





John Porretto- working towards a sustainable future Erika McDonald

Why would an institution dedicated to promoting health operate in a sick building? Why should public funds support facilities that are inefficient and costly to operate?

About a decade ago, University of Texas Health Science Center's John Porretto began asking these questions. The eventual answer was a forward thinking-approach to building design that culminated in the opening of the UT Houston Nursing and Student Community Center in October of 2004.

The largest academic green building in the Southwest, the \$42 million structure features a bookstore, cafe, a main auditorium that accommodates 200 people, a skills lab with 32 beds, 12 individual nursing care training rooms, an entire floor devoted to nursing research with laboratory space built to the school's specifications, a sleep lab, student government offices, a student lounge, quiet study areas, and enough classroom space to seat 880 students at any one time. But these amenities, while impressive, are not what make the building the only one of its kind in the region. With chief operating officer Porretto at the helm, the University of Texas Houston campus made a commitment, when the project first got underway in 1996, to design and construct a building while minimizing its ecological footprint.

"The finance arena is not the most likely area from which to expect creative approaches to saving the environment" says Porretto, who began his career at UT-Galveston as an accountant in the late 60s. "Reading Paul Hawken's The Ecology of Commerce in 1995 sparked an epiphany long overdue when one has accountability for 2.5 million feet of space (on the UT-Houston campus). Understanding and appreciation for the importance of long-term, sustainable building practices is more than prudent, it is the right thing to do. We are afterall, stewards of the public's trust and funds and it just didn't make sense for a public university to invest money on buildings that will be inhabited well into the future and ignore techniques that make its operation and maintenance efficient and cost effective." Porretto said.

In order to enroll the rest of the campus on the clear connections between the built environment, health, and productivity, Porretto applied Swedish oncologist Karl Henrik-Roberts' model for sustainability, known the world over as The Natural Step, as a guiding methodology for a more long-term approach to publicly supported facilities. The principle, Porretto explained, is to balance and therefore optimize economics, environment and social impacts in the design and construction of the building.

The eight-story, 190,000 square foot School of Nursing is one of the largest green buildings in the nation. It has the potential to derive 25% of its energy requirements from solar panels, collects rainwater and recycles its own grey water.

The building also features waterless urinals and low flow, toilets, smart glass that allows in the maximum amount of light with minimum heat. Waterless urinals save roughly 40,000 gallons of water per urinal, per year. The building's cooling system operates at an efficiency level 60 percent greater than comparably sized facilities. The cafeteria was planned to serve locally, organically raised foods and to send wastes back to the growers for use as compost. This approach is now in place at Yale University's food services.

Porretto's team also took great care, not just in the building's design but in the construction process. All of the building materials were either reclaimed or recycled and will not "off gas" (many common office and household items release hazardous chemicals that can be inhaled and contribute to illness and allergies). Construction materials were procured within a 500 mile radius of the site wherever possible, to minimize transportation costs and to utilize materials native to the region.

When extolling the virtues of the innovative building, Porretto is always sure to emphasize the economic benefits, for example, productivity he says will be gained with fewer employee sick days and with mood elevators associated with natural day lighting and operable windows—yes, even in a humid climate. Fewer than five years after its original construction in 1977 the UT Medical School Building was declared by the State Department of Health as a sick building. Porretto points out that quality building materials and better design could have saved tens of millions of dollars in mitigation costs that would have had greater return from investments in educational and research activities. Operating costs were way out of line and this affected all state taxpayers since we needed more funds to operate and maintain this facility. This approach of building with the consideration of construction and not operational and maintenance costs can translate into expenditures of new taxpayer dollars for the solution of preventable problems," Porretto said.

"Those who are the stewards of the public's money and trust must abandon the thinking that there is never enough money to do a thing right the first time, when somehow we always find money to fix the problems on the back end, where the costs are far greater," he said.

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