Green Building/Sustainable Building

Introduction

Green building and sustainable building both refer to the design and construction of buildings that have a minimal impact on the environment. Green building encompasses all phases of design, materials selection, and construction, including life-cycle analysis and energy efficiency.

This reference guide includes links to both popular materials and more technical information. It is not an exhaustive list and it includes information that will help you continue research at your local library. Materials held in the WMRC Library collection are followed by a call number in square brackets ([Call Number]). The WMRC Library does not lend materials directly to individuals. However, the Library does accept interlibrary loan requests. E-mail library@wmrc.uiuc.edu with comments or questions.

Books

The Library of Congress Subject Headings do not use the terms Green Building or Sustainable Building. The heading Green Products is a good, broad term, but it also encompasses household products like cleaners. Narrower terms to locate green construction resources include:

- Buildings -- Environmental aspects
- Dwellings -- Environmental aspects
- Building materials -- Environmental aspects
- House construction -- Environmental aspects
- Buildings -- Repair and construction -- Environmental aspects

For materials on healthy houses, use the following:

- Sick building syndrome
- Housing and health

To locate energy efficiency resources, use the following:

- Buildings -- Energy conservation
- Dwellings -- Energy conservation
- Architecture and energy conservation
- Renewable energy resources

For materials dealing with building design, use:
- Architecture and energy conservation
- Architecture -- Environmental aspects
- Buildings -- Environmental engineering
- Buildings -- Design and construction -- Environmental aspects
- Sustainable architecture (used in some libraries, but may not be an official heading)

Helpful Dewey Decimal classification numbers include:

- Remodeling: 720.286
- Maintenance and repair: 720.288
- Building materials: 691
- Architecture and the environment: 720.47
- Do-it-yourself remodeling/renovation generally: 643.7
- Do-it-yourself remodeling of specific rooms: 643.3-643.5


This book examines a broad range of traditional and modern natural construction methods, including straw-bale, light-clay, cob, adobe, rammed earth and pise, earthbag, earth-sheltered, bamboo, and hybrid systems. It also covers key ecological design principles, as well as current engineering and building code requirements.


Describes the process of natural building.


BEES measures the environmental performance of building products by using the environmental life-cycle assessment approach specified in ISO 14000 standards.


Aimed at contractors who would like to develop a "green building" image.


Focuses on energy efficiency in commercial buildings.


Loose-leaf guide developed by the American Institute of Architects. Gives extensive environmental information on many types of building products.

**Green Building: A Primer for Builders, Consumers, and Realtors (5th ed.)** (Edgewater, MD: Building Environmental Science and Technology (B.E.S.T.), 2000 -- online at http://www.energybuilder.com/greenbld.htm)

A good overview of green building basics.


ISBN: 0-419-25380-7)
A handbook that provides a detailed reference for environmentally concerned purchasers of building products. Includes an overview and introduction which discusses issues in green building. Other topics include fencing products, electrical wiring, glazing products, adhesives, and ventilation.

**Green Building Resource Guide** by Daiana Rincones (Chicago, IL : U.S. Environmental Protection Agency Region 5, 2000) [720.1 R579g]
Short guide to green building products.

Written by an architect, this guide provides builders, architects, and homeowners with the information they need to make informed decisions about environmentally-friendly design and construction. There is a companion web site at [http://www.greenguide.com/](http://www.greenguide.com/).

Guide to today's wide range of green building materials—what they are, where to find them, and how to use them effectively. Offers in-depth practical information on the product selection, product specification, and construction process.

An overview of some of the many methods of building green homes. A wide variety of residential construction techniques are discussed through case studies and builder interviews. Provides an overview of smart growth and community building, site design, use of infill and brownfields, stormwater controls and design, and energy efficiency.

A self-assessing system designed for rating the environmental performance of new and existing commercial, institutional, and high-rise residential buildings.

Presents a critique of life cycle assessment tools and offers suggestions for how they could be more useful.

A guide for homeowners, architects, and builders that takes the mystery out of healthy house building by walking the reader through the construction process. It explains where and why standard building practices are not healthful, what to do differently, and how to obtain alternative materials and expertise. Shows how to design interior and exterior space, and select construction materials that enhance and promote physical well-being.

Developed by the Montana Pollution Prevention Program to provide residential construction contractors and designers with practical ideas on how to reduce or eliminate waste. The steps outlined in this guide, referred to as "Best Pollution Prevention Practices," follow environmental management priorities set by the Pollution Prevention Act of 1990.
Classroom exercises, reading lists, syllabi, etc. for all aspects of sustainable architecture including sustainable design, sustainable building materials, and recycling and reuse.

Lays out clear guidelines and practices for the construction industry. While the decision processes and suggested practices apply to buildings of all sizes, the material is focused on larger commercial and institutional projects.

Rethinks the assumption that all built landscapes are environmentally sound, and offers practical and professional advice for sustainable landscape construction, design, and maintenance. Describes concepts and resources, and presents and illustrates over 100 projects from around the world.

Whether redecorating a room or building an addition, today's homeowners face many options: paints, heating & cooling methods, lighting, building materials, & more. This guide helps readers make stylish choices that are safe for the environment & the home's inhabitants.

Periodicals

EEBA News
http://www.eeba.org/news/default.htm
The newsletter of the Energy & Environmental Building Association. Back issues are available online in PDF format.

Environmental Building News (monthly, but irregular -- Subscription information: http://www.buildinggreen.com/orders/ebn_info.html)
Articles, reviews, and news stories covering energy-efficient, resource-efficient, and healthy building practices. Links to online features and other information are available at http://www.buildinggreen.com/index.html.

Environmental Design & Construction (bi-monthly -- Subscription information: http://www.omedac.com/edc/)
Bi-monthly magazine covering the green building industry.

Directories

This category includes directories of green building products and services. For directories of green building web sites, see the Web Sites section.

Ebuild
http://www.ebuild.com/
Directory of building products and manufacturers. Not restricted to green building materials.

EcoBuild Web Ring
http://x.webring.com/hub?ring=ecobuild

For research and information groups dedicated to improvement of the built environment in balance with the natural environment.

GreenSpec: The Environmental Building News Product Directory
http://www.greenspec.com/
Directory from the publishers of *Environmental Building News*.

Oikos
http://oikos.com/
Serves professionals whose work promotes sustainable design and construction. Includes an online library, a product directory, and a bookstore.

Directory of Wisconsin-based suppliers of green building materials.

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**Associations & Organizations**

To locate other green building organizations, check the *Encyclopedia of Associations*, available through most libraries.

Energy & Environmental Building Association
http://www.eeba.org/
Promotes the awareness, education and development of energy efficient, environmentally responsible buildings and communities.

Green Building Alliance
http://www.gbapgh.org/
Pittsburgh-based non-profit organization working to integrate green building practices into regional development projects.

Green Building Information Council
http://greenbuilding.ca/
Canadian non-profit organization whose mission is to disseminate information about energy and environmental issues in the building sector.

National Association of Home Builders Research Center
http://www.nahbrc.org/
Research and development arm of the National Association of Home Builders. Click on Green Building on the navigation bar on the left side of the page for their green building site.

U.S. Green Building Council
http://www.usgbc.org
The nation's foremost coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable, and healthy places to live and work.

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**Conferences**

Environmental Building News Calendar of Events
http://www.buildinggreen.com/ebn/calendar.html
A calendar of events maintained by *Environmental Building News*.
Excellence in Building Conference & Exhibition
http://www.eeba.org/conference/default.htm
Conference designed to meet the diverse educational and networking needs of Builders, Architects & Designers, HVAC Contractors, Engineers, Utility representatives and other industry professionals. Sponsored by the Energy & Environmental Building Association.

Green Building Challenge
http://greenbuilding.ca/gbc2k/gbc-start.htm
Green Building Challenge is an international collaborative effort to develop a building environmental assessment tool that exposes and addresses controversial aspects of building performance and from which the participating countries can selectively draw ideas to either incorporate into or modify their own tools.

National Green Building Conference
http://www.nahbrc.org/conferencesseminarsgreen.asp?TrackID=&CategoryID=1676
Sponsored by the National Association of Home Builders. Targeted to the mainstream residential building industry.

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Newsgroups & E-mail Lists

Newsgroups

Google Groups (http://groups.google.com/) is a web-based source for Usenet newsgroups. It contains the entire archive of Usenet discussion groups dating back to 1995. Newsgroups bring people with common interests together online to hold ongoing discussions, recommend favorite web sites, collaborate on projects, and conduct research.

Within each group, Google lists the date, the subject line of each thread, and the name of the most recent poster. To read messages in a particular thread, click on the link for that thread. To post a new message, click on the "Post a New Message to [Group Name]" link in the upper right corner of the page. Some of the groups that deal with green building and sustainable building are:

- alt.architecture.alternative
- alt.building.environment
- alt.building.research
- alt.building.engineering
- alt.building.architecture
- alt.building.construction
- alt.construction
- alt.energy.renewable
- sci.energy
- sci.environment

To locate individual messages on green building, search the archive from the main page.

E-mail Discussion Lists

E-mail discussion lists (sometimes called listservs) allow users to contribute to named mailing lists that distribute messages to all subscribed members. Below are several mailing lists that deal with green building.

Big Green List
Forum for discussing and promoting green building principles and practices on projects larger than single family homes. To subscribe, visit http://www.biggreen.org/.

Energy Efficient Building List
To subscribe, send a message to ee-building-request@eeba.org. In the body (not subject line) of the message, type "subscribe". For list information, see http://www.eeba.org/lists/default.htm.

Green Building List
Forum for discussion all aspects of green building principles and practices. To subscribe, send a message to majordomo@crest.org. Leave the subject line blank (or use a " . " if required). In the body of the message, type subscribe greenbuilding your e-mail address. The Green Building List archives are located at http://listserv.repp.org/archives/greenbuilding.html. For more information, see http://www.buildinggreen.com/elists/gb_signup.cfm.

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Community Initiatives

These sites spotlight green building efforts by specific communities.

City of Austin Green Building Program
http://www.ci.austin.tx.us/greenbuilder/
Fact sheets, publications, and other resources for homeowners, renters, and people in the design and construction professions.

Cleveland Green Building Coalition
http://www.clevelandgbc.org/
The Cleveland GBC is an umbrella organization for groups involved in residential, commercial, institutional, and industrial green building. Also is a clearinghouse for information on green building activities in Cleveland and other cities.

Florida Green Building Coalition
http://floridagreenbuilding.org/
Non-profit corporation formed to advance a Florida-wide green building program.

Wisconsin Environmental Initiative Green Built Home
www.greenbuilthome.org
Green Built Homeâ€”a voluntary program of Wisconsin Environmental Initiative, is a green building initiative that reviews and certifies homes that meet sustainable building and energy standards.

Wisconsin Green Building Alliance
http://www.wgba.org/
Their mission is to facilitate and promote the development and use of ecologically sustainable materials and practices among builders and contractors in Wisconsin. Good links to green building information.

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Web Sites

These sites are portals or provide basic information on green building concepts.

About.com Green Building Concepts
http://architecture.about.com/cs/greenconcepts/index.htm
Links to information about green building design. Geared toward architects, builders, and planners.

Building Environmental Science and Technology (B.E.S.T)
http://www.energybuilder.com/index.htm
B.E.S.T. is a green building consulting firm. The site is very heavy on good content for green building.
Center of Excellence for Sustainable Development: Green Buildings
http://www.sustainable.doe.gov/buildings/rescon.shtml
U.S. Department of Energy site with a nice overview of green building.

Civil Engineering Portal --> Architecture --> Sustainable Building
http://www.icivilengineer.com/Architectural_Engineering/Sustainable_Building/
Another portal site, this one by iCivilEngineer.com. Focus is more on design issues for architects.

Green Design / Sustainable Architecture: Resources
http://www.lib.berkeley.edu/ENVI/GreenAll.html
Comprehensive guide to materials held at the University of California-Berkeley's Environmental Design Library.

U.S. Department of Energy Office of Building Technology
http://www.eren.doe.gov/buildings/

Green Building
http://www.pprc.org/pubs/greencon/index.cfm
Developed by the Pacific Northwest Pollution Prevention Research Center, this is a guide to green building for project developers and for the design, construction, and facility operation professionals they hire.

Green Building Maintenance
http://greenbuildingmaintenance.com/
Site devoted to green practices in building maintenance.

Green Design Network
http://www.greendesign.net/
Sponsored by Global Environmental Operations, a non-profit organization, the Green Design Network includes the Green Building Resource Center, a searchable database of green design and building resources.

Greenhomebuilding.com
http://www.greenhomebuilding.com/
Maintained by a couple who built a house using green building principles. Includes book and video recommendations.

Home Improvement Toolbox
http://www.epa.gov/hhiptool/
Developed by U.S. EPA's Energy Star program, this site offers an array of interactive tools to help consumers make energy-saving, cost-effective upgrades to their homes, enhancing their homes' value and comfort, while also protecting the environment.

Housingzone.com -- Green Building
http://www.housingzone.com/topics/green.asp
Green building portal sponsored by Housingzone.com.

Peaks to Prairies Residential Construction Topic Hub
http://peakstoprairies.org/topichub/toc.cfm?hub=31&subsec=7&nav=7
Part of the Pollution Prevention Resource Exchange (P2Rx) network of resources. Includes information and links for green design, green products, energy efficiency, water use, air quality, and building codes and standards.

Residential Construction and Environment
http://www.peakstoprairies.org/p2bande/construction/index.cfm
Developed by the Peaks to Prairies Pollution Prevention Information Center, this guide to residential construction includes links to FAQs, news, an industry guide, and links to several helpful online publications.

**Sustainable Architecture, Building, and Culture**  
http://www.sustainableabc.com/  
Links to green building and sustainable development resources.

**YourHomePlanet Environmental Building Design and Green Construction Searchable Web Portal**  
http://www.yourhomeplanet.com/  
Another green building portal with a Yahoo-like directory structure. Links to green building news, conferences, and periodicals near the bottom of the page.

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