DESIGN • ARCHITECTU

# THE TRENDS ISSUE



The trend toward environmentally friendly renovations

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## **RETHINKING RENOVATIONS**

These Canadian companies offer environmentally responsible building and renovating by PHILLPA RISPIN

DESIGN



CHRISTOPHER PHILLIPS HAS A MASTER'S DEGREE in philosophy and foreign aid. He has no driver's licence and doesn't own a car; he gets around Toronto by bicycle and public transit. He also has no cell phone. Would you hire this man to renovate your home?

If you want to do things in an environmentally friendly way, you'd be smart to do so. Phillips (who, not incidentally, also has a master's degree in building science from Ryerson University) is passionate about the environment. The philosophy of his company - Greening Homes - is an extension of his personal ethic.

He's not alone in this. In Montreal, Hisham Shakarchi - owner of Rénovert Solutions Inc. - is similarly driven. "I'm from

says. "There you learn to ration things and to appreciate the materials."

For Graeme Huguet, whose company My Iouse Design/Build/Team has been serving Greater Vancouver and the Gulf Islands for ore than 20 years, taking the green approach is practically second nature, "just part of who we are and what we do," he says. "We educate clients to the extent that they want e educated, but there's a certain amount we aturally talk about. We guide them through, explain different building methods, and then let them make the choice."

All three companies operate in service to what Phillips calls the five pillars of responsible renovation: responsible waste management, informed selection of materi-Iraq, where resources are not as abundant," he als, efficient design and use of resources,

Renovation begins with demolition and responsible management of the waste stream. On this Greening Homes project, 87 per cent of the project waste was diverted from landfill.

healthy indoor environments, and responsible business practices.

A renovation usually starts with some demolition, and managing the waste stream is an important part of the process. Some unwanted elements - kitchen cabinetry, for instance - can be carefully removed and given to such organizations as Habitat for Humanity's ReStore for re-selling, or to places that rely on





Rénovert Solutions worked on a daycare facility, stripping the interior down to the studs. The purple wall is BASF's Walltite sprayed-on insulation and air barrier system. Hisham Shakarchi chose it over the traditional layers of vapour barrier and insulation (blown, batts, panels, etc.) because "it seals every nook and cranny," and because it's EcoLogo certified and Greenguard Children & Schools certified for indoor air quality, includes recycled plastic, and is applied with a zero ozone-depleting blowing agent.

### donations. Huguet's company, for example, donates items to halfway houses and group homes, "If we can repurpose something, it's more green than dismantling it," he says.

With his degree in civil engineering from Concordia University in Montreal, Shakarchi is highly attuned to what's salvageable and what should be recycled. "My approach is more practical and beneficial to the client," he says. "For example, an old bathtub made of steel can be sold to scrap collectors. The copper in wiring also gets sold." Much of the demolition debris can go to recycling centres for sorting and reuse; for example, wood from recycling centres is pulped and used to manufacture laminate flooring and MDF.

Informed selection of materials is tricky. "Often, when choosing to do a green

renovation, it's about trade-offs," Phillips says. "There is no such thing as totally green. There's usually an emphasis towards something; it could be health, it could be energy efficiency. For example, someone wants to use reclaimed wood or reclaimed products, which makes a lot of sense from an environmental perspective, but if you have chemical sensitivities, that may not be appropriate, because reclaimed elements may have been exposed to something that could be hazardous or toxic. You could have something that's sourced sustainably that's being shipped from China - let's say bamboo flooring - and it could have formaldehyde in the glue, and you've got a high [energy investment] in terms of shipping."

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Both Huguet's and Phillips's companies have invested in education and expertise to ensure efficient design and use of resources. My House Design/Build/Team is accredited by several organizations such as Built Green Canada, and it's a National Association of Home Builders Certified Green Professional. Greening Homes belongs to the Ontario Natural Building Coalition and the Canada Green Building Council, among others.

There's plenty of validation of their efforts, including awards. Greening Homes is particularly proud of winning a Best Green Renovation award and a Best Renovation \$300,000 to \$500,000 award.

My House Design/Build/Team has ranked high in Georgie Awards lists over the years, and the company won five 2018 awards, including Best Certified Whole House Renovation and the grand award: Residential Renovator of the Year.

Shakarchi's company is relatively small by comparison and hires only trusted sub-contractors to perform specific jobs. "I'm everything, from being the president to making a great cup of coffee," Shakarchi jokes. He says that major accreditation programs don't really serve the purpose of his specific business, but he has various awards and certifications that attest to his expertise: Réno-Maître accreditation from l'Association provinciale des constructeurs d'habitations du Québec (APCHQ), Approved Residential Supplier designation by CAA-Quebec, and City of Montreal suggested contractor for the city's recently discontinued Residential Adaptation Assistance Program. Shakarchi won the 2015 Bronze Renovation award from the APCHO for outstanding performance and service.

Eco-conscious strategies apply indoors and out. The kitchen (opposite) of this award-winning home by My House Design/Build/Team features energy-efficient Miele appliances. Outside, the joints of exterior pavers are not mortared, allowing favourable on-site drainage and reducing uncontrolled run-off inte municipal storm sewer systems





Ensuring a healthy environment could be said to start right in the individual home, and air quality is a major element in this. Avoiding materials (paint, drywall, glue, engineered flooring, carpeting) that off-gas or contain unhealthy substances is an important step. Assuring adequate, not excessive, air exchange is another. Renovators must have the skill to balance energy savings against quality of air. Phillips is particularly proud that the Canadian Green Building Award-winning than a new-build passive house.

Huguet considers energy efficiency "number one" in the scheme of things. "The goal is to develop a house that is Net Zero: what it consumes it also puts back," he says. But clients worry about the cost of being eco-conscious, and might not enthusiastically embrace what initially seems to be more outlay for something so vital. "We have to

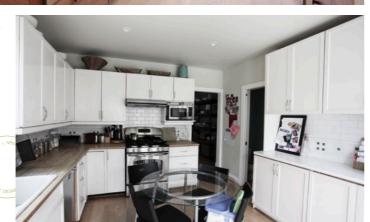
#### educate clients that an energy-efficient house is ultimately a less expensive house to run," Huguet says.

These renovators practise what they preach. To its employees, Greening Homes promotes the use of re-usable coffee cups and lunch containers onsite, and it restricts its projects (there seems to be no lack of them) to Toronto alone so that employees can use bicycles and public transit to get to work. Its offices use 100-per-cent renewable energy retrofit home had fewer air changes per hour supplied by Bullfrog Power. "We also formally track our site waste diversion and provide

a great amount of detail on how we achieve our environmental mandate across each project," says Phillips. "And we provide a yearly bike maintenance and repair stipend during Bike Month, and regularly pay for formalized green building training for the team. I just sent three team members to Passive House training last month." 🖙



Greening Homes won two 18th Annual BILD Renovation & Custom Home awards (Best Green Renovation, Best Renovation \$300,000 to \$500,000) for its work on this 100-vear-old Victorian semi-detached home. All millwork, including that in the kitchen (before, right; after, above) was bench-built using 100 per cent FSC (Forest Stewardship Council) woods and sheet goods with no added urea formaldehyde.







Says Huguet: "My House Design/Build/Team has created a Web-based communication tool for clients and employees so that all documentation is accessible online." The company owns its energy-efficient office, and the trucks it owns are fuel-efficient, being hybrids or using EcoBoost engines or green diesel.

Shakarchi says, "I'm still a little old-school; I like to see pen on paper," but he has mostly embraced the virtually paperless office concept and is pleased that many of his suppliers have gone digital. He also manages his resources and workflow efficiently.

vironmental scene. Although awareness is a big difference." :=

The house had no insulation when it was built a century ago. Greening Homes insulated it to R20 below grade and R24 on the first floor. The drywall has 98 per cent recycled content, the flooring is FSC white oak installed using zero VOC (volatile organic compound) glue, and the paint likewise is zero VOC.

growing, eco-responsibility is not the highest item on most clients' renovation wish lists; rather, Phillips says that many clients come to him because they like the transparent way that Greening Homes does business and the quality of the work. "Environmental desires of clients is a happy by-product of the way we do business," he says. "Really committed individuals willing to pay to make things deep green are few and far between."

Shakarchi takes a slightly more optimistic view. He finds that clients often want to go green in specific areas rather than in every It's not all roses on the Canadian en- aspect but, as he says, "These baby steps make