Can We Become Responsible?

By Brian Yeoman, University of Texas Health Science Center

If we keep on doing what we have always done, we will keep on getting what we have always got! *Carpe Visio*!

In the last century, the paradigms of unbridled growth and the "one best way" mindset of doing everything consumed us. One consequence of our commitment to keep on doing what we always have done has been an ever-increasing number of very sick buildings accompanied by the deterioration of the health of those who live in them. This has happened because, on an ever-broadening scale, we've exported, to all places, building technologies that are suitable for a limited locale. This ultimately renders the technologies generally inappropriate.

The real estate developer's concept of highest and best use of the land is meaningless, if the value of the services nature provides is ignored. The building and construction industries routinely devalue nature's services in their preconstruction analysis and building practices. This is most egregiously demonstrated in the widespread, though misnamed, process of "value engineering."

As a customer, you should incorporate some of the following questions into the analysis and decision-making process for your construction projects:

What is the value of a forest and the trees that make oxygen for us to breathe?

What is the value of a prairie or a wetland as they fix heavy metals from our industrial processes?

What would be the replacement costs to provide these services through a commercial vendor?

As a society, we are obsessed with speed. We routinely value speed rather than quality as the most important trait in the building and construction process. This has led to our current dilemma, "In what other industry do we have such low expectations with such extreme costs and oversight responsibility, and so little to show for all of the process manipulations?" Where else do we allow a vendor to bring materials to a site and, for an extended period of time, watch an orgy of waste and chaos? Try to imagine building an automobile in your front yard using the same process.

More of this dilemma surfaces when we consider the *de facto* endorsement of the financial model, which places most of its value on the first cost of materials and virtually no value on the entire cost for the life cycle. It operates to privatize construction company profits and socializes storage and disposal risks related to the stuff that remains in public places, notably dumps that are NIMBY (not in my back yard). If we define folly as the pursuit of policy to the detriment of our own self-interest, can this be anything short of folly? It is folly because the environmental impacts of the choices we make are enormously of such scale and importance as to dwarf what most single human beings can comprehend or experience in a lifetime.

This is a continuation of a mindset by which we superimpose our thinking upon all cultures of all living things, even though history and evolution have demonstrated that other models are entirely workable. Those of us who share this mindset believe we have achieved control over the costs of materials and labor. But the downside is that we have placed the health of all living things at risk. Frequently, we do not consider the implications of the lifetime of the structure with respect to the living things that are going to be affected by our ongoing operation of it.

Global climate change is happening. There can no longer be any real debate. I believe the actions of humankind have been, and continue to be, a factor. Although we could debate this assertion for another 10 years, I believe that the time is now for a clear call to action. As Dee Hock reminds us, "It is far too late, and far too bad, to be pessimistic."

We can no longer continue this path of blind servitude to the first-cost mentality. We must pay much more attention to this increasingly crowded and closed system we know as the environment. We must begin to think in more holistic terms when we build buildings, and we in higher education have a unique and key role to play because our buildings are entirely different. They are more massive, more costly, and longer-lived. Because our buildings are of this nature, the impact on human health and that of other species' health is important. It is time to do something now, and we would be wise to do so.

Productivity is another factor that should encourage us to stop doing what we have always done. Long forgotten in the academic realm, productivity represents a major opportunity for improvement and growth. We frequently idle away our most valuable assets – our workers' knowledge and skills – in buildings that are unsafe and unhealthy (even though cheap to build). Sadly, we are giving away the competitive advantage to those nations that have awakened to the better alternative strategies.

Don't believe it? Ask yourself the following questions:

How many asbestos abatement contracts have you let on your campus?

How many buildings on your campus have an indoor air-quality problem?

Have any of the new facilities you have designed and built over the last 10 years come down with sick-building syndrome?

Do you see an increase in absenteeism? Have headaches and migraines become part of your weekly local lexicon? How many asthma sufferers do you know on campus? When do you remember ADD becoming a part of your life?

Owners will one day wake up and require architects and engineers to accept formal responsibility and accountability for the productivity and quality of human life inside those buildings, not only in the beginning but for the entire lifecycle. This could become one of the most important contractual design criteria negotiated into the contract.

This will give new meaning to an often-used and little-practiced phrase "post-occupancy review." Perhaps, eventually, the failure to do so could lead to prosecution against those who choose not to deal with this issue. How nice would it be to reward designers for designing occupant health into buildings, as opposed to what the current system rewards, which is, "How much more can I get the client to spend so that my fee can be higher?"

To address this issue, we need to change the lens through which we see building projects, and I propose some fundamental recommendations. Our buildings could be thought of first as enhancements to our health. We could accomplish this if we thought more holistically about what a building is and its context with the other buildings it will impact. Think of this context much like a seedling sprouting in a forest which must adapt and synergize with the existing understory and trees in its local climate. Instead of seeing a building in a singular context, see it for what it is – an organism in a sea of other organisms. We should build our buildings recognizing the biosphere and avoid diminishing the capacity of the earth's systems to provide habitat and services (such as oxygen and potable water) for people.

Our nation is awakening to these needs. A consortium of government, constructors, designers, architects, engineers, and materials manufacturers has formed the United States Green Building Council (USGBC). The organization has published standards for more responsible buildings and building practices. The standard is known as "LEED" (Leading Energy and Environmental Design). There is a very strong demand for these standards, and many organizations are making a commitment to only build buildings that meet these standards. The federal government through the General Services Administration is one of the prime movers. There is a strong certification program for designers included in the LEED standards. I predict that you will soon begin to see the LEED-certified designer designation showing up in selection documents for both architects and engineers as owners awaken to these issues. By making a commitment to LEED-certified buildings, we take a first step in executing our responsibility to future generations, and we begin to take actionable steps to address the issue of global climate change.

Remember, people cannot do great things unless you ask them. So, Do Great Things!

Brian K. Yeoman is a counselor at the University of Texas Health Science Center at Houston. He received his B.A. and M.A. degrees from the University of South Dakota. Brian has previously held procurement and materiels management positions at the University of Texas Health Science Center at Houston, the University of Texas at Dallas, and the University of South Dakota. He conceptualized three online automated systems (purchasing; bid issuance, expediting, vendor performance; and cylinder tracking) for which the University of Texas HSC holds intellectual property rights. He has served as a consultant on change, automation of purchasing, shipping and receiving, accounts payable, and other business functions for public sector institutions in the U.S. and Canada. Currently leading the facilities organization in addition to the procurement functions, Brian has a keen interest in Continuous Quality Improvement, Sustainable Development, and Principle-Centered Leadership. He contributes a regular column, "Roamin' with Yeoman", to the *NAEB Journal* and has presented several workshops at NAEB Regional and Annual Meetings.
e-Mail: byeoman@admin4.hsc.uth.tmc.edu.