen Hori for a lecture entitled “Typography as Discourse,” Lupton and Miller write, “Rather than deliver information directly, Hori’s poster expects the reader to work to uncover its messages.” Again, is this desirable? Why is the solution to the current disinterest in reading to make the act even more difficult?

Much of this sort of graphic design relies on very shaky theoretical underpinnings. Theories seem to arrive only after the fact, a handy prop to bolster a predilection for complexity, fragmentation, and layering—which, incidentally, many of the visual artists of the 1980s shared. Designers have rarely been considered prescient (except by other designers), and what they normally term “theory” is hardly regarded as such by members of other disciplines. Hence, the inclination to look outside the field for direction. In architecture, influences have included (just since the 1960s) operational research, linguistics, semiology, and structural anthropology. Foucault casts a long shadow over several essays in the book, most explicitly in Lupton’s “Discipline of Design.” This essay, which had not been previously published, is the most problematic, essentially adopting the structure of Foucault’s thought and replacing his themes of medicine and madness with design. “We have positioned design as both sickness and cure: it is the object of a pathologist’s study (madness) and the subject of specialized knowledge (medi-
ciné)," she writes. As in several instances, the application of theories from other disciplines to graphic design seems forced and insufficiently substantiated to be convincing. Like Cinderella's glass slipper on a poseur, the fit is not comfortable.

Drawing a parallel with architecture, Lupton and Miller quotes theorist Mark Wigley's essay in the catalogue Deconstructivist Architecture (New York: Little Brown, 1988): "A deconstructive architect is . . . not one who dismantles buildings, but one who locates the inherent dilemmas within buildings. The deconstructive architect puts the pure forms of architectural tradition on the couch and identifies the symptoms of repressed impurity. But what's missing from much of the current theoretical writings is the "why"—for example, in the case of this quotation, why not consider repression a viable response? Lupton, Miller, and others routinely substantiate their broad liberal perspective by citing sociological factors: we must deal with multiple points of view because each of us is an individual. But we are individuals in society, and thus need to examine what we have in common, in addition to how we differ. By constantly maintaining that each position is equally valid, we may be left with precious little common ground upon which to interact.

"Today, in the mid-1990s, the term 'deconstruction' is used casually to label any work that favors complexity over simplicity and dramatizes the formal possibilities of digital production," observe Lupton and Miller, who take great pains to correct this error. The forces behind deconstructivism concern truth and interpretation, and have nothing to do (inherently) with style. Even the simplest Swiss-style graphic, the most banal glass-skinned building, or a common stop sign can yield a multiplicity of interpretations depending on the context of its interpretation. Critics and, perhaps to an even greater degree, designers have continually misapplied the theory of deconstructivism to graphic design and architecture, tending to equate it with neo-deconstructivism or other complex geometries. Though a seemingly obvious point to make, the authors remind that theory is not style.

"White on Black or Gray," the strongest chapter in Design Writing Research, draws less from high-blown constructs and more from thoughtless observation. The subject of this essay by Miller is race as used in American advertising. While "the history of demeaning and stereotyped representations of African-Americans has been the subject of much recent scholarship," Miller claims that "few writers . . . have discussed the impact of the civil rights movement on the nature and scope of advertising imagery." Although relying extensively on page layouts taken from popular magazines, this piece is not a photo essay per se. The author provides a balanced relation of word and image, sociology and graphic design, examining the markets, media, photograph, and designs. This essay astutely excavates the layers of associations behind the surface, recalling the interpretations of Roland Barthes in his classic Mythologies (Paris: Editions du Seuil, 1957).

Although the book's title is Design Writing Research, the authors present little of their own design work except the book itself (an appendix offers a few pictures of their exhibition installations). The design style of this pair is far from the works they often examine: the volume is a handsome product, beautifully laid out and printed, as well as easy to read. Only in the essay on deconstructivism, which is treated as a book within a book (and curiously rendered in gray as a section head on the title page), does the design border on the willful. More characteristic of the book pages, though, is a balanced play of type weights and color and images, which facilitates comprehension and makes reading pleasurable. The authors favor a rebus-like correlation between text and image, almost like a reading primer. This certainly makes for easy reading but denies to a degree the possibility for oblique or ironic interpretations and associations.

All of this brings to mind a startling scene in Ingmar Bergman's Fanny and Alexander in which a women and a man sit alone, facing each other, engaged in acrimonious argument and accusation. Bergman increases the impact of the verbal assault by closing in on the man, leaving viewers to imagine the woman's reaction. Over the man's voice, while he harangues her, a curious rattling sound mounts; it is the rattling of the spoon in her coffee cup. Violently upset, her body shakes the table against which she is leaning, causing these irregular pulsations. Eschewing overt pictorializing, Bergman draws us more deeply into the relationship, engaging us further into the scene. There is a lesson here for graphic designers. Why not forge words and images in forms and relationships that provoke apprehension and draw out readings—and yes, interpretations, as well?

NOTES

MARC TREIB is a professor in the School of Architecture at the University of California at Berkeley. His recent books include Space Calculated in Seconds: The Philips Pavilion, Le Corbusier, Edgard Varèse (New Haven: Yale University Press, 1997) and, with Dorothee Imbert, Garrett Eckbo: Modern Landscapes for Living (Berkeley: University of California Press, 1997).
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