ROBERTO J. RENGEL

SHAPING
INTERIOR
SPACE

THIRD EDITION

BLOOMSBURY

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PREFACE

It continues to be gratifying to hear from the many users of *Shaping Interior Space*. I appreciate the good comments and many suggestions offered over the years. Writing the original version and the two updated editions continues to be a source of personal amazement, as I wrestle with my mind to come up with the best thing to say and the best way to say it.

In this third edition we have continued our efforts to improve the visual presentation of the book. Some figures have been replaced and others added where necessary. I have also sought ways to improve clarity, simplify the language, and reduce superfluous material. Some material has been reshuffled, and there is also new material, including all new case studies.

The structure of the book has been modified. The new structure features three parts, instead of four, and the order in which the chapters are presented has been modified. **Part One**, now called **General Principles**, remains essentially the same, but we have added a new fifth chapter, **Balance and Unity**. One may ask why a chapter on balance and unity and not one on all the basic design principles. One reason is my assumption that, by the

time students use this book, they have had a course in basic design principles. The other reason is that, in the hierarchy of design principles, I consider balance and unity the most important.

The three main experiential goals that form the backbone of the book, order, enrichment, and expression, are now grouped in **Part Two** under the heading **Experiential Aims of Design**. One could argue that there are more experiential categories but, to me, these three serve as good overall umbrellas that capture the many dimensions of one's experience of the built environment.

Part Three is devoted to **Design Process**. The previous chapters on understanding and ideation have been moved to this section and a new chapter titled "Development" has been added as the final chapter. This chapter contains reorganized material from former Chapters 10 and 11 plus new material that elaborates the process of design beyond the plan. Included now are sections on the development of vertical surfaces, the spatial envelope, the ceiling plane, details, furniture, artwork, and accessories. The former Chapter 11, "Modifiers of Interior Space," has been eliminated. I came to the realization that

attempting to meaningfully address complex topics such as lighting, acoustics, and color in one chapter is practically impossible. These subjects are best addressed in books entirely dedicated to them.

Another meaningful change has been the adoption of **new case studies**. The ones in the second edition have been replaced by six new case studies coming from Gensler, Flad, Sasaki Associates, and ASD.

ACKNOWLEDGMENTS

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EXTENDED CONTENTS

CHAPTER 1
SHAPING INTERIOR SPACE

INSTRUCTIONAL OBJECTIVES

- Explain the crucial role of the design studio in design education.

- Present several important sources of design knowledge.

- Explain the role of intentions and strategies in design.

- Introduce the concept of total design.

- Describe the evolving role of interior designers as shapers of space.

- Introduce the ten design principles that guide this book.

You employ stone, wood, and concrete, and with those materials you build houses and palaces. That is construction. Ingenuity is at work...

But suppose that walls rise towards heaven in such a way that I am moved. I perceive your intentions. Your mood has been gentle, brutal, charming, or noble. The stones you have erected tell me so. You fix me to the place and my eyes regard it. They behold something that expresses a thought. A thought that reveals itself without word or sound, but solely by means of shapes which stand in a certain relationship to one another. These shapes are such that they are clearly revealed in light. The relationships between them have not necessarily any reference to what is practical or descriptive. They are a mathematical creation of your mind. They are the language of Architecture. By the use of raw materials and starting from conditions more or less utilitarian, you have established certain relationships which have aroused my emotions.

—*Le Corbusier,* Towards a New Architecture

INTERIOR DESIGNERS LEARN EARLY on that the most important aspect of their designs is their responsiveness to a set of functional requirements needed for users of the environments to do their thing, whether it is working, selling, dining, or learning. Designers also learn that good environments have additional qualities that make them special, such as innovative aesthetic qualities that please and inspire. In fact, many students choose to become designers because they enjoy being creative and because of the prospect that their creations will arouse the emotions of those who come in contact with them. While engineers use their knowledge and training to provide practical and efficient solutions based on the physical laws of nature and builders use their knowledge to construct projects that are structurally sound and well crafted, interior designers use their knowledge to create designs that are functional and also touch the human heart in ways that neither the engineer's design nor the builder's construction usually does. A good interior design reflects a design solution conceived by and for human beings. It holds in high regard not only users' physical well-being but their emotional and spiritual well-being as well.

When clients hire interior designers, they know they are getting more than just a practical design solution; they are also buying style and substance. Although practically all interior designers are sincerely interested in creating special living environments, some do a better job at it than others. Many skilled and motivated designers fall short of designing great project not because they lack

competence but because they lack awareness of the many possible ways to arouse human emotions. At a minimum designers have the obligation to create functional and aesthetically pleasing environments; however, it is when design intentions reach beyond these two basic necessities that designers truly engage in total design.

THE DIFFICULTY OF DESIGN

Designing good interior environments is difficult. The number of design problems and their complexity can be staggering. Designers are required to make sense of the realities and needs of a given client; translate them into collections of spaces subdivided in special ways in response to their functions; shape and select materials for the enclosing surfaces of those spaces; select or design suitable furnishings, accessories, and fixtures; and make it all work together and look good. Ultimately, full **synthesis** is the goal of every project. All the parts and pieces need to work together, but still be flexible to accommodate change over time.

One of the aspects of design that makes it so challenging is the fact that all the parts of a project have particular relationships with other parts. Designing interiors is like solving a giant table puzzle. What makes the interior design puzzle harder to solve than table puzzles is that the pieces can be placed in not just one but many locations, and they can interlock in a variety of ways. To make matters even more challenging, sometimes resolving one

section of the design puzzle creates unintended problems for another section of the project.

Total design requires the resolution of a multitude of problems, involving issues of functional relationships, privacy, connections, enclosure, views, details, furnishings, lighting, and so on. On any given job, the designer needs to manipulate, control, and, ultimately, resolve how spaces are positioned and combined, pushing, pulling, and twisting as necessary to achieve a successful whole.

Whereas many of the practical tasks of design involve rational decision making, much about design relies on intuition and good design sense. Stanley Abercrombie has referred to the discipline of interiors as being "so subjective and so intimate, so immune to the calculations of science, so special to a singular circumstance and therefore so often ephemeral."[1] The elusive qualities of design make the application of exact rules and formulas unrealistic. Nevertheless, this book will offer some considerations related to both design content and process for interior projects.

Becoming a Designer

At its most general level, design requires two things to be successful: a fitting response to the design problem and its skillful execution (Figure 1.1). Proper response requires that the design problem (and subproblems) are understood correctly and that an appropriate design strategy is formulated to solve them. Choices have to be made about how to distribute space, assemble spatial sequences, determine levels of enclosure and articulation, and so on.

When a proper response is established, designers need to be able to execute the design with skill. This means developing the design ideas in detail and, ultimately, resolving all aspects of the design including the selection of compatible furnishings and miscellaneous nonpermanent pieces.

The Importance of the Design Studio

Learning how to design starts in school, specifically in the design studio where students learn to design hypothetical projects, similar to the ones encountered later in real practice.

The best way to learn design is by doing. Design is not learned by memorization or the application of formulas. Students learn design by solving design problems in the studio where they externalize their design solutions explicitly, thus revealing the virtues and shortcomings of the solution.

Students have to focus and limit their choices from the many possibilities available, resolving each part as best as possible within tight time constraints.

The process of review and critique is just as critical as the *doing* part of design. It is necessary to get beyond the fear of criticism and seek design feedback from peers, design instructors, and, most importantly, from yourself. What is right or wrong about this design approach? Is the overall approach appropriate? Is anything not working? Are there any good ideas not resolved properly? Are there any bad ideas resolved brilliantly? What needs further development? These are the important questions you need to ask constantly.

Only through this kind of ongoing questioning are students able to develop the kind of refinement process that produces good design. Developing a habit of critical questioning will develop your mental agility to solve problems. The more you do this in school, and beyond, the better.

In addition to good reasoning skills, proper response in design requires proper perspective. Novice designers lack perspective. Proper perspective is developed over time. It is, therefore, important to start acquiring a personal sense of what design ideas work well and are most appropriate. A good way to start is by learning from other designers. By asking questions and studying how other designers

DESIGN = PROPER UNDERSTANDING + PROPER RESPONSE + PROPER EXECUTION

Figure 1.1: Good design requires proper understanding, proper response, and proper execution. Proper understanding ensures you are solving the correct set of problems; proper response ensures you take that insightful understanding of the design problem and develop a responsive design solution for it. Proper execution requires that you take your good design ideas through a proper stage of development and end with a thoroughly resolved conclusion.

have responded to real design problems, you start to acquire a sense of effective ways to solve design problems. Developing an alert set of eyes and a good design memory that recalls characteristics of environments is invaluable. After you gain some experience, you'll start developing and trusting your own personal sense of design propriety.

Sources of Design Knowledge

There are many sources of useful information that help inform design. These include design journals, historical precedents, design theories, and personal observations made while traveling to new environments. Studying design history is an excellent way to gain design perspective. When studying design history, strive to understand the conditions that were present during specific times and to evaluate the kinds of design solutions conceived within the context of those conditions. Understanding what made certain design approaches fit a specific set of circumstances in the past helps you develop a better sense of judgment about design responses to specific needs.

Design students also need to become avid followers of current design trends by consulting design trade journals and books. By following the work being done by today's designers, you can get a sense of the breadth of recent trends and start developing your own opinions about what is good design.

Another important source of information for designers is the rapidly growing body of interior design research. Research studies provide valuable insights about the effects of certain types of environments or their environmental attributes on users. Although many areas of design have not been researched, others enjoy a good amount of published material. At present, there are countless educators worldwide engaged in research that continues to expand the available knowledge base of the field. Although it is normally not possible to utilize research findings directly in the form of rules and formulas, research findings establish a sound point of departure.

Remember that in design, however, every case is new and needs to be looked at with fresh eyes. You can think of and use research findings in the same way you think of and use advice from people possessing expertise and wisdom; what they have to say may be perceptive and truthful, but how you decide to use the information is up to you given the circumstances. The information may help to establish a general approach. Giving it specific form for the application at hand is your responsibility.

One last source of design knowledge is travel. Whether abroad, to a neighboring town or city, or to a local tavern, travel can provide invaluable insights to designers. Keeping a notebook of observations or taking pictures is also helpful. When you travel, things are fresh and you notice them more. There are design lessons everywhere. Whether you visit places known for their design quality or just ordinary places, you will notice many examples of elements or combinations that offer design insights. You will also notice examples of things you had never thought about or things you didn't think possible.

Intentions and Strategies

There are many important design considerations related to the design of interior environments. These occur at different hierarchical levels, from those addressing broad design goals to narrow considerations about how to treat a niche on a wall. It is important to expand your own personal range of design possibilities. The more possibilities and variations you have in your personal repertoire, the more intentionality you can bring to your projects. Having deliberate intentions is crucial to making projects come alive. The greater your awareness of design possibilities, the broader and deeper your intentions will be—and the resulting designs will acquire new layers of meaning.

Design problems, design intentions, and design strategies are part of one common string of thought that progresses sequentially from the identification of a problem to the implementation of a solution. **Design problems** involve specific needs and circumstances requiring a design solution. An example is the need for, say, a friendly and inviting reception area. This design problem already comes with the requirement that the space be friendly and inviting. Two general intentions have been declared from the outset. **Design intentions** are precise goals related to a design problem. They can be concerned with practical or experiential aspects of design. Design intentions for the design problem above (more specific than just "friendly and inviting") could include a bright, cheerful room with a clear, prominent reception desk, a cozy