Sun, Wind & Light, 2nd edition

G. Z. Brown and Mark DeKay

If I were charged to select three books for people interested in teaching themselves the discipline and profession of architecture, Sir Bannister Fletcher’s History of Architecture would be the first to come to mind—to help visualize how others have designed and built structures for habitation, celebration, and contemplation over the centuries and to stimulate inquiries into why and how buildings are designed and built. The Architect’s Studio Companion would be a good reference for practical rules-of-thumb. And I would choose Sun, Wind & Light to teach the processes architects should use to respect, respond to, and enhance the natural environment during the creative process. These texts should form the backbone of every architect’s reference library because together they represent the whole of what we are about.

Sun, Wind & Light is an inspirational book. First, its drawings seduce you if you have any inclination toward design, even if you are not particularly interested in the subject matter. The hundreds of sketches, each drawn in the same style seemingly by the same hand, are enough to make a coffee table volume. They draw you into and through the book, page by page. That the same hand did not actually draw all the sketches is a credit to those involved in its execution. Not to have succumbed to the use of digital images to produce a book about technology and the environment is a decision to be commended.

The book’s organization and design help those with varying interests, backgrounds, and learning styles glean what they need. Both the beginning architecture student learning to analyze and understand environmental factors and the seasoned professional looking for specific tools to explore a design in an unfamiliar location can find what they need. The concisely-written text and easy-to-understand tools are cross-referenced between different sections of the book. The typography highlights the hierarchies of information presented (with the exception of “bold italics” which could be “key points,” “reference materials,” or “examples of calculations”). Whether you need a quick reference or want to delve into the details of a strategy, the information is presented in an easy-to-use manner.

In this edition the number of design strategies has increased, as has the depth of material provided for many of the strategies. Consolidating the climate data in one section of the book is one of the major improvements as is the introduction of substantially more information on air movement, daylighting, envelope design strategies, and other uses for natural energy sources such as photovoltaics. One of the better strategies introduced is 20—Shading Periods, Which includes an extensive explanation of how to translate information from a spreadsheet to sun-path diagrams or to sundials so they can be useful tools during the design process.

Like most technical resources published in North America, the bulk of the climate data in Appendix A is for the contiguous 48 states. Recognition of the remainder of North America is provided through minimal references in Appendix B although, increasingly, our academic programs and practices reach far beyond our borders. The challenge is for all of us to continue to seek opportunities to produce resources that include all the world’s environments and cultures.

The novice user will never know the foundation for the bioclimatic plots is the psychrometric chart nor learn the wonders of using them to help solve heating and cooling problems that arise in design. The maps in Appendix A do not include latitude and longitude lines, perhaps to ensure clarity of the images (but this gap does not help the reader who is not sure whether Phoenix and Flagstaff are in the same climatic zone). Tabulated information does not consistently reference source material that would be helpful to those seeking additional data, but the index references specific strategies presented in the text. For those itching to surf, the bibliography includes references to Internet sites.

Brown and DeKay are to be commended for updating this handy, inspirational text for architects and engineers to use in academe and practice. It is up to us to introduce it to our students and to use it in our practice so the architecture we create reflects our responsibility to our earth and each other. —Kathy T. P rigmore

New Edition of HCL

The second edition of Norbert Lechner’s Heating Cooling Lighting: Design Methods for Architects (Wiley and Sons) is now available. It has new chapters on energy-related sustainable design and building-integrated photovoltaics. The discussion of psychrometrics has been expanded with sidebars to introduce basic formulae and mathematical examples. Foster’s Commerzbank and Van der Ryn’s Real Goods Solar Living Center are among new detailed case studies. Appendices now include elevational sun-path diagrams, a solar site analysis tool, and an extensive list of resources. Examination copies are available for course adoption consideration by calling Jolene Howard at 212.850.6579.

—Norbert Lechner

Judy and Cole, a sample of the Diego Rivera-inspired art on their family website.

Letters [continued]

I’m happily exhausted! The triplets are several hands full—check out our website at <http://www.guyerb.com>. I’m having the six-month mommy crisis, however, which led me to contact WSU’s Interdisciplinary Design Institute looking for part-time work until I resume my full teaching duties.

—Judy Theodoreson, WSU


—Robert Hastings, AE&E