

# Preservation: As Green As It Gets

## Part I

By Lin Team, HSA Preservation Committee Co-Chair

Saving energy is what it's about these days in Austin city government. Mayor Will Wynn has made energy-efficiency a high priority for the remainder of his term of office, and much is being discussed about saving energy in residential and commercial buildings. As the Heritage Society participates in various aspects of such planning we will bring attention to the value that exists in older buildings and the risk of squandering the energy and materials invested in them long ago.

Much political rhetoric focuses on building new green buildings to replace old buildings that are portrayed as energy wasters. But the facts do not square with that picture. Before about 1940, buildings were built with natural heating and cooling characteristics. They were often sited with prevailing winds in mind and designed with wide eaves, large windows and sheltering porches in warm climates and thick walls and basements where keeping warm was important. Recently, standards for measuring energy-efficiency in buildings have been formulated by the U.S. Green Building Council, organized in 1993, which initiated the LEED (Leadership in Energy and Environmental Design) standards for new construction in 1998. Yet many of the design criteria being applied to new buildings were employed as a matter of necessity in the age before cheap energy fostered a thermostat-controlled indoor life style.

“The most energy-efficient building is one that already exists.” That saying refers to the fact that existing buildings contain what is referred to as “embodied energy” which would be wasted if they are demolished. It was the mantra in fall of 2006 at the National Summit on Greening of Historic Properties sponsored by the U.S. Green Building Council and the National Trust for Historic Preservation. That occasion launched the Trust's sustainability initiative to promote historic preservation as a key component of strategies for energy conservation.

Conservation and preservation have always been closely linked. During the energy crisis of the 1970s, the National Trust conducted a campaign to educate people about the link between energy savings and preserving old buildings. They sponsored research that quantified the amount of energy contained in the materials in an old building and compared it to the energy in gasoline, which was a dramatic way to portray the concept of embodied energy. When oil prices plummeted in the early 1980s, interest in that information waned. However, the Trust's new sustainability campaign is providing leadership in the context of urgent and widespread interest in energy conservation. That campaign is the focus of the January/February issue of Preservation, the NTHP Magazine, which is full of good information

An important aspect of sustainability is the life span of what is built. Since World War II, planned obsolescence has been a strategy to drive our economy. Before that time, buildings were built to last. Today's buildings anticipate brief life spans, and some homes built today

will not last much longer than their mortgages. Now that global warming is upon us, it is crucial to end such extravagant waste.

In our haste to adopt the latest ideas for building the new energy-efficient city, we should not be misled about the true costs involved. Many claims for saving energy are based solely on comparing *operating* costs of a new building to that of an older one. But even there, the difference is surprisingly small. “According to the U.S. Energy Information Administration, commercial buildings constructed prior to 1920 have an average energy consumption of 80,127 BTUs per square foot. For the more efficient buildings built since 2000, that number is 79,703 BTUs.”<sup>1</sup>

It is more responsible to balance operating costs with a comprehensive consideration of the overall costs, including the investments of materials and energy required for new construction, versus those already present in an existing building. According to Mike Jackson, chief architect of the Illinois Historic Preservation Agency,

if the embodied energy is worked into the equation, even a new, energy-efficient office building doesn’t actually start saving energy for about 40 years. And if it replaces an older building that was knocked down and hauled away, the break-even period stretches to some 65 years, since demolition and disposal consume significant amounts of energy. “There’s no payback here,” Jackson said. “We’re not going to build anything today that’s going to last 65 years.”<sup>2</sup>

As the Heritage Society pursues its shared vision with the National Trust for Historic Preservation, we will advocate for saving the energy embodied in our older buildings as a first priority for the city’s energy conservation programs. We also will continue to provide information for our members and the public on the value of older buildings. We will also suggest ways for homeowners to improve the efficiency of their older homes. See our website for more of that information.<sup>3</sup>

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<sup>1</sup> *Preservation*, January-February, 2008, p20.

<sup>2</sup> *Ibid.* p.23.

<sup>3</sup> [www.heritagesocietyaustin.org](http://www.heritagesocietyaustin.org) See especially the text of a speech by Economist Donovan Rypkema at the recent annual awards luncheon