

Books

Sigrid de Jong

Rediscovering Architecture: Paestum in Eighteenth-Century Architectural Experience and Theory

New Haven, Conn.: Yale University Press, 2015, 352 pp., 100 color and 185 b/w illus. \$85.00 (cloth), ISBN 9780300195750

Sigrid de Jong's *Rediscovering Architecture* is about several things at once. Most evidently, it is a book about a group of three famous, if not iconic, archaic Greek-Doric temples: Paestum's Temple of Hera I, built around 530 BCE, the oldest and most idiosyncratic of the three, commonly referred to in the eighteenth century as the Basilica because visitors could not believe such a peculiar building had been a temple; the Temple of Athena, constructed ca. 520 BCE, the smallest of the three; and the Temple of Hera II, built ca. 460 BCE, the largest and the most conventional. At the time of their rediscovery around the middle of the eighteenth century, these structures were met with a variety of reactions, including vivid and often dismissive descriptions expressing everything from astonishment to distaste. These temples did not resemble any buildings with which eighteenth-century visitors were familiar; Paestum turned accepted ideas of classical architecture upside down. De Jong notes, for instance, that it is known that Johann Wolfgang von Goethe, upon arriving on the site of these porous limestone temples with their rough columns, was at

first uncertain whether he was seeing rocks or ruins. And Antoine Vaudoyer, visiting Paestum in the summer of 1787, found the temples "of heavy and clumsy character," with "the form, the grace and subtlety of Hercules" (47). The temples were the subject of captivating drawings and paintings, as in Thomas Hardwick's sketchbooks and William Turner's dramatic watercolors (many of which provide beautiful illustrations for this book), and of lavish publications. Between Gabriel-Pierre-Martin Dumont's *Suite [Suite] de plans* (ca. 1750) and Paolo Antonio Paoli's *Paesti* (1784), mid-eighteenth-century authors produced no less than seven monographs on the temples of Paestum.

De Jong's book is also about the life of the temples in eighteenth-century architectural thought. Rather than starting from an analysis of built forms, it unfolds from the human responses to them. Paestum generated half a century of controversy, mainly in France, England, and Italy. These debates revolved around the central concerns of eighteenth-century architectural, artistic, and aesthetic thinking, among them ideas about primitivism, the beginnings of civilization, and the origins of architecture. One could argue, and De Jong does convincingly, that Paestum functioned as a testing ground for eighteenth-century architectural discourse. Some themes even originated there, often because preconceptions were overturned in light of Paestum's unusual buildings. De Jong reconstructs the site's preeminent and crucial role in architectural aesthetics and artistic debates by considering visitors who encountered Paestum in very different ways. She offers extended and detailed examinations of a diverse range of sources, including letters, diaries, books, drawings, paintings, and engravings—many of them rarely or never before published and all

attractively reproduced here. Through this evidence, she shows how visitors' engagement with Paestum often developed in several stages, marked by the interactions of theory and experience. De Jong's main hypothesis is that the perception of Paestum did not alter as a result of changing architectural ideas; rather, architectural thought evolved alongside and on the basis of the experience of Paestum.

The third layer of *Rediscovering Architecture* concerns architectural experience. De Jong's emphasis on varied encounters with and perceptions of Paestum is what makes this book different from earlier treatments. It is also what makes the book stand out from most other scholarly publications on eighteenth-century architectural discourse; its significance extends far beyond the time period under consideration. Obviously, the book investigates an era in which the direct experience of architecture acquired a central position in architectural theory, as in the ideas and writings of Jacques-François Blondel, Julien-David Le Roy, and Sir John Soane, to name a few. The oeuvre of Giambattista Piranesi, who was also involved with Paestum, would be unthinkable without these developments. The impact of architecture on the beholder became an essential component of the value placed on a building. De Jong's meticulous analysis of this process provides insights that have important implications for architecture well beyond the eighteenth century. Such studies of architectural experience are rare.

The structure of the book, which is divided into three parts, each comprising two chapters, reflects the diversity of travelers' responses to Paestum. The first part, "Aesthetic Experiences," analyzes written and visual records of visitors' impressions in light of two prominent aesthetic concepts of the period: the sublime and the picturesque. Many accounts of "sublime"

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experiences drew on the immediate sensations evoked on the spot and were in fact ahistorical. This book is unusual in the prominence it gives to such feelings, which were the result not of established knowledge but of the intense reactions of overwhelmed viewers, whether they were architects, writers, or sculptors. The author proves that in architecture, much as in Turner's watercolors, the sublime cannot exist except through experience. Yet being there in the flesh did not lead to immediate comprehension, nor did carefully constructed prior knowledge help visitors to understand the site. Rather, as De Jong states, on encountering Paestum, "everything [one] knew no longer seemed relevant" (48). Moreover, "the architecture of Paestum could not be taken in at a single gaze, as in the classical theories—on the contrary. The vastness and infinity so clearly delineated in the theories of Burke were to be experienced in the extent and spatiality of Paestum. Knowledge from books and engravings was not useful when it came to experience of the reality: . . . It had no place in the powerful impressions of the sublime that Paestum imprinted on [the] mind" (48).

In the second part of the book, "Experiences of Movement," De Jong follows travelers as they entered the temples and experienced a sequence of responses, which they then disseminated in texts, engravings, and paintings. This approach provides groundbreaking insights, since few existing studies offer clues about how to analyze writings that are rooted in physical space. Heinrich Wölfflin, of course, was one of the few early art historians to write about the bodily experience of architecture, and his *Prolegomena zu einer Psychologie der Architektur* shows how our experience of and relation to architecture are rooted in our physical being. As De Jong notes, "It was exactly this break with conventional interpretations, arising from Paestum's lack of functional or iconological context, that launched an awareness of the process of observation" (135). Hence, even more than in the preceding section, she focuses here on the intense physicality of visitors' actual experiences at Paestum. Such experiences were possible because the temples were still relatively intact: "They were not the kind of remains that had to

be reconstructed in the mind. One could actually feel the spatiality in the monument *an sich*" (135). In this part of the book, De Jong shows how entering the ruins in the flesh, as opposed to occupying them in the mind, resulted in something entirely different from the eighteenth-century theoretical discourse on ruins, in which the remains of architecture caused spectators to reflect on themselves, their lives, and their character. She then turns to the artist who pictured the temples most realistically, Piranesi, and argues that his etchings "eventually made explicit what eighteenth-century visitors actually knew but had not expressed before: real Greek buildings had very little to do with the Renaissance version of classical architecture" (166).

This argument is further developed in the third part, "Contextualising Experiences." Here De Jong investigates reflections on the past to which Paestum gave rise and the influence of the site on a rethinking of classical architecture as a design model. She starts from an investigation into the concepts of primitivism and of origin as invention in the context of architecture, issues she has also addressed in an earlier publication titled "Piranesi and Primitivism."¹ Next, she discusses the temples as possible, or rather impossible, examples for modern—that is, late eighteenth-century—building. De Jong accurately calls this section "Paestum Exported." By singling out and exporting limited features of the temples, one arrives at an "architecture without experience," which shows "the poverty of selecting nothing but an order from the architecture of Paestum" (259).

In this way the author leaves us with a double paradox. The first one she addresses in the context of her discussion of the sublime, where she argues that the sublime could achieve what accepted architectural theory could not: it could be used to make sense of what she calls "the paradox of Paestum." The spatial quality and the ahistorical, primitive character of Paestum were precisely what made the experience of the site so disruptive to classical canons and ideals of beauty. The paradox of Paestum is that "a direct experience of the temples . . . , which had themselves been constructed in antiquity, served to undermine the claims of classicism to aesthetic supremacy" (65). A second paradox concludes the book's third part, where De Jong observes that in

the process of "exporting" Paestum, its experiential dimension was stripped away: "Paradoxically, while in one sense knowledge increased, in another genuine comprehension of Paestum . . . disappeared in the process of abstraction, and the version disseminated to the public . . . was emasculated and generalized" (261).

This wonderfully edited and richly illustrated book points to some thought-provoking contradictions in eighteenth-century architectural thinking, while stimulating rumination about our relationship with—our experience of—any built architecture. By using architectural experience as a focal point, *Rediscovering Architecture* not only extends our understanding of Paestum and of complex trends in eighteenth-century thought but also elucidates the cultural meaning of buildings and the impact of a building on the beholder while stimulating reflection on our own contemporary engagement with architectural space.

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Note

1. Sigrid de Jong, "Piranesi and Primitivism: Origin as Invention," in *Aspects of Piranesi: Essays on History, Criticism and Invention*, ed. Dirk De Meyer, Bart Verschaffel, and Pieter-Jan Cierkens (Ghent: A&S/books, Department of Architecture and Urban Planning, Ghent University, 2015).

József Sisa, ed.

Motherland and Progress: Hungarian Architecture and Design 1800–1900

Translated from the Hungarian by Stephen Kane
Basel: Birkhäuser, 2016, 996 pp., 767 illus.
\$112.00 (cloth), ISBN 9783035610093

Research on the nineteenth century, including the reevaluation of historicism, has become an area of intense interest throughout Europe over the past few decades. This bulky and richly illustrated volume on Hungarian architecture and decorative arts, published in Hungarian in 2013 and recently translated into English with minor changes, exemplifies this tendency. Presenting a comprehensive history of the nation's art has long been a focus of art historical writing in Hungary. A plan for an eight-part series—of which this book is a part—was initiated in the 1970s, and some

of the volumes were published in the early 1980s, including one on the 1890–1919 period.¹ Work on the volume focusing on the nineteenth century was begun, but when historicism became a subject of reevaluation during the 1980s, previously overlooked artifacts came to light and a vast new literature emerged. This latter point is well illustrated by the bibliography in *Motherland and Progress*: most of the works making up its nearly nine hundred entries were written during the past three decades.²

The volumes in the series were conceived as handbooks, each presenting the history of a given era's art and architecture according to the current state of research. At the same time, new research is integrated with that of earlier generations of scholars. A total of sixteen authors participated in writing the latest volume, and two-thirds of its chapters were written by volume editor József Sisa, the leading scholar of nineteenth-century Hungarian architecture. Originally, the book was meant to discuss all the fine arts together, but faced with the outpouring of available materials, the volume's editors decided to treat the history of architecture separately. This decision also expresses the increasing appreciation of architecture by the wider public.

Hungarian developments here are related to and interpreted as part of broader developments in Europe during the nineteenth century, namely, the defining waves of social modernization and urbanization. The book argues that Hungarian society and culture were trying to catch up with Western Europe following decades at the beginning of the nineteenth century when they lagged behind. The new title for the English version, *Motherland and Progress*, aims to express this aspiration.³ The book situates a cross-section of European developments in relation to Hungarian ones, addressing dominant trends and offering complementary discussion of regional variations and significant individual achievements.

Choosing a century as a time frame is conventional in historiography, but historical concepts and evaluative judgments also played a role in this choice of framework. A look at the preceding volume, which covers the period from 1890 to 1919, reveals a significant shift in the approach taken in the new book.⁴ The earlier volume describes the 1890s as a period that witnessed a crisis of historicism and the upsurge of new trends,

while the current book sees this decade as the peak and fulfillment of the nineteenth century's historicizing tendencies. *Motherland and Progress* divides the century into three stylistic and conceptual periods: neoclassicism (1800–1840), romanticism (1840–70), and historicism (1870–1900). This periodization is partly based on international and Hungarian standards (the impact of the Germanophone literature and especially that of the works of Renate Wagner-Rieger are noteworthy here), but it also results from the content of records explored during the research. The periodization is primarily significant as a means of classification, which, in addition to the assessment of features of morphology and style, takes into account key historical and social changes. A fundamental goal of the project was to present the diverse monuments and artifacts of the period in their full complexity, without simplification.

The length of the individual chapters varies depending on the nature and importance of the historical era and the extent of the available records pertaining to it. For example, the chapter on historicism during the last third of the century is as long as the two previous chapters combined. However, across chapters the structure is similar. In each chapter, an introduction provides a general overview of the main historical and political conditions of the era and the framework of architectural activity. Important architects are introduced, and developments in architectural education, as well as in professional organizations and institutions, are addressed. After that, buildings are examined on a typological basis. The panorama is completed with discussion of developments in landscape design, decorative arts, and material culture; the role of new materials and new structural systems are considered, as are issues around architectural decoration.

Urban development receives special attention, above all that of Buda and Pest and, eventually, the united city of Budapest. Special organizations like the Beautification Committee (1808–57) and later the Municipal Council of Public Works (1870–1948) played a crucial role in regulating territorial development and building construction as well as in controlling the projects that were realized. The latter organization could have been given stronger emphasis, with discussion at the beginning of the historicism chapter instead of in the middle, or it might

even have deserved an independent, portrait-like presentation.

As was the case with urban development elsewhere in the nineteenth century, the expansion of construction tasks and building types was significant in Hungary. The defining elements of the era were secular public and residential buildings. However, church and castle architecture still remained important arenas. In addition to imposing public buildings for administration and culture, various service institutions and infrastructural facilities are also discussed. One key feature of the period was the increased significance of the palace type, expressing the desire of the emerging civil, entrepreneurial, administrative classes to follow the lifestyle of the former elites. Palace-type buildings, which could be either public or private, included grand private residences and public tenement houses. In Central Europe and Hungary, the neo-Renaissance-style palace became widespread because it corresponded to the self-image and ambitions of the middle classes while having the added benefit of flexibility and adaptability. However, contemporaries criticized that style's heavy symbolism and monumentality, which in turn contributed to difficulties in maintaining hygienic and comfortable conditions, as well as to high construction costs and a shortage of apartments with affordable rents.

The book's two final chapters present the 1890s as a peak moment, completing and terminating Hungary's nineteenth-century aspirations. Concluding the volume's narrative, which begins with the country's backwardness and its architects' attempts to overcome this shortcoming, the final chapters complete the story dramatically. In the chapter dealing with constructions related to the 1896 millennial celebration of the Hungarian conquest, author József Sisa seems to share a self-evaluation common to the era, according to which Hungarians "could now rightfully claim" that "they had worked off their historical disadvantage" (781).⁵ Grandiose constructions led to a quantitative and qualitative shift in the Budapest cityscape, where new buildings, as Sisa cautiously criticizes, were in some cases of almost "megalomaniac" scale. This was precisely the case with the two most prominent projects of the time, the Parliament Building by Imre Steindl (1885–1902) and the Buda Castle by Miklós Ybl and Alajos Hauszmann

(1875–1905). The latter was the biggest royal castle in Europe, its size tripled during the period, even though it went virtually unused.

The final chapter deals with new phenomena and alternatives to historicism. Emphasized here are continuity and the “organic” transition of old into new, as was the case with architect Ödön Lechner, who represented a departure from historicism in some previous interpretations.⁶ However, the breaking points—when historicism definitively lost its validity and historic Hungary collapsed during World War I—remain outside this volume’s frame and are not the subject of reflection here.

With a few changes, the English edition follows the Hungarian original, including brief explanations of select historical facts and events. Rich and genuinely diverse illustrative material fits the text and aids the reader’s understanding of the authors’ arguments. The endnotes, ample bibliography (listing mostly Hungarian publications), and name and place index lend the book scholarly heft. The forty-three brief essays on significant individual buildings are informative and illuminating; unfortunately, similar portraits of the most important architects are not provided. Maps that might have aided readers in locating buildings are lacking, as is an international comparative chronology; these would have been of substantial benefit. That said, it is highly welcome that this thorough and demanding work has been made available in English, as its advent will help to integrate the nineteenth-century achievements of Hungarian architecture into an international conversation.

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Notes

1. The published volumes of the series History of Hungarian Art are Lajos Németh, ed., *Magyar művészet 1890–1919* [Hungarian art 1890–1919] (Budapest: Akadémiai Kiadó, 1981), nos. 6/1–2 in the series; Sándor Kontha, ed., *Magyar művészet 1919–1945* (Budapest: Akadémiai Kiadó, 1985), nos. 7/1–2; Ernő Marosi, ed., *Magyar művészet 1300–1470* (Budapest: Akadémiai Kiadó, 1987), nos. 2/1–2. The Hungarian-language original version of the book under review is no. 5/1 in the series.
2. For a comprehensive history of Hungarian architecture, see Dora Wiebenson and Sisa József, eds., *The Architecture of Historic Hungary* (Cambridge, Mass.: MIT Press, 1998).
3. The title phrase is a Hungarian adage adapted from Ferenc Kölcsey (1790–1838), one of the

most important poets and liberal political thinkers of the Reform era (1825–48).

4. See Németh, *Magyar művészet 1890–1919*.

5. In the introduction to the historicism chapter, Sisa admits that “even at this rate of development . . . Hungary had still not reached the level of the Western half of the Empire, while the Monarchy was also still behind the rest of Western Europe” (423).

6. For example, the classic essay “Magyar építészet” (Hungarian architecture), by the Hungarian philosopher and art historian Lajos Fülep, which was first published in the literary journal *Nyugat* [West] 11, no. 8 (16 Apr. 1918), deeply influenced the evaluation of historicism and turn-of-the-century architecture until the 1980s. For a contemporary position, see János Gerle, “Hungarian Architecture from 1900 to 1918,” in Wiebenson and Sisa, *Architecture of Historic Hungary*, esp. 225–30.

Ioanna Theocharopoulou

Builders, Housewives and the Construction of Modern Athens

London: Artifice Books on Architecture, 2017, 176 pp., 154 illus. \$39.95 (paper), ISBN 9781908967879

If the construction of Brasília and Chandigarh has been explained—in James Scott’s seminal work—as the outcome of “seeing like a state,” then the twentieth-century transformations of Athens can best be understood, Ioanna Theocharopoulou tells us, from another point of view.¹ As the title of her book *Builders, Housewives and the Construction of Modern Athens* hints, one must appreciate “seeing” like a builder, or a rural migrant, or a refugee—a person who is cash-short, in urgent need of shelter, and distrustful of a state whose officials, in turn, are eager to accommodate private initiatives and turn a blind eye to quasi-illegal urban developments. One must also understand, Theocharopoulou continues, “seeing” like a housewife who is coming to terms with her own modernity in the midst of these and other circumstances.

Theocharopoulou’s meticulous analysis connects the Greek authorities’ apparently erratic attitude toward planning with specific historical circumstances and cultural idiosyncrasies that produced the Athenian metropolis. Incorporating tools from social history, anthropology, and gender studies, her book provides a valuable historical perspective on Athens, one that highlights the entwinement of dwelling and urbanism and shows that the city’s anonymous residential architecture has a distinctive character and

historicity: it emerged in response to internal migration and refugee influx due to war, cash shortages, particular legislative frameworks, linguistic debates, entrenched gender roles, and deregulation tactics—all combined with canny actions by both residents and administrators (such as the notorious variances on building codes). All these disparate factors, Theocharopoulou shows, were bound up with issues of identity, nationhood, urbanization, and modernization. Even as these issues changed in nature and intensity from the nineteenth to the mid-twentieth century, they created the conditions for the proliferation of the type of multistory apartment building known in Greece as the *polykatoikia*, which constitutes the quintessential element of the city’s urban landscape.

In historicizing the building culture of Athens through multiple filters—the images give rich flavor to the fascinating archival material the author has investigated—the book skillfully synthesizes existing knowledge about the *polykatoikia* and its urban role. Further, it extends local and international scholarship that has contemplated the underappreciated qualities of the scale and diversity of Athenian apartment buildings. (Essays by Kenneth Frampton and Dimitris Philippidis are cited, but more recent discussions of the *polykatoikia* by Pier Vittorio Aureli and his colleagues also come to mind.)² Theocharopoulou also draws on urban theory in discussing the benefits of the “part-exchange” system (a process whereby the owner of a piece of land could exchange it for units in a *polykatoikia* to be built there by a developer) and the social integration processes initiated by the *polykatoikia* (which allowed rural migrants and refugees to enter the lower middle class). These reflections highlight the Athenian *polykatoikia* as an alternative to the shantytowns of other rapidly urbanizing cities of the global South. Although more direct engagement with the insights of geography could be included, the book is a testimony to architectural historiography’s interdisciplinary achievements and its capacity to provide in-depth investigations of urban space.³ More important, this multifaceted investigation demonstrates how different actors have produced different forms of modernity. This is a crucial contribution. Among other things, it helps challenge interpretive models focused on the “transfer” or “importation” of planning and

architectural strategies—problematic perspectives that characterize not only the agendas of twentieth-century modernization but also some of the architectural and urban histories of modernization.

Of particular importance to the book's argument are the processes of improvisation that created the *polykatoikia* type and what Theocharopoulou refers to as “informal urbanism.” Intriguing propositions that allow new ways of contemplating both the history and the current resonance of the *polykatoikia* include the assertion that it might be seen as an example of Bernard Rudofsky's “architecture without architects” brought to an urban sphere, and the observation that the *polykatoikia* anticipates the more recent adaptable building types of Alejandro Aravena's Elemental in Chile. Conversely, it would be vital to further unpack notions of improvisation, spontaneity, and informality, especially in light of larger critiques of ad hoc, bottom-up, and self-help processes that remind us that informality does not necessarily equal neutrality.⁴ Even if one does not apply a Marxist critique—which might argue that the “individualization” of housing let the state off the hook, had a politically conservative effect in giving people “a stake in the system,” and celebrated as freedom of choice what was actually “compulsion in the absence of alternatives”⁵—one still wonders about the merits of an urbanization that made housing construction and laissez-faire individual interests the chief drivers of the city's economy.

In a similar vein, it would have been beneficial if Theocharopoulou had problematized the issue of modernization in as nuanced a way as she treats the issues of nationhood and identity. She is of course correct to highlight the *polykatoikia* as a modernizing agent, and perhaps right to argue that the modernization of Greek society was quite locally particular. But as it was elsewhere, modernization in Greece was subject to tensions between empowering potentials and processes of social control. While the *polykatoikia* became a mechanism for accommodating refugees and former rural dwellers, did it not also insert urban life into the logic of the market and economic speculation, with immense environmental and other consequences? Recognizing such paradoxes embedded in processes of modernization

would not necessarily require reverting to the critiques of Athens's urban character as random and inconsistent—critiques that Theocharopoulou rightly dismisses at the outset. Recognizing the paradoxes and ambiguities of modernization would, for example, allow a closer examination of other possible substructures of power, funding, and influence that shaped modern Athens. These ambiguities begin to surface in the chapter on housewives, where the author unpacks gender and social tensions.

Other chapters could push such analysis further. One wonders, for example, did not the United Nations or NATO have a role in Greece's experience of the Cold War, which the author highlights as important in shaping the *polykatoikia*? The United Nations is acknowledged only in passing, even if it was instrumental in advancing the view of housing as nonproductive, an idea that was widespread internationally, and, as Theocharopoulou tells us, also professed by the Greek state. Even if foreign consultants were not responsible for the emergence of the *polykatoikia*, did foreign influences have no impact on the infrastructures, industries, economic models, and development policies shaping urbanization and modernization in Greece? Similarly, it would have been helpful if the author had supported her archival research on specific figures involved in Greece's modernization with broader critical perspectives on modernization and development. Such an approach might have allowed her to unpack further the political investments behind claims of comprehensiveness and local empowerment and to elucidate how Greek architects' ethnographic interests and “detailed analyses of local building culture” (95) are not merely reflections of sensitivity to a locale. The discussion of modernization could have been supported by systematic engagement with current theories and critiques of the assumptions and tactics of development, informal or otherwise.

Theocharopoulou does well to insist on understanding Athens “in its own terms” (9). Indeed, her discussion of the particular significance of neoclassicism to the Greek context, analysis of debates on the Greek language, and investigation into the role of housewives, as well as the insightful connections she draws to the anthropological analyses of shadow theater, are all key to the contextualization of urban transformations

as “expressions of Greek culture and everyday life” (15). One comes away feeling that the book successfully explains why housing in Athens did not take the direction of, say, the Berlin *Mietskaserne* or the Lima *barriadas*.

Still, in reading this book, one is reminded that a similar combination of factors (massive migration from rural areas and quid pro quo processes in which multiple small investors pool their resources, pursue exchanges, or push for amendments, all in the absence of direct government investment in housing construction) has had powerful influence on urbanization in other parts of the globe from the twentieth century to the present day. Although the Athens case is important in and of itself, an attempt at charting parallels with housing processes in other cities of the global South would allow for further contextualization, a historiographic pursuit that Theocharopoulou correctly emphasizes as important. For example, what are the differences between the type of “builder-developer” encountered in Athens and the *yap-satçı* (builder-seller) of Istanbul, particularly in terms of how individual actors employ funding mechanisms and state policies?⁶ The pursuit of such questions could enable a more comprehensive and broader understanding of Athens's urbanity.

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Notes

1. James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, Conn.: Yale University Press, 1998).
2. Kenneth Frampton, *Modern Architecture: A Critical History* (London: Thames and Hudson, 1987); Dimitris Philippidis, *Gia tin elliniki poli: Metapolemiki poreia kai mellontikes prooptikes* [About the Greek city: Postwar paths and future possibilities] (Athens: Themelio, 1990); Dimitris Philippidis, “Eponymi kai maziki architektoniki (1930–1970)” [Formal and mass architecture (1930–1970)], in *Moderna architektoniki stin Ellada* [Modern architecture in Greece] (Athens: Melissa, 2001); Pier Vittorio Aureli, Maria S. Giudici, and Platon Issaias, “From Dom-ino to Polykatoikia,” *Domus* 962 (Oct. 2012), 34–43; Pier Vittorio Aureli, “The Dom-ino Problem: Questioning the Architecture of Domestic Space,” *Log* 30 (2014), 153–68.
3. Works that might have been referenced include Lila Leontidou, *The Mediterranean City in Transition: Social Change and Urban Development* (Cambridge: Cambridge University Press, 1990); Guy Burgel, *Athens, the Development of a Mediterranean Capital* (Athens: Exantas, 1976).

4. See, for example, Rod Burgess, "Self-Help Housing Advocacy: A Curious Form of Radicalism," in *Self-Help Housing: A Critique*, ed. Peter Ward (London: Mansell, 1982), 58–97; Sylvia Chant and Cathy McIlwaine, *Geographies of Development in the 21st Century: An Introduction to the Global South* (Cheltenham: Edward Elgar, 2008).

5. Chant and McIlwaine, *Geographies of Development*, 128. For critiques of informal processes, see also Burgess, "Self-Help Housing Advocacy."

6. Sibel Bozdoğan, "Residential Architecture and Urban Landscape in Istanbul since 1950," in *Landscapes of Development: The Impact of Modernization Discourses on the Physical Environment of the Eastern Mediterranean*, ed. Panayiota Pyla (Cambridge, Mass.: Aga Khan Program of the Graduate School of Design, 2013), 118–41.

Mary N. Woods

Women Architects in India: Histories of Practice in Mumbai and Delhi

London: Routledge, 2017, 236 pp., 115 illus.
\$155 (cloth), ISBN 9781472475305

In 1936, Perin Jamshetji Mistri (1913–89) was the first woman in India to graduate with a degree in architecture. She went on to work as an architect in her father's office, which, with her inclusion, if not earlier, became a family practice. Eight decades later, female students constitute the majority in many Indian schools of architecture, yet there is still no history of the practice of architecture by women in India. Female Indian architects lack the national and international visibility of their male counterparts, some of whom, such as the eminent architects Charles Correa (1930–2015) and Balkrishna Vithaldas Doshi (b. 1927), have achieved global prominence.

Recently, women architects across the world have begun to receive attention, but only three (two in partnership with male colleagues) have received the Pritzker Prize, the so-called Nobel Prize of Architecture, awarded annually since 1979. With her edited volume *Gender and the Built Environment in India*, Madhavi Desai has been a pioneer in drawing attention to the role of women architects and builders in India.¹ Yet much work remains to be done. It is no coincidence that two books now aim to fill this lacuna in our knowledge: Mary N. Woods's *Women Architects in India* and Desai's *Women Architects and Modernism in India*.² These books are the result of a project originally undertaken jointly by these two scholars. Later, after parting ways, they

shared the research they had gathered together. It is Woods's timely book that is the subject of this review, and it constitutes, as she declares, "the first history of how women architects made a modern India" (3).

In *Women Architects in India*, Woods contests the dominant global historical narrative on women architects, patrons, and clients, which privileges European women and women of European descent. Thus, she makes a significant contribution that will aid in upending the Eurocentric account of the history of women's architectural practice, helping to shape a new narrative that also reckons with multiple modes of architectural practice across the world, including the global South. Approximately 27 percent of the architects practicing in India are women, a higher percentage than in the United States or Great Britain, where the field is largely white and male, and professionally educated women serve as employees rather than hold positions as partners or principals.

Focusing on two cities, Mumbai and Delhi, Woods's account juxtaposes the personal and professional lives of twelve women architects representing several generations as well as some significant moments in Indian history. Between its introduction and short conclusion, the book is organized into three major chapters, each of which discusses the work of four architects. In presenting their work, Woods also pays attention to the absorption and translation of modernism in India. Given the lack of architectural archives in India (a lack that is only now beginning to be rectified), research for this book was undoubtedly challenging, especially in regard to early architects. Woods has thus relied on oral histories and interviews as important sources in writing this history, which attends to women patrons and clients as well as to architects. This research is timely. For example, although Mistri had died by the time Woods embarked on her research, the author was able to garner information on the architect through interviews with colleagues and an interview with Mistri's brother available on the website of the HE-CAR Foundation, which supports education on South Asian architecture; she also visited and photographed two of Mistri's extant buildings.

Chapter 1, "Designing for a Post-Independence India," profiles Mistri and

Pravina Mehta, the first female architect in India, who graduated in the 1930s and 1940s, when India was in the midst of its struggle for independence; also discussed here are Hema Sankalia (1934–2015) and Smita J. Baxi (n.d.), who came of age in the following two decades.³ All four women were graduates of the Sir J. J. School of Art in Mumbai, which gives Woods the opportunity to discuss the school's architectural program from its inception in the 1890s to the independence struggle of the 1940s. The section on each woman opens with a subhead that includes her name and a characterization suggesting her significance or contribution. For example, the subhead for Mistri is "The First Woman Architect," while that for Mehta is "A Practice of One's Own." Apart from subdividing individual sections to discuss aspects of each architect's life, practice, and projects, Woods uses the subheads as springboards for other thematic issues. In her discussion of Mehta, who was arrested in 1942 at a Quit India demonstration, we get glimpses of the independence movement, urban planning in India, and the Festival of India in the 1980s. In the section on Baxi, who moved to Delhi to become an exhibition designer at the new national museum, Woods discusses museums and their management in the newly independent nation-state, where women emerged as the "tsarinas of Indian culture" (53). This sort of contextualization allows for a rich and deep appreciation of each individual architect and also links each one to broader cultural and social currents.

The format used in the first chapter provides the template for the next two. Chapter 2, "Building a Practice in Indira Gandhi's India," highlights four architects from the middle generation, all now in their sixties. Having begun their careers in the 1970s, these architects benefited from the huge expansion in construction in the 1990s, which enabled them to build substantive bodies of work. Woods finds a commonality in the works of the members of this generation, noting that Brinda Somaya, Neera Adarkar, Revathi Sekhar Kamath, and Nalini Thakur "all articulate social, cultural, and architectural values that are either explicitly or implicitly Gandhian" (130); here she is referring not to controversial Prime Minister Indira Gandhi of the chapter's title, but to Mohandas Karamchand Gandhi, the great freedom fighter and

national leader of an earlier era. Chapter 3, “Practicing in Neoliberal and Global India,” focuses on Shimul Javeri Kadri, Abha Narain Lambah, Sonali Rastogi, and Sudeshna Chatterjee, all of whom received professional training in India followed by advanced degrees abroad. All of these women began their practices during the past twenty years, amid the effects of a neoliberal economy and the rise of identity politics.

Woods does a good job of embedding the works of each architect in a given context, yet the format does occasionally prove rigid and repetitive over the three chapters. For example, although the structure allows the author to summarize important issues, such as the plight of mill workers and the status of the conservation movement in India, it prevents her from engaging in more nuanced discussions that could have taken her in other directions. I found it fascinating that Charles Correa and, to a lesser extent, engineer Shirish Patel were threaded into the lives and accounts of so many of the women covered in the first two chapters. Similarly, many of the women architects in Delhi worked in the office of American architect Joseph Allen Stein (as did I) and came away with an appreciation of his concern for craft and his sensitivity around locating modern buildings in historical contexts. Woods uses Stein’s involvement to showcase change over time. Apparently, he refused to hire Baxi, as “he felt her presence in the office would prevent him from arguing and cursing” (52), but subsequently, he did employ many other women and eventually took a female partner. As a former employee, I was surprised to learn of Stein’s desire to argue or curse, but my larger point is that this book would have benefited from further exploration of the networks among various individuals. The book highlights the support of women mentors, patrons, and clients, but not the support of men, thus presenting a somewhat skewed picture.

Woods appears frustrated that most of the women did not see themselves as feminists or as “women architects.” A central question raised in this book is, why was being a female architect not a matter of pride in India? Woods does not find a good answer to the question, nor does she examine why it should have been important to these architects to define themselves as feminists. If it is true—that being a female architect was not a matter of pride in India—what

might that mean? Given the focus on individual lives and practices, it is disappointing that the only photograph of a woman architect featured in the book is one of Pravina Mehta. On the other hand, the building projects of the architects discussed are generously illustrated.

Clearly written and well illustrated, this is an important book that will be of use to architects and architectural historians. In tracing the history of the contribution of women architects to India’s built environment over multiple generations, Woods has produced a volume that is likely to become a standard reference on the subject and will have to be taken into account by scholars writing new histories of architectural practice in India and across the globe. Finally, then, Indian women architects will assume their rightfully deserved place at the table.

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Notes

1. Madhavi Desai, ed., *Gender and the Built Environment in India* (New Delhi: Zubaan, 2005).
2. Madhavi Desai, *Women Architects and Modernism in India: Narratives and Contemporary Practices* (London: Routledge, 2017).
3. The exact years of Pravina Mehta’s birth and death are not known; the relevant dates may be 1923–92 or 1925–88. Unfortunately, I was unable to find any information at all on Baxi’s birth and death dates.

Stephen J. Phillips

Elastic Architecture: Frederick Kiesler and Design Research in the First Age of Robotic Culture

Cambridge, Mass.: MIT Press, 2017, 384 pp., 21 color and 134 b/w illus. \$39.95 (cloth), ISBN 9780262035736

Frederick Kiesler’s unorthodox professional trajectory has been the subject of sustained attention in recent years. A figure who operated at the margins of the architectural field, one who questioned the very underpinnings of architecture as a profession by targeting its institutional assumptions, Kiesler developed investigative and design approaches now widely perceived as anticipatory of the current wave of work conceived through—and possible to construct only with the aid of—computers. In this vein, Stephen J. Phillips’s *Elastic*

Architecture is an in-depth inquiry into the life and thought process of an individual who set out to expand the disciplinary boundaries of design. As the author states at the outset, “This book tells the story of Kiesler’s pioneering design ideas and visionary research that formatively challenged the architecture profession to invent new design, education, and building practices” (2).

Broken down into seven chapters, the book takes the reader into Kiesler’s itinerary of spatial explorations, which were largely reflective of the changing perceptions of time and space that came with modernity. As an outsider, Kiesler enjoyed a unique vantage point that allowed him to expose architectural audiences to experiential arrangements that often engaged the built world only peripherally. Installations, gallery arrangements, set design, window displays, graphic design, lighting, his all-too-rare architectural realizations, and teaching and lecturing allowed him to leave a substantial footprint in design culture, prompting the architect and provocateur Philip Johnson to consider Kiesler as among the most creative designers of his era.¹

The assumption governing Kiesler’s undertaking was that the introduction of automation and acceleration—both machine based—had profound and lasting effects on the experience of the human-made environment. This triggered his call to update, or at least revisit, widely accepted practices of space making, then still largely confined to managing the static relationships between architectural objects and program. Early in his career Kiesler carved a niche for himself in stage design, restructuring the connections among viewers, actors, and the stage. To that effect Phillips writes: “This book thus critically examines Kiesler’s transformation of *theatrical space* into the architecture of a total work of art of effects (the *Gesamtkunstwerk*) that fuses viewers, spectators, structure, light, rhythm, and sound into one cohesive spatial atmosphere” (6).

Kiesler’s love affair with the mechanized world informed design visions filled with proto-robotic relationships between parts, parts linked together with hints of the assembly line and of a highly technological universe overriding the vagaries of human action. As an émigré in New York in 1926, Kiesler leveraged the lessons he learned designing window displays for Saks Fifth

Avenue. Inconspicuous commissions, these nonetheless presented him with the opportunity to expose to the masses of New York, then still warming up to modernism, to his visionary ideas. Dynamic geometries, shock effects, dramatization of viewpoints, and lighting variations were some of the tools Kiesler used to rethink the world as he presented it. Space, to him, was inherently elastic, ever shifting, expanding, contracting, always in motion.

Phillips quotes Kiesler, speaking at a design conference in 1940: “Architectural education’s primary purpose is to teach students to think for themselves” (123). In saying this, he was making his own declaration of independence from the growing hegemony of Bauhaus indoctrination then taking place in the United States, as European avant-gardists fled a continent marred by World War II. As an instructor at Columbia University and at the Juilliard School of Music, Kiesler encouraged the new generation to venture away from architectural conventions. In this respect, his Mobile Home Library project, conceived and built from 1937 to 1939, was an attempt to formulate and solve the problem of shelving books dynamically as use and users changed their interdependent relationships over time. (As an aside, the photographs of the Mobile Home Library reproduced in this publication were among the first assignments of architectural photographer Ezra Stoller, whose brother Claude—later to become an architect—assisted in setting up the scene.)

Kiesler was among the first designers to implement several practices now considered standard. His use of diagrams was as novel as it was enigmatic. It certainly raised curiosity among viewers trying to decode the density of the information he laid out. His 1938 biotechnical motion study and his time-scale chart “From Deficiency to Efficiency” are instances of his effort to bring a pseudoscientific angle to the definition of the architectural object. Phillips also brings into relief Kiesler’s invention of a new taxonomy to point to propositions never seen before. “Correalism,” for example, was a bridge term intended to connect technology and the understanding of human needs as the basis of design. Other terms Kiesler developed for his own purposes included “hereditary nucleus,” “corporeality,” and “expansional possibilities”; all were aimed at widening the designer’s

conceptual vocabulary and assisting him in dealing with new types of problems.

It is the word *endless*, however, that flows throughout Kiesler’s oeuvre. His unbuilt Endless House puts him on the map of architectural history. In this unique project, Kiesler delivered an antitechnological vision in which the traditional hierarchy between inside and outside is shattered and the relationships between floor, wall, and ceiling are disintegrated; the house featured a continuous uneven surface made of an undefined organic substance that only partly enclosed the space. Kiesler observed that nature presents form in continuous mutation in space and over time—a concept that could be adapted to architecture. He was a pioneer in this regard. One powerful example of his theory in action is his 1931 scheme for an endless museum, which fascinated modern architects after World War II and led to examples like Le Corbusier’s National Museum of Western Art (1959) in Tokyo. Kiesler’s museum project and many others demonstrate his ambitious goal of fusing the romance of technology with the mystery of the organic, an attempt that sets him apart from peers positioned squarely in one camp or the other.

At times the academic rhetoric of this book is tiring; for instance, consider this passage: “Although his body of work would later suggest alternative and more resistant liberatory applications, his efforts to produce responsive systems designed to modulate to the qualities and intensities of dynamic bodies in motion facilitated a society of unconsciously motivated actions” (162). On the other hand, the key concepts of elasticity, automation, time, and organicism are clearly laid out and reiterated throughout the text. Phillips also misses some opportunities to explore other potentially relevant aspects of Kiesler’s life and work. One possible area of investigation concerns the man’s physical presence. Kiesler’s short stature (4 feet 10 inches) was something often noted by those who met him and a trait examined in past publications on his work; one wonders how much his height might have influenced the exuberance of his designs. Further, Kiesler was a prolific writer, and more excerpts from his publications might have better revealed his points of view on various aspects of modernity.

Despite these shortcomings, the book’s emphasis on how Kiesler demonstrated

that elasticity in architecture is an organic constant in a world dominated by automation and mechanized labor makes it a valuable addition to the growing literature on this multifaceted designer. Phillips has convincingly demonstrated the intellectual coherence of an exceptional character who, through his remarkable work, laid the conceptual foundations for contemporary design.

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Note

1. Philip Johnson, letter to Donald MacKinnon, 8 Sept. 1958, Institute of Personality and Social Research, University of California, Berkeley.

Stefan Al

The Strip: Las Vegas and the Architecture of the American Dream

Cambridge, Mass.: MIT Press, 2017, 272 pp., 63 color and 19 b/w illus. \$34.95 (cloth), ISBN 9780262035743

Is Las Vegas’s architecture a train wreck or a treasure? Almost fifty years after *Learning from Las Vegas*, consensus eludes architects and academics. Either way, Las Vegas remains a continuing object of infatuation for many. Few can look away, as this new book’s existence proves.

In *The Strip: Las Vegas and the Architecture of the American Dream*, author Stefan Al offers a seventy-year overview of most of the major buildings, many of the architects, and some of the causes that have shaped the Las Vegas Strip, the stretch of desert highway that became an international capital of gambling, entertainment, charismatic architecture, and de facto planning. He relies on extensive research, exploring newspaper and magazine coverage, books, archives, and journal commentaries through the years, laying some of the groundwork to understand how Las Vegas came to be. He reminds us, for example, how financing—from Jimmy Hoffa’s Teamsters union pension fund to Michael Milken’s junk bonds—played a key role in making the Strip’s increasingly large hotel-casino dream palaces real. Yet for all its detail, the book does not fully digest the voluminous information it amasses.

Perhaps because its sources mirror conventional perspectives of their times, the book looks through a distorted lens. The

titillation of gangsters, instant wealth, and sin has long dominated reports on Las Vegas in the popular press, and disbelief, distaste, and awkwardness have shaped most high-art critiques through the years. Judged by modernism's traditional measures of authenticity, "honest" structural expression, rejection of historic precedent, and the belief that less is more, Las Vegas, a surreal, mirage-like oasis in the sun-blasted desert, has consistently been found wanting.

Over the years, however, the most useful commentaries on Las Vegas have come from those who—like Tom Wolfe, Reyner Banham, Dave Hickey, J. B. Jackson, Hal Rothman, and John Chase—sidestepped those conventions and recognized truths that lay beneath the mesmerizing tinsel and sleaze. The controversy sparked by *Learning from Las Vegas*, the landmark 1972 text by Robert Venturi, Denise Scott Brown, and Steven Izenour, forced a spotlight onto this hidden but significant corner of American modern architecture.¹ But for every *Learning from Las Vegas*, there have been dozens of Jean Baudrillards, Umberto Ecos, and Ada Louise Huxtables discussing simulacra.

Relying on these distorted lenses leads *The Strip* into some critical blind spots. Al's discussion of the early, formative years of the Strip hotels, for example, lacks the serious architectural analysis given to recent Las Vegas structures by "certified" high-art architects such as CityCenter's Cesar Pelli, Daniel Libeskind, Norman Foster, Helmut Jahn, and Rafael Viñoly, the Cosmopolitan's Bernardo Fort-Brescia, and the Hermitage-Guggenheim's Rem Koolhaas. These are indeed names more famous than those of Wayne McAllister, Martin Stern Jr., Hugh Taylor, and George Vernon Russell, some of the early Strip's architects, or Kermit Wayne and Hermon Boernge, two of the key sign designers of the period. Yet these were the architects and designers who perfected not only fresh formal solutions to challenging new architectural problems but also new building types—and not just new building types but a new "suburban-city" framework into which they fit. Without a solid assessment of these early architects and the historical context in which they worked, the full significance of Las Vegas is difficult to evaluate. They established the design strategies for most of what followed.

"The Strip began as an exception," Al concludes (219), but I disagree. Its early architects were well grounded in—and major contributors to—the architectural, planning, and social trends that were reshaping the nascent Sunbelt metropolises of Los Angeles, San Jose, San Diego, Phoenix, Tucson, Dallas, Denver, Salt Lake City, and Las Vegas with the spread of the automobile in the decades after 1920. They creatively applied concepts—one might say theories—developed and tested in the laboratories of those cities in response to how motorists required architectural scales and configurations suited to the rhythm of car culture. They had practical experience with the culture of recreation and pleasure that was guiding modern architecture in those growing cities. And they worked in pragmatic commercial environments that brought their ideas to a broad general audience. Wayne McAllister's understanding of the ways autos were reshaping cities and living patterns was more fundamental than a simple mimicking of the aesthetics of cars, as *The Strip* implies. Most modern critics ignored these trends and, unaware of the logic behind them, saw the results only as strange and ungainly. Al repeats this mistake. For example, he describes McAllister's seminal designs for El Rancho Vegas and the Sands variously as "strange paradox[es]" (6), "incongruities" (5), and "glaring contradictions" (15).

Anything about El Rancho Vegas or the Sands that seemed strange to untrained eyes, however, actually reflected the innovations of suburban and commercial strip development (both ad hoc and intentional) that blossomed after 1945 in those rapidly expanding Sunbelt cities. Las Vegas was no exception. Its long, organic evolution is best understood, for example, through a study of the history of the vernacular roadside motels and cabin courts of the 1920s and 1930s that reflected the impact of the automobile on culture and the democratized wealth and pleasures of tourism. By the 1950s motels had evolved into larger "motor inns," with features like pools and restaurants, a template for the Las Vegas Strip. These in turn evolved, starting in the 1960s, into the enormous hotel-casinos that became in effect complex and condensed cities within the city. This background is absent from *The Strip*, as are parallel evolutionary histories of the commercial strip, suburbia, the ranch

house, theme parks, and neon signs, any of which would have helped to illuminate Las Vegas's roots.

Because of the city's initial small size, its singular focus on one industry, and the enormous budgets that the gaming industry allowed, the forces reshaping the postwar American West (and most American cities) were magnified in Las Vegas. This is Las Vegas's value: we can see these broad urban, social, and architectural innovations—and flaws—more clearly there because the city focuses their expression. It has been as pristine a laboratory for urban development as the real world may ever offer.

Observers who have included such fresh perspectives have contributed seminal insights, though they are still often marginalized.² Encouragingly, *The Strip*, at times, also challenges the conventional critiques. In discussing the Venetian hotel, with its Styrofoam re-creations of Venice, the author notes that the "real" Venice in Italy is today as much a theme park as the version of Venice in Las Vegas. He recognizes that "theorists obsessed with dismissing heritage copies" (194) are blind to the larger context that shapes these designs; he reports the deep-rooted phenomenon that transformed the New York–New York hotel-casino's simulacra Statue of Liberty into a heartfelt populist shrine in the days after the 9/11 terrorist attacks. "The distinction between mass consumerism and elite culture continues to fade," he observes (220–21). These are excellent insights, but their implications are not plumbed.

Instead, *The Strip* reengages the high-art lens in its last chapter, when Al, discussing CityCenter, calls it "authentic architecture" that "rivals New York's finest contemporary buildings" (198). To elevate modernism's criterion of "authenticity" in a city built on a creative preference for the "real fakery . . . over the fake reality" (as critic Dave Hickey has prompted us) misses the point of seventy years of Las Vegas.³ CityCenter's gleaming sculpted towers, identical to similar complexes in a dozen other cities by Pelli, Libeskind, Foster, Jahn, and Viñoly (most of whom have acknowledged their distaste for Las Vegas), are as much a surreal imposition of architecture from elsewhere as the Las Vegas versions of the Eiffel Tower and Piazza San Marco—only with less wit. Sensing this, Al wavers. CityCenter's

“shock and awe formalism” may be “magnificent individually,” but it is “tame compared to Luxor” (211).

There you have it. You can't have it both ways. *The Strip* mirrors the ambivalence and discomfiture about Las Vegas still seen in the architectural and academic professions. Yet this book's existence confirms academia's continuing curiosity about Las Vegas, however much the city's architecture undermines the tenets of high-art modernism. But perhaps it is too much to ask us to consider casino builders like Del Webb, Moe Dalitz, and Jay Sarno alongside planners like Ebenezer Howard and Camillo Sitte.

A half century after *Learning from Las Vegas*, I would have thought that the mainstream would be further along in consolidating Las Vegas's place in the evolution of modern architecture and planning. Observers such as Venturi, Scott Brown, and Izenour did consolidate Las Vegas's place, and they drew tough-minded conclusions that gave their essays lasting power. If *The Strip* had the same conviction to embrace the city's clear implications, it might have resolved this ambivalence.

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Notes

1. Robert Venturi, Denise Scott Brown, and Steven Izenour, *Learning from Las Vegas* (Cambridge, Mass.: MIT Press, 1972).

2. See, for example, Frances Anderton and John Chase, *Las Vegas: The Success of Excess* (London: Ellipsis, 1997); Reyner Banham, “Las Vegas,” *Los Angeles Times West Magazine*, 8 Nov. 1970; Charles F. Barnard, *The Magic Sign: The Electric Art/Architecture of Las Vegas* (Cincinnati: ST Publications, 1993); Dave Hickey, *Air Guitar* (Los Angeles: Foundation for Advanced Critical Studies, 1997); J. B. Jackson, *Landscapes* (Amherst: University of Massachusetts Press, 1970); Chris Nichols, *The Leisure Architecture of Wayne McAllister* (Layton, Utah: Gibbs Smith, 2007); Hal Rothman, *Neon Metropolis: How Las Vegas Started the Twenty-First Century* (New York: Routledge, 2002); Martin Treu, *Signs, Streets, and Storefronts: A History of Architecture and Graphics along America's Commercial Corridors* (Baltimore: Johns Hopkins University Press, 2012); Tom Wolfe, *The Kandy-Kolored Tangerine-Flake Streamline Baby* (New York: Farrar, Straus and Giroux, 1965); Alan Hess, *Viva Las Vegas: After-Hours Architecture* (San Francisco: Chronicle Books, 1993).

3. Dave Hickey, “Dialectical Utopias,” *Harvard Design Magazine*, no. 4 (Winter/Spring 1998), <http://www.harvarddesignmagazine.org/issues/4/ dialectical-utopias> (accessed 15 Jan. 2018).

Daniel A. Barber

A House in the Sun: Modern Architecture and Solar Energy in the Cold War

New York: Oxford University Press, 2016,
352 pp., 136 illus. \$39.95 (cloth),
ISBN 9780199394012

The pages of Daniel A. Barber's *A House in the Sun: Modern Architecture and Solar Energy in the Cold War* literally glisten. The volume's thick, glossy paper, of a type usually reserved for monographs on canonical figures like Le Corbusier and Ludwig Mies van der Rohe, gives the subject of the post-war solar house a material presence befitting the historical attention it has long deserved but only recently begun to attract. The glare each page casts under overhead light makes the reader feel a bit like a family depicted in one of the book's many revealing archival photographs. A husband, wife, and little boy wear dark sunglasses as they pose for a publicity shot while picnicking on a neat lawn. All around them is the intense shininess produced by a parabolic solar stove kitted out to roast hot dogs and by an expansive solar collector forming the roof of their single-family house—in this case, the fourth experimental demonstration dwelling constructed in the 1950s by the Massachusetts Institute of Technology as part of its Solar Energy Fund. In the photograph, the family gazes out at a bright, hot “possible future,” to use Barber's term, where the confluence of modern design, renewable energy systems, and the single-family house were seen to hold the twin promise of national energy security and new forms of domestic life. In *A House in the Sun* we look back at that past's future, but with the hindsight that the highly staged photograph stands as much for a vision unattained as it does for a critical, albeit largely forgotten, episode in the history of modern architecture.

The historiography of solar power, such as it is, echoes the discontinuous trajectories of the personalities and technologies that constitute its primary subjects. Since the 1950s, when the engineer Maria Telkes led an effort by the Stanford Research Institute to assemble a collection of “all known facts” about solar technologies and publish a comprehensive bibliography for the field (an initiative that Barber details in the book), the creation of historical narratives about

solar energy has been subject to a frustrating cycle of invention and reinvention, recovering and forgetting, revealing and obscuring. The writing of solar history, one could argue, has been shaped by the same geopolitical vicissitudes, consumer habits, and disciplinary blind spots that have contributed to the uneven evolution of solar energy technologies themselves. To take only one example, the historian John Perlin's once-popular book *A Golden Thread: 2500 Years of Solar Architecture and Technology*, published in 1980 with a foreword by the environmentalist Amory Lovins in the wake of the energy crises of the 1970s, languished for decades on the shelves of used bookstores—most often in alternative lifestyle sections—until it was republished in 2013 in a revised and expanded edition even more ambitiously titled *Let It Shine: The 6,000-Year Story of Solar Energy*.¹ At the beginning of *Let It Shine*, Perlin frames his narrative not only as a continuation of the excavation work he started in the 1970s but also as the rekindling of a vision that could be traced, intermittently, all the way back to the beginning of the twentieth century. Just as Charles Henry Pope, in his pioneering 1903 publication *Solar Heat: Its Practical Applications*, saw history as a means of “arous [ing] interest . . . [in] ‘catching the sunbeams’ and extracting gold from them,” Perlin hoped that his archival research might similarly stimulate a move from “today's fossil-fueled world to a solar future.”²

Against the background of this historiographic ebb and flow, *A House in the Sun* resists such straightforwardly operative formulas. For Barber, there is something else at stake in the possible futures constructed in the middle of the twentieth century around solar energy—not simply that the solar house has a history that is useful, but that its history is a specifically architectural one. In this respect, we might think of a complaint that Reyner Banham raised in the introduction to the second edition of *The Architecture of the Well-Tempered Environment*, his frequently cited history of modern environmental control technologies.³ Banham observed that librarians had often incorrectly placed his book on the same shelf as general introductions to technology. This, he thought, was a categorical error that reflected more general schisms in the treatment of technical subjects within architectural discourse and design

school curricula. We can easily imagine that the same shelf also contained a good number of writings on solar energy, wherein the figure of the sun-tempered house, alongside other gadgets like the solar hot dog cooker, was considered as one form of technics among others. Placed on that shelf, no less than on the shelf dedicated to alternative lifestyles, Barber's analyses would seem out of place.

In *A House in the Sun*, the solar house is not the sum total of its equipment. Instead, through a sequence of case studies tracing individual research programs, architectural competitions, and built projects, Barber approaches it as a potent architectural idea—an “argument,” “image,” “symbol,” or “experimental object,” as he variously calls it—that was cultivated and consumed within the expanding circuits of postwar North American-centered design discourse. The fact that almost all of these projects ended in failure, having been left unfinished, dismantled, gutted, scrapped, relocated, or otherwise erased from memory, does not detract, for Barber, from their powerful role as “communication devices.” In the book, the medium of the solar house is just as frequently a promotional photograph, advertising pamphlet, newspaper article, symposium paper, scientific report, technical drawing, or graph as it is a building in the conventional sense of the term. The book's main protagonists, moreover, are just as often engineers, university scientists, conference organizers, energy policy makers, or nongovernmental organizations as they are architects. Seen through these coordinates, the midcentury solar house emerges at the intersection of design and energy expertise; it stands as a crystallization of environmental knowledge.

It is in this respect that Barber's account diverges in meaningful ways from perhaps its closest point of comparison—the architectural historian Anthony Denzer's cogent and similarly heavily illustrated book *The Solar House: Pioneering Sustainable Design*.⁴

At first glance, the two volumes appear to cover much of the same territory, suggesting a kind of nascent renewable energy canon consisting of projects such as the houses of Fred Keck in Illinois, the designs resulting from the Libby-Owens-Ford company's Your Solar House program of the mid-1940s, Maria Telkes and Eleanor Raymond's 1949 Dover Sun House, and George Löf's work in Colorado. Beyond these overlaps, however, the two accounts differ significantly in both scope and emphasis. Denzer directly connects 1950s experiments to the passive solar scene that emerged around the oil crises of the 1970s and then to more recent popular initiatives such as the U.S. Department of Energy's Solar Decathlon. In this trajectory, the solar house is envisioned as a “pioneer” of sustainable design. Barber too addresses the complex afterlife of midcentury solar discourse in a concluding section, but he stops short of framing his material as a prelude to sustainability—indeed, the word does not appear at all in the book's index. Instead, he situates the solar house within an expanded history of architectural modernism that enriches familiar debates about the environmental performance and cultural valence of glass and the relationship between domestic architecture and the concept of the region through extended forays into the socio-ecological context of the Cold War.

In his most illuminating analyses—such as his discussions of John Yellott and Charles M. Shaw's solar house design for a 1958 U.S. Department of Commerce trade fair in Casablanca and of the architecture student Peter R. Lee's 1957–58 “Living with the Sun” House (built in Scottsdale, Arizona, as part of a competition sponsored by the Association for Applied Solar Energy)—Barber seamlessly oscillates between the environmental control equipment and aesthetic appearance of the individual house, the inner workings of burgeoning solar energy institutions, and wider social

and political issues. These wider issues include the global circulation of petroleum, the politics of resource scarcity, the emerging science of energy forecasting, and the growth of international technical assistance programs. What ultimately emerges—and what gives *A House in the Sun* significance well beyond the field of solar design—is an overarching biopolitical argument. Barber envisions the solar house as a critical site for the visualization of new forms of subjectivity. This, in fact, is the kind of work done by the publicity photograph of the family picnicking in front of their experimental house, as well as by many other illustrations in the book populated by the normative staffage of American suburban life. While there are places where Barber might press his interpretations even further to explore the ways in which the particular future staged by solar discourse seems to have consolidated and perpetuated a vision of household labor underpinned by many of the gender-, race-, and class-inflected values that accompanied suburban expansion in the United States, *A House in the Sun* will surely become a central point of reference as historians continue to formulate methodologies both subtle and expansive enough to register the complex environmental coordinates of modern design.

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Notes

1. John Perlin, *Let It Shine: The 6,000-Year Story of Solar Energy* (Novato, Calif.: New World Library, 2013), revision of Ken Butti and John Perlin, *A Golden Thread: 2500 Years of Solar Architecture and Technology* (Palo Alto, Calif.: Cheshire Books, 1980).
2. Perlin, *Let It Shine*, xix, xxi, citing Charles Henry Pope, *Solar Heat: Its Practical Applications* (Boston, 1903).
3. Reyner Banham, *The Architecture of the Well-Tempered Environment*, 2nd ed. (Chicago: University of Chicago Press, 1984).
4. Anthony Denzer, *The Solar House: Pioneering Sustainable Design* (New York: Rizzoli, 2013).

Architecture - Architecture - Theory of architecture: The term theory of architecture was originally simply the accepted translation of the Latin term *ratiocinatio* as used by Vitruvius, a Roman architect-engineer of the 1st century ce, to differentiate intellectual from practical knowledge in architectural education, but it has come to signify the total basis for judging the merits of buildings or building projects. Such reasoned judgments are an essential part of the architectural creative process. A building can be designed only by a continuous creative, intellectual dialectic between imagin