

SUN, WIND & LIGHT

ARCHITECTURAL DESIGN STRATEGIES third edition

Mark DeKay

*R.A., GreenVision Studio
School of Architecture
University of Tennessee*

G. Z. Brown

*Knight Professor
Department of Architecture
University of Oregon*



Programming

Tomoko Sekiguchi

Jeff Kline

Research

Gwynhwfer Mhuireach

Editing

Susanne Bennett

Illustrations

Virginia Cartwright

Reid Cimala

Dede Christopher

Mark DeKay

Mahamadou Diarra

Jared Eisenhower

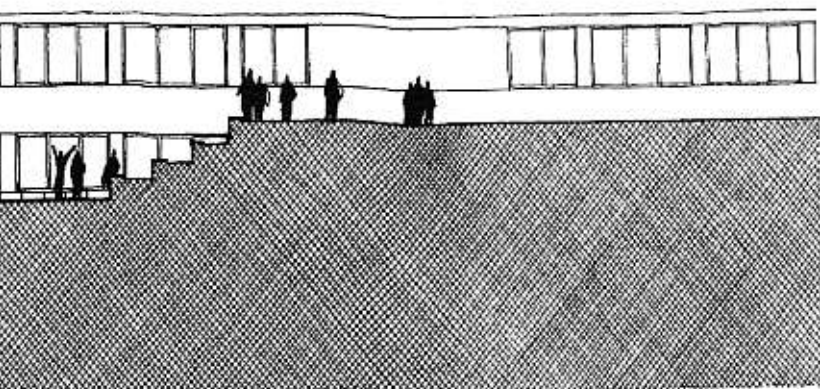
Chi-wen Hung

Jordan Etters

Pallavi Kalia

Arjun Mande

Sushant Verma



WILEY

Contents Overview

WHAT'S IN THE SWL PRINTED

I NAVIGATION	20
• <i>SWL Printed Contents</i>	
• <i>SWL Electronic Contents</i>	
• Additional Navigation Methods	
II USING SUN, WIND & LIGHT	50
• Buildings and Energy Use	
• Design Decision Chart for Net-Zero	
III SYNERGIES	78
• 7 essential themes for net-zero design	
IV BUNDLES	94
• Bundles Explained	
• Selecting Bundles and Making Your Own	
• Some Fundamental Bundles: 9 sets strategy sets for high-performance design	
V FAVORITE DESIGN TOOLS, condensed	194
VI FAVORITE DESIGN STRATEGIES, condensed	216
VII HIGH-PERFORMANCE BUILDINGS	250
• 6 techniques for net-zero energy and carbon-neutral design	
APPENDICES A-E	293
INDICES	339

WHAT'S IN THE SWL ELECTRONIC

- Searchable, printable electronic documents, including all *SWL Printed* content

VIII DETAILED DESIGN STRATEGIES E.1

- 106 energy design strategies with precedents and preliminary design tools for passive cooling, solar heating, daylighting, fresh air ventilation and renewable power

IX DETAILED ANALYSIS TECHNIQUES E.277

- 29 analysis techniques for climate assessment, loads estimation and design strategy selection

APPENDICES F-H E.364

- Sun Charts and Sundials, covering the world
- Climate Maps for the USA and Canada

ADDITIONAL DIGITAL RESOURCES

- Climate data for the USA
- Climate analysis reports for the USA
- *SWL Tools*, spreadsheet for net-zero energy analysis
- Bibliography, searchable

