

DECONSTRUCTION AND BUILDING MATERIALS REUSE EFFORTS IN NEW YORK STATE

People who work in building materials reuse got into the field because they just couldn't take it any more. At some point in their lives they watched as perfectly good, sometimes quite valuable materials were smashed and put in a landfill, and they wanted to do something about it. They are part of a growing infrastructure working to divert these materials to reuse. Worker Owned One of the newest building material reuse stores in New York bucks the business model entirely. ReBuilders Source opened in the South Bronx in March, 2008. The first worker-owned, cooperative building materials reuse center in the nation, it is the fruit of a three year planning and fund-raising effort by Green Worker Cooperatives. GWC is a not-for-profit organization dedicated to incubating worker-owned and environmentally friendly cooperatives in the South Bronx because, as their motto proclaims, "your work shouldn't kill you, your community or the Earth."

The US Geological Service estimates that 60% of all material consumed in the US goes into buildings. Yet we dispose of over 250,000 single family homes per year, equal to about 4.2 million trees. Construction and demolition debris represents about 30% of the solid waste we generate. For years, to the dismay of many, demolition and land filling were the only options available in most communities.

But New York State is seeing a surge in the growth of businesses and non-profits devoted to capturing the value of used building materials. The practice makes sense environmentally, creates green jobs, can be profitable and holds the potential to revitalize neighborhoods in ways that demolition cannot.

Building Materials Reuse Centers While some in the industry are engaged in the growing field of deconstruction (the careful disassembly of buildings to recover and reuse their components), many more are involved in the operation of building materials reuse centers or stores. These stores act as repositories and sales floors for recovered materials. They need to be in place before deconstruction can take off. And, even as deconstruction comes up to speed, there is no shortage of supply from other sources to fill the sales floors. When building materials reuse stores open, materials from current construction, building supply store overstock, discontinued items and even home renovations rush in to fill the space. Everyone has a pile of brand new construction materials left over from their last home repair or renovation job that they just can't bear to throw away. Building materials reuse stores provide an outlet where these materials work their way back into the local economy. They deal in lumber, doors, windows, plumbing, lighting, cabinets, flooring, trim, appliances, hardware and more. They've also been known to dabble in the occasional red, heart-shaped hot tub.

By recent count, there are 16 building materials reuse stores in New York. Most often, they are programs of not-for-profit organizations with aligned missions. This model works well because donations can be taken as tax deductions and excess revenues can be used by the larger organization to support its core mission. Eleven of the sixteen building material reuse centers in New York State are operated by Habitat for Humanity affiliates. This is part of a national trend. Habitat for Humanity's website lists 479 ReStores nationwide, with 43 in Florida and 31 in Texas. Habitat Restores are successful because Habitat for Humanity carries name recognition. People want to donate their materials to Habitat knowing that their sale will help promote home ownership in their community.

For Profit There are exceptions to every rule. ReHouse in Rochester, NY, a for-profit building materials reuse store, was started when Sally Kamprath and Nancy Burdick began conducting salvage auctions at which they sold the non-structural parts of houses scheduled for demolition. Their first auction was held in 2003. While the auctions were popular, Sally and Nancy saw the need for a sales floor on which they could accumulate an inventory of items for sale to the general public. Rehouse now operates in a 12,000 square foot warehouse. Worker Owned One of the newest building material reuse stores in New York bucks the business model entirely. ReBuilders Source opened in the South Bronx in March, 2008. The first worker-owned, cooperative building materials reuse center in the nation, it is the fruit of a three year planning and fund-raising effort by Green Worker Cooperatives. GWC is a not-for-profit organization dedicated to incubating worker-owned and environmentally friendly cooperatives in the South Bronx because, as their motto proclaims, "your work shouldn't kill you, your community or the Earth." Coming Full Circle ReBuilders Source was preceded in New York City by Build It Green! (BIG! NYC). BIG! NYC began in 2005 as a pilot effort to "skim deconstruct" (non-structural materials only) five Manhattan buildings. The crew sold over 70 tons of material from the site and quickly learned that they needed a larger, more permanent space. BIG! NYC opened a reuse center in an 18,000 sq ft warehouse in Astoria, NY. Some of their most profitable donations are sets of new, high end cabinets, granite countertops and stainless steel appliances. In Manhattan, replacing the new or next-to-new kitchen of a recently purchased condominium with one that better suits the tastes of the new owners is not unheard of and happens more frequently than other places on Earth. Prior to BIG! NYC, much of this material had nowhere to go but disposal. The problem was that the material BIG! NYC garnered often became damaged in the renovation process, forcing BIG! to sell it for less than they could have otherwise. To address this, BIG! NYC has come full circle and has initiated its own NYC kitchen deconstruction service.

And they are not alone. Located in Ithaca, NY, Finger Lakes Reuse opened its doors in November, 2008 with strong support from partners in the community. FLR is the recipient of an award from the Appalachian Regional Commission which will allow them to start up deconstruction services in the region. They recently hired their deconstruction manager

The Demo Guys that Turn Larry Pierce owns and operates LCP Group in Binghamton, NY. LCP started as a construction company then shifted to demolition about four years ago. When Larry saw cast iron stoves, claw foot bathtubs and ornate steam radiators destined for landfill, he began salvaging them and other fixtures that he knew had value. The phenomenon of the demolition guy that couldn't stand seeing valuable materials go to disposal is not

unheard of. Larry has already deconstructed a 20,000 square foot furniture store and is on his way to completing a plan for his new deconstruction and C&D recycling business.

Building Reuse and Community Revitalization Buffalo Reuse, a three year old not-for-profit organization, uses deconstruction as a tool to address the huge stock of vacant and abandoned houses in Buffalo, NY. The city is home to an estimated 10,000 such structures. Left alone, they take a toll on neighborhoods all over the city. They are blighted and boarded up. They attract elements that families in the neighborhoods don't want to see. They are owned by landlords or homeowners who don't know what to do with them or they have been taken by the city for back taxes. The city of Buffalo has slated many for demolition. But deconstruction and building materials reuse can revitalize neighborhoods in ways that demolition cannot. Buffalo Reuse now works in earnest to deconstruct a small percentage of them. The organization has also established itself as an essential part of the community revitalization movement in Buffalo and partners with other groups to expand its reach. Part of its core mission is to train the city's youth while deconstructing properties. Last year, Buffalo Reuse and its partners created four community gardens and planted over 500 trees. This year, they intend to transform 20 blighted lots into productive green space. This past November, Buffalo Reuse co-sponsored the Great Lakes Building Reuse Conference, the first ever regional conference devoted to exploring deconstruction and other creative solutions to vacant and abandoned structures in rust-belt cities. Topics included historic preservation, land banks, urban greening, vacant land management and community arts and education.

Green Jobs and the Hybrid Revolution All New Yorkers involved in deconstruction understand its power as a green job training tool. Compared to demolition, deconstruction is labor intensive. While Larry Pierce is one example of a demolition contractor who is turning toward deconstruction, most often the two compete. Demolition contractors have investments in large pieces of equipment and, in most areas of New York State, have access to relatively low cost disposal. They can bid low.

So while deconstruction can be a good training ground for green jobs, it can't cost too much and it can't take too long. This need has spurred what is perhaps the first "revolution" of the deconstruction industry — the rise of hybrid or panelized deconstruction. In panelization, a combination of heavy machinery and people can deconstruct buildings in days rather than weeks. Using panelization rather than hand deconstruction, crews can cut, rig and remove entire roofs or wall panels from buildings to be dismantled on site or at another location.

Reports from the Field - The impact of the Economic Downturn: Is the economic slowdown negatively impacting building material reuse (because construction activity is down so less material is coming in and going out)? Or is the impact positive (because people are turning to more affordable alternatives to new materials)?

In general, it seems the former is a little bit true and the latter is definitely true. "Demand for low cost materials is stronger in a slow economy," says John Majercak of the ReStore Home Improvement Center just over the state line in Massachusetts.

His sentiment is echoed by many others in the industry. Diane Cohen of the Finger Lakes Reuse Center in Ithaca, NY says they currently have more demand than they have supply of lumber and flooring and she notes that Finger Lakes Reuse regularly garners compliments on the concept of a reuse store, "given the current state of the economy."

Justin Green of BIG!NYC has not seen much of a slowdown at all and notes, rather sadly, that there has been a spike in supply of new materials due to an increase in company liquidations. But, he adds, "If not for BIG!NYC, the materials would have nowhere to go."

And finally, Emily Collins of the Albany Habitat for Humanity ReStore notes that plenty of people are shopping at the store because, "everyone is looking for a bargain these days." Almost everyone agrees that donations are slow right now but that this is, in part, due to an annual business cycle with valleys in the winter. "No one wants to rip apart their house just before Christmas, and after Christmas, they have no money," says Collins. But she notes a unique phenomenon she had not previously seen. "We've gone to pick up materials at houses where people say that they'd been planning on moving but decided to stay and remodel because the housing market is so bad." She adds, "They are my favorite people right now."

What the Industry Needs to Grow While the industry expands, many building materials reuse store operators are trying to address issues that others in the industry have already addressed. Often, they are so busy running their stores that they don't have time to research solutions. They also lack insight into how their stores compare to others: What is the average size sales floor in the industry? What is the most effective way to move materials in and out of the store? What is the best way to arrange and display items for sale? How does the store compare to others in sales per square foot?

Working to address these and other needs of the industry is the Building Materials Reuse Association (BMRA). A non-profit educational organization, the BMRA is the national organization of this industry. Members use its newly revamped website to exchange information, solve problems and learn of events and conferences. Non-members search the online directory for local resources. The BMRA's bi-annual conference draws an international crowd and is considered not-to-be missed by those in the deconstruction and building materials reuse industries. The next conference, DECON 09 will be held April 28-30, 2009 in Chicago.

Also helping the industry is a growing awareness of its potential by municipalities. In addition to their efforts to preserve rather than destroy the built environment, municipalities around New York, like Syracuse, Ithaca and Binghamton are examining preferences for deconstruction over demolition, or for salvaging materials in municipal projects whenever possible.

The Future — Buildings Designed to be Taken Apart As deconstruction continues to grow, numerous challenges will arise. Chief among them is the fact that buildings have not been built with quick and efficient deconstruction in mind. The Lifecycle Building Challenge, a partnership that includes the EPA, West Coast Green and the American Institute of

Architects, is now in its third year. The collaborative challenges students and practitioners to come up with the best designs of buildings, materials and information systems to create “buildings that anticipate their eventual adaptation or dismantling so that the materials can be recovered.”

This is one more step in the right direction. Some day, when all buildings are built like that, we will have closed the loop.

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