



Award Winning Craftsmanship | Stowe, Vermont

the craftsman.

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Home Energy DOCTORS who make house calls

A sick home finds
immediate solutions

BY DAVID GOODMAN



The Doctor is in... Mike D'Muhala takes a reading.

My house had a serious problem. Each winter, water would weep from my windows. The colder the temperature outside, the more water ran off my windows inside, running into the sills, rotting the panes, creating mold and dripping onto the floor. Humidity in my house was stuck at over 50 percent, and nothing I did seemed to be able to drop the humidity level into the healthy 35 percent range.

I presented my problem to Steve Sisler. He proposed letting his energy efficiency team run a home energy audit. He explained that the team would diagnose problems in my house with heat loss, insulation and air flow. And he noted that there were rebates and tax incentives available for energy-related home improvements.

It sounded good, but I wasn't sure it made sense for me. "It's not the heat. It's the humidity," I told him. So when Mike D'Muhala and the Sisler Builders energy audit crew arrived, I explained that I was less concerned about heat loss – I heat with wood, which provides plenty of warmth – as I was about fixing a problem that was killing my windows. I was pretty sure that my house had enough fresh air, since the structure is over 30 years old, and I figured it had the usual amount of age-related draftiness. D'Muhala took notes, toured the house from basement to attic and inspected the outside for clues to the



mystery of what ailed my home.

Mike, Steve Gruner and Jason Kelley set about attaching an 8-foot high exhaust fan onto my front door. As soon as the fan started, I could feel a mild breeze as air streamed through every crevice in my house. A digital readout on the giant exhaust fan measured resistance. The crew moved around the house opening and closing doors and windows to test air tightness in each space. It was like watching a skilled doctor diagnose an illness. Only in this case, it was my house that was sick.

After a couple hours of testing everything from air leaks to carbon monoxide levels, Mike called me over to render his verdict. "Your house is too tight," he declared. "Moisture

from everyday cooking, showers and breathing has nowhere to go. So it's condensing on your windows and inside your walls." I was shocked: how could a 30-year old house be too tight? "By the 1970s, builders were using modern air sealing

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Woodlot enthusiasts Jeff Grace and his father Robert.

WOOD YOU BELIEVE?

Perfecting the art of firewood preparation.

BY JEFF GRACE & PETER MERRILL

Spring may sound like an odd time to be talking about firewood, but it's a busy time of year for those of us who cut and split it ourselves. When the sugaring season has drawn to a close with the capping of the last quart of Grade B syrup (think motor oil), and the last ruts of mud season have finally disappeared, it's time for many Vermonters to head for their woodlots. It's still too early for planting, mowing or other spring chores, but it's the perfect time of year for laying up firewood. Moving around in the woods is easier before the underbrush grows up, and firewood seasons faster when the trees it comes from are felled before the leaves come out. It takes at least six months for firewood to cure, and anyone who has ever burned a blackened, smoking, hissing piece of "green" wood can appreciate the importance of this process.

Axes, mauls, cant dogs, peavey poles, pulp hooks and pickaroons all sound like instruments of torture, but together with a chainsaw and protective gear, they form the essential tool kit for any woodsman. "While I own most of these tools, I am hardly a woodsman" says Peter Merrill, "and I have the dulled chains from cutting through dirt and debris and the broken maul handles from over-shooting my splitting wedges to attest to my lack of proficiency. Ten years ago when I moved to Vermont I purchased my first load of firewood - \$40 a cord, 7-cord minimum, delivered in "log-length". A steal I thought. I have to say I was a little taken aback when the logging truck pulled up and deposited its entire load of 30 foot logs on my lawn like a giant game of pick-up-sticks. It took me five years

to cut, split, stack, haul and burn it all, but in the end the real bargain was in the enjoyment and satisfaction I got from doing it all. There are few things more satisfying to regard than a well-stacked woodpile or the warm glow of the fire when they are the result of your own hard work".

Sisler Builders' business manager Jeff Grace is someone who

knows a lot about woodlot management. "I love burning with wood. Heating with wood is great for exercise and equally good for the environment. I love developing future saw logs through selective firewood cutting. It feels good when you thin out that straggly white birch or red maple to help bring along your higher value species. Most of all, keeping the forest working ensures there will be a woodlot for us to enjoy and a renewable resource we can benefit from for generations."

"It also gets me out of the house and back on the farm my grandfather once ran. I can see the stumps of trees he cut thirty years ago and the dominant trees now taking their place.

It's been a long time since his passing, but we still share the woods because the work he did then benefits us now and will continue to do so in future harvests."

"Burning with wood, heats you five times" says Jeff: "once for every time you cut it, block it, split it, stack it, and burn it." Peter agrees, but adds: "I think it's even more than that. It warms your soul as well, whether it's the thrill of working outside on a blustery early spring morning or musing by the warmth of the fire on a cold winter night". sb

"There are few things more satisfying to regard than a well-stacked woodpile or the warm glow of the fire when they are the result of your own hard work."

When Sisler Builders' home performance specialist Mike D'Muhala thinks about firewood, he remembers a poem from his childhood that is at once both entertaining and useful:



A SENSE OF PLACE

BY STEVE SISLER

The Firewood Poem

*Beechwood fires are bright and clear
If the logs are kept a year,
Chestnut's only good they say,
If for logs 'tis laid away.
Make a fire of Elder tree,
Death within your house will be;
But ash new or ash old,
Is fit for a queen with crown of gold
Birch and fir logs burn too fast
Blaze up bright and do not last,
it is by the Irish said
Hawthorn bakes the sweetest bread.
Elm wood burns like churchyard mould,
E'en the very flames are cold
But ash green or ash brown
Is fit for a queen with golden crown
Poplar gives a bitter smoke,
Fills your eyes and makes you choke,
Apple wood will scent your room
Pear wood smells like flowers in bloom
Oaken logs, if dry and old
keep away the winter's cold
But ash wet or ash dry
a king shall warm his slippers by.*

by Celia Congreve, circa 1930

In the last issue of The Craftsman I spent some time talking about “community” and about the importance of being good neighbors and of “giving back.” As I’ve thought more about it, I think it bears noting that this notion of community has a very central and practical importance to our business as well. I have been very fortunate to be able to work in the Stowe area for over 25 years now. I do very little advertising, and we don’t travel very far afield, but thankfully we have pretty much always had plenty of work. A long time ago, we made a conscious decision to focus on a small geographic area and to serve that area to the best of our ability. While others in our field have driven greater and greater distances chasing ever larger projects, we have striven to “keep it local.” To survive and thrive in our small community, we have taken on a variety of projects both large and small, and we understand that every project needs to reflect a high level of craftsmanship and good value for the dollar because our reputation and future employment both depend on it.

Overall, this strategy has served us well. It has allowed us to maintain a staff with varying skill levels (and billing rates) and to create a career path for each employee as his/her experience level grows. It has allowed us to establish deep relationships with local subcontractors and suppliers that translate into more timely and cost effective service for our clients. It has also allowed us to be a more resource-efficient building company, as we avoid spending time moving tools, materials and trades people long distances to the job site. This translates into greater job satisfaction for our employees, less impact on the environment and ultimately greater value for our clients. Lastly, and most importantly, “staying local” allows us to get to know our customers well and for them to get to know us. This makes the job more fun and ensures that we always have plenty of interesting things to do. Last week we were working on a new custom home for one client, building a chicken coop for another and discussing plans for a new grape arbor with a third. It doesn’t get any better than that. **sb**

IN THE NEWS

- Mike D'Muhala now Building Performance Institute certified to audit and retrofit commercial buildings
- Recent MIT grad Nick Sisler takes job with energy reduction start-up. Sisler Builders has collaborated with him on energy reduction strategies
- Jeff Grace received Professional Certificate in Leadership and Management from UVM continuing education program
- You can now find Sisler Builders on LinkedIn and Facebook



How would you like to win the Sisler Builders crew for a day?

The Sisler Builders crew will donate a day of service to one lucky local charity. To learn more or to send us your idea, go to our Facebook page or email us at info@sislerbuilders.com. The winner will be announced in this space in the next issue of the Craftsman.



ASK SISLER BUILDERS

Q: What is the best “bang for my buck” when it comes to home performance improvements?

A: Simple air sealing achieved through proper caulking, taping and the installation of weather stripping has a great payback and the upfront investment is usually minimal.



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and insulating techniques. So it's not that unusual for a house from that era to be tight."

Mike offered his prescription for how to cure what ailed my home. He explained that the house needed to exhaust the stale, moist air. To do this, he recommended installing a more effective exhaust hood over my kitchen range and new ducting so that it would vent to the outside, and a new energy-efficient bathroom exhaust fan that would also vent outside. Another option was to install a whole-house air exchanger, something Sisler Builders routinely includes in new homes. By measuring the air flow (or lack of it) in my house, Mike was able to arrive at a precise number for how much air I needed to exhaust. He concluded that my house's problems could be solved with the less expensive bathroom exhaust fan, which would idle at low speed all the time, increasing to top speed only during showers.

I wasn't excited about the solution. Most bathroom fans that I hear are noisy, rattling affairs that sound like a small airplane taking off. Mike assured me that the super-efficient units he used were "quieter than your son's fish tank." We stood in the hallway and stopped talking, and I listened to the aquarium in the next room gurgle softly. Point made; I gave him the green light to do the job.

As Mike's crew of an electrician and carpenters installed ducts and fans, I asked how long it would be before the humidity dropped and my windows stopped weeping. "Overnight," he boldly declared. "And the humidity will continue dropping over the next few weeks as your house dries out." The next morning, I checked the humidistat. The humidity level had dropped from 55 percent to 41 percent. Two weeks later, humidity levels in the house were in the mid-30s. After years of weeping, my windows were dry.

As part of healing my sick house, the Sisler Builders energy team also air sealed windows, weatherstripped doors and added insulation to an exterior wall where thermal scanners revealed there was none. I also took the opportunity to do some other improvements, including replacing a drafty old office door and two windows.

The crew returned to re-test the house after the improvements were complete. The tests showed that air leakage was reduced by 25 percent, and humidity levels had dropped by one third. A few weeks later, a check arrived from Efficiency Vermont that covered a good portion of the efficiency work.

For my sick home, having doctors who make house calls provided the cure. sb