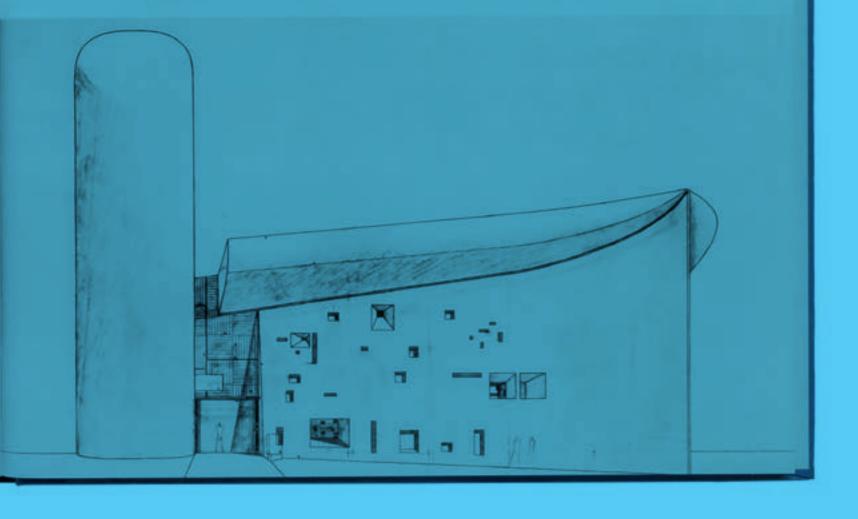
des volumes courbes réglés par des génératrics rechilignes.

buildings in print

Curved volumes governed by rectilinear generators.



PAGE 184

FACADI

PLAYFUL MACHINES

Once the building envelope became fully automated and the modernist dream of a mechanized architecture was attained, operability lost its novelty. The machine aesthetic of modernism was no longer considered an appropriate aesthetic for the contemporary world. Having advanced from the original utilitarian or performance-driven kinetic assemblages, contemporary kinetic façades are driven toward a rather hedonistic set of performances. Movable elements are exaggerated and ornamented to produce new narratives or expressions. In another trend, kinetic façades are composed of serialized found objects such as operable doors, windows, awnings, shutters, and other kinetic elements. The mechanized objects of the modern American home have recently reappeared, but grossly mutated and hyperbolized.

2006 Shigeru Ban's Metal Shutter Houses in New York upscales and scales up the generic metal shutter.









1977 Open Sesane. James Wines and ST Best Products Naco Showroom in Sacoments elides open in a drawer.



1995 Shigery Ban's Curtain Wall House in Tokyo, a lo-B operable Jaçade.



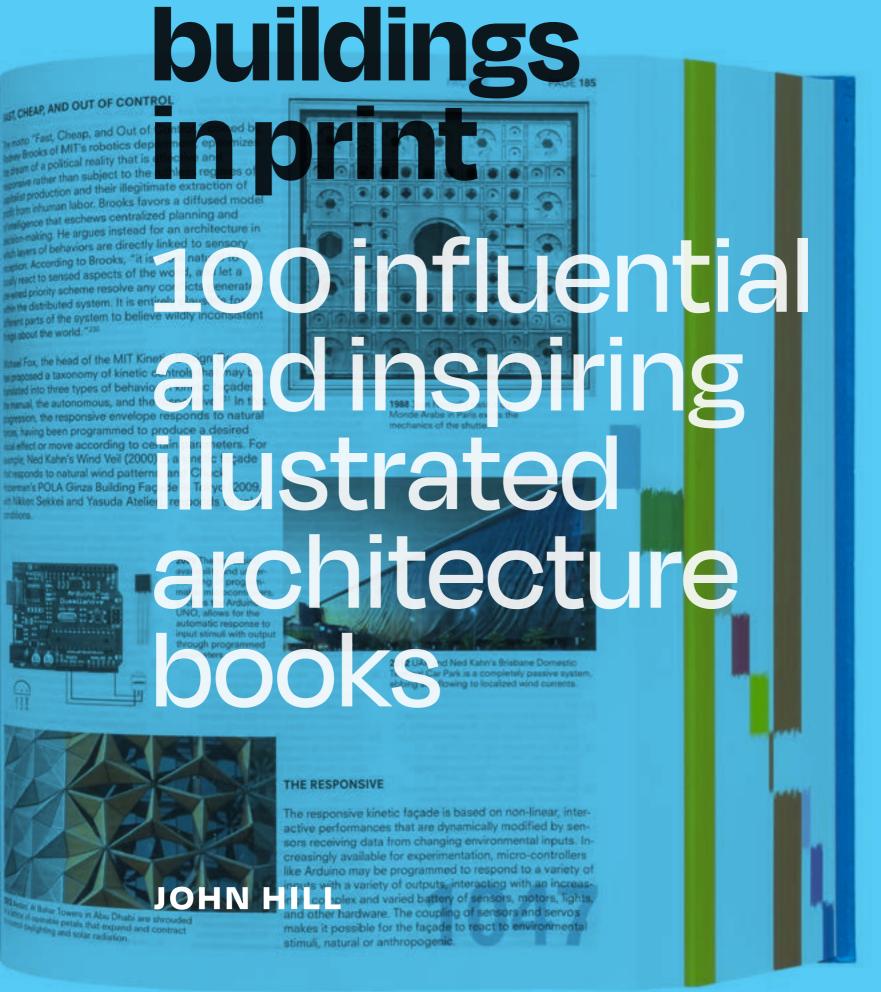
2002 Shageru Ban's Paper Art Museum in Shituoka, opens completely with a series of translucent awnings.

1984 Santago Cale traval's groupe foot of the Erecting Wardson in Constell, German is modest common









Prestel

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Introduction

I love books.

In particular I love architecture books. More specifically, I love illustrated architecture books. This love has led to books defining various parts of my life: a sizable personal library that seems to push me and my family out of our apartment; a blog devoted to architecture books called *A Daily Dose of Architecture Books*; a tendency to always have at least one book with me, reading it on the subway or even while walking down city sidewalks; and a stupefaction that other architects do not always share my bibliophilic passion. *Buildings in Print* is the latest expression of my love for architecture books, functioning as a guide for architects wanting to build a library of important books but also as a visual argument for the continued relevance of illustrated books in our digital age.

Illustrated is one of three I-words in the subtitle of *Buildings in Print*, accompanied by *Influential* and *Inspiring*. The hundred books collected here are *illustrated* because the book you're holding in your hands is illustrated, featuring photographs I took of the covers and selected spreads inside each book. This approach allows glimpses of at least a few pages in each title, helping to convey how the selection of images and the layouts of words and images function in architecture books.

I judge these books to be *influential*—both to architects and to the makers of other architecture books—based on my experiences but also on the words of experts and such quasi-objective measures as the number of citations on Google Scholar. I'll admit it's easier to determine the influence of a book published decades ago than one in the last five or ten years, so books published after 2010 tend to function here as indicators of current trends or signals of future paths.

Just how much the books are *inspiring* takes us into a subjective realm, with the selection of one hundred books synthesizing broader recognition—be it awards, best-of lists, or reviews in esteemed publications—with personal preference. To balance any inherent biases (there's bound to be some) in the selection, I solicited a number of relevant peers in the field—architects, professors, writers, etc.—to contribute their Top 10 lists of architecture books that influenced them the most in their education and careers. In a few cases, these lists—inserted as sidebars throughout the book—influenced the titles selected in *Buildings in Print*.

Of the thousands of illustrated books published since Vitruvius's ancient treatise, *De architectura* (ca. 27 BC), how were these one hundred selected? First, these are modern books, in two senses of the word: they were published in the modern age with modern means, and they deal with modern architecture. Books played an important role in spreading the gospel, if you will, of Modernism in the early twentieth century and they continue to be used to disseminate the ideas of architects and scholars alongside websites and other digital platforms. Therefore *Buildings in Print* suitably begins with Le Corbusier's *Vers une architecture* from 1923 (translated as *Towards a New Architecture* in 1927), the book that arguably established

but certainly popularized many of the conventions still used in illustrated architecture books today: the integration of words and images on the page to convey and strengthen arguments; the juxtaposition of images for effect; and the publication of books to make statements, share ideas, and promote an architect's work. One of the main criteria for making it into this survey was a title's publication as a singular, book-length argument, even if, as with *Towards a New Architecture*, the contents of some these books had sometimes been previously published elsewhere. This means periodicals, readers, and other collections of essays are not included here, though they may be as influential and inspiring to architects.

The one hundred books in *Buildings in Print* are structured in nine thematic chapters with at least nine books in each chapter. Books are presented in the chapters in chronological order, typically spanning the decades between the two World Wars and the present. The flow of books hopefully reveals how architecture and the publishing of architectural books have changed across a century of widespread dramatic change. Exceptions are found at the beginning and the end, providing an arc for this book: the first chapter ends in the late 1970s and is then picked up in the last chapter, which carries through to the second decade of the twenty-first century. Here is a brief description of each chapter and the evolutions traced in these categories:

- Manifestos are polemical arguments that state a position about what architecture should be. They were prevalent in the early days of Modernism—between the two World Wars—but trailed off in the 1970s when the social basis of modern architecture remained unfulfilled, formal considerations took over, and manifestos gave way to theories and critiques. The chapter begins with Le Corbusier's groundbreaking polemic, *Towards a New Architecture*, sees the influential writings of Robert Venturi, Christopher Alexander, and their collaborators in the 1960s and 1970s, and ends with Rem Koolhaas, whose *Delirious New York* manifesto was "retroactive," signaling the end of the manifesto as a valid or enduring format for architecture books.
- Knowing **Histories** of architecture is important to understanding architecture, so the second chapter delves into eleven of them, with an emphasis on histories of modern architecture. Often presented in the singular, Modernism was actually quite diverse—conceptually, formally, geographically, etc. Early histories (by Pevsner and Giedion) were genealogical, making the case for Modernism as the next evolutionary step in architecture. Later histories looked at the subsequent evolution and dissolution of modern architecture, but with revisionist and critical glances. Recent books have looked at Modernist projects unfulfilled (Metabolism) and questioned Modernism's founding myths by examining which technological and social concerns (tuberculosis, X-rays) drove architects in the 1920s and 1930s.
- The next chapter looks at **Education**: how students of architecture were indoctrinated into the ways of Modernism in the early decades of the twentieth century and the means by which that learning continues into our current century. The types of books in this chapter are diverse, including reference books about design, technical guides, books geared to students, books documenting a school's curriculum and output, and books about drawing—that still-important media for architects. It starts with *Architects' Data*—aka *Neufert*—an early reference on standards and building types that is still in use, and a book on the Bauhaus, the short-lived but most influential school of Modernism. A couple of recent books focus on drawings as a means of representing history (*Manual of Section*) and of foregrounding elements usually overlooked (*An Unfinished Encyclopedia of Scale Figures without Architecture*).

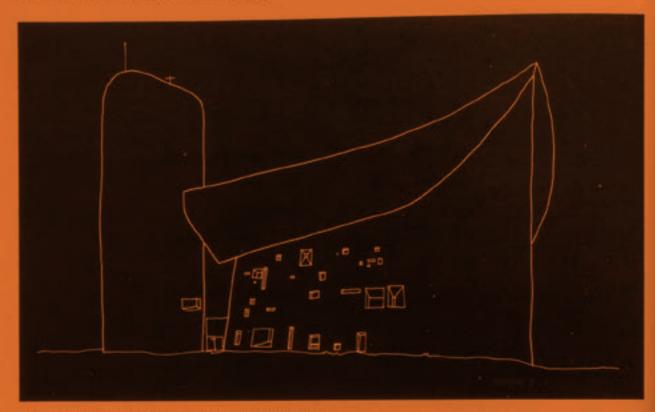
- 4 Houses & Housing is the only chapter that focuses on a building type. It consists of books on single-family houses, which were often the most immediate expressions of early modern architecture, and multifamily housing, for which many architects focused their energies, aligning themselves with the movement's social concerns. Books from the 1920s and 1930s express the early ambitions of social housing as well as the apparent spread of Modernist houses around the world. With climate change brought on by energy usage related to sprawl, among other factors, a reconsideration of the single-family house is underway, as touched upon by the *Atlas of Another America* closing the chapter.
- Monographs (Architects) present the work of individual architects or firms to a wider public, usually under the direction of the architect/firm. Serving the role of promotion as well as education and inspiration, monographs have remained popular if formulaic in the decades since Frank Lloyd Wright and Le Corbusier—or more accurately the editors and publishers behind them—used the format so effectively last century. The most recent titles see architects taking their agency outside of traditional practices and into realms of politics and social justice (*Forensic Architecture*), and they draw attention to collaborations rather than "solo geniuses" by repackaging one such avant-garde outfit (*Archigram*) for contemporary consumption.
- Monographs (Buildings), also known as case studies, focus on individual projects, though here they are exclusively completed buildings, not in-progress or speculative designs. Not as popular as monographs on architects, building monographs are nevertheless important for providing extensive documentation of buildings, revealing insights into how they were designed, and tracing the "lives" of buildings after completion; in turn, the books impact how important works of architecture are understood. Unsurprisingly, Le Corbusier starts the chapter, with a monograph that strives to be an art book. It ends with two recent books, one that captures an architect's passionate, decades-long documentation of one building (Castelvecchio), and one that aids in the preservation of another building (E.1027) while correcting the historical misconceptions around it.
- **Exhibitions** have been an important avenue for exploring particular ideas and establishing novel positions, so the next chapter consists of catalogs for exhibitions. It presents the printed companions of canonic exhibitions as well as notable exhibitions from important institutions of architecture. Exhibitions are place-based and with limited duration, so publishing their catalogs has enabled the messages of exhibitions, not to mention the enormous efforts in mounting them, to find a wider audience. The chapter starts with the most influential exhibition of modern architecture, MoMA's *The International Style*, and ends with Rem Koolhaas's *Elements of Architecture* from the 2014 Venice Architecture Biennale, the most important ongoing architecture exhibition.
- Building Cities includes some of the many books that see architects studying and documenting cities, but more importantly proposing alternative forms for them. This book's roughly hundred-year time frame has seen the most dramatic evolution of cities in human history, with some of those physical transformations—for better or, more often it seems, worse—attributed to architects. Or one architect: Le Corbusier. Logically, his 1925 book *Urbanisme* (translated in 1929 as *The City of To-morrow and Its Planning*) begins the chapter, which traces the rise and fall of his approach, the reactionary embrace of traditional cities, and, finally, a presentation of the ways parts of cities are designed to benefit some people while excluding just as many others.

Although the least visually innovative of the nine categories, **Theories & Critiques** importantly picks up where Manifestos leaves off, in the late 1970s, when Modernism had given way to Postmodernism. This chapter sees critiques of modern architecture balanced by theories, particularly those of phenomenology, which provides an alternative to both the widely disliked forms of modern architecture and the shallow scenography of Postmodernism. If one thing comes across in the ten books spanning nearly forty years, it's the lack of critical and theoretical consensus pervading contemporary architecture. The last book, *Four Walls and a Roof*, highlights the difficulties facing the architectural profession as it enters the third decade of the twenty-first century, while also indicating it's still too early to plunge the proverbial knife into the socially minded hearts of architects.

An unavoidable act in writing about architecture books is quoting Victor Hugo's *Notre-Dame de Paris*. He famously wrote in the book's "This Will Kill That" chapter, "The Book will kill the Edifice." For Hugo, architecture was "the great manuscript of the human race" and therefore most importantly a means of communication, particularly in the design of churches. So his assertion that "printing will destroy architecture" meant the cheaper, easier, lighter, more portable technology of paper books would displace the more laborious "books of stone," resulting in human intelligence "mingling with the very air." There are clear parallels between the technological shift enabled by Johannes Gutenberg in the fifteenth century and the invention of the Internet four decades ago. The expansion of digital networks into every aspect of human life this century has been accompanied by many "this will kill that" sentiments, none seemingly louder than the "inevitable" death of the book at the hands of electronic media, notably e-books and online media. When the Kindle was released in late 2007, it seemed that human intelligence would soon be released from "books of paper" to "mingle with the very air" on waves of zeros and ones.

More than twelve years after the release of that ironically named device, printed books remain more popular than ever. There are at least three things that explain the lasting appeal and relevance of illustrated architecture books. First, the physical construction of books and the design of their pages allow for the clear and controlled expression of visual information; the combination of words, photographs, and drawings so important in architecture books has not found a suitable expression in e-book and online formats, even as the latter integrates videos and other media to expand architectural narratives. Second, bound books are finite entities with a clear beginning and end that enables the architects and students of architecture reading them to locate themselves in the "space" of the book; this is the opposite of the spatially static screen of an e-reader or the endless scroll of online media. The same characteristic also forces authors, working with editors/publishers, to create compact, cohesive statements within the boundaries of the printed page, ideally focusing and strengthening their intellectual arguments in the process. And third, while all books are physical—something they will always have in their favor over digital media—architecture books often excel as beautiful objects of design and legibility. This last sentiment cannot be applied to all architecture books, but the best among them should be celebrated, as Buildings in Print does.

BUILDINGS IN PRINT



The most effective use of suggested metaphor that I can think of in modern architecture is Le Corbusier's chapel 72, 73 at Ronchamp which has been compared to all sorts of things, varying from the white houses of Mykonos to Swiss cheese. Part of its power is this suggestiveness - to mean many different things at once, to set the mind off on a wild goose chase where it actually catches the goose, among other animals. For instance a duck (once again this famous character of modern architecture) is vaguely 78 suggested in the south elevation; but so also are a ship and, appropriately, praying hands. The visual codes, which here take in both elitist and popular meanings, are working mostly on an unconscious level, unlike the hot dog stand. We read the metaphors immediately without bothering to name or draw them (as done here), and clearly the skill of the artist is dependent on his ability to call up our rich storehouse of visual images without our being aware of his intention. Perhaps it is also a somewhat unconscious process for him. Le Corbusier only admitted to two metaphors, both of which are esoteric: the 'visual acoustics' of the curving walls which shape the four horizons as if they were 'sounds', (responding in antiphony), and the 'crab shell' form of the roof But the building has many more metaphors than this, so many that it is overcoded, saturated with possible interpretations. This explains why critics such as Pevaner and Stirling have found the building so upsetting, and others have found it so enigmatic. It seems to suggest precise ritualistic meanings, it looks like the temple of some very complicated sect which reached a high degree of metaphysical sophistication; whereas we know it is simply a pilgrimage chapel created by someone who believed in a natural religion, a pantheism.

Put another way, Ronchamp creates the fascination that the discovery of a new archaic language does; we stumble upon this Rosetta stone, this fragment of a lost civilisation,

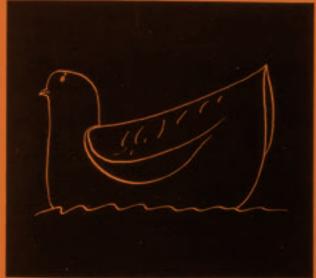


72, 73 LE CORBUSIER, Ranchamp Chapel, France, 1955, View from the south-east. The building is over-coded with visual metaphors, and none of them is very explicit, so that the building seems always about to tall us something which we just can't place. The effect can be compared to having a word on the tip of your tongue which you can't quite remember. But the ambiguity can be dramatic not frustrating – you search your memory for the possible clues.

and every time we decode its surface we come up with coherent meanings we know do not refer to any precise social practice — as they appear to do. Le Corbusier has so overcoded his building with metaphor, and so precisely related part to part, that the meanings seem as if they had been fixed by countless generations engaged in ritual: something as rich as the delicate patterns of Islam, the exact iconology of Shinto, is suggested. How frustrating, how enjoyable it is to experience this game of signification, which we know rests mostly on imaginative brilliance.

MODES OF ARCHITECTURAL COMMUNICATION









74-78 METAPHORS of Ronchamp, drawn by Hillel Schocken in a seminar on architectural semiotics at the Architectural Association. The mapping is amazingly Ideral when compared to the actual views.

Towards a New Architectureby Le Corbusier

G. Crès et Cie., Paris, 1923 (in French, as Vers une architecture) John Rodker, London, 1927 (English translation by Frederick Etchells) 290 pages, 220 illustrations, 61/4 × 91/4 inches (15.6 × 23.4 cm)

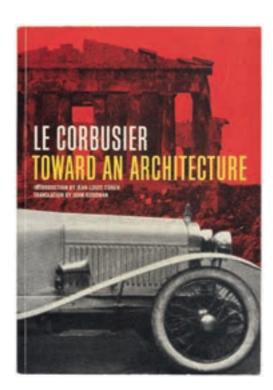
During the early 1920s, in the pages of the journal *L'Esprit Nouveau*, Charles-Édouard Jeanneret (1887–1965) transformed himself into Le Corbusier and penned most of what became *Towards a New Architecture*, a radical polemic for a modern architecture. It's impossible to overstate the book's influence on twentieth-century architecture; to this day it continues to hold sway as required reading in introductory architecture classes.

People who have not read the book's essays on architecture, engineering, industrial production, and housing probably know the one phrase—"A house is a machine for living in"—that has been extracted from the text and repeated so often to become both an architectural proverb and an oversimplification of the book's ideas. Le Corbusier's argument for architects to move beyond style and embrace the lessons of modern industry is told through words but also images—or more accurately, words and images.

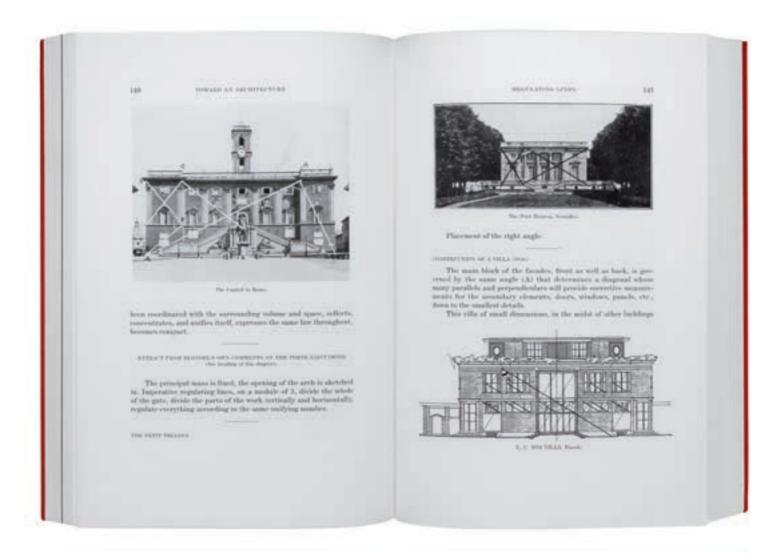
The book's influence hinges as much on the selection of photographs and drawings, and their layout on the page, as it does on Le Corbusier's concise wordplay—as crisp as his modern houses. Images do not follow text as separate plates, the norm at the time; the two had to be integrated, first as laid out in *L'Esprit Nouveau* and then in slightly altered book form. And herein lies another aspect of the book's influence—on the graphic design of architecture books and how words and images work together to form stronger arguments than either could alone.







- ← Getty Publications released a more precise translation (by John Goodman) of the original text in 2007 as Toward an Architecture; a stylized version of a famous spread from inside the book graces the cover.
- ↑↑ Images of grain elevators in North America accompany one of Le Corbusier's most famous statements: "Architecture is the masterful, correct, and magnificent play of volumes brought together in light."
- ↑ Le Corbusier used these drawings from Auguste Choisy's Histoire de l'architecture, the 1899 book he considered "the most worthy book ever written on architecture."
- In the "Regulating Lines" chapter, Le Corbusier overlays lines on the facades of Classical buildings and, on subsequent pages, his own buildings, uniting architecture over time through geometry rather than style or ornament.
- → Le Corbusier wrote at the end of the book, a half-decade after the Great War, "Architecture or revolution. Revolution can be avoided."







PAINTER, 600-550 B.C.

The Parthenon is a product of selection applied to an established standard. Already for a century, the Greek temple had been organized in all its elements.

When a standard has been established, direct and fierce competition comes into play. It's a "match"; to win, you must do better



Photo from La Vie automobile.

HOUSERY, 1907.

EYES THAT DO NOT SEE.

181



Photo Albert Marance.

PARTHENOX, 447-434 B.C.

than your adversary in all the parts, in the general lines and in all the details. Then there is intense study of the parts. Progress.

The standard is a necessity for order brought to bear on human labor.

The standard is established on sure foundations, not arbitrarily,



DELAGE Grand-Sport, 1921.

← The most famous spread from an architecture book last century—from the "Eyes That Do Not See..." chapter—parallels the progress of Greek temples over the course of two centuries with that of automobiles within just two decades.



- ↑ The English facsimile edition was published almost one hundred years after the original.
- → Images of industrial structures preface each chapter: chapter 5 contrasts a concrete grain elevator with the steel Con-structivism of Vladimir Tatlin's famous Monument to the Third International.
- Ginzburg traced the evolution of styles through diagrams of vertical forces, finding them asymmetrical in a design by the Vesnin brothers; note the wide kerning used for emphasis, in lieu of italics, closely following the original design in Russian.



a sirroing which is very clearly authorized by the position of the noise of movement, which has to be imagined subside the control composition or of the extreme limits. Thus the machine instructly given ruse to on this of the creation rows makers organized in the observable of the control control of the forestion and intensity and explicitly directives, but to the forestion of the forestion and intensity and explicitly directives and to the thought of new torms in which the intensity and concentration of this minimized, whatever the desires of the author terms. If will authorize the legislation of the machine concent, whatever the desires of the authorized superis in the orbide concept.

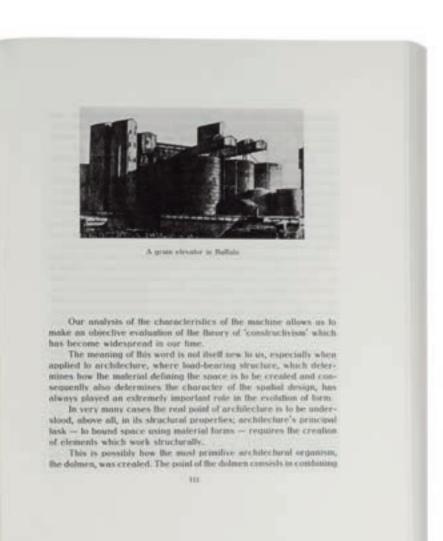
Another consequence which there from the order course of ser reflections contacts as a new definition of the machine and the term which derives from a new definition of the machine and the term which derives boun a. Consideration of the machine and the term which derives boun a. Consideration of the machine and the term which derives bounds to a new definition of the machine and the series in the control attained the series that these touchings constitute a continuation of even a number of ones of symmetry with access of movement. Of course, this case of the corne is a machine and in red substrained to the principal control of the control to the principal control of the course that the series is a machine and in red substrained to the principal control compositional deal there are the case of authorizate to the principal control of the residual of activities of, the energetic in architective concepts of the residual activities of movement, and do not control of the course this or an architecture.

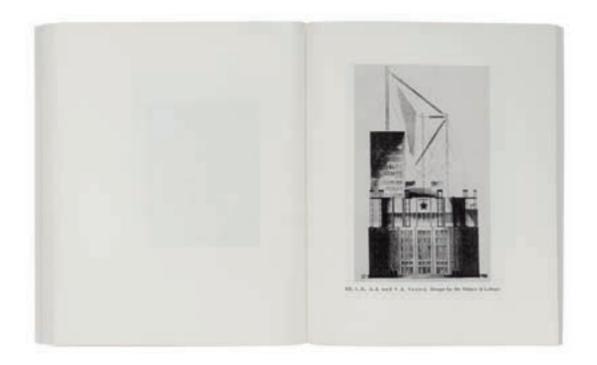
In the solicities published in their chapter the dynamics candid of architecture of the control of the provision of the solicities included to the control of the provision of the solicities included to the control of the control of



The Veneza biolities a Palice of Labora predominantly vertical forces (Godini). Fig. IV, moreover, shows a gradual increase in these forces in the direction of the nois of movement, which coincides with the crit of symmetry. Fig. V is a achievable representation of the system of movement of the theopea building, where the diagonal forces, the file arisingle of increase and decrease in general, are manifested in the separation of these forces, which nim is van for their axis of movement and which coincide here has, however, with the cuts of symmetry. Finally, Fig. VI is a diagram of the movement of a machine justimabile), all of whose forces are in the adviring lowarish an axis of amorement which has soluted.

The statict given there shows the Ventals bridges for a Palace of Labour and a diagram of its dynamic forces giving a clear characterization of the modern architectural compet.





↑ Forty-one plates at the back of the book—without any commentary from Ginzburg—highlight some Constructivist designs, including the Vesnins' project for the Palace of Labor in Moscow.

Style and Epoch by Moisei Ginzburg

Gosizdat, Moscow, 1924 (in Russian, as Stil' i epokha)

The MIT Press, Cambridge, 1983 (English translation by Anatole Senkevitch) Fontanka Publishers/Ginzburg Design, London, 2018 (English translation by John Nicolson)

240 pages, 65 illustrations, $7\frac{1}{4} \times 9$ inches $(18.4 \times 23.2 \text{ cm})$

The image of a grain elevator on the cover of Moisei Ginzburg's (1892–1946) Stil' i epokha would appear to indicate that the architect was articulating the polemic laid out by Le Corbusier earlier that decade in L'Esprit Nouveau and Vers une architecture for a Russian audience. Yet the title, Style and Epoch in English, summarizes a key difference between their perspectives. While Ginzburg also argues, like Le Corbusier, for a new style of architecture, he bases it on an in-depth reading of historical styles in which they evolve in cycles of youth, maturity, fading, and death.

Ginzburg saw Russia and the rest of the world on the cusp of a new style, one that needed to acknowledge industrial technology and the concomitant fusion of architecture and engineering (not coincidentally, he was trained in both fields). His book would serve as *the* theoretical basis for Russian Constructivism, the short-lived style that nevertheless exerted influence through the dynamic drawings representing primarily collective housing and public buildings.

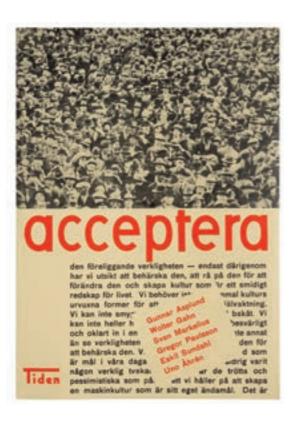
Constructivism saw a resurgence in the 1980s, with the rise of another short-lived "style," Deconstructivism, and the translation of Ginzburg's book into English—sixty years after he put his ideas into words. That book followed the format of other Oppositions Books titles (see *The Architecture of the City*), but a true facsimile in a new English translation came thirty-five years later, alongside reprints of Ginzburg's other books, most notably *Dwelling* from 1934.

acceptera by Gunnar Asplund, Wolter Gahn, Sven Markelius, Gregor Paulsson, Eskil Sundahl, and Uno Åhrén

Tiden, Stockholm, 1931 (in Swedish, as acceptera)
(English translation by David Jones published by the Museum of Modern Art, New York, in 2008 in Modern Swedish Design: Three Founding Texts)
208 pages, 190 illustrations, 7½ × 10½ inches (18.8 × 26.6 cm), designed by Uno Åhrén

The Stockholm Exhibition that took place from May to September 1930 on the city's waterfront is famous for introducing Functionalism to Sweden and subsequently influencing the design of housing in the social democratic country. The well-attended fair was organized by art historian Gregor Paulsson (1889–1977) and its chief architect was Gunnar Asplund (1885-1940). In the fall of 1930, Paulsson and Asplund, together with four other architects who worked on the Stockholm Exhibition, quickly wrote acceptera—always written in lowercase and sometimes followed by an exclamation mark—as a summation of the ideas that took form in the exhibition, a response to critiques of the exhibition, and an optimistic manifesto of design that accepts (acceptera!) the circumstances of modern life.

Like other architecture publications at the time, acceptera combines words and images in a manner that is refreshing and aids the polemic of the six authors working as a collective (none of the chapters are credited to any of the individuals). Although the book wasn't translated into English until 2008-still decades after Tiden had reprinted the hard-to-find 1931 publication in 1980—the memorable cover and recirculated images from inside the book ensured the spread of its ideas beyond Sweden. Many of acceptera's illustrations are pulled from non-architectural contexts (e.g., agun, warplanes, a telephone), but the selection aligns with the overall thesis that times change and, since everything is interconnected, architecture must change too.





- ← The image of a crowd, reiterated on the frontispiece, acknowledges considerations of the collective and the individual; below the crowd, the text begins: "Accept the reality that exists—only in that way have we any prospect of mastering it."
- ↑ The cover of the collection published by MoMA in 2008 displays the model apartment designed by Kurt von Schmalensee for the 1930 Stockholm Exhibition.
- ◆ The book's images are sometimes silhouetted for effect, here fitting into statements that fuse words and pictures together.
- → The chapter on housing, titled "What is required of housing," is the most overtly architectural part of acceptera, consisting of plans that, for instance, maximize direct sunlight.
- A postscript to the 1980 reprint contends that the "New and old" chapter, which this spread falls into, was written by Asplund and illustrated by employees in his office.







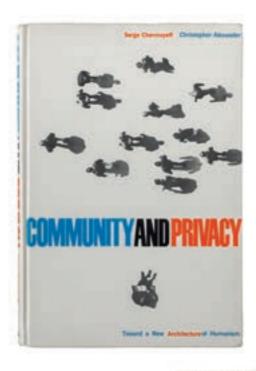
Community and Privacy: Toward a New Architecture of Humanism by Serge Chermayeff and Christopher Alexander

Doubleday & Company, New York, 1963 256 pages, 100 illustrations, 7¹/₄ × 10¹/₄ inches (18.4 × 26 cm), designed by Peter Chermayeff

The early 1960s were years of reckoning in architecture and urbanism. The open plans and expansive glazing of modern architecture were critiqued on functional grounds, while the detrimental environmental effects of automobile-driven urbanism were already apparent. Community and Privacy took aim at modern mass culture, arguing for designs of urban dwellings that would address both poles of the book's title. The approach taken was logical and mathematical, enabled by computers.

Reformulating the functions of the house in a way that would enable computational analysis was a project started by architect Serge Chermayeff (1900–1996) in 1952 in a seminar at the Harvard Graduate School of Design (he taught at GSD until 1962). Beginning in 1960 he was aided by Christopher Alexander (1936-), who received his PhD in architecture at Harvard GSD in 1963, following degrees in architecture and mathematics in England. The pair produced a text aligned with its time, and while its detailed findings are no longer applicable, their methodical approach is relevant to current situations.

Six decades after Community and Privacy, architects find themselves facing the real possibility of replacement by computers that can automate the design of floor plans. Generative design software takes functional parameters and other inputs to produce myriad plan iterations, a process that echoes the work of Chermayeff and Alexander. In a technocratic near future, generative design would shift the architect's responsibility to inputting parameters and selecting the best iterations. In this context, Community and Privacy offers some advice on maintaining a humanist stance while embracing technology.



quantities may vary from place to place in accordance with six conditions.

Our composite claure diagram gives some indication is the organization required. It will be seen that many particular have already been recognized and at least partially expresses in form by other designers. Yet many plans that at first sigh appear to be good are, in fact, lishbers, because they lack as appropriate programmatic hase and rentlies, is our siew, with the most vital requirements of the situation.

Principle Applied

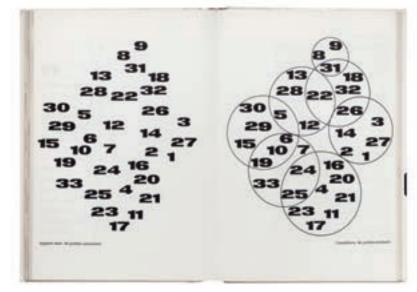
The home clusters examined here may, of course, have been commuted of materials, or employed costed seedback, completely amaded to meet the standards generalized. These we will ignore. We have purposely chosen plans in which differences in structural and mechanical factors are incisevant. Any one of them can be constructed and equipped in

We are looking at the house chatter from the point of view of plan organization, and not for structural or mechaninal specifications, or arethric values. Different technical and rentomic possibility, or special attitudes of designers, in no way affect the melodicin terms.

- ↑ All in the family: Although
 Serge's son, Ivan, was a famous
 graphic designer, his other son,
 Peter, an architect, designed
 Community and Privacy, from its
 typography and illustrations to
 the book jacket.

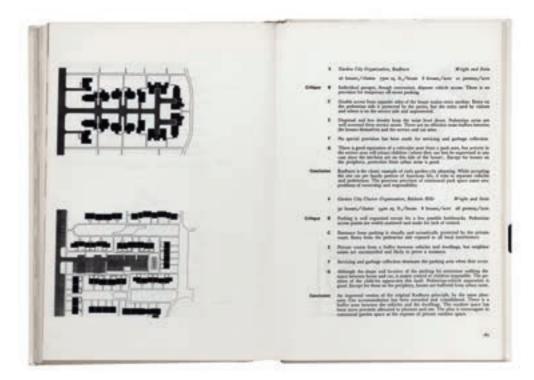
 Images spanning two-page
- → Images spanning two-page spreads preface the book's two parts ("Mass Culture" and "The Urban Dwelling") as well as each chapter, functioning like visual mnemonic devices; Part I starts with the image of a crowd, coming when the world's population growth was a growing concern.
- u The mathematical basis for the authors' study is expressed here, with the numbers corresponding to thirty-three "detailed pressures" that would affect the plan of a house and their resolution into seven "coherent groupings."

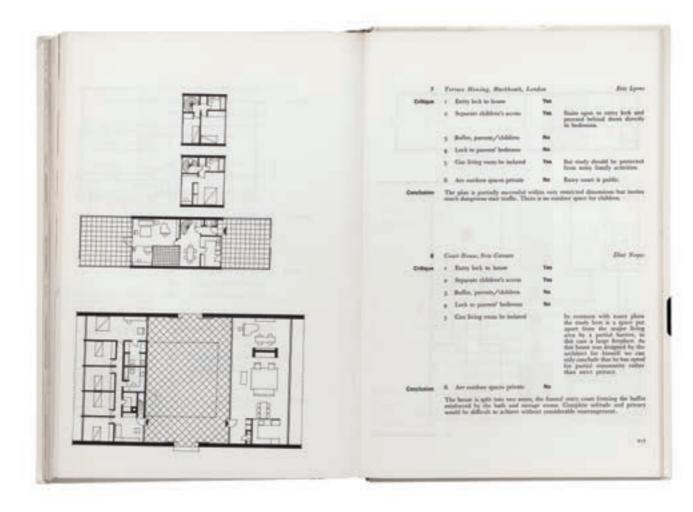






← Two of the seven groupings are discarded as irrelevant for plans and the remaining five groupings are analyzed through diagrams (top half) and then synthesized into a composite plan (bottom) that clusters four houses together but maintains privacy.





- ↑ Critiques follow the analyses, first at the level of house "clusters," such as Clarence Stein and Henry Wright's Baldwin Hills Village (Los Angeles, 1942), examined in terms of the remaining five groupings (B, C, E, F, G)...
- ← ...and then at the level of individual houses, whose plans are critiqued in terms of six questions relating to familial safety and individual privacy; not surprisingly, the houses on the following pages that answer "yes" to all six questions were designed by Serge Chermayeff.

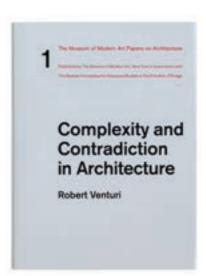
Complexity and Contradiction in Architecture by Robert Venturi, 1966

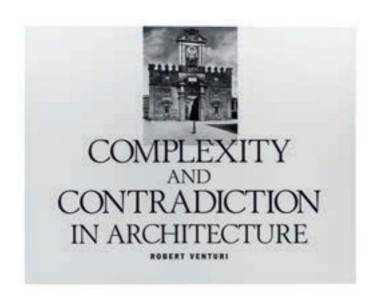
The Museum of Modern Art, New York, $in\,association\,with\,the\,Graham$ Foundation for Advanced Studies in the Fine Arts, Chicago, 1966 144 pages, 350 illustrations, 6 × 8 inches $(15.2 \times 20.3 \, cm)$

 Architectural historian Vincent Scully famously declared that Complexity and Contradiction in Architecture was "probably the most important writing on the making of architecture since Le Corbusier's Vers une architecture, of 1923." These words, written for the introduction to the 1966 book, were prescient, as the book ended up impacting how people looked at and talked about architecture. It changed the course of buildings designed in the United States and beyond, turning its author, Robert Venturi (1925-2018), in the eyes of many, into the father of postmodern architecture. Ironically, Venturi's "gentle manifesto" countering orthodox modern architecture was commissioned in part by the Museum of Modern Art, the institution that defined what Venturi subsequently broke down.

Written mostly in 1962 but not released for another four years, Complexity and Contradiction grew out of architectural theory courses that Venturi taught at the University of Pennsylvania in the 1960s. The book's title articulates his preferences over simplicity and picturesqueness; it also expresses his embrace of ambiguity aligned with contemporary experience, readings of history that positively influence the present, and the creation of a "difficult whole" arising from a diversity of parts. The book is concerned exclusively with form, so logically it ends with a selection of projects by the practicing architect to illustrate the application of his ideas.

- MoMA's planned Papers on Architecture series birthed just two books (the second was by historian Joseph Rykwert). Venturi's first-edition paperback was reprinted in hardcover for Complexity and Contradiction at Fifty, a two-volume publication based on a 2016 symposium of the same name.
- Venturi and MoMA repackaged the book a decade after its initial publication in a larger landscape format (10¾ × 8¾ inches [27.3 × 21 cm]) that was nearly double in size.





Guild House, Friends Housing for the Elderly, Phila-delphia, Venturi and Rauch, Cope and Lippincott, Associated Architects, 1960–1963. (296–204)

The program required 18 apartments of earning types

the the summering activity of the street, set the juffact. Nations of the street suggested a balliding that would not be an independent partition, but mental would recognize the quotal trace façade à separated fiyas the back at its repeads when the container more intracts occur in order to originate the semigral into of the more façade. The communicati norman

grams of an apartment those the type and to all other hadding, to a sample), and the recognite fracting allowed by the plan construction. There is a maximum of records or an irregular and remaind grantial apart are better than a state of.

In order decision of our advanced are better and decreased, the recognition of convenients area. We did not recome this. The dark beaute back with with deaths drang windows small readstand. Plainthights you become on exact the recommendational Plainthights you become on exact the recommendation. Beautifully because they are safely proportioned and aromailly lay. The change in size of these aboves break decreases. passes climitally and approximate of returns and a quality to them liquidit, which how real at both communical and attents sommed form at the same time.

The big rested regressed estimates at the control of the activi-tically is polarized black granitor for a communitary and employsign the exceptional restance opening on the greated floor and a communication with the white, glasted brick area, whethere, while on the models of the second floor on the small section

of the sense façade. The balcom radings on this floor, like those on the other floors, are performed used place, but how they are passed when tarber than black recenter a continuous of sociacy in this area despec the charge in material. The control actorise on the mp flace reflects the special spatial configuration of the controls many mode and relative to the currents below, on running the male of the building on the errors and at the currents. Its arthod slope also permiss a cary big opening to potentials the wall and yet numers a ball it a wall father than a cool on a later. The relevance arterina any this axis and beyond the otherwise constant beight law. of the healting promptions that aux of scale-change in the map of the central layab, and expresses a kind of manufacturality strengt to that at the continuous X-Aret. The assessment

taking strender to that at the compact of Arct. The amount, with its anotheral gold surface, can be interpreted view ways, abstractly, or evalpoint on the reasoner of Lippoids, and as a nother of the agent, who special to much time beaking at TV. The intransperial loss created by a rote of soliter beaking as the compact of the proper windows, here is recommended by interpreted to the rote of approx windows, here is recommend the otherwise plant (again, Well the arct of whose plant) beaking the first form for the form below. It also not up a new and orger wale of these musics, payagemed on the other smaller cale of six stories demarked by the lapers of windows



west light, views, and patden space below.

The interior spaces are defined by intricate master of walls, which accommodate the very complex and varied program of an apartment bosses (as opposed to an office building, for exemple), and the irregular framing allowed by flat plate construction. There is a maximum of interior volume and a minimum of corridor space. The contribor in an irregular and varied residual space rather than a timed.

Economy distinct not "advanced" architectural its ments, but "conventional" cores. We did not resist this. The dark bown brick walls with double-bung windows recall traditional Philadelphia row houses or even the temesteristic builds of Edwardina apartment beasers. Their effect is incommon, however, because they are subtly proportioned and minimally by. The change in noise of those above hand elements contributes an expression of treation and a quality to these lagides, which now read as both conventional and unconventional forms at the same time.

The big mund expressed column at the center of the street lagide is polished black grante. It accommodures and craphasions the exercised out than opening to the grant of the street lagide is polished black grante. It accommodures and craphasions the exercises and any house of the street of the street lagide is polished black grante. It accommodures and craphasions the exercision and as the same time.

stream façade is polished black grante. It accommodures and emphasizes the exceptional entitance opening on the ground floor, and it commants with the white, glared back area, which exceeds to the second floor on this small section of the servet façade. The backcory railings on this floor, like those on the other floors, are perfected stret plate, but here they are pointed white rather than black to create a commonly of sortials in this area despite the change in custrait. The commod window our fit top floor reflects the special sputial configuration of the common room middle and relates to the entrance below, increasing the scale of the building on the strete and at the entrance. In arthed shape this permits a very big opening to penetrate the wall and jet remain a bole in a wall rather than a void in a frame. The television antirotta step this says and beyond the other. pet remain a hole in a wall rather than a void in a frame. The television antimus atop this axis and beyond the otherwise constant height line of the building strengthens this axis of scale-change in the mose of the central façade, and expresses a kind of recommendates similar to that at the intensec ar Axis. The antenna, with its anothered gold suchase, can be interpreted two ways abstractly, as scaleture in the manner of Lippold, and as a sombol of the agrid, who spend so much time looking at TV.

The commental line created by a row of white bricks contradictorily intrusects the time of upper windows, but it terminates the otherwise plant façade. With the area of white gland bricks on the front below, it also sets

up a new and larger scale of three stories, jextaposed on the other smaller scale of six stories demarked by the layers

Residence in Chestnot Hill, Pa., Voteset and Roach, 1962. (305–316)

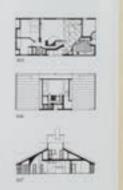
The building recognitive complexities and contraditions recording prooppings components and controlled tions it is both complex and simple, open and closed, log and little; some of its elements are good on one level and had on another; its order accommodates the generic ele-ments of the house in groved, and the circumstantial closests of the house in graved, and the circumstantial closests. if a medium number of diverse parts rather than the easy unity of few or many merical parts.

The avoide spaces, as represented in plan and section, are complex and discorted in their shapes and interrelation-ships. They correspond to the complexities inherent in the slops. They correspond to the complexities inherent in the darrentic program as well as to some whomese our inappro-priate to an individual house. On the other hand, the outside form—as represented by the parapeted wall and the gable sood which medium their complexities and distortions our simple and convintents is represents this house's public scale. The from, in its conventional combinations of door, anadoms, character and gable, creates no almost symbolic increase of these

image of a brasse.

The contradiction between made and conside, is The contradiction between made and outside, hour-men, is not total, treade, the plan as a whole reflects the symmetrical consistency of the auxiside, outside, the perfora-tions in the elevations reflect the circumstantial distortions within. Concerning the inside, the plan is originally sym-tetrical with a crumal vertical core from which radiane run diment symmetrical diagonal walls that separate two end spaces in front from a major currial space in back. This name Palladian signifery and symmetry is distorted, how-cree, to accommodate to the particular needs of the spaces the kitchen on the right, for instance, runses from the believem on the left. Pedroom on the left.

A more violent kind of accommodation occurs within the oriental core incit. Two vortical elements—the frequenciasmy and the stair—compete, as a were, for critical position. And each of these elements, one essentially solid. he other essentially road, compromises in its shape and



111





- ↑ In a 1967 review, architecture critic Peter Blake called the stamp-sized images "impossible to decipher"...
- ...but this deficiency was overcome in the larger second edition that roughly maintains the same pagination as the first edition.

- Illustrations of modern architecture are in the minority in Complexity and Contradiction and are used to strengthen arguments against it.
- Venturi counters Modernism's "either-or" tradition with a "both-and" approach born from contradiction and yielding varying levels of meaning.

The varied openings in the Palazzo Tarugi (60), exceptional in form and position, break the dominant pilaster order of the outside in typical Italian fashion. Lewis Munford, in a seminar at the University of Pennsylvania in 1963, compared the exceptional window positions in the south façade of the Doges' Palace with Eero Saarinen's windowed façade of the American Embassy in London. The dominant consistent rhythms in the Embassy building tend to deny the circumstantial complexities within its modern program and to express the dry purity of a civic bureaucracy. The chapel wing at Versailles is an eventful exception beyond the scale of columns or windows. Through its position, form, and bright it contributes a vitality and validity to the dominant symmetrical order of the whole, a vitality conspicuously lacking at Caserta, for example, where the exterior order of the enormous and complex palace is entirely consistent.

In Modern architecture we have operated too long under the restrictions of unbending rectangular forms supposed to have grown out of the technical requirements of the frame and the mass-produced curtain wall. In contrasting Mies' and Johnson's Scagram Building (74) with Kahn's project for an office tower in Philadelphia (75) it can be seen that Mies and Johnson reject all contradictions of diagonal wind-bracing in favor of an expression of a rectilinear frame. Kahn once said that the Seagram Building was like a beautiful lady with hidden corsers. Kahn, in contrast, expresses the wind-bracing-but at the expense of such vertical elements as the elevator and, indeed of the

spaces for people.

In many works of Le Corbusier and Aalto, however, a balance, or perhaps a tension, is achieved between the rectilinearity of standard techniques, and the diagonal which expresses exceptional conditions. In his apartments at Bremen (76), Aalto has taken the rectangular order of Le Corbasier's basic dwelling unit, which makes up his high-rise apartment slabs (77), and distorted it into diagonals in order to orient the dwelling unit toward the south for light and for the view. The north-facing stairs and circulation areas remain strictly rectilinear in plan. Even in the most extreme units an essential rectilinearity and regularity of space is maintained. And in Aalto's Wolfsburg. Cultural Center (78) the rectangular configuration of the whole composition is barely maintained as he organizes the necessarily diagonal shapes of the auditoria







we might please as the power impact the H, $^{\rm orb}$ These ideas apply equally well as neithborhood

Contradictory Levels: The Phenomenus of "Both-And" in Architecture

Communicatory levals of meaning and use in architec-ture involve the paradioxical content implied by the con-junctive 'yes,' They may be more or less ambiguous. Le Corbosior's Shodan House (TI) is closed per upon—a cube, jameiro "yet," They may be more or loss ambiguous. Let Corbuser's Shedan Hease (TI) is closed yet upon—a cube, precently closed by its aserters, yet candonly approad on its surfaces; but Villa Saverer (IZ) is simple outside yet conspire, media. The Tailor plan of Bastinggom Count (IX) is symmetrical yet asymptotical, Causent's Church of the languagette Conception in Taits (14) is a distriby in plan and yet a meny. See Edom Listyess' errorsor gallery at Middle-man Park (IX, 10) is directional space, pot it reministes as a Monk wall, Vignola's façule for the psyclion at Bontaryos (IT) contains a portal, jet it is a blank portion, Kaho's buildings contain crude concrete yet polished grantite; an arban tower is directional as a roose yet state in a police. This senior of conjunctive "yets" documbes an uncharactore of contradictions at sarping levels of program and structure of polished to the conference of contradictions are portal to be being; but exclude a paradosses, are they caperio.

Clearth Brooks refers to Donne's art as "having it both ways." but, he says, "must of us in this laner day, camost, We are disciplined in the treathous either-on, and lack the meand againty-on say method of the insure of attitude—which would allow us to include in the finer distinctions and the more subtle concretions, permitted by the tradition of hoth and." "The tradition "wither-or" has

characterizati orthodox modern architectuse; a son ween in probably mething rlat; a suppost is architen an enclosure; a suali is not violated by window potentiation but is totally intercaped by glass; post-ran functions are exaggeratedly articulated atom nings or supegated separate particular fever "flowing space," has implied being contribe when inside, and inside when outside, eather than both at the name time, the moderatem of exicultance and dozine to the

and made when outside, eather than both at the same time. Such manifestations of activalision and clarity are foreign on an architectum of complexity and construction, which made to include "both and" eather than exclude "rethre-on."

If the account of the both-and plannaumon is contradiction, its foreign of the both-and plannaumon is contradiction, the boss is thereastles, which yields secred the rich of securings among elements with varying values. It can include elements that are both good and sucknard, bug and intellectual and upone, commons and architect, tunnel and apare, utractural and spatial. An architecture which melades varying levels of maning freeds ambiguity and among the contradictions.

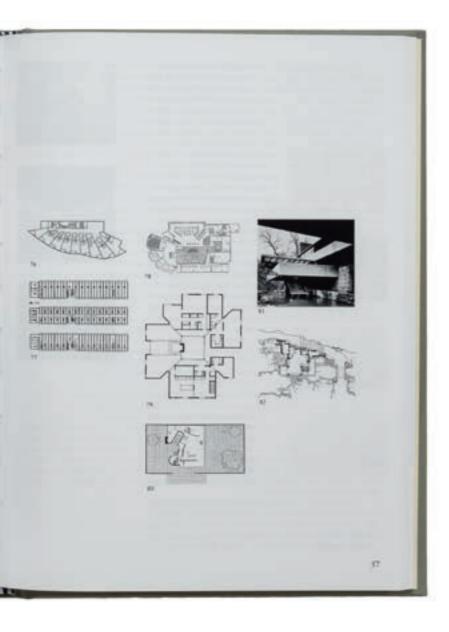
Most of the examples will be difficult to "read," but abstrace authorizate is valid when a reflact the completi-ties and contradictions of control and maining. Simula-nature, perception of a multiplicity of levels involves struggles and hesistations for the observer, and makes his.

proggles and hestations for the observer, the mass is proggles which are both good and bad at the arms store will, perhaps in one way explain Kalon's enigment omersts, "architecture must have had spaces as well as good spaces." Apparent marionality of a part will be justified by the resultant nationality of the whole, or characteristics of a part will be compressed for the take of the whole. The decisions for such said compresses are one of the chief take of the analysis.

decisions for such valid compromises are now of the chief tasks of the architect.

In Hawkamoon's St. George-in-the-East [13] the enaganested Joyanness over the airle windows are wrong in relation to the parts when seen closuring they are too log in relation to the opening they upon. When usen farther back, however, in the countext of the whole composition, they are expressively right in size and earle. Michelangelo's ensemble considerable for the relation to the resistance of the resistance of the resistance of the resistance of the resistance. expensively right in said and scale. Michaelingstory enorminis reclamplate operatings in the artic story of the rest facility of St. Pract's [19] are wider than they are high, so that they must be aponced the long way. This is pervient in relation in the spanning limitations of minimity, which distinct in Classical architecture that hig openings, such as these, by strategily proportioned, list because one smallly expensive vertical proportions, the longitudinal spanning ex-

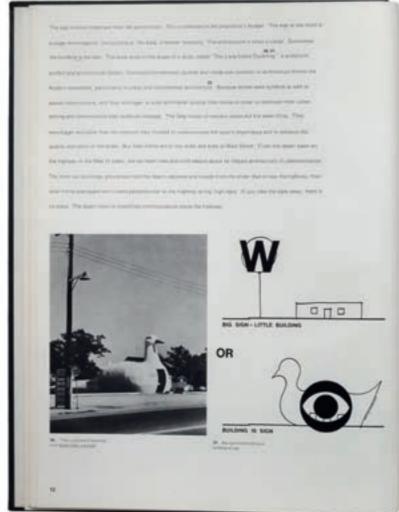


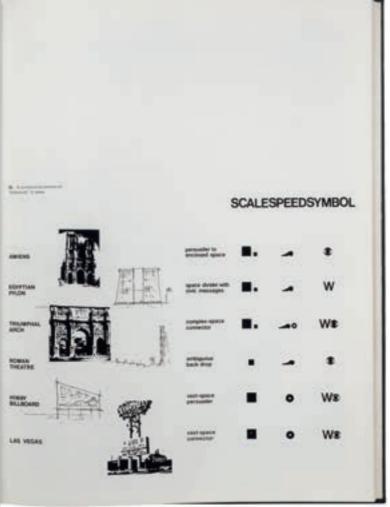


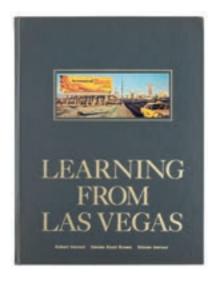
Oliver Wainwright is the architecture and design critic at the Guardian in London and the author of Inside North Korea (2018).

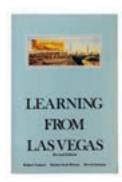
- Ornament and Crime by Adolf Loos (essay in Les Cahiers d'aujourd'hui, 1913; book by Ariadne Press, 1998)
- Complexity and Contradiction in Architecture by Robert Venturi (The Museum of Modern Art, 1966)
- 3 Nairn's London by Ian Nairn (Penguin, 1966)
- Invisible Cities by Italo Calvino (Giulio Einaudi Editore, 1972; Harcourt Brace Jovanovich, 1974)
- Modern Architecture Since 1900 by William J. R. Curtis (Phaidon, 1982)
- 6 On Architecture by Kim Jong II (1991)
- Variations on a Theme Park edited by Michael Sorkin (Hill & Wang, 1992)
- The Culture of Cities by Sharon Zukin (Blackwell Publishing, 1995)
- Ontent edited by Rem Koolhaas (Taschen, 2004)
- Ground Control: Fear and Happiness in the Twenty-First-Century City by Anna Minton (Penguin Books, 2009)











- ←← Although Venturi and Scott Brown disliked the large format, high price tag, and Modernist design of the first edition (seen here sans glassine dust jacket), a facsimile edition was printed by the publisher in 2017, forty years after...
- ← ...a revised edition was published, also by the MIT Press, in 1977 at the considerably smaller trim size of 6 × 9 inches (15.2 × 22.8 cm) to be more affordable for students and less ostentatious in terms of design.

- ← The first of the book's many maps of the Las Vegas Strip is seen beneath some signs that hint at Muriel Cooper's five-column layout and the generous white space used regularly by the designer.
- ✓ The duck in the Duck
 vs. Decorated Shed dichotomy
 was based on The Big Duck,
 a souvenir store on Long Island
 that was captured by Peter
 Blake in his 1964 book God's
 Own Junkyard.
- → As famous as the Duck and the Shed is Robert Venturi's sketch of the latter signaling itself as a monument; it's seen here in the 1977 edition, which separated text and illustrations.
- ◆ Aerials, daytime and nighttime photos, and drawings fed the analysis of the Strip and its constituent parts.





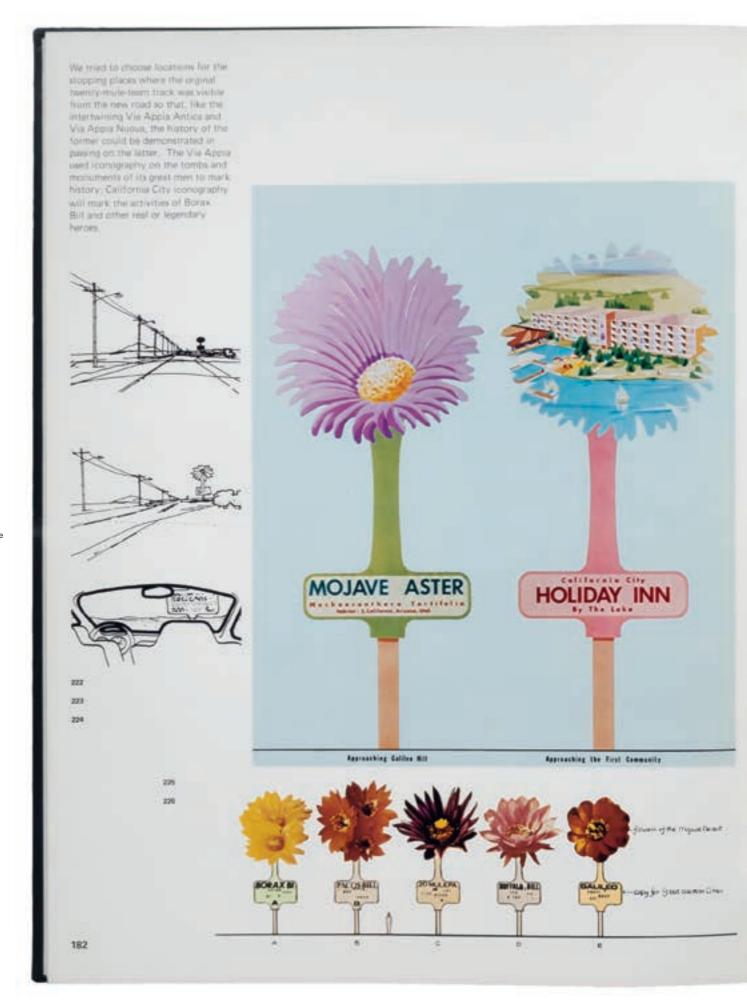
Learning From Las Vegas by Robert Venturi, Denise Scott Brown, and Steven Izenour

The MIT Press, Cambridge, 1972 190 pages, 240 illustrations, 10½ × 14 inches (26.6 × 35.5 cm), designed by Muriel Cooper

In 1966, Robert Venturi (1925–2018) famously wrote in Complexity and Contradiction in Architecture that "Main Street is almost all right." That same acknowledgment of vernacular environments extended to the Las Vegas Strip—the glitzy antithesis of Main Street—soon after, first in a Yale architecture studio led by Venturi and Denise Scott Brown (1931-) and assisted by Steven Izenour (1940-2001) in fall 1968, and then in book form four years later. Learning From Las Vegas was quickly recognized as a seminal document of postmodern theory and has remained a mainstay of courses on architectural theory and urban design.

Using sketches, diagrams, maps, photographs, film stills, and other images culled from the studio, the book analyzes the way casinos, hotels, and other buildings set behind parking lots along the Strip used signage to express identity and attract the attention of drivers. The famous outcome of their drive-by research is the Decorated Shed and the Duck, the former incorporating signage to communicate the function of an ordinary building and the latter using form to describe its contents. Put simply, the Ducks equaled formalist Modernism and the Decorated Sheds would become scenographic Postmodernism.

Two parts comprise the highly visual research and analysis: "A Significance for A&P Parking Lots, or Learning from Las Vegas" and "Ugly and Ordinary Architecture, or the Decorated Shed." Ironically, in the decades since publication, the parking lots along the Strip turned into fountains, roller coasters, and gardens, and the "ordinary" casinos were replaced by a pyramid, a miniature Eiffel Tower, and other Ducks.



→ A third part—"Essays in the Ugly and Ordinary: Some Decorated Sheds"—featuring the work of Venturi and Rauch, was included in the first edition but omitted in the revised edition.