

PERFECTING THE PAST

A TRADITIONALLY STYLED CABIN IN MONTANA'S YELLOWSTONE CLUB GETS HIGH MARKS FOR ITS ENVIRONMENTAL RESPONSIBILITY

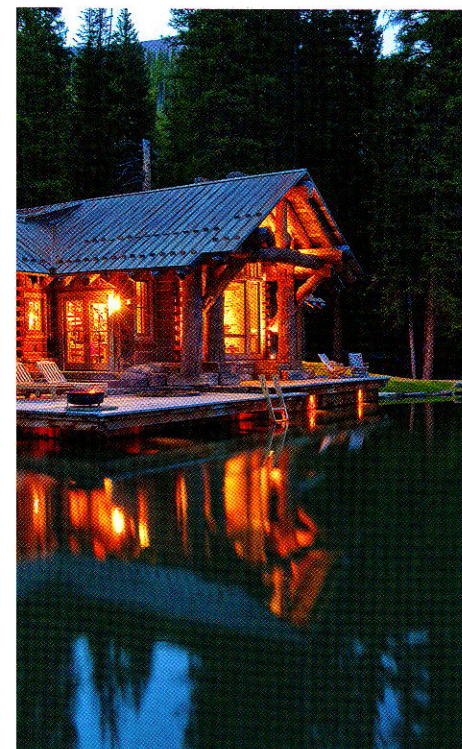


An exterior-emphasizing log columns and beams and stone walls makes the Thomson family's rustic-looking cabin near Big Sky, Montana, look like it was built beside a natural mountain pond more than a century ago. In fact, both the home and the pond were completed just less than a year ago, meeting the highest standards of the United States Green Building Council.



To many ecologically minded souls, “green” building often conjures images of contemporary structures with clean, unornamented lines. So you might be surprised—and rightfully so—to learn that a rustic cabin beside a pond near Big Sky, Montana, is the residential winner of *Mountain Living’s* 2010 Responsible Development Award—not to mention a recipient of the LEED for Homes Platinum rating, the top designation for residences awarded by the U.S. Green Building Council.

Credit this feat to the collaboration of a visionary homeowner, an inspired architect and dedicated, innovative builders. Todd Thomson set out to create for himself, his wife and their three children “a family camp that feels and looks like it has existed for 100 years” yet also expresses his values as an environmentalist and board member of the World Resources Institute, an environmental think tank in Washington, D.C. To help him realize that vision at Headwaters Camp, a 22-acre parcel at 8,000 feet in the exclusive >>



GREEN FEATURES

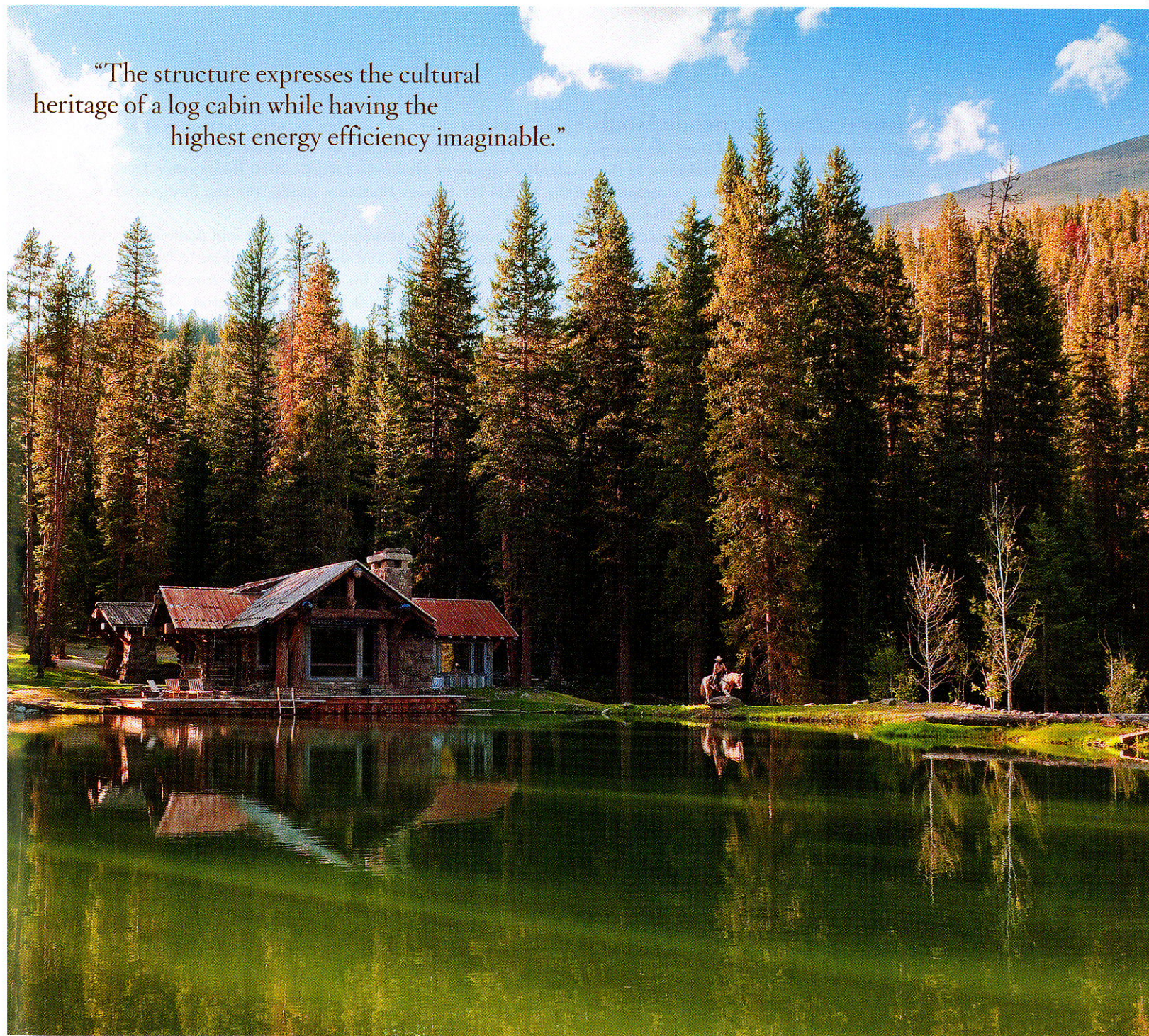
Even the home’s most up-to-date features combine sustainability and traditional style.

OLD-FASHIONED FAMILY ENTERTAINMENT The comfortably furnished great room (opposite) encourages gatherings around an efficiently insulated fireplace clad in a veneer of local stone. To the left of the hearth, doors of reclaimed, well-weathered wood conceal a sophisticated home-entertainment system and, below it, a built-in wine cooler.

RESPONSIBLY LIT As night falls, the cabin’s exterior (above left) glows softly and warmly as if lit by lanterns. In fact, all of the home’s lighting utilizes fixtures that consume little energy or that use energy-efficient compact fluorescent bulbs.

EQUINE ENVIRONMENT A short stroll from the cabin, the two-stall horse barn (above right) looks equally rustic though it was recently built. Constructed of reclaimed materials, it includes a composting toilet, a gray-water reuse system and a rooftop solar panel array that helps to offset some of the home’s energy demands.

“The structure expresses the cultural heritage of a log cabin while having the highest energy efficiency imaginable.”



Yellowstone Club, he enlisted Bozeman-based architect Dan Turvey, AIA, principal and owner of Dan Joseph Architects, and C. Todd Thesing and Rob McRae, co-owners of specialty builders Highline Partners in Big Sky.

From the start, the team kept sustainability and sense of place top of mind. “We spent weeks just on the master planning,” says Turvey, recounting how they carefully walked the woods and meadows to decide where to set an eventual three cabins, horse barn and a series of natural-looking ponds and streams.

The results are evident in the first completed residence: an 1,800-square-foot guest cabin now occupied by the Thomsons. Built with frame construction using engineered wood products and composite insulation, it nonetheless looks like a traditional cabin—though the sustainably harvested logs were ingeniously added afterward, along with such other finishes as reclaimed wood paneling and local stone. “It expresses the cultural heritage of a log cabin,” says Turvey, “while having the highest energy efficiency imaginable.” >>



GREEN FEATURES

The exterior and interiors alike express an intimate connection to this home's forest setting.

OUT OF THE WOODS Poised on the edge of a man-made pond (opposite), the cabin is embraced by towering trees that are echoed in the timbers framing its exterior. Standing-dead timbers from the property, as well as trees cleared from the homesite, were used in construction. Afterward, wood scraps were chipped and used as fuel for a manufacturing plant in Idaho.

KITCHEN RECYCLING The kitchen (this page) features a wealth of reclaimed and natural materials, including work counters of unfinished local stone, a raised countertop of reclaimed timber, and cabinetry repurposed from an antique green-painted hutch.



Enhancing that efficiency are a wealth of environmentally conscious features. Chief among these is the scenic one-acre pond built beside the house itself. Lining its 20-foot-deep bottom are radiator-like stainless-steel geo-thermal exchangers through which a glycol-based heat-transfer liquid circulates, collecting warmth from the pond even on sub-freezing days to heat radiant units in the cabin's floor. Other green elements include a 3-kilowatt solar array, a fresh-air-exchange system that minimizes heat loss, and a gray-water reclamation system that stores shower and sink water to reuse for flushing toilets and sub-surface irrigation.

All those features, estimates Thesing, ultimately added only 1 to 5 percent to the cabin's total construction costs. "But you see the return pretty quickly in reduced energy bills and maintenance costs," he says. "This really sets the bar for the high-end market of second homes."



GREEN FEATURES

In private spaces and public features alike, the home's design emphasizes green practices.

RECLAIMED SPACE Because the family downsized from a 5,000-square-foot home to just 1,800 square feet, the master bedroom (opposite) "maximizes every square inch for storage," says builder Todd Thesing. Beneath the bed are drawers made from the same reclaimed timber as the built-in dresser beside it. Even the posts at the foot of the bed were made from reclaimed standing-dead juniper branches.

FROM BREAD TO WATER The guest bath (above left) features a wide washbasin fashioned from an antique trough used for kneading dough.

BACK TO NATURE Part of the site improvements developed by the architect, owner and builders for the 22-acre property, almost a mile of trails for hiking, snowshoeing, horseback riding or mountain biking wind through woodlands and meadows and connect to Yellowstone Club and National Forest Service trails beyond.



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