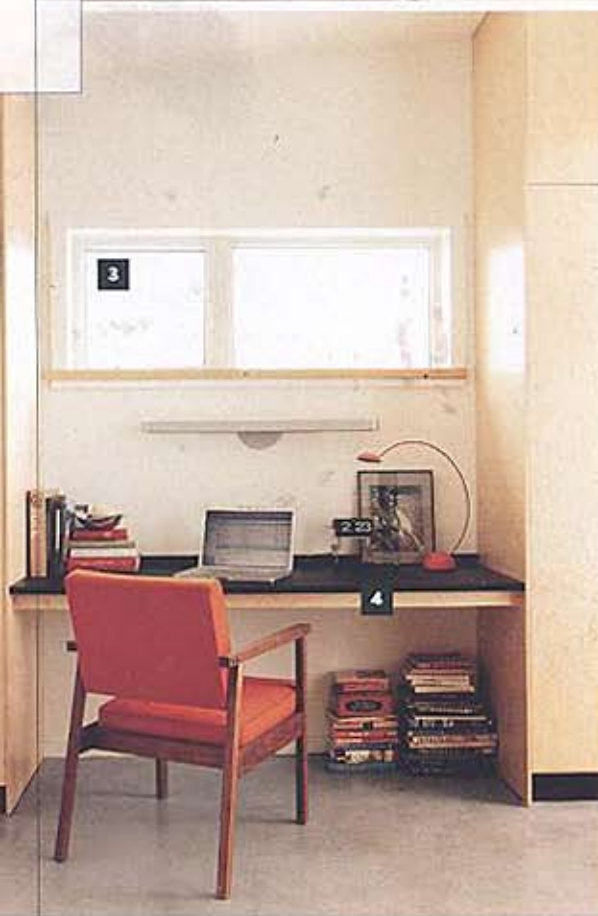




Most of Glave's furniture, like the coffee table, bar cart, and desk chair (below) came from secondhand stores—the ultimate in recycling.

Red cedar end table  
by John Ross- [www.johnrossdesign.ca](http://www.johnrossdesign.ca)



**1. LIGHTING** LED bulbs may be most efficient, but they're pricey and give off "a very clinical light," Glave says. So he compromised with \$7 "MR16" halogens, which use less energy than traditional incandescents.

**2. FLOORING** Glave's concrete floor "charges" with sunlight throughout the day, then slowly releases warmth back into the room at night. Underneath, he's also installed foam-insulated water pipes for low-energy radiant heating.

**3. WINDOWS** Energy Star-rated windows are important, but even more critical is how tightly they're sealed. Unlike vinyl, fiberglass frames shrink and expand at roughly the same rate as glass, minimizing heat loss.

**4. COUNTERTOPS** Here on the desk and in the cottage's kitchenette, PaperStone—recycled paper compressed at high temperatures—looks and feels like granite.

It was about my preschool-age children and the children they might have someday. We often overlook the most inconvenient truth of all: the big, bad factory right under our noses called home. Around 20 percent of all North American carbon-dioxide emissions can be traced to the heating, cooling, and powering of our houses.

As it happened, my epiphany coincided with my family's decision to buy a spec house on Bowen Island, a community just outside Vancouver. Though we genuinely wanted to leave a lighter footprint, our priorities didn't always jibe with the developer's unit. Yes, we put in an über-efficient dishwasher and invested in a rainwater harvesting system, but our off-the-shelf casa had inadequate ventilation and energy-sucking baseboard heaters. Even my best intentions felt like futile exercises in self-cancellation—such as loading our fossil fuel-burning family car with carefully rinsed plastic milk jugs in order to drive to the recycling depot.

It was then that I began to envision a project without compromises: specifically, a 280-square-foot cottage—part home office, part guest suite—just small enough to be affordable, even if built from scratch. It would be a second chance to do everything right. | ➤