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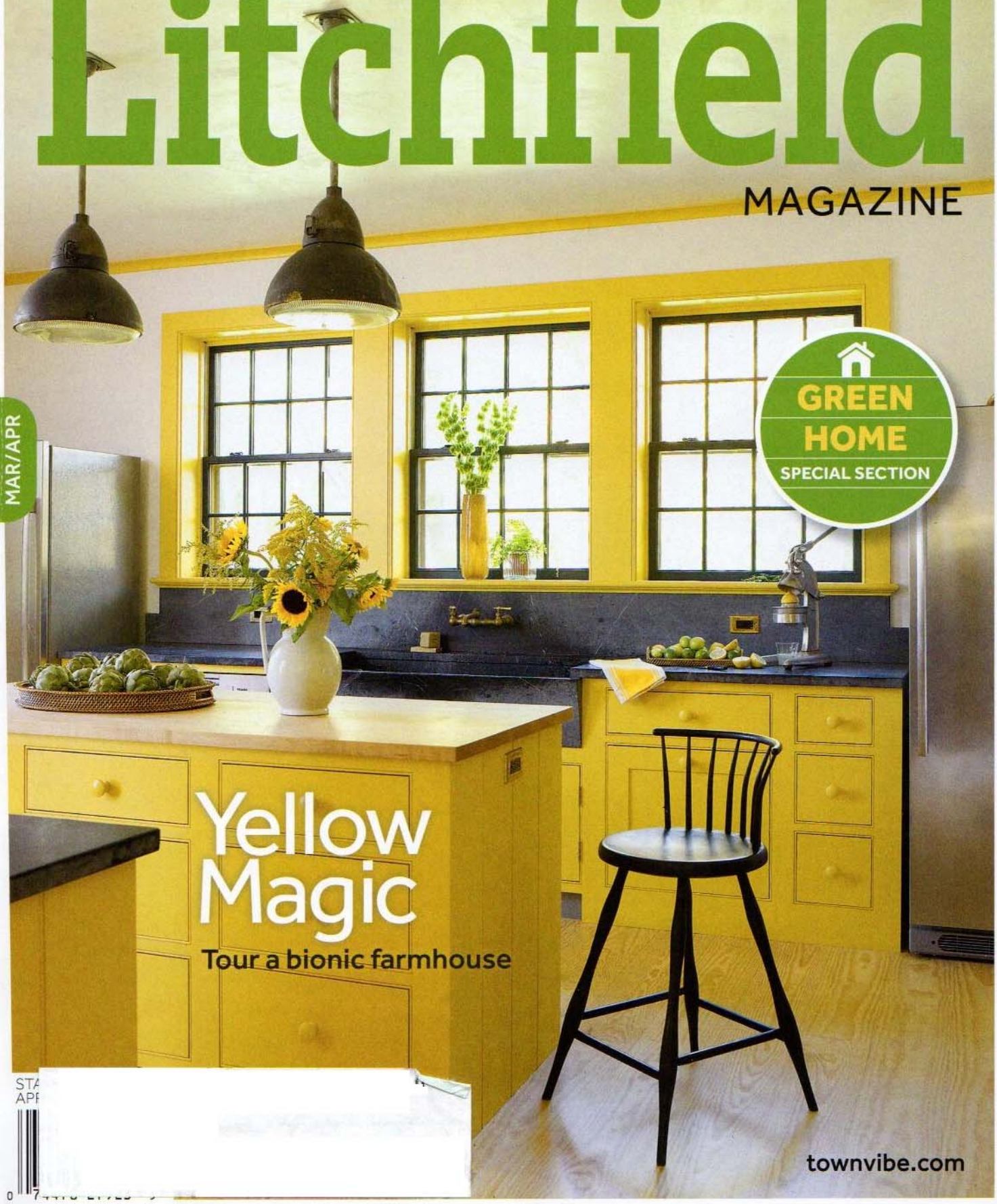

GREEN HOME
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GOING GREEN Hotchkiss School's biomass heating plant saves on energy costs, while also protecting the environment—the design is ultra-cool too.

Burn, Baby, Burn

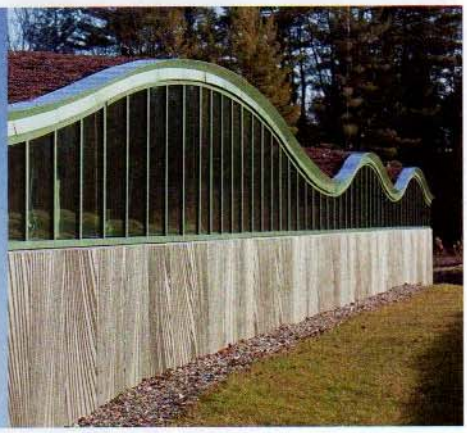
HOTCHKISS SCHOOL'S SLEEK NEW HEATING SYSTEM // By Wendy Carlson

IT COULD BE A GALLERY, a science center, or even a funky fairway on the school's nine-hole golf course. But the new, eye-catching building on the Hotchkiss School campus has a more utilitarian function—producing steam heat for the school's 85 buildings that total 1.2 million square feet.

The sleek, low-profile design of this biomass heating plant has a serpentine roof that mimics the undulating contours of the adjacent golf course, and draws double-takes from passing motorists. Come spring, there may be even more rubber-necking when reddish-orange sedum—a succulent planted to absorb storm-water runoff—blankets the roof with color.

The appealing design serves a dual purpose: to encourage students to learn about energy use and to protect the surrounding ecosystem. The $14-million plant, which includes staff offices and doubles as a living classroom, is also one of the more prominent buildings on campus. Designed by Centerbrook Architects and Planners of Centerbrook, Connecticut, the facility is one of only three LEED-certified heating plants in the country. There are currently 80 biomass plants in the U.S., and more than 40 Vermont public schools use similar systems.

PHOTOS // WENDY CARLSON



JOLLY CLEAN GIANT Hotchkiss director of environmental initiatives Josh Hahn has been busy giving tours. Only a thin plume of steam is released from the chimney. The undulating rooftop.

"Most heating plants are dark, dingy, underground places, but we wanted to literally shine a light on our energy use and allow students to see where their energy is produced," explains Josh Hahn, director of environmental initiatives and assistant head of school. The school, he says, even held a trustee dinner there.

Unlike the oil-burning plant it replaces, the new facility is bright, airy, and clean. It efficiently burns locally sourced wood chips, which saves the school about $600,000 annually in heating costs and reduces the schools carbon emissions by about 50 percent, according to Hahn. A device called an electrostatic precipitator removes 95 per cent of the particulates by trapping fly ash that would ordinarily escape into the atmosphere. Eventually, the ash will be used as a soil additive on the school farm, where students grow their own fruit and vegetables and raise chickens.

"It's not a silver bullet," says Hahn. "The best alternative is not to use as much energy, and we're still focused on our conservation efforts. But the plant is one major step towards the school's goal of becoming a carbon-neutral campus by 2020."

Burning wood waste, or biomass, is considered a carbon-neutral process. "You can grow more trees. You can't grow more oil," says Hahn, noting that the same amount of carbon is released, whether the wood is decaying in the forest or burned. He expects the plant will burn 5,500 tons of wood-waste chips annually, replacing 375,000 gallons of fuel oil previously used to heat the school.

The new plant also serves as a living classroom for the surrounding community, says Hahn, who has been leading tours for area schools and organizations since the plant went into operation last fall. The 16,000-square-foot facility has built-in viewing windows, and a mezzanine balcony overlooking the boiler room allows visitors to observe the process of wood chips being moved by augers from giant holding bins into two massive boilers. Educational displays on the walls help to explain the system and its environmental benefits, and large-scale, black-and-white, vintage photos of the school's former oil-burning plant add historical context. Architectural details highlight different uses of recycled wood—chip-laminate walls, pressed-lumber wood beams, and fencing composed of various types of wood.

Large monitors installed on the walls in the plant and in the science classrooms allow students to observe energy consumption in real time, on a minute-by-minute basis. The biomass plant, with its ultra-cool design, is one of the more publicly visible efforts among the area's private secondary schools to reduce and conserve energy. "Another third of our energy consumption is our electric consumption," says Hahn. "And that's what we need to tackle next."

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Renaissance Man

Arthur Carter: Studies for Construction, like any good art book, has 2 pages of text and 200 of images—some inspiring, some provocative, some we'll call abstract.

Eating Green

PACE gave Community Table the group's first Environmental Achievement Award for the eatery's smart energy usage, food sourcing, and low waste creation.

Old Is New

Sharon resident Christopher Pourny launched eponymous organic furniture-care products using old-world formulas from his NYC studio for work on Gracie Mansion.