



Architect Kate Johns built a connector structure between the farm's original house (left) and main barn so as to create a grand enfilade—a series of connected rooms running the length of the structure, reminiscent of the manor houses of Europe.

Upstate Update

Hudson Valley, N.Y.

Kate Johns, AIA

Photos by Scott Benedict

When Chatham, N.Y., architect Kate Johns was tasked with combining an inhabited 18th-century Dutch stone house with an original post-and-beam barn to make one big happy home in Hudson Valley, N.Y., she knew it was a tall order. But with an entire career spent in preservation architecture, it was one she couldn't refuse.

Johns' clients had lived in their farm's original dwelling for years but craved more space for entertaining, so the architect razed a non-original wood addition to the stone house to make way for a link between the original home and main barn in such a manner as to respect the integrity of both. It was

this resolution that brought Johns, and her clients, the most satisfaction.

"I love the way the addition, while adding a substantial number of square feet to the residence, looks appropriate to the surrounding farm complex," Johns said. "That's one of the beauties of using a barn structure as a residence. It can be large—barns are meant to be large—but it won't look like 'a McMansion' because of the simplicity of its form and natural building materials. One of the things I'm the most proud of is how the old stone house and the barn structure connect."

The original house was built into the side of a hill and dropped to pond level, a design Johns used to her advantage by creating a lower level below the barn structure that houses the new master suite and overlooks the pond at ground level. Above, she designed a "connector," which contains the double stairs that connect four levels of the house.

"We felt it was very important not to turn our



A before shot of the barn, stripped of its walls and ready for renovation.

Johns removed the original hayloft and restored and stabilized the barn's 200-year-old timber. After much research and discussion, she and her clients decided to utilize SIPs (Structural Insulated Panels) to insulate the roof, but not the walls. Instead they constructed brand-new interior walls around the beautiful old structural beams and posts to hide wiring and insulation, then layered a new exterior over that.



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Behind the new open kitchen in the barn portion of the structure, the stone wall of the original house can be glimpsed through the transom doors.



backs on the old stone house, but to make it open up to the barn structure," Johns explained. "By means of the connector and the double stairs and the discovery of an original second door in the rear of the old stone house, we're now able to see an enfilade all the way through the combined structure from a front window in the old stone house to a window in the end of the barn reconstruction. The circulation flows."

Johns was also tasked by her clients with making the house net zero in energy consumption. This

involved installing a pond loop, a geothermal heating and cooling system and a large solar installation in one of the back fields, which supplies electricity. Any excess electricity is sold back to the utility company.

Unlike renovating historic homes, Johns noted that old barns present unique puzzles in the restoration process. They simply aren't maintained as well as domiciles, and often the wood can be in poor condition. Timbers often need to be restored by making unnoticeable substitutions with matching old wood. But these updates



Enormous paned walls of glass in the sunroom off the kitchen allow ample natural light into the home and offer stunning views of the farm, its outbuildings and meandering stone walls.

are key to the aesthetic because, said Johns, the question posed in barn projects is how to balance a residential feel while still respecting the barn aesthetic. To this end, she left structural posts and beams exposed, as well as the old hayloft ladder.

"It is wonderful to be able to re-use a beautiful, hand hewn historic structure on the verge of being torn or falling down," Johns said. "It connects us to the agricultural roots of our country." >>



The original house, prior to the removal of the wood addition to make way for the new connector to the barn.



The old hand-hewn hayloft ladder built into the side of a timber support remains.