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Home&Garden

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home of
the month

November's profile of a well-designed living space

Take a look at a photo gallery at www.newsobserver.com, search **home&garden**.



the living area

Spanning beams play shadow games across the living area. In a graceful pairing of old and new, a very steep wooden staircase, which served the building for decades, stands beside a steel and wood alternative.

PHOTO BY JAMES WEST

Yesterdays revealed

the project
walnut hill
cotton gin

Home of the Month, a collaboration with the N.C. State University College of Design, shows possibilities for constructing a living space with homeowners' living patterns and preferences in mind. Each month we profile a different home, selected by an expert panel from designs by area architects. The goal: to offer inspiration and knowledge that can be applied to any living space.

By KATIE WAKEFORD
GUEST COLUMNIST

It's as if they were meant to be together — architect Jim Smith and the Walnut Hill Cotton Gin, that is. Smith first noticed the cotton gin while on hiatus from his undergraduate studies. The abandoned structure caught his eye as he drove the rural roads of southeastern Wake County to visit with co-

workers from a local construction site.

Once back in school at N.C. State University, Smith made the cotton gin and its works the subject of a photography project. Striking black and white images document those early encounters. Smith says he would have laughed if someone had tried to tell him the gin would one day be his home.

Years passed. Smith became an architect, and the cotton gin sat empty. Then, in 1992,

when Smith was involved in local preservation efforts, he learned that the cotton gin's owner had only weeks earlier donated the structure to Preservation North Carolina.

Smith and his wife, Pam Troutman, bought it and immediately began stabilizing and securing the property to prevent further deterioration. By 2003, they were

architect Jim Smith, AIA, HagerSmith Design
project location Raleigh
square footage 3,400 heated, 1,300 unheated
budget \$250,000
key attributes Historic preservation, adaptive reuse, sustainable design principles and personalized living

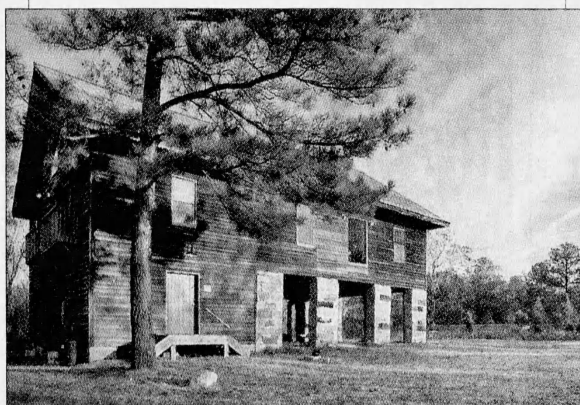
SEE COTTON GIN, PAGE 6E



before

Walnut Hill Cotton Gin caught Jim Smith's eye long before he imagined he might live there.

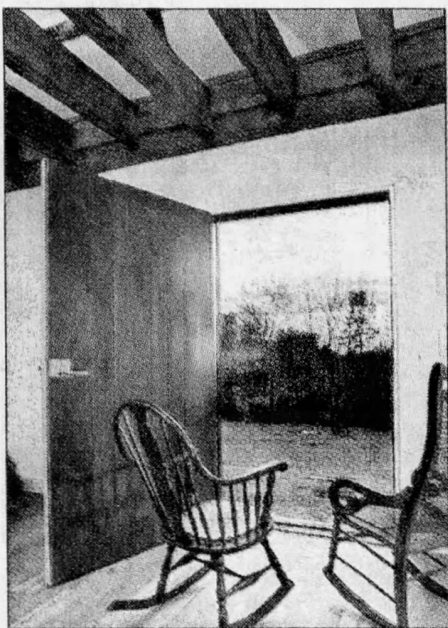
PHOTO COURTESY OF JIM SMITH



after

The siding, window patterns and trimless detailing are consistent with old photos of the mill.

PHOTO BY JAMES WEST



The home's medley of maple, white oak, red oak and ash is a tribute to low-impact design and construction.

PHOTO BY JAMES WES T

COTTON GIN

CONTINUED FROM PAGE 1E

ready to transform the utilitarian farm structure into their home.

As the Home of the Month selection panel commented, the Walnut Hill Cotton Gin "reveals several yesterdays."

Alonzo T. Mial built the cotton gin in the 1840s as part of the 2,700 acre Walnut Hill Plantation. It was active until the 1930s and is tattooed with dates, tallies and the names of those who worked there. Local Rolesville granite piers and mammoth timbers of hand-hewn Southern yellow pine are reminders of construction methods and materials long since abandoned or exhausted.

Animals originally powered the gin, walking in circles on the ground level, to turn the gears one story up. In later years, part of the interior structure was cut away to make room for larger ginning

equipment, and some of the original heart pine flooring was reclaimed and installed in a house down the road.

Today the gin is a bright and airy residence. Smith and Troutman replaced some of the beams to assure the building's integrity, but Smith says he is grateful to those who did the earlier deconstruction, unintentionally creating a dramatic openness where spanning beams play shadow games across the living area and keep the space from seeming cavernous.

The adaptive reuse of existing structures is an important strategy for sustaining our cultural histories. Troutman and Smith renovated the cotton gin in accordance with the Secretary of the Interior's Standards for Rehabilitation of historic buildings in order to

satisfy the property's restrictive covenants and to take advantage of state tax credits.

Restoration specialist Pat Schell supervised the challenging project. The appearance of the exterior is intentionally true to the original. The siding required careful repair and protection. The window patterning and trimless detailing are attentively consistent with old photographs. Nearly invisible large glass panes guard openings that were once used for loading cotton, maximizing light and views from the inside. The old red tin roof remains.

On the inside, Smith took inspiration from urban loft living. The plan flows freely with few doors or partitions, an aspect of the design that Smith and Troutman admit might not suit everyone, but it fits their lifestyle and personal aesthetic.

Smith adopted a palette of simple contemporary materials for the added elements of the house. For instance, a very steep and crude yet sturdy wood-

en staircase served the building for decades, but the couple chose to insert a handsome steel and wood alternative for easier climbing. Now the two staircases stand side by side in a graceful pairing of old and new.

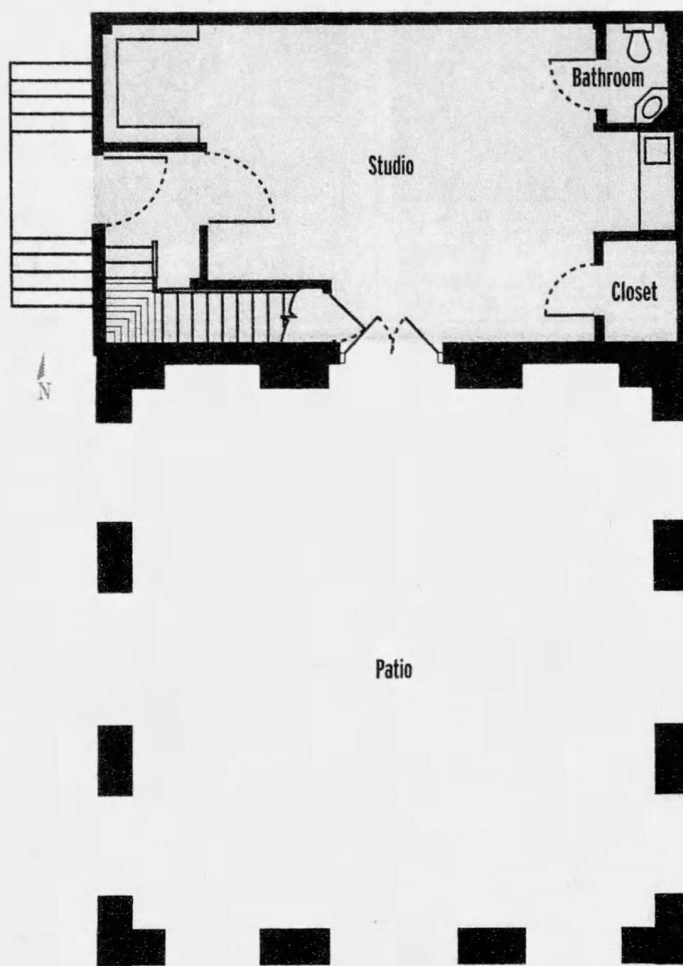
Adaptive reuse is also a prudent approach to green building, conserving materials and embodied energy. Sustainable design principles were a priority throughout the renovation.

To insulate the exterior walls, Smith specified a spray foam product that uses rapidly renewable soy oil in place of petroleum. With its high efficiency heating and cooling system, the well-sealed building envelope minimizes the home's energy consumption.

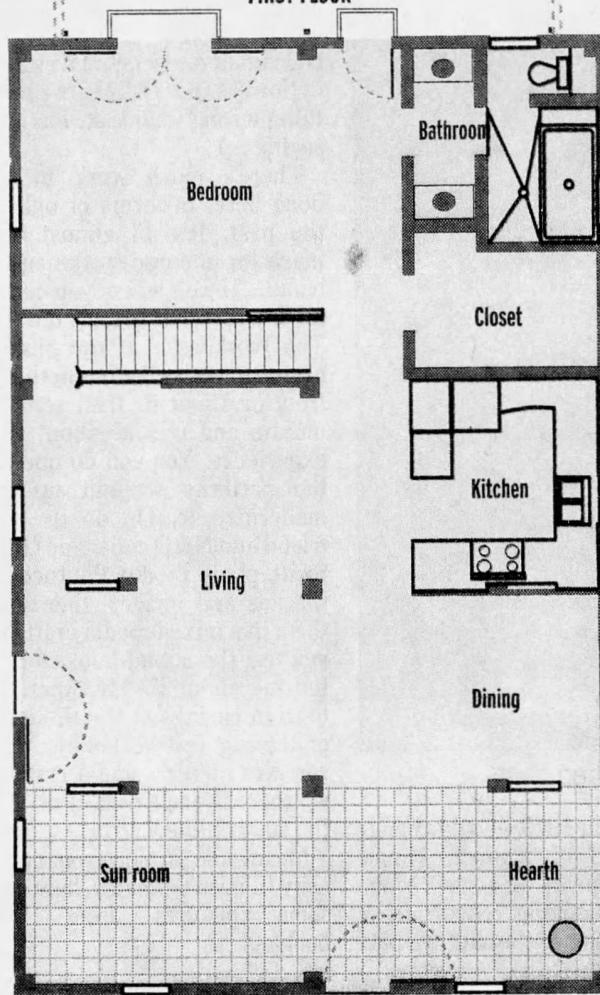
Other eco-friendly material choices include strawboard cabinet doors, linoleum countertops and cork flooring. To replace some flooring that had been previously removed, Smith milled local trees blown down by Hurricane Fran.

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GROUND FLOOR



FIRST FLOOR



SECOND FLOOR

