

VERMONT

M A G A Z I N E [®]

May/June 2011

2011 Arts and Culture Issue



\$5.95 (CANADA \$6.95) MAY/JUNE 2011
DISPLAY UNTIL JUNE 18



Summer Arts Calendar • Historical Photo Essay • Visiting Underhill
Ransom- Randolph, Vermont's Civil War Soldier
Belmont General Store • The Paintings of Patsy Santo



Story by Nancy Humphrey Case
Photos by Lee Krohn

Slated to Succeed

Craig Markcrow's Vermont Structural Slate Company



Vermont Structural Slate has quarried and produced high-quality slate products since 1859. The reins of the company are in the capable hands of Vermonter Craig Markcrow. No remote-control executive, Craig (left) is out and about daily at various company work sites, including this quarry where he's discussing matters with foreman Bub Fortier.

CRAIG MARKCROW would have made more money if he'd returned to his job on Wall Street, his first gig out of college. But after attending Duke Business School in the early 1990s, he returned instead to Vermont to work in his family's business—Vermont Structural Slate Company in Fair Haven. Now president of the company, he finds the job deeply satisfying.

Pulling up to the company's main office, you wouldn't guess this was an outfit known by some of the top architects in the world. A cluster of

low clapboard buildings painted barn red sits close to the road, plain and unassuming.

Craig's office is just big enough for the vintage oak-and-leather desk and chairs that his father inherited when he bought the business in 1971. Here Craig talks about the history of Vermont Structural Slate, which dates back to 1859, and about the products they make: roofing and flooring tiles and custom pieces called for by architects of all kinds of buildings. One of the projects Craig is most proud of is the renovation of The Museum of Modern Art

(MOMA) in New York City in 2004.

"The museum held a design competition," he explains, "and selected Yoshio Taniguchi from Tokyo, an internationally respected architect. He wanted to use local material and he loved our green slate." Taniguchi chose the company's beautiful and durable "unfading green" product for the expansive floors and stair treads of MOMA's 26,000-square-foot main gallery and 10,000-square-foot educational wing. Other projects include office buildings in Paris and Kuwait, government buildings in London and Japan, residences all over the U.S., and

local structures such as a dormitory at Middlebury College and the Vermont Welcome Center in Guilford.

All this is impressive but somewhat abstract until we make a visit to the company's River Street quarry in Fair Haven. Craig's SUV lurches over the bumps as we wind our way among a moonscape of rocks on quarry roads lined with eskers of discarded slate chips. Near the top of the 200-acre site, we pull up to the edge of a pit 100 feet wide and 60 feet deep. It takes my breath away to look across and see the exposed, richly colored green and mottled green-and-purple bedrock angled up from the depths of the earth's crust—and to see its beauty repeated in the wealth of stone surrounding us.

Craig explains that slate runs in veins—not in monolithic formations like many marble and granite deposits. The slate belt here runs roughly from Fair Haven to West Pawlet—about 25 miles long and 2 or 3 miles wide. "Vermont is fortunate to have such a high-quality deposit," Craig says. "It was highly metamorphosed." Slate is found all over western Europe, as well as China, India, Brazil, and Argentina, but Vermont slate is stronger and has a much lower rate of water absorption than many other slates. It also comes in a number of colors.

Vocabulary of the trade rolls off Craig's tongue, bringing to life the summers he worked as a kid alongside *rockmen* in the quarries, drilling and blasting and *dressing* the stone with chisels, and *plug and feather sets* (a wedge of steel tools struck with a hammer to cleave the stone). The first 25 feet of rock is *toppy*, unusable because of being fractured, oxidized, or otherwise weathered. This top layer is broken up and taken out by *overburden* blasting. Then the gentler *black powder* blasting is used down in the layers of good stone, to loosen it slightly.

It's lunchtime, so no one is working in the pit. But six 50-ton excavators claw stone from the quarry every day, and five or six 35-ton off-road trucks haul the big blocks to the mill down below—our next stop. But before we leave, Craig points out the old slate dump nearby. The rocks are covered with lichens, and birch trees sprout from the tops of the piles.

"Some people don't like the looks of the slate dumps," he comments, "but to me they're a symbol of an historic



Come spring, snow still lingers long past its welcome in the cool depths of the VSS quarry at Fair Haven, a 200-acre site where equipment that includes 50-ton excavators is at work. Slate dumps and old buildings nearby bear silent testimony to quarrying efforts of the past, when much of the work in the 1800s was done both by hand and with steam-powered equipment.

industry. You can look at them and think of the people who worked here long ago."

Some of the 45 people who work for Vermont Structural Slate today are equally intriguing. Quarry foreman Bub Fortier, a rugged looking man with a big smile, enjoys the search for the best veins. Even with geologists' maps, it's a bit of a guessing game. "You're always looking for that pot o' gold," Bub says. "You know it's there; you just have to find it."

Stepping inside the roofing mill is like visiting another planet. Giant saw blades screech as they cut through blocks of stone weighing up to five tons each. Water washes down the saw blades to keep them cool and to keep the dust down. However, the men splitting smaller blocks with chisels are veiled in gray-white stone dust.

Over the deafening decibels Craig points out the process of turning blocks of raw stone into roofing tiles. Wheel loaders bring enormous 9-inch-thick

blocks inside through overhead doors. A hydraulically driven conveyor carries them into the teeth of a 28-inch saw blade, which cuts the blocks across the grain to a little more than the finished length of the tiles. At the next station an operator pulls a lever and a contraption spins those pieces 90 degrees before the second saw cuts the strips to the desired oversize widths.

"We tried to take a lot of the real heavy physical part out of it," Craig shouts over the noise of the "silent blades." Now men with chisels split the roofing blocks to get tiles approximately a quarter inch thick. Some blocks crack up in the process and are discarded. Others yield fifteen good tiles. "It just depends on how clean the stone was," Craig says. Next an automatic trimmer cuts each roofing shingle to its finished size and gives it the traditional broken edges. Finally, the shingles are drilled for two nail holes.

Outside, the finished shingles lie stacked in pallets or packed in wooden



This twin-axle Autocar truck is one of several of the smaller off-road vehicles used in the quarries; the largest are 35-ton Caterpillar dump trucks that are also utilized as pit trucks. From raw stone, such as what's on the truck above, finished products have been produced that grace many prominent buildings in America, among them The Museum of Modern Art in New York City.

crates for export to Europe. Craig points out his latest acquisition: a pair of wire saws from Italy—for cutting stone out of the ground as a less-damaging alternative to blasting.

On the drive to the company's fabrication plant in Whitehall, New York, Craig reveals the optimism he feels about the business. Recent trends are working in the company's favor. "LEED designers want to use a stone that's quarried within 500 miles of the building site," Craig explains. (That would include Boston and New York City.) "Another trend is building smaller but higher-quality homes."

For the last 15 years, Craig's company has carried other types of stone in addition to Vermont slate. That has made him more aware of how well the local material stacks up against the competition. It's extremely strong—both in terms of bridging strength (as in stair treads) and in compressive strength (as in thin floor tiles not cracking under weight). It's very durable. And it's so dense it resists stains. It doesn't need to be sealed, and it doesn't discolor. Its acid resistance and very low rate of water

absorption make it an outstanding, if expensive, choice for roofs, which can last 75 to 175 years. It does scratch, but the scratches are easily removed.

"It's a really good product, not made with chemicals," Craig says, "and it's used on some of the most prestigious buildings designed by some of the top architects in the world."

He's equally pleased to see the slate from his quarry beautifully applied in local buildings like the new courthouse in Rutland. "I'm proud of the history of the industry in our area," he adds as we approach Whitehall. "It's been going a long time and is a big part of the economy here."

If Vermont Structural Slate's roofing mill was eye opening, its 80,000-square-foot fabrication shop in Whitehall is eye popping. Here, custom products are turned out in batches, on a much larger scale. A saw blade 11½ feet in diameter, with diamonds embedded in its teeth, works its way through a gargantuan block of stone, back and forth, dropping ¾ of an inch on each pass, cutting it into slabs to be used for kitchen counters, wall panels, and stair treads. At another

station, a small saw with eight blades cuts floor tiles. At another, a big round disc polisher hones a countertop to a velvety texture with 400 grit diamonds.

A simple, worn bench hangs on the wall "in memory of Donnie Belden," who worked here a lifetime. For a while Craig worried that not many young people were interested in carrying on the work of cutting stone. But now he's encouraged to see that trend reversed.

Craig is not that old himself. Does he ever get overwhelmed by this job? "There are a lot of moving parts," he admits, smiling. "But I'm fortunate to have a lot of good people. Some of them have been here 40 years."

What could be more satisfying than being part of an industry that takes rock-solid, all-natural, lasting beauty out of the ground, shapes it into useful forms, and shares it with the world? Not Wall Street, at least for Craig Markcrow.

After leaving Fair Haven on Route 4, I notice jagged edges of bedrock thrusting up out of the earth. The rock is pigmented with those now-unmistakable green and purple colors—hieroglyphs of the real wealth of Vermont. ▀