Reusable building materials

WE ALL know the 3 Rs: reduce, reuse, and recycle. There has been a lot of discussion lately about using green building products and other items new to the marketplace or using those that have been in use for a long time in traditional building and have made a recent resurgence. Yet there are also other items we can incorporate into our buildings that have a low impact on resource use.

In today's building industry, many recycled items such as flooring, trim, and timbers are on the market as well. However, there are products we can reuse in their original form without the expense of dismantling existing buildings and structures for board-foot volume or modifying the shape, structure, or appearance of the product through machining and processing.

Most of us are not strangers to re-using or adapting buildings in part or whole, whether dismantled or moved in entirety. Buildings are disappearing quickly due to suburban expansion, neglect, high taxation, industrial agriculture, natural disaster, and vandalism. Loss of buildings and architectural heritage is not a new phenomenon.

All but gone are the days when a farmer or landowner would "donate" a barn, schoolhouse, farmhouse, or log building to the local fire department for a practice burn. The current increase in industrial agriculture and related changes in farming methods have played as great a part lately in the demise of buildings. In our area, the list is probably endless of architecturally prominent structures and other 19th-century buildings lost due to these practices.

Growing up in rural Illinois, I remember going out to watch practice burns. It was something like going to a funeral. When approaching the fire you could see the long train of car lights off in the distance as locals and neighbors came to watch the building dwindle away with the evening sun. I remember walking into a circle of people standing around in overalls and hearing things like "they sure don't build buildings like that anymore" or

"I can't believe how long it's taking to fall when most of the walls have burned through." Occasionally, locals and antique hunters salvage what they can from these buildings; most times they don't, finding that it's too much work or that they don't know what to do with these items once they have them. Many downtown buildings and homes in villages and cities have been lost in similar fashion.

Due to the loss of buildings over the last 55 years, especially at the current accelerated rate (in the next 20 years we'll likely see the end of most of the unused 19th-century buildings), there is a large cache of architectural items and other components in local antique shops and architectural salvage warehouses. For many years, building materials have regularly been salvaged and re-used in original form: exterior materials such as slate roofing materials, tile shingles, ceramic shingles, asbestos-cement shingles, copper roofing elements, brick, stone, limestone, and terra cotta; and interior items like sinks, tubs, hardware, hinges, locksets, trim, windows, doors, and flooring.

Often during building renovation, doors and windows are the first things to be replaced (other than covering up wood siding with vinyl). These doors and windows often make it into local antique shops and other architectural warehouses where you can buy them relatively cheaply. In our town you can purchase a handmade pass door dating from before 1860 for about $35 (with original faux wood graining) and an entry door for $85. Often, these doors are made of walnut or of multiple species. You can get a divided light window sash for as little as $25. When you consider the high price of new windows and doors, the environmental expense in fabricating them, and the lower quality of materials (think vinyl and plastic), reuse of existing windows and doors only makes sense.

It is rare to find a complete set from one building but not unheard of to stumble on a complete set of pass doors with trim, windows with trim, and other pieces such as staircases and cupboards. Since we may have only a few matched sets when purchasing doors and windows for a project, we attempt to figure enough close matches to make sense with the layout (all on one floor, bedrooms vs. bathrooms, etc.). In almost all cases, we find it simplest to fabricate new frames and jambs for window units and new jambs for doors. Fortunately, there is a plethora of items on the market for mechanically sealing doors and windows and for balancing double-hungs.

Re-useable cast iron radiators are commonly discarded. They are incredibly valuable yet are mostly forgotten in today's world of heating and cooling. Since age 12 I remember going to the scrap yard every year with my dad, hauling metal from the year's projects in for cash. I still do this, and the huge piles of trashed radiators continue to amaze me. New radiators can cost upwards of $1000, yet you can buy them for 10¢ a pound at the scrap yard (if you can find one that wasn't broken on removal) or $25–$50 each at an antique shop. For anyone who uses hot water or steam for heat, cast iron radiators are aesthetically good looking and make wonderful heat. For a recent project we outfitted a 26 x 32-ft. structure in six cast iron hot water radiators for $450, including sandblasting and priming. These were purchased from an old downtown building that had, of all things, converted to forced air!

Reusable building materials appear in the strangest places. Last year we bought a claw foot bathtub for $50. The tub was sitting in a ditch, for sale, at a tractor dealership that is occupying a former drive-in theatre. I think the tractors at this dealership were as old as the tub, and most were in worse shape. Unfortunately, these reusable building materials will soon disappear forever (other than what we may mine out of all the ditches that have been filled up with 180 years' worth of residential and farm waste), but at least for now we have the opportunity to use what is available. By incorporating more reusable materials in our buildings, we may reduce the need for new items and make the energy that went into their production last a little longer instead of going up in smoke.

—Rick Collins