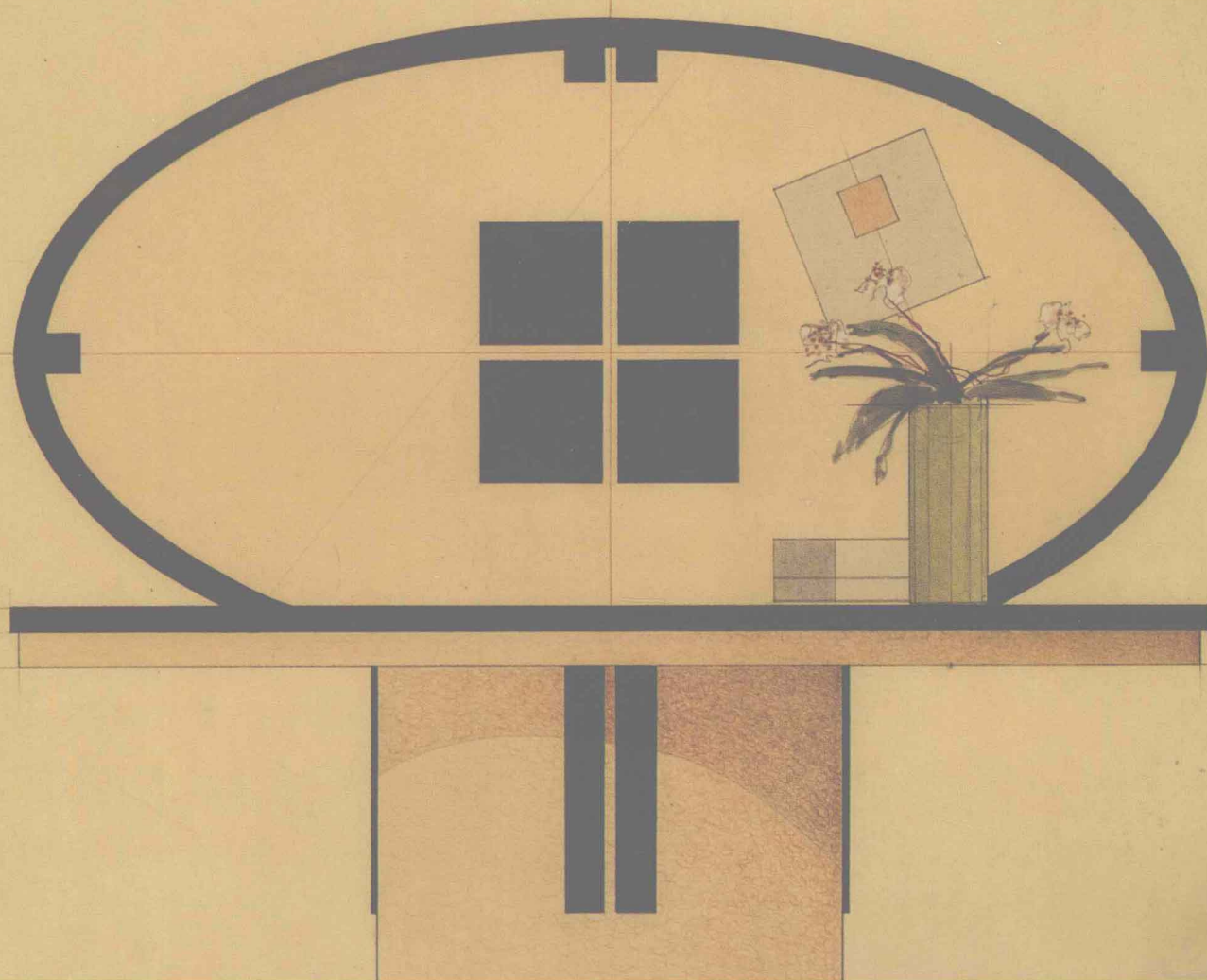# FURNITURE

MODERN + POSTMODERN

DESIGN + TECHNOLOGY

SECOND EDITION
JOHN PILE

FURNITURE

MODERN + POSTMODERN

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SECOND EDITION
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PREFACE TO THE SECOND EDITION

In the 10 years since *Modern Furniture* appeared in 1979, a variety of important changes has taken place in the worlds of architecture and design leading to an explosion of developments in furniture design. The supremacy of the modernism of the 1920–1970 era has been challenged by critics and detractors whose opinions vary from the mischievousness of Tom Wolfe's *From Bauhaus to Our House* (1981) to the serious and thoughtful commentary of Robert Venturi's *Complexity and Contradiction in Architecture* (1966). Whether from serious motives or foolish, many designers have struck out in new directions that have developed in directions so remote from the main line of modernism as to require a new name. The confusing term "*post-modernism*" has come into general use even as some of its major practitioners deny its applicability. In this book, it will have to serve for the revisionist efforts that seek to escape from the restraints of order, logic, and simplicity that doctrinaire modernism imposed.

Efforts to break away from a strong tradition have inevitably spurred counter-reformation efforts to maintain the modernist tradition by developing it with new strengths and new flexibility. While not yet so clearly recognizable as a style, these efforts deserve their own identification with a term—"*late modernism*" will have to do until a better phrase is coined. In the chaos of new terminology, "high-tech" has come into wide use to suggest design that grows out of the mechanistic vocabulary of modern science and technology,

particularly in those advanced forms associated with the aerospace industry and with the growing importance of computers and the techniques associated with them. An attempt to generate a parallel counter direction to be called "high-touch" seems to have faltered, perhaps because it was never clear what it meant.

Outside of the terminology of criticism and commercial promotion, the recent decade has brought some major changes in the realities that furniture design serves. Most striking has been the change in offices as they have become an increasingly significant work environment. More than 50% of all employed people are now office workers according to various statistical studies. The earlier office with its many small rooms each furnished with isolated desks, chairs, and cabinets has increasingly given way to the "open office", a work space more like a factory floor with many workers arranged more or less according to the theories of "office landscape" planning. Too much openness has developed new demands for privacy leading to a proliferation of office systems that deal with both visual and acoustical privacy in various ways with varied levels of success. A new understanding of the impact of the workplace and its furniture on health and longevity has brought the concepts of ergonomics into an important role in furniture design. The domination of the computer and its associated wiring and other needs has generated the "electronic office" leading to furniture to suit those needs.

In the world of domestic furniture, the dominance of historicism has slipped away to such an extent that consumer magazines and retail outlets now offer modern furniture in a greater variety (albeit often of poor design and constructional quality) and specialized outlets exist that offer *only* modern design, much of it quite excellent. Supermarket-like retail distribution makes more modern furniture more accessible to consumers than ever before.

Taken together, these developments mean that the settled, even boring status quo of only 10 years ago has turned into something of a ferment with an amazing outpouring of new design constantly surfacing representing various shadings of viewpoint within the design community. Modernism is by no means dead, but its varied forms now require complex and confusing terminology to distinguish directions that are too diverse to be covered by any one term. In this book, the response has been to add many new illustrations and new supporting text to bring the content up to the date of publication. The accelerating pace of change suggests that a third edition may be called for in less than 10 years.

JOHN F. PILE

New York, New York
April 1990

PREFACE TO THE FIRST EDITION

The furniture that appears in my earliest memories, the furniture of my childhood home, came mainly from my grandparents' generation. Several Morris chairs and some massive, sturdy examples of the "mission style" in golden oak were intermingled with the nondescript "traditional" furniture of the 1900s to 1920s and an occasional "reproduction" loaded with medieval carving that related to my father's intermittent Gothic enthusiasms. When, in response to some boxes of German toy building blocks (the marvelous modular *Anchor* or *Union* blocks, now unfortunately no longer made), my interests turned to architecture, my parents entered a subscription in my name to the *Architectural Forum*, making me perhaps the youngest subscriber in that magazine's long history. In 1935, there was not much truly modern architecture visible in that magazine, but what I saw there immediately caught me up in an excitement that I had previously reserved for steam locomotives and aircraft.

Surprisingly, the modern buildings that appeared in that *Forum* often had furnishings totally different from anything in my family's house or any other house I had ever been in. The furniture floors of Philadelphia's John Wanamaker store exhibited nothing like these items, although a few tubular chairs could be seen in the housewares department. It was not until the 1939 New York World's Fair that I was finally able to see, in Aalto's Finnish Pavilion, actual examples of the kind of modern furniture that this book is concerned with. Those

bent plywood chairs and tables captured my interest and remained in my memory more strongly than the Trylon and Perisphere. Enrolled in architectural school, my doctrinal enthusiasms for modern furniture became strong enough to lead me to buy my first modern chair, an early Risom design for Knoll using canvas webbing to form a seating surface on a simple birch frame. John Wanamaker was at last carrying this item, yet placed it discretely with outdoor furniture.

My fellow architectural students and I shared a desire to design modern furniture—it seemed almost more important than building as we became aware of the Bauhaus, Mies, and Le Corbusier. I can remember long discussions of the mystery of furniture: how it was put together, what was inside its sealed overstuffed masses, and even how it could be represented in drawings. I made several attempts at drawings, but could find no one with the courage to attempt the construction of a prototype.

Once out of school, my first serious job was with an industrial designer whose practice included interior design work—offices, showrooms and even an ocean liner—and my work began to involve the selection of furniture for these projects. There was not much to select from. Hans Knoll was producing a handful of Risom designs (including my tape-seated chair) and Herman Miller was just introducing the 1946 group of George Nelson designs. Otherwise there was little more than the Artek plywood furniture designed by Aalto and imported. Occasionally, when nothing was commercially available to solve a particular problem, I was drafted into designing something special, perhaps because I was the only one available who showed enough interest (or ignorance) to be willing to try. My first commercially produced piece of furniture was a solitary, small round table with metal legs, which would still be a respectable item in any current product line.

When I left that office to teach, I found a way to fill my idle hours by doing some drafting for Paul McCobb, a designer who was about to become briefly famous for the first decent modern furniture to achieve success as a department store staple. McCobb designed by producing a tiny (but precise) perspective sketch, which he passed to me with verbal instructions about dimensions to the eighth of an inch. My job was to produce detailed (usually full-size) drawings for the factory. My initial fear that my lack of knowledge would be exposed was dispelled when my drawings proved to be far more complete and detailed than anyone in the factory had ever seen (or had any desire to see).

Later, a friend told me that George Nelson had lost his best furniture designer and had an eye out for a replacement. This led to an 11-year association with the Nelson office, constantly involved with Herman Miller furniture. I was often a designer, sometimes my own draftsman and model-builder, occasionally an expediter of others' design production, a liaison between client and factory and, finally, even

the firm's treasurer. At least in the earlier years, Nelson's office had a very free, atelier-like atmosphere and was an ideal place to learn from one's own and others' mistakes and successes. My co-workers included a number of people who have subsequently become well known (Irving Harper, William Katavelos, Charles Pollack, Don Petit), and there was a constant flow of visitors whose stays ranged from hours to years, and who seemed to conduct an endless seminar. Buckminster Fuller, Ettore Sottsass, Alexander Girard, Isamu Noguchi, and Charles Eames were there regularly for one reason or another, usually concerned with furniture. My own designs (always discreetly cloaked under the firm's identity) appeared regularly and had lives lasting from one brief showing to many years. The experience of seeing them through the steps from concept to production and distribution, and the same experience in processing other designers' work kept me on a regular schedule of factory visits and meant endless meetings with sales, managerial, and production people at Herman Miller. Probably no other education in the possibilities and problems of modern furniture could have been as complete.

While all of this was happening, I was also usually teaching a course called "furniture design" in one or more design schools as one of my assignments. It is a difficult subject to teach. A furniture designer needs to have some creative ideas about what furniture can and should be, of course; but he also needs instant mental access to a very diverse and miscellaneous mix of information about materials, processes, body mechanics, available gadgetry, and the history of successful and unsuccessful efforts of all the designers who have struggled with furniture problems over the last four or five thousand years.

Compared to the design of large buildings (or even small ones), ships, aircraft, or highway systems, furniture design may seem simple—in a way it is, because each project is of comprehensible and manageable magnitude. A design is usually the work of an individual or a collaboration of two people; it is never the product of the large team typical of major architectural projects or in the "styling studios" of automobile manufacturers. Yet this simplicity is somewhat deceptive. The long history of furniture development and the extensive and personally intimate experience every user has had with familiar furniture generate an extraordinary sensitivity that makes everyone a demanding critic of any new furniture design. Certainly bad furniture is designed and manufactured constantly, but the serious designer does not measure his proposals against commercial and shoddy production. Instead, he is aware of the remarkable successes that are part of furniture history (e.g., Georgian cabinetwork, a simple Windsor chair, the products of the American Shaker societies) and the modern designs that have come to be called "classic."

With these standards in mind, the student of furniture design discovers how difficult it is to propose a new product that offers any

real advance over what already exists. He also discovers, with a rough proposal in hand, how hard it is to assemble the dimensional data, information about materials and the ways they can best be worked, and to synthesize all of this in a way that will transform the rough idea into a viable design, ready for production and use. This book is intended to bring together, in one place, as much of the information that the modern designer might need as will fit into a reasonably sized, single volume. In choosing examples to cite and selecting information to include, I have inevitably incorporated my own preferences and opinions. Yet I have tried (in Chapter 3) to explain the basis for these opinions so that it will be possible for the reader to decide rationally whether to agree with me or to disagree totally or in part. In the latter case, aware of the viewpoint that this book represents, the reader can make his or her own mental allowances and may seek other references in compensation.

I would like to express my appreciation to the various employers, co-workers, and students who have helped me learn about furniture and have shaped my point of view. I am also obligated to the manufacturers, designers, publications, and museums that have supplied the illustrative material for this book. Credit is given as completely and accurately as possible, but some material from my own collections of drawings, clippings, brochures, and slides has been difficult to identify fully. A general apology is offered for any errors or omissions of credit that may have arisen from this source.

JOHN F. PILE

New York, New York
September 1978

FURNITURE

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1

INTRODUCTION

The Scope and Purpose of This Book

The term "modern furniture" can mean simply recently made or recently designed furniture, or it can designate a special kind of furniture, designed and made recently or currently, but having a particular character that makes it special and different from furniture made in the past. This book is concerned with the latter meaning. Most modern furniture in the first sense is not truly modern at all in the second sense. Occasional surveys made by various magazines concerned with the manufacture and distribution of home furnishings give the percentages of furniture of various "styles" that are being made and sold in a particular recent time period. For many years in the recent past "modern" has always appeared as a minority category, and only within the last few years has it begun to be an important contender compared to other styles such as "colonial" or "French provincial." Most recent surveys show modern furniture still represents less than 50% of that currently made and sold in the United States. In other words, half or more of the modern furniture made is only modern in its date of manufacture.

In every historic period and in each geographical area where furniture has been made to any significant extent, that furniture has been uniquely characteristic of its own time and place. Ancient Egyptian furniture is different from ancient Greek or Roman furniture. Medieval furniture is not easily confused with the furniture of the Renaissance. The well-known styles of the 18th century are

readily recognizable and express a point of view typical of that time. Even Victorian furniture, although it sometimes attempts to borrow from earlier times, has its own qualities for better or for worse—often, in our present view, for worse. As the consistency of Victorian attitudes began to fade around the beginning of the 20th century, however, we saw the beginning of attitudes that persist to the present—attitudes suggesting that efficient factory production and remarkable technological developments in materials can be put to use to make objects that imitate those of past periods more or less accurately. The making of furniture rapidly became a field in which design creativity came to be feared. Quality furniture became "antique reproductions" carefully faking the appearance of designs of the past, down to inclusion of "aged" finishes and even newly manufactured wormholes to add a look of "authenticity." Inexpensive furniture followed along with imitative designs that hardly can be said to "reproduce" anything from the past, but which try to suggest past styles with enough imitative detail to justify application of stylistic name tags. "Provincial" or "colonial" are terms that modern American families think of as the normal descriptions for the look of a dining table or a television set.

The modern furniture that this book is concerned with is actually the truly "historic" furniture of our own time because it is designed in a way that is uniquely characteristic of the present time. It is the work of designers who are original and creative and have no interest in the making of reproductions, accurate or otherwise. It is not necessarily "recent" in terms of years, since there are designs that are truly "modern" in character that have been in production for as long as 80 or 90 years. Even long ago these designs showed that the modern era of industrial technology was totally different from the Renaissance or the 18th century and started design development in ways that would both exploit and express the differences.

Modern furniture is usually thought of as having certain stylistic characteristics, but any attempt to list those features must be undertaken with caution. It is possible to think of excellent examples that are exceptions to almost any specific characteristic which might be named. Most modern furniture is mechanistic in character, but there are designs which depend on hand craftsmanship and show that fact very clearly. Chrome-plated steel and glass are favorite materials, but woods that have been in use for thousands of years are even more common. Most modern furniture uses smooth surfaces and is free of decoration, but individualistic decoration is typical of the work of certain noted modern designers. Industrial quantity production is often a stated ideal, but some famous designs, including some that are most "industrial" in appearance, are still made by hand one unit at a time.

With the limited time perspective available to us at present, it is

not possible to name visual details that identify a "modern style" in the way that Chippendale or Louis XVI can be identified. Instead, it seems easier to use negative identifying traits. Modern furniture never imitates a past style and is never based on past style in any narrow sense. This does not preclude modern designers' learning from and being inspired by historic examples; it only indicates a refusal to recall appearance for the sake of nostalgia or ostentation. In contrast, the "traditional pieces" produced by many mass manufacturers deliberately try to suggest that they come from some romantic and luxurious past time however absurd this suggestion may be. A Spanish Renaissance television cabinet, a Gothic radio, a French provincial piano, and Early American upholstered living room furniture are all commonplace in the "modern" home. The modern furniture that this book discusses has no relation to this nonsense. Whatever its good and bad points may be, it is always designed in terms of its own time and place.

It is a curious reality that the habit of imitation is so strong in the design of commercial furniture that "modern" is sometimes thought to be one more style that can be readily imitated. As a result, some manufacturers have asked their staff designers to produce designs that imitate "genuine modern" furniture. Just as historic styles are distorted, cheapened and misimitated for commercial production, modern designs can be "knocked-off"* through imitation that almost always misses the point of the original, copies its least significant aspects, and introduces modifications that distort its real values. Such synthetic "modern" furniture is often given stylistic names such as "Moderne", "modernistic," or "contemporary" that seem to recognize its superficial and imitative character. Unfortunately, a large proportion of the "modern" furniture seen and bought by the consumer public is of this sort. In this book, we are not concerned with such furniture except to the limited degree that its method of production may be of interest.

The modern furniture that is worthy of serious interest is almost invariably the work of an individual or, occasionally, the result of a collaboration. It does not come from anonymous groups or from corporate departmental organizations. The people developing it are sometimes craftsmen, sometimes design professionals (very often architects), occasionally engineers or inventors, but whatever their background, they are invariably concerned with the serious possibilities of furniture in both a utilitarian and an artistic sense.

We are accustomed to viewing historic furniture displayed in art museums—not merely because it sometimes carries painted or carved decoration but also because it often can be considered as serious creative art in its totality. It is not only the elaborate and luxurious furniture that was made in the past for aristocratic use

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* The term "knock-off" is trade jargon for an unauthorized copy.

and display that deserves this attention; a simple Windsor chair can be as worthy of museum display as its contemporary carved and decorated Chippendale or Hepplewhite counterpart. In furniture design, as in architecture, the intelligent solution of practical problems can combine with an expressive development of form to produce a useful and visually meaningful result. As industrialization pushed aside the developed crafts of the 18th century, the possibilities of intelligent design seem to have been largely neglected, so that an effort toward reform was necessary to rediscover what furniture design could be. The details of this reform and the various "movements" involved are reviewed in a later chapter. The end results have emerged as a point of view, a "school," or even a "style" (if we can use that word without implying superficial fashion and change introduced for its own sake) that is as representative of the present era as any of the great historic periods were characteristic of their own times. Thus, in studying modern furniture we are examining an art form as well as a type of utilitarian product.

The art of furniture is, in conventional classifications, a minor art, not to be ranked with the fine arts in importance because utilitarian considerations dominate it so strongly. A comparable utilitarian domination has not prevented architecture from admission to the "fine arts" category, and the relation of furniture to architecture is in many cases so close as to make furniture design seem almost a branch of architecture. Whether minor or not, however, the art of furniture design makes it possible for every user, every householder, to own and use contemporary works of high quality and great interest. Oddly, most householders, most users or "consumers" of furniture, have no interest in this aspect of the things they buy, own, and use. There is an awareness of the appearance of furniture, but that awareness is focused on furniture as a vehicle for display of "taste" in terms of fashion as understood by the consumer magazines and the manufacturers who support them through their advertisements. Furniture becomes an element in household "decor" viewed like fashion apparel as a transient medium for ostentation and whim. Because of its long life, the up-to-date furniture of recent years becomes the dreary burden of ugliness that characterizes the average room interior of the 20th century.

To understand that furniture design is (at its best) an art form, and to view needed furniture as an opportunity to collect objects of aesthetic taste, intellectual quality, and of lasting, almost permanent value, requires a view that the average modern consumer has not had occasion to develop. This view requires some thought, some knowledge, and a degree of lively interest—the kind of interest that the automobile enthusiast brings to his car, the music lover focuses on concerts and records, or the gourmet cook devotes to food.

An effort has been made here to collect in one place a cross section of the information necessary to value, understand, and enjoy the best modern furniture. Also, if the reader has a more technical interest in furniture, the book includes information on the technical aspects of furniture design and construction, data on dimensional standards, and various other bits of knowledge about furniture that have previously been available only in a diverse jumble of catalogs, manuals, and "how-to" books.

This book is not intended to be a how-to text for the furniture craftsperson. Anyone interested in making furniture needs to develop the appropriate skills from specialized manuals and through direct experience in shopwork. It is to be hoped, however, this book will be helpful to craftspeople in designing the projects that they plan to undertake. Skilled craftsmanship can only produce good modern furniture when it is coupled with thoughtful design that may precede shopwork or develop as shopwork progresses. But, however design and craft are combined, only a blending of the two can lead to results of genuine excellence.

Professional designers with background and training in architecture, interior design, or industrial design will also find it useful to have information on the special problems of furniture design gathered together in one place when the time comes to undertake a furniture project. This may occur when a special need surfaces in connection with some other project that cannot be filled readily with any furniture product in current production. It can also arise when an idea for a new and different solution to some furniture problem comes to mind spontaneously—as often happens to designers—possibly as a result of dissatisfaction with some familiar product.

First efforts in furniture design, even when undertaken by designers trained and experienced in other fields, can use all available aids. Possibly because it comes into such intimate contact with the body of the user, or perhaps because it relates to such long traditions, furniture design is very sensitive to tiny variations in size and proportion. It is very easy to design (on paper or in a model) something that seems quite reasonable, and then to discover, on seeing a full-size sample that an ungainly, uncomfortable, or fatally fragile product has been produced. There is no way of guaranteeing that such unpleasant surprises may not occur, but many suggestions are given here that will at least reduce the likelihood of such disaster.

The reader with a serious interest in modern furniture is urged to consider this book as a starting point in building up a library of other furniture related references. Most books on the subject of furniture that have appeared in the past are unfortunately, for the purposes of the modern reader-designer, oriented toward the concerns of antiquarians and collectors. While antique furniture offers