

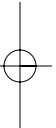
# Home On the Range

BY DANIEL KELLER

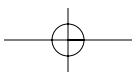
**P**oint your car westward headed out of Bozeman, and it's easy to understand how the founding fathers of Montana came up with the state motto, "big sky country." For city dwellers accustomed to a degree of compromise on the concept of personal space, the vastness and the overwhelming solitude of these mountains is nothing short of a paradigm shift. Small wonder, then, that the area is so appealing to stressed-out urbanites seeking a vacation home or just some respite from it all.

A few miles down the road from Bozeman in southwest Montana is the hamlet of Manhattan (with a population of just over 1,000), a little less than a square mile of rolling hills and daylong vistas. It's also the site of a historic 119-year-old barn that's been lovingly restored into a multiroom residential getaway featuring a state-of-the-art audio/video system that's nothing short of unexpected.

**How a historic  
country barn  
became home to  
a cutting-edge  
AV system.**



PHOTOS BY BILL COSTIGAN





Installing the outdoor EAW speakers took a bit of effort (left). The color of the speakers was carefully matched to the building.

The barn was originally designed and constructed between 1886 and 1887 for owners Charles and Marie Anceney by local homebuilder William Shepherd to protect the Anceney's purebred short-horned cattle and Percheron draft horses from Montana's extreme winters. Shep-

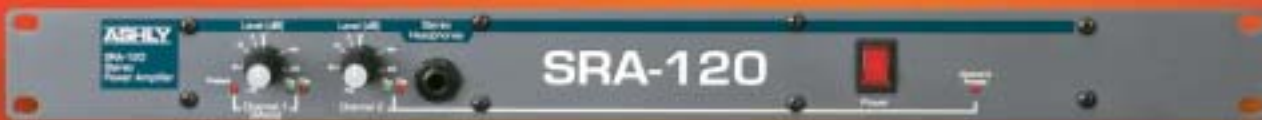
herd's main carpenter was thought to be a Swedish shipbuilder, and the massive 40-by-100-foot structure gives one the feeling of being within the hull of a ship, with its towering 38-foot ceilings.

At one point in its history, the barn served as a stagecoach garage for adven-

turers visiting nearby Yellowstone National Park, with an adjacent campsite and a natural spring flowing nearby. Toward the end of the 20<sup>th</sup> century, as the property changed hands a few times, the barn and surrounding land fell to neglect.

Several years ago, the historic barn and

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the 1,600-acre property surrounding it were purchased by new owners. Although many people might have torn down the cracking and creaking structure and sold off its timber for other ventures, the new owners understood the barn's significance and opted for a painstaking two-year restoration project.

#### THE CONCEPT

Their vision was to create a social gathering destination for family and friends, designed for enjoyment both inside and out. The goal was to rebuild the old structure, creating a true living space while remaining true to its original form and charm. The plans called for high-quality materials, with attention to detail and copious amounts of handcraftsmanship throughout. The restoration was led by interior designers Lynette Zambon, Debra Shull, and Carol Merica of Bozeman-based Design Associates, who brought in a team of master craftsmen, including Joe Bevier, Jeff St.Cyr, and Brandon Smith of Ridgeline Builders, also of Bozeman.

Poindexter's Audio-Visual Environ-



The loft system includes a 42-inch Fujitsu plasma display recessed in the wall.

ments of Bozeman was commissioned to create the audiovisual, control, and communication systems. The Poindexter's team—Bill Costigan, Cory Reistad, and

Adam Genteman—was given little in terms of preconceived notions and plenty of opportunities to create a masterpiece. "We were told by the design and construction

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team that the owners loved music and liked to play it loud," Costigan says. "It had to sound great, and the systems needed to be easy to operate and be reliable."

#### THE PROCESS

"Our phase of the project began with a meeting at the site with Lynette Zambon and Joe Biver," Costigan says. "At that point, the barn had been structurally rebuilt, the floor was off, and skeletons of cats, dogs, and the odd beaver were being removed as HVAC vents and plumbing pipes were installed. We learned then that the floors were to be insulated and sealed in less than a week's time."

Foregoing the typical formalities of a contract or even a meeting with the owners, the Poindexter's crew dove right in and commenced work the following morning. "We basically ran several miles of cabling and empty conduit, preparing for every eventuality and treating the project as if it were our own barn," Costigan says. Despite the 11<sup>th</sup>-hour start, the AV infrastructure was completed and the floors were sealed on schedule.

#### THE DESIGN

"We finally had our first meeting with the owners six months later, after the plaster was dry," Costigan says. "Since there's no simple way to patch a custom color mixed plaster wall, we found ourselves heaving a collective sigh of relief at having planned so well. The miles of wire and empty conduit we'd

**"It had to sound great, and the systems needed to be easy to operate and be reliable."**—Bill Costigan, Poindexter's

#### Audio-Visual Environments

run had paid off for us and the other tradespeople as the true scope of the project began to materialize. The clients liked to DJ in a sense, to have the ability switch between songs and media, tailoring the music to the mood. We listened carefully and designed the system to meet their needs."

Foreground quality music was distributed throughout the house and outside using a CP1 keypad control system created by a/d/s. (The system, however, is no longer

manufactured by a/d/s, its focus being residential and mobile loudspeaker systems.) A specially designed multichannel, high-output music system was planned for the open living room, and a home-theater area was envisioned for the upstairs loft.

The space under the stairs on the main floor was commandeered as the home-run

zone for the AV wiring, creating a ventilated chamber to house the Bryston and Parasound power amps, as well as a Lexicon MC-12B preamp and processor. "The electrician thought we were nuts when we asked for our own dedicated 100-amp sub panel," says Costigan, "but when the project was finished, we ended up with 46 channels of amplification under the stairs, with an additional 10 channels stashed upstairs." Middle Atlantic racks house the system throughout.

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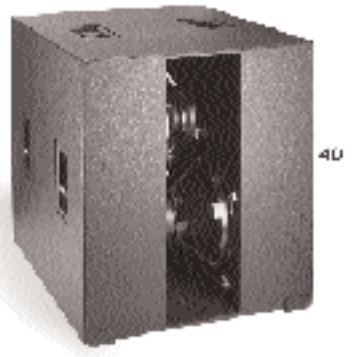
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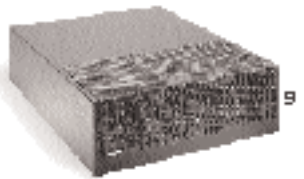
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INSTALLATION PROFILE

MONTANA BARN HOME

**PROBLEM SOLVING**

Builder Joe Bevier came up with the concept of a rolling media storage chest and commissioned Stewart Mitchell, a talented local cabinetmaker, to construct it. The media chest can be stored in the equipment room and rolled down the hall with little effort, which makes it a practical and elegant solution for the resident aspiring DJs. And removing the cabinet makes for easy access to the electronics closet for servicing and upgrades.

Another collaborative effort resulted in a creative solution to addressing the speakers in the main living room. “We realized that

tinct as the building itself. Using ribbon tweeters from Japan and drivers from Denmark, the speakers are both efficient and surprisingly loud, with crisp, clear highs and low mids. The room features side and rear in-wall speakers, creating a 6.1-channel surround setup.

**THE SPACES**

The main room is composed of more than 70,000 cubic feet of space, with peaked ceilings rising to a height of 38 feet. The custom Triad and Orchid Audio surround speakers dominate, augmented by 11 Triad powered subwoofers strategically placed

**“The electrician thought we were nuts when we asked for our own dedicated 100-amp sub panel.”**

—Bill Costigan

off-the-shelf speakers for this application simply didn’t exist,” Costigan says. “To live up to the performance levels we required, we’d have had to go with a flown line array or something similar. We were after a high degree of audiophile fidelity, and in this rustic setting, exotic-looking high-tech speakers that might be at home on the Death Star simply would not do. We asked David Nelson, an old friend who designs amazing-sounding and -looking things for Triad Speakers in Portland, Oregon, for his help. We set him free with 200 board feet of wood from the barn—planks pulled from the old horse stalls. Some of the boards David received showed the wear of years of horses and cattle rubbing up against them.”

The speakers Nelson created are as dis-

throughout the space, not to achieve loudness so much as to more efficiently distribute the low end. The subwoofers are recessed within walls, under the 40-inch Sony TV screen, under the stairs, and even as part of the outdoor barbecue. The result is an acoustic environment that is so live that, as Costigan puts it, “a well-recorded pipe organ sounds like a real pipe organ played in an old tall church. Because of the dimensions of the space, you hear low frequencies you simply don’t hear in a typical home. There’s not much acoustic treatment either, other than the furniture and some rugs. We wanted to put up some absorption, but that was vetoed by the designers. Fortunately, the stone fireplace does quite a bit to help diffuse things.”



For the custom-built main listening system, the speakers were built using wood from the original barn.

The upper-floor loft area presented another challenge. "Most clients who buy getaway homes here don't place a big priority on TV," Costigan says. "They tend to want to be outside as much as possible. In the winter months, it's skiing, and in the summer, it stays light until after ten. So the upstairs was originally planned as a hang-out, with a pool table, a foosball table, some swings hanging from the rafters, and a big long cushioned bench along the side wall. The designers told us they wanted a little 27-inch TV in the corner, but we countered with another idea." Taking things a giant step further, the Poindexter's team accessed a supporting beam, furred around the beam, and recessed a 42-inch Fujitsu plasma display into the center of the room. The team was then able to locate the source equipment for the theater just around a corner of the beam wall, in a user-friendly media cabinet with storage below. Triad Silver Sat in-wall speakers were placed in an LCR configuration, with a pair of EAW UB-12SE speakers for rear channels and a Triad in-wall sub-woofer. A Denon AVR-2803 surround re-



The custom-built media storage chest provides a convenient and attractive source of CDs.

ceiver, DVD-2800 DVD/CD player, and JVC HR-S7800U VCR completed a loft theater that proved so popular, an extra row of seating was added.

Of course, there were a number of other smaller (though no less critical) areas that were deemed important for audio coverage. A distributed system was created

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Two "doghouses" protect the weatherized outdoor EAW DCS2 subwoofers.

using Triad in-wall and Parasound in-ceiling speakers, powered by Parasound amps and using a Denon DCM370 CD changer, Parasound tuner, and Sony SAT-A65 satellite receiver. "We ran the smaller speakers into the master bedroom, the office, the master bath [including the shower, where a pair of Terra CA-10.2S in-shower speakers was installed], the kitchen, the hot tub, and of course, the fly-tying room."

Another factor not to be ignored in this area is the consistency—or lack thereof—of power. "In much of Montana, it seems we're always installing systems at the outer edges of the power grid," says Costigan. "Between brownouts and extreme weather, the quality of the electrical supply out here is far from consistent." To that end, a supply of SurgeX SA-20 and SA-1810 power conditioners are an integral part of keeping the system stable.

#### THE GREAT OUTDOORS

The outdoor system was added at the tail end of the project as an afterthought, albeit a well-thought-out one. A pair of EAW MK-2164 full-range cabinets is supplemented by

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a pair of smaller UB-12SE-WP cabinets hung from the outside of the barn. "We got lucky with our wiring and conduit runs again," Costigan says. "We ended up using the wires that were stashed up in the fascia at the end of the barn. It took us two tries to get the color right on those speakers—the original color was much too light. EAW was wonderful to work with in redoing the color."

Two QSC PLX-series amplifiers drive the outdoor system, which also features a BSS Mini-Drive crossover/delay and Rane CP-64 and CP-52 preamp/controllers. Two



The main equipment location is under the stairs.

ministructures of wood and metal resembling large doghouses protect the weatherized EAW DCS2 subwoofers, which are time aligned to match the barn speakers. The conduits that had been poked through the stone foundation during the prewire marathon provided a pathway to the subwoofers, which were placed out in the yard about 150 feet from the barn. A pair of Sonance H-20s and two Triad Bronze In-Wall 4s complete the systems for the outdoors areas.

During the summer months, the owners are able to tap into the outdoor sound

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system from outside the house, with sufficient power provided to accommodate a live band. On hot summer nights, the Sony VPL-HS20 LCD projector can be set up in about 15 minutes, with a Draper portable projection screen erected against the barn wall and the audience area out in the field between the subs.

#### FUTURE PROOFING

As was clear from the outset, the barn will continue to be an evolving work. The

owners are already planning a pool and have made it clear that poolside won't be complete without a sound system on a par with the rest of the house. Although there is presently no networking, a sufficient allocation of Cat-5 cabling was part of the prewire, in anticipation of the day the owners add it to their "gotta have" list.

All in all, Costigan points to this as one of the most challenging and fun projects Poindexter's has taken on in the recent past. "We love working with creative

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people on unique projects, so this was an amazing opportunity for us all," he says. "It was such a pleasure to have so much creative free reign, while at the same time, we had to have a strong degree of sensitivity—to be extremely respectful of the structure and its history. I think the fact that we were able to pull from so many of our skill sets—utilizing our expertise in recording, in sound reinforcement, and in-home consumer technology—made this one of the most exciting projects I've worked on in a very long time." ■

**Daniel Keller** was raised in the scenic canyons of New York City and grew up riding the bucking subway cars. As a child, his impression of wide-open spaces was Shea Stadium.