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Cover story: Repairing windows can beat replacing

By Kim A. O'Connell SPECIAL TO THE WASHINGTON TIMES

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The windows on Dean Arkema's 100-year-old house in North Arlington were nearly as bad as they get.

They were "all beaten up," he said, rendered nearly useless by missing panes, broken counterweight cords and about six coats of hardened paint. Conventional wisdom dictated that they should be replaced, most likely with new energy-efficient vinyl windows.

Instead, Mr. Arkema went to the hardware store, stocked up on supplies and began to repair the windows, one sash and pane at a time. It was hard work, he said, but the results are attractive, historically accurate and highly functional.

"Replacing windows is just never going to look as good," he said. "There's something about the essence of the original materials that just works."

Windows are a perennial problem in the many older, established neighborhoods and historic districts in the D.C. area. An old house might have charm and character to spare, but its aging wooden windows are likely to be drafty, rotted or painted shut. Vinyl replacement windows, by contrast, are marketed as highly energy-efficient and easy to use and maintain. Homeowners may feel as if they have no choice but to go for replacement.

Several window experts and preservationists beg to differ. They say old windows can and should be repaired, which they assert is more environmentally sustainable, historically accurate and cost-effective. Old windows have a much longer shelf life than new steel or vinyl windows, which some say have a built-in obsolescence much like computers or other modern devices.

"There's a joke that replacement windows are called that because you have to keep replacing them," said Barbara Campagna, a preservation architect and principal of Barbara A. Campagna/ Architecture + Planning, with offices in Washington, Winston-Salem, N.C., and Buffalo, N.Y.

"Traditional windows, typically found on buildings built before the world wars, are generally much better made than more recent windows, whether they are wood or steel," Ms. Campagna said. "The material is typically more durable and long-lasting. If one piece is damaged or deteriorated, it can be repaired or replaced without replacing the entire window."

More recent windows, by contrast, do not have demountable components, she said.

In addition to preserving historic character, preservationists say repairing old windows can make them just as energy-efficient as vinyl ones.

"The first question to ask, if I'm looking to make my house more energy-efficient, is, 'Where is the energy loss in my house?' It's often not from the windows," Ms. Campagna said.

"There is often more energy loss from uninsulated attics, basements, old refrigerators, exposed uninsulated basement ductwork, chimneys and fireplaces, and old inefficient lighting than there is from windows and doors," she said. "And often when there is leaking at windows or doors, it's at the perimeter of the unit, the cracks between the wall and the window. It's usually not the window itself."

Ms. Campagna recommended that homeowners get an energy audit of their house - often available for free through local utilities or state or municipal energy programs - to identify where leaks are occurring.

A forthcoming report by the Window Preservation Standards Collaborative, a consortium of window restorers and preservationists, will discuss research that proves that properly functioning old windows can equal the insulation rating, or R value, of a new replacement window, according to David Gibney, a member of the collaborative who runs his own firm, Historic Restoration Specialists Inc., in Smithsburg, Md.

"New windows generally don't last longer than 10 years, and the parts they make them out of get obsolete," Mr. Gibney said. "We've started calling them 'disposable windows.' Part of my goal with this collaborative is to offer a rebuttal to the industry of new replacement windows. People are throwing their money away on new windows when they can do simple things on their own."

Most window problems, Mr. Gibney said, can be repaired with an inexpensive roll of rope caulk or weatherstripping to seal up leaks.

His firm recently did some basic weatherization and repairs on an 1890s Victorian house in Buckeystown, Md., that previously had required furnaces on both its first and second floors. After the work was completed, the owners no longer required the upper-level heating system because the windows were so well sealed, Mr. Gibney said.

Mr. Arkema, who shares his home with his wife, Catherine, and two children, said he was always interested in preserving as much original material in his house as possible. He knew from reading a home-restoration book and watching "This Old House" that his windows were built from components that could be taken apart and repaired piece by piece.

Through trial and error, Mr. Arkema determined the types of tools, including chisels and scrapers, that worked best to remove the layers of paint. He then replaced broken glass and made other repairs he calls "minimal" before rebuilding and repainting the restored windows.

He also made all the shutters - which had been nailed to the exterior of the house - functional. The shutters are so effective, he said, that the house does not need screens.

"You realize that these things were made to work in a certain way," Mr. Arkema said. "There's a system at work here, and if you can figure out the puzzle, you can take it apart and put it back together again."

The District-based National Trust for Historic Preservation offers a comprehensive weatherization guide for homeowners that details steps for repairing old windows as well as lists of workshops and contractors who do that kind of work.

Arlington County, for example, featured Mr. Gibney at a window workshop in 2010 that drew 30 participants from across the county. He demonstrated the parts of a historic window and explained how homeowners could determine whether to tackle repairs themselves or hire a contractor for more complicated repairs or reconstructions.

"The supposed energy savings of replacement windows sound good, but you're never going to make it back in terms of the money you have to spend to replace your windows," said Arlington County preservation planner Rebeccah Ballo. "The cost of repairing a window ranges from \$200 to \$300 per window to get them fixed as opposed to [up to] \$1,000 per window to get them replaced."

She added that Arlington County will hold another window restoration workshop later this year.

Historic windows also are inherently sustainable. Generally speaking, Ms. Campagna said, those windows were designed to respond to their climate and geography much better than many contemporary buildings.

"Historic windows can be a renewable resource," she said. "If they are maintained properly, they can last hundreds of years."