
articles documenting projects from the authors' sustainable engineering firm to examine topics related to the effect of buildings on both their immediate environment and the global ecosystem.

Benyus, Janine M. *Biomimicry: Innovation Inspired by Nature*. New York, NY: Quill, an imprint of William Morrow & Company, 1997. Biomimicry shows how nature offers countless examples of how to design our products, our processes, and our lives. Benyus, a noted science writer, explains how this new science is transforming everything from harnessing energy to feeding the world.

Brand, Stewart. *How Buildings Learn*. New York, NY: Viking Penguin, 1995. Discusses how buildings adapt over time. Photos of case studies are used throughout to show the before and after condition of buildings. Design principles are described for creating an adaptable and flexible building.

Bunnell, Gene. *Making Places Special*. Chicago, IL: American Planning Association, 2003. Uses examples from several distinct cities to support his thesis that good planning helps to preserve and strengthen the unique qualities of a community.

Calthorpe, Peter. *The Next American Metropolis: Ecology, Community and the American Dream*. Princeton, NJ: Princeton Academic Press, 1995. Places the "American Dream" of a suburban home for the nuclear family in its historical and ecological context. It suggests mechanisms of transit-oriented development including mixed-use, pedestrian-friendly pockets. Features case studies from across the U.S.

Crosbie, Michael J. *Green Architecture: A Guide to Sustainable Design*. Washington, DC: American Institute of Architects Press, 1993. The first comprehensive guide to the work of architects and designers representing the cutting edge of sustainable architecture. A collection of environmentally-sensitive buildings. Design strategies include building siting, daylighting, wastewater, energy-saving lighting and HVAC controls, indoor air, and thermally insulated building envelopes. Features a listing of resources for sustainable design.

Duerkson, Christopher J. et al. *True West*. New York, NY: Prestel Publishing, 2000. True West translates the key elements of authentic Western development patterns into design guidelines for expansion and new development. Case studies examine contemporary developments that harmonize with the historic and natural landscape.

Edwards, Brian. *Green Buildings Pay*. New York: E & FN Spon, 2003. Now in its second printing, this book uses case studies of commercial and educational buildings to examine how different approaches to green design can produce more sustainable patterns of development.

Ewing, Reed. *Best Development Practices*. Chicago, IL: APA Planners Press, 1996. Through lessons learned from the "best" developments in Florida, this book compiles a set of guidelines for best development that focus on land use, transportation, environmental, and housing issues.

Farmer, John. *Green Shift: Changing Attitudes in Architecture to the Natural World, Second Edition*. Oxford, UK: Architectural Press, 1999. This book provides an alternative reading of the development of modern architecture as seen from a green standpoint. It places an emphasis on the changing attitudes towards nature and the emergence of green thinking.

Gissen, David ed. *Big & Green: Toward Sustainable Architecture in the 21st Century*. Princeton, NJ: Princeton Architectural Press, 2002. This bound version of the National Building Museum's exhibition, *Big & Green*, documents recent green developments in large project design, e.g., skyscrapers, shopping complexes and convention centers. 50 projects are highlighted. (800) 722-6657. www.papress.com.

Givoni, Baruch. *Climatic Considerations in Building and Urban Design*. New York, NY: Van Nostrand Reinhold, 1998. Written in clear and concise language, this book is the most comprehensive, up-to date reference available on building and urban climatology.

Gottfried, David. *Greed to Green: The Transformation of and Industry and a Life*. San Francisco, CA: Worldbuild Publishing, 2004. This book gives an intimate personal account of David Gottfried's transition from "greed" to "green," while giving an insiders look into the formation of the U.S. Green Building Council and the development of the LEED rating system.

Hall, Kenneth B. and Gerald A. Porterfield. *Community by Design*. Columbus, OH: McGraw Hill, 2001. The layout of this book highlights key points and utilizes sketches, drawings and photographs to sell new urbanist planning for suburbs and small communities. This book offers an alternative to urban sprawl that creates maximum livability, cohesiveness, and style.

Hawken, Paul, Amory and Hunter Lovins. *Natural Capitalism: Creating the Next Industrial Revolution*. New York, NY: Little, Brown and Company, 1999. Citing hundreds of compelling stories from a wide array of sectors, the book shows how to realize benefits both for today's shareholders and for future generations—and how, by firing the "unproductive tons, gallons, and kilowatt-hours," it's possible to keep the people who will foster the innovation that drives future improvement. The book is available from Rocky Mountain Institute (www.rmi.org).

Hersey, George. *The Monumental Impulse: Architecture's Biological Roots*. Boston, MA: Massachusetts Institute of Technology, 1999. Uses several juxtaposed examples to make the point that many structures are modeled after natural phenomenon; biomimicry in architecture.

Jacobs, Jane. *The Death and Life of Great American Cities*. New York, NY: Random House, 1961. A classic book that offers valuable lessons not yet learned about building healthy, safe, and habitable cities.

Jacobson, Max. *Patterns of Home*. Max Jacobson, et al. Newtown, CT: The Taunton Press, 2002. Provides 300 pages of inspiring pictures that challenge the design of buildings to combine inside and outside spaces with a conscious use of daylighting. This book does not refer to green building techniques specifically, but many of the schemes can be achieved through green building.

Johnston, David. *Building Green in a Black and White World: A Guide to Selling the Homes Your Customers Want*. Washington, DC: Home Builder Press, 1991. Introduction to green building for conventional homebuilders including an introduction to green building and specifics on how to market green homes. www.BuilderBooks.com

Jones, David L. *Architecture and the Environment: Bioclimatic Building Design*. New York, NY: The Overlook Press, 1998. A compilation of 44 case studies of architecture throughout the world built according to bioclimatic—or "green"—guidelines. The book begins by putting the green building movement into a historical context. Past, present, and future examples are accompanied by charts of building energy features, energy performance, and environmental health features.

King, Julie ed. *Ecological Architecture: Bioclimatic Trends and Landscape Architecture in the Year 2001*. New York, NY: Loft Publications, 2001. This book show cases recent projects from around the globe that have effectively incorporated energy saving devices and ecology as constituent elements of the building design. Great photography that captures the essence of daylighting.

Langston, Craig. *Sustainable Practices in the Built Environment*. Newbury, UK: Butterworth Heinemann, 2001. This book deals with sustainability as it affects the construction industry, looking at the techniques and issues which designers, engineers, planners and construction managers will need to deal with in their day-to-day activities. It covers methods of analysis such as environmental impact assessment and cost-benefit analysis as well as topics on design and energy regulation and conservation.

McDonough, Bill and Michael Braungart. *Cradle to Cradle: Remaking the Way We Make Things*. New York, NY: North Point Press, 2002. Argues that when making environmental decisions, we often settle for the lesser of two evils, while we should really be demanding a true solution that is better for the environment and the bottom line.

McGregor, Suzi Moore and Nora Burba Trulsson. *Living Homes: Sustainable Architecture and Design*. San Francisco, CA: Chronicle Books, 2001. Description and photographs of homes constructed with adobe, rammed earth, straw bale and reinvented, recycled and high-tech materials. Includes bibliography and resources.

McHarg, Ian L. *Design with Nature*. New York, NY: John Wiley & Sons, 1992. Presents a thorough analysis of the relationship between the built environment and nature. This was one of the first books to bring forward planning concepts in environmental sensitivity.

McLennan, Jason. *The Philosophy of Green Design*. Kansas City, MO: Ecotone Publishing LLC, 2004. This book is intended as a starting point for anyone involved in the building industry on a journey to learn how he or she can build more responsibly.

Mendler, Sandra F., AIA, AIS and William Odell eds. *HOK Guidebook to Sustainable Design*. New York, NY: John Wiley & Sons, 2000. Overview of sustainable design for commercial buildings including detailed checklists for each stage of the design and construction process and case studies drawn from HOK's recent work.

Moe, Richard and Carter Wilkie. *Changing Places: Rebuilding Community in the Age of Sprawl*. New York, NY: Henry Holt and Company, 1997. Co-authored by the president of the National Trust for Historic Preservation, this book makes the case for historic preservation as a tool for community revitalization.

Nelessen, Anton. *Visions for a New American Dream*. Chicago, IL: APA Planners Press, 1994. Provides practical information to help planners and designers create small communities that combine the best design principles of the past with the technological advances of the present to combat suburban sprawl. Visual Preference SurveysTM and Hands-on Model Workshops are thoroughly described.

Norwood, Ken, AICP and Kathleen Smith. *Rebuilding Community in America: Housing for Ecological Living, Personal Empowerment, and the New Extended Family*. Berkeley, CA: Shared Living Resource Center, 1995. This book explores cohousing as well as other forms of community-oriented living.

O'Neill, David J. *Smart Growth Tool Kit*. Washington, DC: Urban Land Institute, 2000. This book explains how to implement smart growth initiatives into a community as well providing the necessary resources. The list of case studies promotes strategies such as infill and brownfield development.

Orr, David. *The Nature of Design: Ecology, Culture, and Human Intention*. Oxford, UK: Oxford University Press, 2002. The environmental movement has often been accused of being overly negative—trying to stop “progress.” On the other hand, this book is about starting things, specifically an ecological design revolution that changes how we provide food, shelter, energy, materials, and livelihood and how we deal with waste.

Roberts, Jennifer. *Good Green Homes*. Layton, UT: Gibbs Smith Publisher, 2003. A guide to creating beautiful homes that are healthier to live in and easier on the environment.

Romm, Joseph and William D. Browning. *Greening the Building and the Bottom Line: Increasing Productivity Through Energy-Efficient Design*. Snowmass, CO: Rocky Mountain Institute, 1994. This succinct report makes a powerful message to corporate managers: while energy-efficient design can pay for itself in reduced energy costs alone, it may also produce vastly greater benefits in higher worker productivity, lower absenteeism, fewer errors, better quality, and increased retail sales. Eight documented case studies show that productivity gains from green design can be as high as 16 percent.

Rosenthal, Ed Cohen. *Eco-Industrial Strategies*. Ithaca, NY: Cornell University Publishing, 2003. Focusing on eco-industrial development, this book contains process analysis, a breakdown of stakeholder responsibility, and case study assessment. This book pools together resources and knowledge from a wide array of sources within the eco-industrial field and the framing of the concept from multiple angles.

Rocky Mountain Institute: Alex Wilson, Jenifer L. Seal (Uncapher,) Lisa McManigal, L. Hunter Lovins, Maureen Cureton, William D. Browning. *Green Development: Integrating Ecology and Real Estate*. New York, NY: John Wiley & Sons, Inc., 1998. If you're a developer, architect, planner, contractor, lender, or city official, this is a book that speaks your language. Every stage of the development process is examined in detail: market research, site planning, design, approvals, financing, construction, marketing, and occupancy. Also included are lists of project vital statistics and contacts, books and other information sources, and development strategies. *Green Development* is based on 80 case studies drawn from Rocky Mountain Institute's extensive worldwide research and consulting work. From these real-world experiences, it distills proven procedures, potential pitfalls, and practical lessons that will help shorten the learning curve on the path to environmentally sound, community-supportive, and financially rewarding real estate development.

Spiegel, Ross. *Green Building Materials*. New York, NY: John Wiley and Sons, 1999. This book helps guide architects and planners in selecting and specifying green building materials. The book provides insight into both rudimentary environmental design guidelines and the more involved methods such as Life Cycle Analysis.

Susanka, Sarah. *Creating the Not so Big House*. Newtown, CT: The Taunton Press, 2000. This book is the practical follow-up to Susanka's earlier book *The Not so Big House*. It contains design principles and ideas that allow for the design of houses that value quality over quantity.

Susanka, Sarah. *The Not so Big House*. Newtown, CT: The Taunton Press, 1998. This book takes a step back from the customary measurements of a house—square footage, bed and bathrooms—and looks at what makes a house a home.

Thompson, J. William, Kim Sorvig, and Craig D. Farnsworth. *Sustainable Landscape Construction*. Washington, DC: Island Press, 2000. Sustainable Landscape Construction re-evaluates the assumption that all built landscapes are environmentally sound, and offers practical, professional alternatives for more sustainable landscape construction, design, and maintenance. Packed with clear concepts and never-before-compiled resources on "green" landscape work, the book is an inspiring overview of important practices and concerns.

Vale, Brenda and Robert. *Green Architecture: Design for an Energy-Conscious Future*. New York, NY: Bulfinch Press & Little Brown and Company, 1991. Provides an overview of resource-conscious building and an exploration of the relationship between the built environment and such critical problems as power supply, waste and recycling, food production, and transportation.

Van der Ryn, Sim and Peter Calthorpe. *Sustainable Communities: A New Design Synthesis for Cities, Suburbs, and Towns*. San Francisco, CA: Sierra Club Books, 1986. Covers a range of issues dealing with sustainability for urban and suburban renovation through an in-depth look at several case studies as well as essays focused on community sensitivity, transportation, and economics.

Van der Ryn, Sim, and Stuart Cowan. *Ecological Design*. Washington, DC: Island Press, 1995. Discusses how making ecology the basis for design can reunite the living world and humanity. Ecological design, the marriage of nature and technology, can be applied at all levels of scale to create revolutionary forms of buildings, landscapes, cities, and technologies. Design principles are presented that can help build a more efficient, less toxic, healthier, and more sustainable world.

Wilson, Edward O. *Biophilia: The Human Bond with Other Species*. Cambridge: Harvard University Press, 1984. Wilson proposed a compelling idea that although we have surrounded ourselves with a human-made environment intended to serve our uniquely human needs, "we are, in the fullest sense a biological species and will find little ultimate meaning apart from the remainder of life."

Wines, James. *Green Architecture*. Los Angeles, CA: Taschen, 2000. This book has an impressive collection of photos that highlight some of the most impressive eco-designs of the past 30 years.

Wolley, Tom and Sam Kimmins. *Green Building Handbook: A Companion Guide to Building Products and Their Impact on the Environment*. London, UK: Spon Press, 2000. This handbook provides a detailed reference for environmentally concerned purchasers of building products. The introduction outlines the case for sustainable building techniques while the content addresses a comprehensive list of material choices for the builder or owner.

Yeang, Ken. *The Green Skyscraper: The Basis for Designing Sustainable Intensive Buildings*. New York, NY: Prestel Publishing, 2000. Presents the idea that skyscrapers can be part of the solution to environmental problems rather than a source of the problem.

MANUALS

The American Institute of Architects. *Environmental Resource Guide*. New York, NY: John Wiley & Sons, Inc. Provides a comprehensive guide to resources for environmental building and is updated three times a year. Project reports present case studies that incorporate environmental concepts and technologies. Material reports detail the environmental aspects and life-cycle of building materials.

A Blueprint for Greening Affordable Housing. Global Green USA. Santa Monica, CA: Global Green USA. A guide that documents the energy efficiency measures applicable for affordable developments. The included case studies highlight successful affordable energy-efficient developments. www.globalgreen.org.

Carmody, John, Stephen Selkowitz, and Lisa Hescong. *Residential Windows: A Guide to New Technologies and Energy Performance*. New York, NY: W.W. Norton & Company. Describes how windows and glazing work and provides guidance on selection. Phone: (800) 233-4830, or www.wwnorton.com.

E SOURCE. *Technology Atlas Series*. Boulder, CO: E SOURCE, INC. A comprehensive set of technical documents from the premier source for up-to-date information on retail energy market trends, products, services, and technologies. The Atlas Series can be purchased individually from E SOURCE, (800) 376-8723, <http://www.esource.com>, or as a set through the Iris Catalog at <http://shop.oikos.com/catalog/>.

Greening Federal Facilities. This book has a lot of information for anyone working on commercial and institutional projects. It is organized into two-page sections on specific technologies. The book is available free upon request from EREC at 1-800-363-3732. (Ask for FEMP Document No. FE320). You can also order a copy using the online form at: <http://www.eere.energy.gov/femp/ordermaterials.html> or download it from: http://www.eere.energy.gov/femp/techassist/green_fed_facilities.html Growing.

The Green Pages, a 350-page interior specifier's guide to environmental products. Green Pages not only cross-references interior design products to each other (linking energy-efficient lighting fixtures, for example, with energy-efficient lamps), it also points designers to special environmental consultants, contractors, advocacy groups, books, and related services. The guide compares sustainable interior products to conventional counterparts and quantifies their impact on the environment. Beyond identifying non-toxic products, it also lists non-off gassing chemicals used in them. Backing up the Green Pages are a product literature library, Material Safety Data Sheets, and research reports from the US Department of Energy and the EPA, among others. For more information, e-mail Andrew Fuston and Kim Nadel, eenpgs@idt.net.

Grumman, David L. ed. *ASHRAE GreenGuide*. Atlanta, GA: ASHRAE, 2004. The *GreenGuide* provides direction to designers of HVAC & R systems on how to participate effectively on design teams charged with producing green buildings. Contains green design techniques applicable to related technical disciplines including plumbing, electrical and mechanical engineering.

Koch-Nielson. *Stay Cool: A Design Guide for the Built Environment in Hot Climates*. Holger Koch-Nielson. London, UK: James & James Science Publishers Ltd, 2002. Explores passive and active design principles to keep buildings cool in hot-dry and warm-humid climates along with strategies for each. Lots of diagrams and photos. +44 20 7387 8558. www.jxj.com.

Proscio, Tony. *Smart Communities: Curbing Sprawl at Its Core*. New York, NY: The Local Initiatives Support Corporation, 2002. This short publication references several unique projects to show how and where Smart Growth has been successful. Available online at www.liscnet.org/resources/.

RSMeans. *Green Building: Project Planning & Cost Estimating*. Kingston, MA: RSMeans, 2002. This book is a practical guide for green building that should be a helpful resource for all members of the design team including building owners, architects, engineers, contractors, and facility managers. It covers the gamut from green building concepts and material selection through to cost estimating in the very practical RSMeans' fashion.

Sustainable Building Technical Manual co-sponsored by Public Technology Incorporated, U.S. Green Building Council, and U.S. Department of Energy. Washington, DC: Public Technology, Inc, 1996. Addresses green building practice from pre-design issues and site planning through operations and maintenance. Fifteen practitioners were

asked to write sections of the book pertaining to their particular area of expertise. Checklists and a list of resources are also found in this helpful manual. Manual is available by calling 1-800-PTI-8976.

US Green Building Council. *LEED Green Building Rating System*. Washington, DC: USGBC. Extensive background information and guidance for meeting the requirements of the USGBC's rating system for commercial buildings. Lists the intent, requirements, submittals, and technologies/strategies for each credit, and also includes the LEED-NC Checklist and an errata sheet lists corrections to the Rating System document. Phone: (202) 828-7422 or www.usgbc.org.

Watson, David and Kenneth Labs. *Climatic Building Design: Energy-Efficient Building Principles and Practices*. Columbus, OH: McGraw-Hill Book Company, 1983. Provides an introduction and reference guide to climatic design—the art and science of using the beneficial elements of nature to create environmentally sensitive buildings. Sections include a background in the scientific principles underlying climatic design; a designer's guide and catalog of the practices of climatic design and construction; and ways of analyzing local climatic data and applying strategies and principles for major United States locations.

Wilson, Alex, Jennifer Thorne, and John Morrill. *American Council for an Energy-Efficient Economy: Consumer Guide to Home Energy Savings*. White River Junction, VT: Chelsea Green Publishing Co. Updated periodically with model numbers of the most efficient appliances and information of selecting energy-efficient equipment and improving the performance of older equipment. (800) 639-4099. www.chelseagreen.com.

Wilson, Alex, Nadav Malin, Tori Wiechers and Larry Strain. *The GreenSpec® Directory: Product Directory with Guideline Specifications, 4th Edition*. Brattleboro, VT: BuildingGreen, Inc, 2003. The Directory has information on more than 1,750 green building products in over 250 categories carefully screened by the editors of *Environmental Building News*, combined with guideline specification language and organized according to the 16-division CSI *MasterFormat*™ system. Included are product descriptions, environmental characteristics and considerations, and manufacturer contact information with Internet addresses. The Directory also provides information on selecting and installing environmentally preferable products. *GreenSpec Directory* can also be accessed as part of a subscription to the BuildingGreen.com online tools. (800) 861-0954. www.BuildingGreen.com.

Woolley, Tom, Sam Kimmins, and Paul & Rob Harrison eds. *Green Building Handbook, Volumes 1 and 2: A Guide to Building Products and Their Impact on the Environment*. London, UK: SPON Press c/o Taylor & Francis Group Press, 1997. 2-volume compilation of the first 20 reports from the *Green Building Digest*, a British periodical that compares various product and material options for various applications. +44 0 207 583 9855.

Yudelson, Jerry and Alan Whitson, *365 Important Questions to Ask about Green Buildings*. Portland, OR: Corporate Realty Design and Management Institute, 2004. A compilation of the most important questions for architects, designers, and building owners to ask...and when to ask them. The questions are presented chronologically based on the project timeline and are cross-referenced to their environmental significance.

CD-ROMS

The Appropriate Technology Library CD-ROM contains the complete text and images from over 1,050 of the best books on all areas of village-level and do-it-yourself technologies...over 150,000 pages! In use in over 130 countries by Peace Corps Volunteers, development and relief organizations, engineers, and missionaries, the Appropriate Technology library is comprehensive and compact. Orders for the library can be placed online at <http://www.villageearth.org/Merchant2/merchant.mv> or by phone at (970) 491-5754.

ASTM International Standards on Sustainability in Buildings. CD-ROM. A collection of 127 ASTM standards running the gamut from soil testing to plastic lumber and solar collection systems to indoor air quality. ASTM International. (610) 832-9585; Fax: (610) 832-9555; www.astm.org.

EBN Archives. BuildingGreen, Inc. This CD-ROM includes back issues of Environmental Building News, a cumulative index of EBN issues, a comprehensive green building products directory, and detailed bibliography of green building resources. Updated annually. Phone: (800) 861-0954 x191, e-mail: info@buildinggreen.com, web site: www.buildinggreen.com/ecommerce/index.jsp.

E SOURCE Atlas Series CD-ROM. Boulder, CO: E SOURCE, INC. A comprehensive set of technical documents from the premier source for up-to-date information on retail energy market trends, products, services, and technologies. Updated annually. The Atlas Series can be purchased individually from E SOURCE, 1-800-376-8723, <http://www.esource.com>, or as a set through the Iris Catalog at <http://shop.oikos.com/catalog/>.

Green Building Advisor CD-ROM. BuildingGreen, Inc. An interactive CD-ROM featuring specific design strategies that can improve the environmental performance, cost-effectiveness, and healthiness of a building and its site, from pre-design through occupancy. This tool draws from a database of over 700 green building checklists. Each strategy links to a detailed explanation, in-depth case studies and sources of further information. Updated in 2002. Call (800) 861-0954, www.BuildingGreen.com.

Green Developments CD-ROM. RMI 1997. Researched and written by Rocky Mountain Institute with funding, contributions, and review from the US Department of Energy's Office of Energy Efficiency and Renewable Energy, US Environmental Protection Agency, and the Florida House Foundation; programmed and produced by the Center for Renewable Energy and Sustainable Technology. The CD-ROM enables viewers to explore 100 individual green real-estate development case studies and presents information in a unique manner, providing a richness in details. It features photographs, plans, and drawings along with video and audio clips of projects, resources, Web-links, financing, marketing, and approvals highlights, and an introduction to the green development approach and sustainable building.

Green Developments 2.0 CD-ROM. RMI 2002. Version 2.0, a companion to the *Green Development* book, features expanded information on each project as well as a larger screen display, added images, updated resources, and web links. The CD-ROM serves as an excellent resource to a wide variety of design professionals (including architects, engineers, and designers), community leaders, and real-estate financiers. This new version contains more than 200 case studies of green buildings and projects from around the world. The resource describes an exciting field of creating fundamentally better buildings and communities- more comfortable, more efficient, more appealing, and ultimately more profitable. *Green Developments 2.0* was developed in cooperation with and funded by the United States Department of Energy and the Kettering Family Foundation. Additional funding provided by the United States Environmental Protection Agency. Produced for Rocky Mountain Institute by Sunnywood Designs.

PERIODICALS

Environmental Building News. This monthly newsletter is full of clear, concise information on environmental design and construction. Also offers the *Product Catalog: Green Building Resource*, and searchable CD-ROM of past EBN issues. Environmental Building News, 28 Birge Street, Brattleboro, VT 05301. Phone: (802) 257-7300, fax: (802) 257-7304, e-mail: info@buildinggreen.com, or web site: <http://www.buildinggreen.com>.

Environmental Design & Construction. A bimonthly publication that covers all aspects of environmentally sound building design and construction including recycled building products, energy efficiency, alternative building sources, indoor air quality, etc. Business News Publishing, 299 Market Street, Suite 320, Saddle Brook, NJ 07663. Phone: (201) 291-9001, fax: (201) 291-9002, e-mail: EnvDC@aol.com, or web site: <http://www.edcmag.com>.

Home Power. A bimonthly journal of homemade power whose goal is to present the entire array of sensible, available, renewable energy technologies, educating and empowering readers toward more sustainable lifestyles. Subscriptions: 1-800-707-6585 or <http://www.homepower.com/index.cfm>.

Indoor Air Bulletin. This monthly publication focuses on indoor air quality but considers all aspects of indoor environment important to occupant health, comfort, and productivity. Indoor Air Information Service, Inc., P.O. Box 8446, Santa Cruz, CA 95061-8446. Phone: (408) 426-6522.

Natural Home. Six times a year, this magazine offers inspiration and information to make the best choices for creating an earth-friendly, harmonious dwelling. The premier issue included articles such as "25 Water-Wise Tips," and "The Art of Living Green." Natural Home, P.O. Box 553, Mount Morris, IL 61054-7470. Phone: (800) 340-5846, or web site: www.naturalhomemagazine.com.

New Urban News. This bimonthly newsletter provides current information on traditional neighborhood development and planning projects around the country. New Urban News, P.O. Box 6515, Ithaca, NY 14850. Phone: (607) 275-3087, fax: (607) 272-2685, e-mail: mail@newurbannews.com, or web site: www.newurbannews.com.

New Village. The magazine of enlightened leadership in community planning, development, and renewal. This semi-annual journal is published by the national organization Architects/Designers/Planners for Social Responsibility (ADPSR) and is written for practitioners and citizen activists, alike. Each theme-focused issue offers more than a dozen articles, plus useful resource guides, on the diverse aspects of community building. New Village, 2000 Center Street, Suite 120, Berkeley, CA 94704. Phone: (510) 845-0685, fax: (510) 845-9503, e-mail: editor@newvillage.net, or web site: www.newvillage.net.

Solar Today. This bimonthly magazine covers innovative passive and active solar house designs, solar technologies, building performance, cost-effective designs, case studies. American Solar Energy Society, 2400 Central Avenue, Suite G-1, Boulder, CO 80301. Phone: (303) 443-3130 or (303) 443-3212, e-mail: ases@ases.org, or web site: www.ases.org/soltoday.

The Urban Ecologist. Published by Urban Ecology, an Oakland-based organization that focuses on sustainability and resource-efficiency in urban areas. The quarterly newsletter is a compendium of actions undertaken by municipalities, institutions and community groups both nationally and worldwide. Urban Ecology, 405 14th Street, Suite 900, Oakland, CA 94612. Phone: (510) 251-6330, fax: (510) 251-2117, e-mail: urbanecology@urbanecology.com, or web site: www.urbanecology.org.

OTHER RESOURCES

The Energy Source Directory. Lorane, OR: Iris Communications. Provides access to over 500 products that help make homes energy-efficient. Information about air barriers, heat recovery ventilators, sealants, heating and cooling equipment, solar water heaters, and insulation materials, etc. The directory is indexed by manufacturer, product name, and product category.

Governor's Green government council's Green Building Video Series. Pennsylvania Department of Environmental Protection. (717) 783-2300. www.dep.state.pa.us. Series includes 6 videos: *Making the Case* (argument of green buildings); *Better Places to Learn* (why green schools make sense); *Furnishing High Performance Green Buildings* (environmentally smart furniture); *Pennsylvania's First Green Building* (process of designing a green building); *Well-Built, Green-Built* (focus on green office buildings); *Building Green* (creation of the south Central Regional Office building, home of Pennsylvania's DEP). Free downloads available online at www.greenworks.tv/green_building/archives.htm.

A Guide to Intentional Community and Cooperative Living. Published by the Fellowship for Intentional Community. More than 700 intentional communities from around the world, news articles about community living, a new resources section, cross-reference charts, recommended reading list, photos, indexes, and more. In addition to the listings, the guide includes maps with locations of North American communities; charts to quickly find the community that meets your needs; articles about intentional communities with topics such as choosing a community, questions about cults, communication skills, financing a community, ecovillages and cohousing communities; descriptions and contact information for major resources; and an annotated book list of more than over 300 of the most important texts for people exploring community. Contact: Laird Schaub, Executive Secretary, Fellowship for Intentional Community, RR 1 Box 156, Rutledge MO 63563. Phone: 800-995-8342 or 660-883-5545, or e-mail: press@ic.org.

Healthy House Institute. *Healthy House books*. Bloomington, IN: Healthy House Institute. A number of books on how to design, build, and create a healthy house can be found at the web site for the Healthy House Institute: <http://www.hhinst.com>.

Kats, Greg, Leon Alevantis, Adam Berman, Evan Mills, and Jeff Perlman. *The Costs and Financial Benefits of Green Building*. Report to California's Sustainable Building Task Force, October 2003. A comprehensive report that outlines the financial benefits related to green buildings, including not only lower operating and maintenance costs, but increase in worker productivity and health.

Lovins, Amory B., Kyle Datta, Thomas Feiler, Karl R. Rábago, Joel N. Swisher P.E., André Lehmann, and Ken Wicker. *Small Is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size*. Snowmass, CO: Rocky Mountain Institute, 2002. Describes 207 ways in which the size of "electrical resources"—devices that make, save, or store electricity—affects their economic value. It finds that properly considering the economic benefits of "distributed" (decentralized) electrical resources typically raises their value by a large factor, often approximately tenfold, by improving system planning, utility construction and operation, and service quality, and by avoiding societal costs.

Slessor, Catherine. *Eco-Tech: Sustainable Architecture and High Technology*. London, UK: Thames and Hudson, 1997. An international survey completed in the 1990's that uses high-tech forms and materials. Showcases innovative approaches by established practitioners. A selection of 40 projects with a thorough description of their architectural and technological features as well as plans, drawings and sketches.

Thompson, George F. and Frederick R. Steiner, ed. *Ecological Design and Planning*. New York, NY: John Wiley & Sons, Inc. Papers from an international symposium entitled: "Landscape architecture: ecology and design and planning," held in Tempe, AZ, April 1993.

Watson, Donald. *Environmental Design Charrette Workbook*. Washington, DC: American Institute of Architects, 1996. Highlights intensive design workshops dealing with energy efficiency, building technology, environmental approaches to landscaping, waste prevention and resource reclamation, as well as planning and cultural issues. The workbook also contains guidelines for organizers and facilitators, a sample-briefing booklet, plus expert practitioners pondering the art of community dialogue.

ORGANIZATIONS

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Washington, DC 20036

(202) 857-0666 • (202) 331-9588/fax

info@ase.org • <http://www.ase.org>

Provides materials on home energy rating systems, building codes, efficient new construction and design.

American Council for an Energy-Efficient Economy (ACEEE)

1001 Connecticut Avenue NW, Suite 801

Washington, DC 20036

(202) 429-0063/publications, (202) 429-8873/research & conferences • (202) 429-2248/fax

info@aceee.org • <http://www.aceee.org>

Publishes books and papers on industrial, commercial, and residential energy-efficiency.

American Institute of Architects

Committee on the Environment (AIA COTE)

1735 New York Avenue NW

Washington, DC 20006-5292

(202) 626-7300/AIA • (202) 626-7426/fax

(202) 626-7482/COTE; (800) 242-3837/PIA info line • (202) 626-7518/COTE FAX

aiaonline@aiamail.aia.org or pia@aiamail.aia.org • <http://www.aiaonline.com> or

<http://e-architect.com/pia/cote/home.asp>

The Committee on the Environment is a professional interest area (PIA) of the AIA. COTE works to create sustainable buildings and communities by advancing, disseminating, and advocating environmental knowledge and values to the profession, industry, and the public.

American Society of Heating, Refrigeration and Air-Conditioning Engineers, Inc. (ASHRAE)

1791 Tullie Circle, N.E.

Atlanta, GA 30329

(404) 636-8400/ASHRAE • (404) 321-5478/fax

ashrae@ashrae.org • www.ashrae.org

ASHRAE is the preeminent professional organization for HVAC&R professionals. Their mission is to advance the arts and sciences of heating, ventilation, air conditioning, refrigeration and related human factors to solve the evolving needs of the public. They are responsible for publishing numerous books and publications, including the monthly ASRAE Journal. Their recently released "Green Guide" is intended to help HVAC&R designers in producing green buildings.

American Solar Energy Society, Inc. (ASES)

2400 Central Avenue, Suite G-1

Boulder, CO 80301

(303) 443-3130 • (303) 443-3212/fax

ases@ases.org • <http://www.ases.org/>

Disseminates and transfers research on practical uses of solar energy, wind power and photovoltaics.

Building Environment and Thermal Envelope Council (BETEC)

National Institute of Building Sciences

1090 Vermont Avenue NW, Suite 700

Washington, DC 20005-4905

(202) 289-7800 • (202) 289-1092/fax

<http://www.nibs.org/projbetec.html>

Identifies and coordinates research and other programs on building envelope energy and the indoor environment.

Center for Green Building Research

Electric Power Research Institute/Lawrence Berkeley National Laboratory

3412 Hillview Avenue

Palo Alto, CA 94304
(800) 313-3774 • (650) 855-2121
askepri@epri.com • www.epri.com

The goals of the Center for Green building Research are to advance understanding of the impacts of green building specifications on energy usage, internal environmental quality, and occupant health, comfort and productivity, and to use this advanced understanding to motivate improvements in the specifications for green buildings.

Center of Excellence for Sustainable Development

US Department of Energy
Office of Energy Efficiency and Renewable Energy
Denver Regional Support Office
1617 Cole Boulevard
Golden CO 80401
(800) 363-3732 • (303) 275-4830/fax

sustainable.development@hq.doe.gov • <http://www.sustainable.doe.gov>

The Center of Excellence for Sustainable Development (CESD) is the Office of Energy Efficiency and Renewable Energy's web site. The Denver Regional Office's Community Services Team (formerly known as the CESD) provides requested consultation to communities in the 12-state region of the Denver Regional Office. Communities outside the 12-state region can request assistance through their Regional Offices.

Center for Maximum Potential Building Systems, Inc.

8604 FM 969
Austin, TX 78724
(512) 928-4786 • (512) 926-4418/fax
center@cmpbs.org • <http://www.cmpbs.org>

A non-profit ecological planning and design firm that works with public entities, professional organizations, community groups, universities, and individuals in pursuit of sustainable development policies and practices, ranging from individual buildings to entire regions.

Center for Resourceful Building Technology (CRBT)

P.O. Box 100
Missoula, MT 59806
(406) 549-7678 • (406) 549-4100/fax
crbt@ncat.org • <http://www.crbt.org>

Performs research and educates the public on a variety of issues related to housing and the environment, with a particular emphasis on innovative building materials and technologies that place less stress on regional and global resources.

The Energy Ideas Clearinghouse

WSU Energy Program
PO Box 43165
Olympia, WA 98504-3165
1-800-872-3568 (in MT, ID, OR, or WA) OR call (360) 956-2237 • (360) 236-2129/fax
<http://www.energyideas.org/>

A free technical assistance service for Pacific Northwest utilities and its customers. Its web site includes a training calendar, energy job listings, and offers answers to a variety of questions along with an extensive reading list of reports and case studies on productivity in buildings.

Florida Sustainable Communities Center

The Florida Design Initiative
School of Architecture/IBS
Florida A&M University
1936 S. Martin Luther King, Jr. Drive
Tallahassee, FL 32307-4200
(850) 599-8773 • (850) 599-8466/fax

or

The Florida Department of Community Affairs
Florida Sustainable Communities Network
2555 Shumard Oak Boulevard

Tallahassee, FL 32399-2100
(850) 922-6070 • (850) 488-7688/fax
<http://sustainable.state.fl.us/fdi/fsc/fsc.html> • <http://sustainable.state.fl.us/fdi/edesign/index.html>

Healthy House Institute

430 N. Sewell Road
Bloomington, IN 47408
(812) 332-5073/phone and fax
healthy@bloomington.in.us • <http://www.hhinst.com>

The Healthy House Institute was started by John and Lynn Bower in 1992. It is an independent resource center offering books and videos containing practical information for designers, architects, contractors, and homeowners interested in making houses healthy places in which to live. Its focus is on human health, rather than planetary health. At the The Healthy House Institute, your family's well being is always its number one concern.

Institute for Sustainable Futures (ISF)

National Innovation Centre
Australian Technology Park
Eveleigh NSW, Australia
+61 2 9209 4350 • +61 2 9209 4351/fax
isf@uts.edu.au

The Institute for Sustainable Futures was established by the University of Technology, Sydney in 1996 to work with industry, government and the community to develop sustainable futures through research, consultancy and training.

Local Government Commission (LGC)

1414 K Street, Suite 250
Sacramento, CA 95814
(916) 448-1198 • (916) 448-8246/fax
info@lgc.org • <http://www.lgc.org>

Helps communities be proactive in their land planning and encourages the adoption of programs and policies that lead to more livable land-use patterns. Center programs can help jurisdictions increase transportation alternatives, reduce infrastructure costs, create more affordable housing, improve air quality, preserve natural resources, and restore local economic and social vitality.

National Pollution Prevention Center for Higher Education (NPPC)

430 East University Avenue
Ann Arbor, MI 48109-1115
(734) 936-2637 • (734) 647-5841
<http://css.snre.umich.edu/>

Free information on sustainable architecture materials from the University of Michigan. E-mail is directed to Nancy Osborn, Publications Manager.

National Resource Defense Council (NRDC)

40 West 20th Street
New York, NY 10011
Ann Arbor, MI 48109-1115
(212) 727-2700 • (212) 727-1773
nrdcinfo@nrdc.org • www.nrdc.org

A non-profit organization that is dedicated to the defense of all of the earth's natural resources. The NRDC is a source for current news and information relating to environmental issues.

Southface Energy Institute

241 Pine Street
Atlanta, GA 30308
(404) 872-3549 • (404) 872-5009/fax
questions@southface.org • <http://www.southface.org>

Specializes in energy-efficient construction techniques for the southern climate. The Institute offers a home-building school, and energy audit and duct-sealing services.

Sustainable Buildings Industry Council

1112 16th Street

NW Ste. 240

Washington, DC 20036

(202) 628-7400 • (202) 393-5043/fax

SBIC@SBICCouncil.org • www.sbicouncil.org

An organization committed to the design and construction of high performance buildings through a whole systems approach.

Urban Agricultural Network

1711 Lamont Street NW

Washington, DC 20010-2601

(202) 483-8130 • (202) 986-6732/fax

urbanag@compuserve.com

Promotes agricultural production in urban areas.

Urban Ecology, Inc.

405 14th Street, Suite 900

Oakland, CA 94612

(510) 251-6330 • (510) 251-2117/fax

urbanecology@urbanecology.org • <http://www.urbanecology.org>

Urban Ecology believes that vibrant, successful cities are not only possible but also necessary for the health of society and our planet. The organization plans and designs cities that sustain the people, natural resources, and economy necessary for everyone to thrive.

Urban Land Institute

1025 Thomas Jefferson Street, NW

Suite 500 West

Washington, DC 20007-5201

(202) 624-7000 / (202) 624-7140/fax

www.uli.org

Urban Land Institute is a nonprofit education and research institute that is supported by its members. Its mission is to provide responsible leadership in the use of land to enhance the total environment.

U.S. Green Building Council (USGBC)

1015 18th Street NW, Suite 805

Washington, DC 20036

(202) 828-7422 / (202) 828-5110/fax

info@usgbc.org • <http://www.usgbc.org>

The USGBC is a non-profit trade association whose primary purpose is to promote green building policies, programs, and technologies. Membership is offered to manufacturers, utilities, building owners, real estate advisors, scientific and technical organizations, and non-profit trade associations that are supportive of green buildings.

World Green Building Council (WGBC)

PO BOX 6245

North Sydney NSW 2060

+61 2 8907 0926 • +61 2 9957 4016

che@worldgbc.org • <http://worldgbc.org>

The World Green Building Council was formed in 1999 with the goal of coordinating and advancing the work of national green building organizations, supporting the development of standards, technologies, products and projects.

WEB WONDERS OF GREEN BUILDING AND DEVELOPMENT

Note: While this is not an exhaustive list, many of these addresses are linked to other informative resource sites.

Advanced Building Technologies and Practices is a building professional's guide to more than 90 environmentally appropriate technologies and practices. The site offers links to case studies and information sources with a helpful search function.

www.advancedbuildings.org

Big Green Discussion Group is an online e-mail forum focusing on implementing sustainable design and construction principles on large-scale projects. Not intended to address single-family homes.

www.biggreen.org/discussion.html

Building America Program is sponsored by the U.S. Department of Energy. It advocates a systems approach to home building that unites segments of the building industry that traditionally work independently of one another. They focus on private/public partnerships and are able to create production houses with substantial energy savings.

http://www.eere.energy.gov/buildings/building_america/

BuildingGreen.com. This site features many product reviews and some of the most popular articles and news stories from *Environmental Building News* and *GreenSpec*. The bulk of the information is available to subscribers only, but weekly memberships allow access to one of the most comprehensive green building sites on the web. Contains calendar of events and a bibliography with links for ordering.

www.BuildingGreen.com

Building Science Corporation: Articles, technical reports and other materials on moisture control, mold, durability and energy-efficient construction.

www.buildingscience.com

Center for the Built Environment is a collaborative between industry, government, and UC Berkeley to create a dynamic place where people can share ideas for improving the design and operation of commercial buildings. CBE is known for its extensive work on under-floor distribution systems for heating and cooling.

<http://www.cbe.berkeley.edu/default.htm>

Center for Energy Efficiency and Renewable Technologies (CEERT) is a collaborative non-profit organization that advocates power from sustainable sources. Has a links section with links to government, non-profits, and industry.

<http://www.cnt.org/>

Center for Neighborhood Technology tries to invent and implement new tools and methods that create livable urban communities for everyone.

<http://www.cnt.org/>

Center for Renewable Energy and Sustainable Technology (CREST) — Originally started in 1994, the Solstice/CREST site (now simply CREST) has been a pioneering force in publishing information about renewable energy, energy efficiency, and sustainability. This site has been updated and expanded to include eight main topic areas: Policy, Hydro, Bioenergy, Geothermal, Wind, Solar, Hydrogen, and Efficiency. Icons and clear visuals make for an enjoyable surf through the material. The site has hundreds of related linked websites.

<http://www.crest.org/>

Center for Resourceful Building Technology. Lists resource-efficient building materials in a free, searchable database. Links to manufacturers' sites and related links.

www.crbt.org

Collaborative for High Performance Schools (CHPS)'s goal is to facilitate the design of high performance schools: environments that are not only energy efficient, but also healthy, comfortable, well lit and contain the amenities needed for a quality education. The site has an embedded link to the report titled "Daylighting in Schools" which presents the convincing findings of a recent study.

<http://www.chps.net/overview/index.htm>

The Database of State Incentives for Renewable Energy (DSIRE). Comprehensive source of information on state, local, utility and selected federal incentive that promote renewable energy.

www.dsireusa.org

Ecosystem Valuation web site describes how economists value the beneficial ways that ecosystems affect people. It is designed for non-economists who need answers to questions about the benefits of ecosystem conservation, preservation, or restoration. It provides a clear, non-technical explanation of ecosystem valuation concepts, methods, and applications.

<http://www.ecosystemvaluation.org/>

E Design Online electronic journal. Published by the Florida Design Initiative to promote "best practices" in building design, construction, operation, and delivery processes. FDI has also been managing the Built Environment Center on the Florida Communities Network, which was originally designed to be a hub for all state agencies involved with the built environment.

<http://sustainable.state.fl.us/fdi/edesign/index.html>

Energy Efficiency and Renewable Energy. US Department of Energy. "A gateway to hundreds of Web sites and thousands of online documents on energy efficiency and renewable energy." Information on building, lighting, appliances, renewable energy and much more. Includes online "Ask an Energy Expert" capabilities.

www.eere.energy.gov

Energy Star is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency. The website includes tips on making homes more efficient, energy efficient appliances, and lists of builders of energy-efficient homes in every state.

www.energystar.gov

Energy Star for Corporate Real Estate. A resource for real estate professionals to help leverage energy efficiency for greater financial value. Contains ideas on energy management, links to energy star product categories, and ideas on how to benefit from your energy efficient strategies. Also contains a financial value calculator that can estimate the return on investment for several green building technologies.

http://208.254.22.6/index.cfm?c=corp_real_estate.bus_corp_realestate

Environmental Building News is chock full of clear, concise information on energy-efficient, resource-efficient, and healthy building practices. It addresses material selection, siting, indoor air quality, daylighting, and many other topics such as product reviews. This site will keep you posted on upcoming green building conferences and can connect you to a number of green building sites through its "greenlinks." EBN also posts articles from its past issues here.

<http://www.buildinggreen.com/index.cfm>

Environmental Energy Technologies Division. EETD is a leading research organizations with emphasis on windows, energy simulation software and indoor air quality. Includes interactive *Home Energy Saver* tool, archives of the EETD newsletter and technical reports in PDF format.

<http://eetd.lbl.gov>

Environmental Organization Web Directory —The "Amazing Environmental Organization Web Directory" aka "Earth's Biggest Environment Search Engine" has links from A-Z (well almost—from agriculture to water and everything in between).

<http://www.webdirectory.com/>

EnviroLink —The EnviroLink Network is a non-profit organization that provides access to thousands of online environmental sources.

<http://www.envirolink.org/>

EPA—Environmental Protection Agency—A wide variety of topics related to the environment can be found on this extensive site including regulations, articles, indoor air quality issues, pollution, waste water, jobs at the EPA, etc.

<http://www.epa.gov/epahome/topics.html> — Links to topics within the EPA site.

<http://www.epa.gov/oppt/greenmeetings> — Green conference initiative, to access information that can

assist you in organizing your conference to be "greener" and reduce resource use.
<http://www.epa.gov/ebtpages/envismartgrowth.html> -- Information about the smart growth principles
<http://www.epa.gov/seahome/indoor.html> — Do you suspect your office has an indoor air problem?
http://www.epa.gov/epahome/enviroiq_0831.htm — Test your environmental IQ.

E Source provides member organizations with unbiased, independent analysis of retail energy markets, services, and technologies. Although the majority of the information is for members only, it contains several overviews of recent articles and an upcoming energy events list.

<http://www.esource.com/public/default.asp>

Federal Environmental Executive Office's web page outlines current Federal sustainability policies and projects.

<http://www.ofee.gov/sb/sb.htm>

The Geothermal Heat Pump Consortium has several geothermal heat pump success stories as well as basic information about this method of heating and cooling.

<http://www.geoexchange.org/index.htm>

Government Green Building programs: By State, County, Local divisions. E.g., California Green Building Design and Construction; Built Green Colorado; Green Builder Program, New Mexico; Maryland Governor Glendenning's Executive Order on Sustaining Maryland's Future with Clean Power, Green Buildings and Energy Efficiency and Maryland's Green Building Program; "Massachusetts Sustainable Design & Green Building (The Commonwealth of Massachusetts Environmentally Preferable Products Procurement Program); Greening of New York's Buildings; Oregon Sustainable State Facilities; Pennsylvania's Green Building program; Green Built Home, Wisconsin

http://www.gpp.org/gb_examples.html

Green Building Design and Construction: Information from California state agencies on green building: recycled-content products database, technical documents on indoor air quality, links to green specifications.

www.ciwmb.ca.gov/greenbuilding/

Green Building Services: This site hosts several links to information on general green building topics. Most of the information is targeted toward architects, engineers, and designers, but is accessible for the layperson.

http://www.greenbuildingservices.com/green_resources/green_links.asp

Green home building is a new website devoted to alternative building and sustainable architecture with about 44 pages of information. It is comprehensive, informative and a pleasure to browse, with many illustrations and links to specific resources. The "Ask the Experts" page consists of a panel of some two dozen experts who offer to answer questions for free from the public. Every topic covered at greenhomebuilding.com has a panelist who will field questions. This panel includes such well-known authors as Daniel Chiras, John Connell, Jennifer Corson, Leon Fenchette, Mike Oehler, Michael Reynolds, Rob Roy, Jim Tolpin, and Sim Van der Ryn. The other panelists are equally well known and respected in their particular fields. Another free service at greenhomebuilding.com is a monthly E-zine, to keep one abreast of relevant news and updates at the site. Current listings of available workshops can also be found on the News page.

<http://www.greenhomebuilding.com>

Greenbuilding.com is a website centered on the book *Building Green in a Black and White World* (see books section). The links page contains about 25 sources that cover material specific to the conventional home builder.

<http://www.greenbuilding.com/greenframes/frames.htm>

Green Roofs—Find the latest information about green roofs at

<http://peck.ca/grhcc/> - Has a good introduction to green roofs

<http://www.roofmeadow.com> or <http://www.roofscapes.com> - (A commercial site)

<http://www.greengridroofs.com> - (Another commercial site – good pictures)

<http://www.greenroofs.com/> - A good source for recent green roofed buildings and projects.

Healthy House Institute provides information about how to build and maintain a healthy house. Includes links to other organizations dealing with human health, the indoor environment, energy efficiency, and sustainable construction.

<http://www.hhinst.com/>

High Performance Buildings Database. This database from the U.S. Department of Energy collects and organizes information on projects of all types ranging from homes to large buildings and campuses. The site also contains information on green concepts such as daylighting and ventilation as well as links to products, tools, technology and standards. Users can also submit projects.

www.eere.energy.gov/buildings/highperformatce/case_studies/

Information on the Commercial Buildings Sector: Every four years, the U.S. DOE completes an exhaustive data-collection exercise known as the Commercial Buildings Energy Consumption Survey. It reveals a dizzying array of data, from building size -- each measures at least 1,000 square feet --- location, and occupancy to the buildings' energy sources, consumption, and expenditures. If you tire of looking at tables of these data, browse reports on a variety of topics both broad (current trends in commercial building) and narrow (computer and photocopier use). The "Public Use Data" section features PDF downloads of individual responses to survey questions.

<http://www.eia.doe.gov/emeu/cbecs/contents.html>

Institute for Market Transformation: The mission of IMT is to promote energy efficiency and environmental protection in the United States and abroad. This group considers both the technical and market driven aspects of energy efficiency and lays out their findings in a very succinct link titled "Resources for Real Estate Professionals."

www.imt.org

Iris Communications (Resources for Environmental Design Index)—This site is probably the most comprehensive on-line green source. It's easy to maneuver through the product gallery, buy books, place classifieds, or read through its library of articles. You can search by product type or by company and find everything from straw bale construction techniques to Clivus Multrum composting toilets! Also includes the REDI building materials database. Hotlinked to other green sites via the Sustainability Web Ring.

<http://oikos.com>

The Kresge Foundation's Green Building Initiative encourages environmentally sustainable building for nonprofit organizations. Nonprofits considering a building project can visit the Initiative's web page and download educational materials about building green. The site also houses application guidelines for a Green Building Initiative planning grant.

www.kresge.org

The Natural Capitalism web site—Rocky Mountain Institute created this web site as part of the book's release. The site allows you to read the book, buy the book, participate in online discussions find out about the authors and where they are speaking about Natural Capitalism, see what companies are doing to create Natural Capitalism, and more.

<http://www.naturalcapitalism.org>

The New Buildings Institute, Inc. (Institute) is a 501(c)(3) not-for-profit public benefits corporation dedicated to making buildings better for people and the environment, and was incorporated in California in December 1997. Their mission is to promote energy efficiency in buildings through policy development, research, guidelines and codes.

<http://www.newbuildings.org>

Rocky Mountain Institute—RMI's mission is to foster the efficient and sustainable use of resources as a path to global security. You can look up FAQ's, recent issues of the newsletter, Consulting Services, "What's New" at RMI, and listings of RMI publications and how to order.

<http://www.rmi.org>

SD-ONLINE is comprehensive web site freely provided by the European Foundation for the Improvement of Living and Working Conditions (a publicly funded autonomous agency of the European Union). SD-ONLINE is aimed at policy makers, employers, researchers and trade union representatives interested in sustainable development. The site contains more than 600 links and a set of LCA and financial tools that are available to subscribers.

<http://sd-online.ewindows.eu.org/>

Sustainable Sources is a comprehensive search engine that contains sections for sustainable building, green real estate, and a listing of green building professionals. The search is fast and comprehensive, drawing from hundreds of sources.

www.greenbuilder.com

The Sustainability Web Ring focuses on the efforts of organizations to achieve sustainable development. You will find information from around the world about how to deal with such crucial issues as: climate change, cleaner production, waste, poverty, consumerism, natural resource management, and governance. The web ring is managed by the Sustainable Development Communications Network (SDCN).

<http://N.webring.com/webring?ring=sustainability:id=90:list>

U.S. Department of Energy's Smart Communities Network — Offers information and services on how communities can adopt sustainable development as a strategy for well being. On this web site you can read about other communities that have discovered the benefits of sustainable development; locate technical and financial resources that can help your community plan and carry out sustainable development.

<http://www.sustainable.doe.gov>

The Wallace Research Group web site includes Global Sustainable Architecture Degree Programs as well as architecture and building image links. These are made available for free as part of The Wallace Research Group's commitment to sustainable, green building.

<http://www.wallaceresearch.net/about.html>

Windows — everything you need to know

<http://www.efficientwindows.org> - Efficient Windows Collaborative

<http://www.pge.com/window/what.html> - "What to look for in windows"

http://windows.lbl.gov/technology/highly_insulating.htm - LBNL's Window Technology

<http://windows.lbl.gov/pub/selectingwindows/window.pdf> - Selecting Windows for Energy Efficiency

TOOLS

ArcGIS is a set of geographical and mapping software that can be scaled to the requirements of the user. The package includes ArcInfo, ArcEditor, ArcView, and ArcReader. The combined GIS data creation provides an update, query, mapping, and analysis system that provides data management, analysis, data conversion, generalization, aggregation, overlays, buffer creation, and statistical calculation tools. Product information is available from www.esri.com or (800) 447-9778.

Community Viz A tool designed for planning consultants and municipal planners to simulate development decisions, create the predicted long term affects of each, and take a virtual walk through of the resulting development. The software's outputs include solutions for: land use and zoning, parks and recreation management, neighborhood planning, redevelopment strategies, wildfire risk assessment, forest management plans, habitat fragmentation evaluation, land evaluation and suitability analysis, and environmental visioning. Information about this software package is available from Community Viz at (303) 442-8800 or (info@communityviz.com).

Computational Fluid Dynamics (CFD) is a computational modeling analysis for fluid flow problems. A CFD can model air movement, pressure gradients, and heat transfers while showing particulate movement in a space. Typically CFD is used for numerical analysis of laboratory spaces to develop strategies to improve laboratory safety, comfort, and efficiency to support scientific research. It is also used extensively to prove the ability of natural ventilation strategies. CFD models are particularly useful for buoyancy-driven building designs, where stack effects or airflows are important in the ventilation design. The CFD program starts with a 3D CAD model of the building and performs a system of equations that allows each specific cell of the volume to be determined based on the adjacent cells. CFD is a very powerful tool for design predictions and can yield accurate results if the data is input and analyzed correctly. See *Flovent* and *Phoentics* for specific software packages.

EcoTect This CAD-based building performance tool provides a comprehensive suite that is able to calculate solar, thermal, acoustic, and cost analysis of buildings. It is compatible with specialized energy tools such as *Radiance* and *Energy 10* when more thorough analysis is needed. This package is mainly used in the UK and Europe, but it is available from the DOE's website at (http://www.eere.energy.gov/buildings/tools_directory/software/ecotect.html).

Energy 10 Created by several of the US's top national labs, Energy 10 is a relatively user-friendly energy simulation package that helps architects and building designers to identify the key energy saving features of small commercial and residential projects. The software package has two distinct features: autobuild and rank. Autobuild uses the known information (location, square footage, number of stories, HVAC system, and building type) to create a baseline model with the corresponding energy use. It then displays the result of adding selected energy saving features as a comparison. This program's simple design allows for quick and accurate results that are ideal for smaller projects. Energy 10 is available from NREL's webpage (<http://www.nrel.gov/buildings/energy10/>).

EQUEST (DOE 2) DOE2 is an unbiased computer program for determining building energy consumption. This modeling software has become the industry standard by allowing the design team to quickly determine building parameters which can improve energy performance, while maintaining thermal comfort. This software package combines a user-friendly front-end program called "eQUEST" with DOE 2, the sophisticated energy simulation package developed by the US Department of Energy. This program allows the designer or architect to modify certain aspects of a building (design, HVAC components, insulation, etc.) and compare the results through daily, monthly, and yearly charts. From the DOE2 results we can obtain an accurate estimate of a building's energy consumption, interior conditions and long-term operation cost; all of which can determine alternative options. EQUEST is the preferred choice for accurate energy calculations in big projects. The program is free and downloadable from (<http://www.doe2.com/equest/>).

Flovent Flometric's FLOVENT Software is a computational fluid dynamics package designed to calculate airflow, heat transfer and contamination distribution for built environments. It uses techniques of (CFD) packaged in a form that addresses the needs of mechanical engineers involved in the design and optimization of ventilation systems. Information and ordering information is available at the manufacturer's webpage (<http://www.flovent.com/>).

Green Map Atlas A free, web-based, community tool that provides inspirational stories from around the world that are intended to promote sustainable communities. Includes a combination of 88 locally authored pages and 350 illustrated maps. Available from (www.greenatlas.com).

Green Matrix CD-ROM Ratcliff, a design firm in Emeryville, California, has developed a tool to help designers integrate sustainability with their design process. Ratcliff found that designers felt overwhelmed by the ever-increasing amount of information about sustainable design, so they created Green Matrix CD-ROM (GRNMTRX) to help navigate the world of green design resources. GRNMTRX, which is now in beta testing, cross-references five sustainability topics (site, water, energy, materials and indoor environment) with seven design phases (pro-forma, master planning, pre-design, schematic design, design development, construction documents, and construction/post-occupancy). At the intersection of topics and phases lies the design strategies particular to that condition. The user clicks a particular intersection and is led to more specific information on the strategies and further resource links. For a free copy of the beta version of GRNMTRX 2.0, email grnmtrx@ratcliffarch.com.

Green Meetings Conduct a green meeting or conference with a multimedia tool that will assist planners and service providers (i.e., hotels, printers, caterers) recognize green meeting and conference opportunities and practice them. The tool will provide planners with a comprehensive overview of the green opportunities within each of the different stages, products, and services involved in conference planning. For each opportunity, the economic and logistical impacts are analyzed. Conducting a green meeting or conference will be easier than ever using the checklists and sample contract language in the tool. Service providers will find information about sector-specific green opportunities and the technical and financial information needed to determine the cost-effectiveness of each. More information can be obtained from the EPA's webpage (<http://www.epa.gov/oppt/greenmeetings>).

LCADesign or Life Cycle Analysis of Design is a "green calculator". The construction industry has a huge effect on the environment, but architects often have very little idea of the environmental and health impact of the materials they use for their designs. A "green calculator" software package aims to change all that. The software plugs into many of the computer-aided design (CAD) programs commonly used by architects. Some programs can already calculate a partial bill of materials, listing the bricks, pieces of timber and bags of cement needed to realize a design, and working out the cost. But with the green calculator installed, they get the environmental cost too. Called Life Cycle Analysis of Design (LCADesign), the calculator uses information from online databases to calculate the amount of energy and water consumed in the production of these materials. It also estimates the quantities of chemicals emitted in their manufacture, and the impact this will have on the ozone layer. "Architects will be able to make trade-offs between costs and environmental performance automatically," says Peter Newton of the Cooperative Research Centre for Construction Innovation in Melbourne, where the software was developed. More information is available at (http://www.cfd.rmit.edu.au/life_cycle_assessment/lcadesign).

LoopDA 1.0 A lack of rigorous design methods and comprehensive performance data has slowed U.S. acceptance of natural ventilation technology, which proponents argue can increase energy efficiency in commercial buildings as well as improve indoor environmental conditions. NIST's new LoopDA 1.0 software program (for Loop Design and Analysis) helps fill this critical information gap. The LoopDA simulation tool enables building designers and engineers to determine the size of natural ventilation openings needed to provide desired airflow rates. Previously, building designers have had to make decisions using trial and error or based on past experiences. LoopDA allows users to sketch rooms and vertical sections of a building, the location of natural ventilation openings (e.g., windows, doors, and ducts) and the paths the air should take through the building (e.g., pressure loops). The program then enables designers to estimate the size of the natural ventilation openings needed to control indoor air quality and thermal comfort using an engineering-based design process. More information available at: www.bfrl.nist.gov/IAQanalysis/LOOPDAdesc.htm or (301) 975-5860.

Lumen Micro This PC-based simulation package has features to handle most building lighting needs. It combines electric and daylighting along with orientation and furniture placement to calculate the lighting predictions for all times and dates. The package also includes tools for calculating the exterior lighting configuration that automatically changes with building design changes. Order from (720) 891-0330.

Occupant Indoor Environmental Quality Survey Although rarely undertaken, post occupancy evaluations of buildings can offer valuable lessons about how well the building is serving occupants' needs. UC Berkeley's Center for the Built Environment has created a survey tool that is intended to facilitate this important building feedback. The tool is currently in testing to create benchmarks, but a sample is available at (<http://www.cbe.berkeley.edu/RESEARCH/survey.htm>).

PHOENICS is a computational fluid dynamics (CFD) program distributed by CHAM. It incorporates an easy-to-use, interactive, 3D graphical user interface for both pre and post-processing, making CFD techniques accessible for

design and research engineers, regardless of background and experience. Ordering information and a free demo are available from (<http://www.cham.co.uk/>).

Radiance Written by the Lawrence Berkeley National Laboratories, Radiance is a UNIX based program that is widely acclaimed as the most accurate lighting design software. Radiance contains many of the same features of other lighting packages, but allows for greater flexibility in geometry and material simulation. Radiance is being used by architects and engineers to determine the quality and quantity of light in the development of new lighting and daylighting technologies (<http://radsite.lbl.gov/radiance/HOME.html>). Radiance is available for PC users under the name of Adeline (<http://www.ibp.fhg.de/wt/adeline/>).

TAS is a suite of software products, which simulate the dynamic thermal performance of buildings and their systems. Tas is a complete solution for the thermal simulation of new or existing buildings, allowing design professionals to compare alternative heating/cooling strategies and façade design for comfort, equipment sizing and energy demand. Further product information and ordering information is available from (<http://www.edsl.net/>).

WAVE is a water management software package that can be used to help reduce water consumption in a variety of settings—for commercial offices, hotels, and schools. Available for free download from (www.epa.gov/owm/water-efficiency).

COURSES AND EDUCATION

Ecological Design Courses and Degree: Convenient self-study program for completing Master Degree requirements or learning specialized aspects of eco design. See "Eco Distance Learning" at www.SFIA.net.

EcoDwelling: A New College of California - North Bay BA and MA Program Concentration

EcoDwelling is a 3-semester Concentration offered through New College of California North Bay Campus's (Santa Rosa) Culture, Ecology and Sustainable Community program. New College offers accredited BA completion and MA degrees, with additional concentrations in Ecological Agriculture, Painting in the Landscape, and Consciousness, Healing, and Ecology.

The EcoDwelling Concentration is a holistic approach to dwelling in the broadest sense ^ encompassing the very nature of existence and being ^ and the entire process by which we inhabit our ecosystems and the planet. It is concerned with the causes of our current dwelling process failure, the principles of success, and the application of principles in the design of equitable, sustainable, universally affordable alternatives. The Concentration provides students with an opportunity to implement vision, theory and design for radically affordable, sustainable means of dwelling, through lecture, discussion, design projects, and hands-on building with cob, straw bales, and other natural materials.

The EcoDwelling Concentration is intended for anyone with an interest in any aspect of the dwelling process and its relationship to the whole. It is intended for anyone interested in discovering how to make their own way and means of dwelling more affordable, sustainable and liberating ^ thereby being able to help others do the same. As awareness of our collective crisis increases, the need for those who can recognize, understand, and implement sustainable alternatives will be substantial. New College Northbay: <http://www.newcollege.edu/northbay>

Massachusetts Institute of Technology Center for Real Estate: Boston, MA

MIT established the Center for Real Estate in 1983 to improve the quality of the built environment and to promote more informed professional practice in the real estate industry. It is the home of the first one-year Master's degree program in real estate development and a respected summer institute of professional development courses. Its membership program provides opportunities for students, practitioners and academics to get together on both a formal and an informal basis.

<http://web.mit.edu/cre/>

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