



Site Plan: A small campus minimizes the visual impact of the Legacy Center and allows various functions to be isolated in order to optimize the heating and cooling requirements.

Aldo Leopold Legacy Center

SIZE: 12,000 sq. feet

FUNCTIONS:

Classroom: Capacity ~80
Meeting Room: Capacity ~30
Exhibit Hall
Library and Archives
Workshop
Offices

DESIGN TEAM:

*The Kubala Washatko Architects
Supersymmetry USA
Helios Design
The Boldt Company
Hines & Co.
Matrix Mechanical Systems
Powrtek
Komp/Gilomen*



Photo by Mick Shaw, The Boldt Company

Constructing the Aldo Leopold Legacy Center

On June 5, the Aldo Leopold Foundation started construction of an education and interpretive center near the Shack, on land where Leopold died in 1948 fighting a brush fire. The Aldo Leopold Legacy Center will be a three-building campus integrating the Foundation's land stewardship, education, and outreach programs. The main building will house an interpretive exhibit hall, library and archive, and office and meeting spaces, and two smaller buildings provide a stewardship workshop and a three-season classroom.

Serving many important functions, the new Aldo Leopold Legacy Center will host seminars and workshops to increase the ecological literacy of our citizens. This learning process will incorporate land management activities conducted on the Leopold Memorial Reserve as a model of ethical land stewardship – the Legacy Center will serve as the staging area for field trips to forests, savanna, wetlands, and prairies and permit relevant classroom discussion before and after the tours. Workrooms and equipment housed at the Legacy Center will also allow the Foundation to improve its nationally-recognized work in ecological restoration, conducted both around the Shack and with landowners throughout the region.

Many priceless and irreplaceable original Leopold materials will be housed, archived, and displayed in the Legacy Center. An exhibit area, featuring authentic Leopold artifacts, will document the history of restoration and ecological management and bring the evolution of Leopold's Land Ethic to life in a manner not told anywhere else in the world. A library will provide scholarly access to research materials, digitized Leopold writings, photographs, and sketches, dramatically expanding access to these precious resources.

The Legacy Center, in combination with the Shack, will provide an unequalled setting for reflection and examination of emerging issues in conservation.



Meeting the Highest Standards in Green Building

“We end, I think, at what might be called the standard paradox of the twentieth century: our tools are better than we are, and grow better faster than we do. They suffice to crack the atom, to command the tides. But they do not suffice for the oldest task in human history: to live on a piece of land without spoiling it.”

ALDO LEOPOLD
“ENGINEERING AND CONSERVATION,” 1938



Green and Innovative Features of the Aldo Leopold Legacy Center

Solar Energy Production

An extensive photovoltaic solar panel array, likely to be the largest in the state of Wisconsin, will be integrated into the roof. Along with wood heat and energy saving technology, solar power will allow the Legacy Center to have a “net zero” energy budget. A solar hot water installation will provide the domestic hot water for the building.

Radiant Floor Energy Efficiency

The primary means of heating and cooling the Legacy Center will come from a radiant floor system. The floor of most of the main building will be a concrete slab that houses internal tubing. A glycol mixture running through the tubes will be heated or cooled by a heat exchanger tied to geothermal wells beneath the ground. The concrete will take on the temperature of the glycol coils and radiate it into the rooms. Because of the mass of the system and concrete’s insulative qualities, once the slabs reach the desired temperature it is easy to maintain the temperature without high inputs of heat.



Use of Locally Harvested and Recycled Materials

The pine trees Aldo Leopold and his family planted in 1935-1948 are a major building component in the Legacy Center. In the form of trusses, structural beams, siding, finish work, and even impressions in concrete, Leopold wood will appear in all of the Center’s buildings. Other locally harvested material will be used for the exterior siding, flooring, furniture, and interior paneling. The remaining building materials, where possible, are comprised of recycled aluminum, reused wood, and rapidly renewable materials.

Innovative Ventilation Design

Separating the fresh air ventilation systems from heating and cooling systems will save 2 to 5 times the amount of energy of a conventional building. Energy required by ventilation systems is further reduced through the use of a unique system of buried earth tubes on the site, preheating ventilation air during winter and pre-cooling air during summer before it enters the building.



Reused Materials

Stone reclaimed from an airplane hanger at the Madison Airport was used in constructing the fireplace. The fireplace will be the centerpiece of the foyer area and a source of heat in the winter. The masonry has created a look similar to stone building foundations common in Wisconsin architecture.



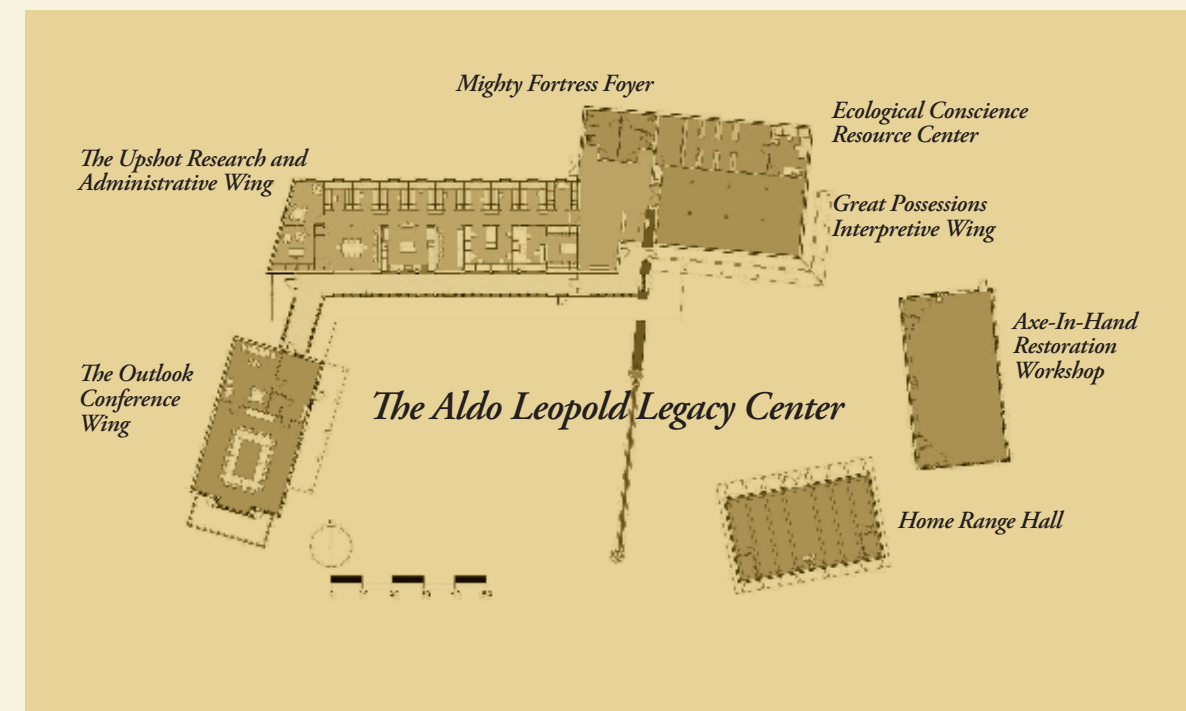
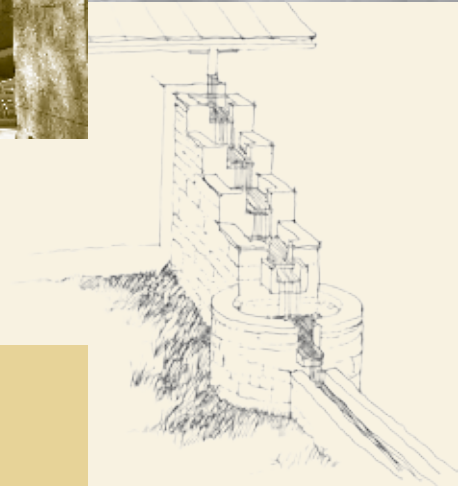
Innovative Engineering

Small diameter trees have been used in the round, preserving the strongest portion of the wood. This construction technique has allowed the architects and engineers to use material that would usually be considered substandard for structural purposes. The logs were joined to create trusses that will support the roofs of the Restoration Workshop and Home Range Hall. In a truss formation, these logs are incredibly strong. In fact, they span the roof of the 30-foot-deep buildings without any internal support columns.



Ecological Design

By keeping the footprint of the improvements to a minimum, the remaining site will be restored to the appropriate ecological communities: prairie, savanna, and wetland. Native plant gardens around the building, parking lots, and plazas will further emphasize the beauty of our natural heritage. An aqueduct directing the flow of water from the roof of the main building into a rain garden demonstrates how rain that falls on impervious areas can be directed to areas where it can infiltrate slowly back into the ground.





View Construction Journals Online!

The Aldo Leopold Foundation has been carefully documenting the progress of the building construction. We have created a series of Construction Journals describing in detail some of the special features of the building process. Please visit the *What's New* section of our web site to view the Journals online. Visit today and read about *Building a Foundation*, *Earth Tubes*, *Putting Up Walls*, *Round Log Roof Trusses*, and *Radiant Floor Temperature Control*.

Going for Platinum

Foundation Seeking Prestigious Certification from U.S. Green Building Council

The Aldo Leopold Legacy Center will be among the nation's leading examples of ecological design, construction, and operation – a living example of the Land Ethic. Preliminary energy modeling of the Legacy Center compared to a traditional building of equal size indicates that its peak-cooling load will be 75 percent less and its peak-heating load will be 50 percent less. In addition to this innovative approach to energy conservation and production, the Legacy Center will demonstrate the extensive use of locally harvested materials, water efficient fixtures, intensive waste management, native landscaping, and other environmentally sensitive products and approaches. In order to document the innovative and ambitious goals of this project, the Foundation is pursuing a prestigious Platinum LEED Certification from the U.S. Green Building Council. If secured, the Legacy Center will be the first building in the state of Wisconsin – and among only a handful in the entire country – to achieve such recognition.

LEED CERTIFICATION

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. The LEED Rating System was created to transform the built environment to sustainability by providing the building industry with consistent, credible standards for what constitutes a green building. *From the U.S. Green Building Council*

Thank you to our partners in building the Legacy Center!

Contractors: Oscar J. Boldt Construction, Bachmann Construction, H&H Industries, H&H Electric, Monona Masonry, LMS Construction, G.O. Loop, Schadde Plumbing & Heating, Wallenfang Custom Millwork, D.L. Gasser, Middleton Construction, Skupniewitz Painting, Control Works, Acorn Construction, Rainbow Insulators, Zander Solutions, Overhead Door Company—Seven Rivers Region, Sergenians, Nations Roofing, Samsel's Sawmill, Fike Forest Products, Johnny Micheel, Troy Zietlow

Technical Partners: US Forest Service Forest Products Laboratory, Beaudette Engineering, Clark Forestry, Community Forestry Resource Center, Expedition Log Homes, Institute for Agriculture and Trade Policy, Log Homes Council, Luther Farms, Northeastern Lumber Manufacturers Association, Adams Columbia Electrical Cooperative, Orion Survey

Suppliers: Kohler Company, Vyron Industries, County Materials, Certified Wood Products, Portage Lumber, Lycon, Pella, Mid-City Steel, Gerdau Ameristeel, AEP Span, ACH Foam

THANK YOU!

THE ALDO
LEOPOLD
FOUNDATION

THE ALDO LEOPOLD FOUNDATION

P.O. Box 77, Baraboo, WI 53913
608.355.0279
608.356.7309 fax
www.aldoleopold.org



*Fostering the
Land Ethic
through the legacy
of Aldo Leopold*