

# LIBRARY ISSUES

## BRIEFINGS FOR FACULTY AND ADMINISTRATORS

Editors: Ann P. Dougherty, *Mountainside Publishing*; Richard M. Dougherty, *University of Michigan, Emeritus*

Contributing Editors: Steven J. Bell, *Temple University*; William Miller, *Florida Atlantic University*; Barbara Fister, *Gustavus Adolphus College*; Larry Hardesty, *College Library Directors Mentor Program*; Mark Tucker, *Abilene Christian University*; William A. Mayer, *American University*; Mignon Adams, *University of the Sciences in Philadelphia*.

Vol. 32, No. 1

September 2011

### The Environmental Sustainability of Academic Libraries

By Larry Hardesty

*We shall require a substantially new manner of thinking if mankind is to survive—Albert Einstein*

While it is difficult to disagree with Albert Einstein, many of us do not want to be reminded of the frailty of our environment. In 2009, “green” and “going green” received the most nominations for Lake Superior State University’s annual list of words and phrases to be banned “for Mis-use, Over-use and General Uselessness.” As Mark Twain once observed “Denial ain’t just a river in Egypt.” Nevertheless, there are some inconvenient truths we cannot ignore—no matter how hard we may try—and one of them is that we are expending our finite environmental resources at an unsustainable rate.

What does this have to do with the academic library? The academic library building is often the largest single building on a campus, and it frequently operates the longest hours of any campus building—even 24 hours a day at some institutions. Therefore, in these days of economic stress and growing environmental awareness, it is reasonable to scrutinize the costs of sustaining the library building. Are there more economical and environmental friendly ways to heat, cool, light, and control the humidity of the library building?

The academic library building is also the scene of considerable activity that also merits scrutiny as we become increasingly aware of the limited nature of the resources of our planet. For example, historically, academic libraries have served as places for the accumulation of paper—lots and lots of papers...often millions of volumes, which the research libraries of this country are adding to at the rate of 11 to 12 mil-

lion volumes annually. The production of paper is one of the more energy intensive industrial processes.

You might pause and ask, “Isn’t this information becoming increasingly available in electronic formats?” Such formats, however, are not without their environmental costs. Digital information requires electronic equipment to access and use. Such equipment often contains toxic materials, including lead, cadmium, and mercury. In fact, the average older style CRT computer monitor contains typically three to eight pounds of lead. If you are sitting near an older computer monitor as you read this, it is this lead that protects you from radiation.

When, however, the monitors are pulverized in a landfill the lead and other elements can react with acid in the landfill and seep into groundwater. Therefore, as you idly scroll through the e-mail for the day while toying lightly with your morning coffee, you might casually wonder just how many people have buried their old monitors in the garbage to be deposited at the local landfill (illegal in many states)—and if you are being contaminated by the water in that cup of coffee!

#### Background

Typically, economic sustainability issues at academic institutions are usually treated as campus-wide issues in which the library plays an important, but limited, role. Fortunately, academic institutions

**Coming Soon —**

**The Library as a Recruitment Tool**

**Project Information Literacy**

are becoming more aware of the challenges of and need for attention to environmental sustainability.

The first official statement made by university administrators of a commitment to environmental sustainability in higher education is the Talloires Declaration ([http://www.ulsf.org/talloires\\_declaration.html](http://www.ulsf.org/talloires_declaration.html)). Written over 20 years ago, it declares that institutions of higher learning will be world leaders in developing, creating, supporting and maintaining sustainability. The Talloires Declaration has been signed by over 400 university leaders in over 50 countries, including well over 150 university leaders in the United States.

Another academic environmental sustainability effort began in this country with the American College & University Presidents' Climate Commitment (ACUPCC) (<http://www.presidentsclimatecommitment.org/about/commitment>). Twelve presidents agreed to become founding signatories and launched the ACUPCC in early December of 2006 by sending a letter to nearly 400 of their peers inviting them to join the initiative. By early 2011, the number of signatory schools approached 700. In signing, the ACUPCC institutions have agreed to:

- Complete an emissions inventory.
- Within two years, set a target date and interim milestones for becoming climate neutral.
- Take immediate steps to reduce greenhouse gas emissions by choosing from a list of short-term actions.
- Integrate sustainability into the curriculum and make it part of the educational experience.
- Make the action plan, inventory and progress reports publicly available.

Yet another initiative at the higher education level is the *College Sustainability Report Card* and the *GreenReportCard.org* website (<http://www.greenreportcard.org/about/sustainable-endowments-institute>). Both are initiatives of the Sustainable Endowment Institute, founded in 2005 as a special project of the Rockefeller Philanthropy Advisors.

The *Report Card* provides a sustainability evaluation of campus operations and endowment investments of 300 public and private colleges and universities with the largest endowments. It is designed to identify colleges and universities that are leading by example in their commitment to sustainability. It also is intended as a tool for college students in improving sustainability on their campus and for *high schools students in seeking a college* (emphasis added).

## Academic Libraries

Efforts towards environmental sustainability of academic libraries have paralleled and supported the broader higher education efforts. A significant effort began in 1989 when the Social Responsibilities Round Table of the American Library Association created the Task Force on the Environment (TFOE) (<http://www.ala.org/ala/mgrps/rts/srrt/tfoe/taskforceenvironment.cfm>). The academic library efforts have been amply documented in the increasing rich literature on sustainability in academic libraries.<sup>1</sup>

In addition to periodical literature, there are websites (<http://www.greenlibraries.org>) and blogs from <http://thegreenlibraryblog.blogspot.com/>. Recently, the *Going Green @your library* blog reported the employment of perhaps the first sustainability librarian in an academic institution in this country (Marianne A. Buehler, Urban Sustainability Librarian at the University of Nevada, Las Vegas).

There are also two books on the subject: *Greening Libraries*, edited by Monika Antonelli and Mark McCullough, should be available soon from Library Juice Press; and, although primarily aimed at public libraries, a monograph also useful for academic libraries, *Public Libraries Going Green*, by Kathryn Miller is already available from ALA Publishing.

## Academic Library Buildings

Concerns about environmental sustainability probably can have their most impact in the initial design of buildings. Increasingly the LEED (Leadership in Energy and Environmental Design) rating system is gaining acceptance as

a way to bring attention to constructing environmental sustainable buildings. Developed and administered by the U.S. Green Building Council (USGBC), a Washington D.C.-based, nonprofit coalition of building industry leaders, LEED is a green building certification system that provides third-party verification that a building was designed and built using strategies aimed at improving performance among such factors as sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. Based on a 100-base point system, buildings are assigned levels: certified (40-49), silver (50-59), gold (60-79), and platinum (80 and above).

In 2001, only 8 buildings of any type had been LEED certified. By 2010, 8 of the 85 submissions to the American Libraries Library Design Showcase had been certified in 2009 alone. This number included public and other types of libraries, as well as the academic library (public libraries appear to be ahead of academic libraries in this area). Currently, of the almost 7,000 buildings certified on the "LEED Projects and Case Studies Directory" (<http://www.usgbc.org/LEED/Project/CertifiedProjectList.aspx>) more than a dozen (with the number constantly increasing) are academic library projects:

### Gold

Concordia University (Portland), George R. White Library & Learning Center  
Furman University, Duke Library Addition/Renovation  
Georgia Gwinnett College, Library  
Harvard University, Littauer Fine Arts Library  
Northland College, Dexter Library  
Stony Brook University, Southampton Campus Library  
University of South Carolina, Special Collections Library  
University of California (Merced), Leo and Dottie Kolligian Library  
University of Florida, Library West Additions & Renovations

### Silver

Aquinas College, Library  
Emory University, Candler Library Renovation

Lorain County Community College,  
Library/Community Resource Center  
Rhode Island, University of, Pell Library  
& Ocean Exploration Center  
University of Southern Maine, Osher  
Map Library  
Vanderbilt University, Library Archives

### **Certified**

Pacific University, New Library

Additional “Green Libraries,” including public and school libraries, are listed on the Green Libraries website.

In 2009, LEED expanded its rating system to include a rating system for existing buildings that addresses whole-building maintenance issues, recycling programs, exterior maintenance programs, and systems upgrades (<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=221>). An architect informed the author, “In many ways the LEED criteria are simply good building practices that we should be doing anyway.”

An additional useful resource for sustainable library building design is the website, Sustainable Library Design (<http://www.librisdesign.org/docs/SustainableLibDesign.pdf>)

This resource is by Johanna Sands, AIA. It is provided through the Libris Design Project supported by the U.S. Institute of Museum and Library Services under the provisions of the Library Services and Technology Act and administered in California by the State Librarian.

### **Environmentally Sustainable Practices for Academic Libraries**

Numerous possibilities are available in making a planned or existing academic library more environmentally sustainable. Some can be applied to many types of buildings, such as lighter coats of paint to reflect the sun’s heat and making rooms brighter to reduce the need for artificial light, to use of compact fluorescent lights and motion-activated lights, to waterless urinals and low-flush toilets. Some applications to academic libraries can be quite creative. For example, the College of Mount St. Joseph library has a green roof with about 8,800 plants that will filter rain water and insulate the building to

reduce energy consumption (<http://inside.msj.edu/departments/library/info/greenroof/index.asp>).

Others can be quite visible and catch the attention of environmentally conscious students. For example, the library director of the Rose-Hulman Institute of Technology, an institution that recently renovated its library to make it more environmentally sustainable, reported, “The neatest [sustainable effort] is our water fountain . . . which is a filter and allows bottle fill ups. [It] even stops when it is full. It also lets you know how many plastic bottles you save by refilling.”<sup>2</sup>

As stated earlier, many projects affecting the library are part of campus-wide sustainability efforts. Ithaca College has an Energy Manager who is responsible for developing, implementing, and maintaining an Energy Management Plan to ensure environmental conditions are coordinated with cost-effective energy utilization across the College. The Energy Manager met with the library staff to review the library’s energy use. As a result the Ithaca College library is now powering down and unplugging all equipment when not in use. Savings from such efforts can be considerable. Printers, computers, and other such electronic devices with digital displays and/or standby capability are sometimes referred to as “energy vampires” since they act like vampires silently sucking away energy even when they are turned “off.” One estimate is energy vampires cost consumers in their homes more than \$5.8 billion annually.

Other academic libraries participating in campus-wide initiatives such as placing recycling boxes by printers and copiers to gather paper waste, as well as recycling bins near trash cans for bottles, cans, etc. Many are now using “green” supplies for library events. Some reported recycling waste food for compost. For example, the Warren Wilson College library has a student worker who prepares the waste to be fed to the ‘vegan’ worms she raises on campus. Those worms eventually end up in the landscaping around the library. The Warren Wilson College library director also reported, “We also

collect the waste water from the coffee service and water our plants in the library and outside with it.” The coffee is, of course, organic, fair trade, and shade grown coffee from a local distributor.

Some academic libraries have taken a leadership role in environmental sustainability on their campuses. The Musselman Library of Gettysburg College not only engages in numerous “green” activities, but also sponsors a discussion program using books, films, and speakers to focus on environmental sustainability issues. Perhaps the most extensive leadership effort at a larger university library is reported in “Recommendations for Greening of the J. Willard Marriot Library” from the University of Utah (<http://content.lib.utah.edu/u/?ir-admin2,20943>). A member of this committee reported, “The effort has been used as a model for the establishment of departmental “Green Teams” around campus.” And, it has been shared with other university libraries.

### **Printing Costs**

The single most visible environmental waste in the library (and a waste that a library probably has the most opportunity to realize significant savings for the institution) involves printing costs. Despite rapid movement to the digital age, library users still have predilection for the printed page, and, unfortunately for both economic and environmental concerns, some library users readily hit the print key to print out digital journal articles, PowerPoint presentations, and eBooks. When the desired publication gets delayed in the printer queue, some library user will press the printer key multiple times, not unlike people pressing the elevator button multiple times in the irrational expectation that the elevator will arrive faster. While multiple elevators will not arrive (and any faster) in response to pressing the elevator button frequently and harder, multiple copies of a lengthy document may be printed in response to numerous pressings of the print key. Often most of these copies go unused because the library user has picked up the first copy and left the library, blithely unaware of leaving behind a printer spitting

out hundreds of pages and depleting yet another expensive printer cartridge—much to the chagrin of both fellow library users and librarians. Recently, an incoming director of a small college discovered to his dismay that 40 percent of his total supplies budget had already gone to printer cartridges *in the first three months of the budget year*.

The mantra of environmental sustainable efforts is “Reduce, Reuse, and Recycle” and all three components of the mantra can readily be applied to reducing printer costs.

In the past, the expense and hassle of implementing print management systems, whereby library users are only allowed a certain number of free printed pages for a set time period, may have cost more than savings realized through implementing them. This is no longer true for many institutions. For example, since the implementation of the print management system in February 2006, Elon University witnessed more than a 70 percent reduction of printing in the computer labs and library. The chief information officer at Elon College observed “The campus-wide print management program costs about \$25,000 a year to operate. Prior to print management, we were printing 10 million sheets of paper per year. We are down to about 3 million printed pages per year. . . . If you assume it costs about \$.04 per page to print on a laser printer, then our annual savings is \$280,000 per year in paper and toner. We have also added duplexing by default, and have further cut the number of sheets of paper used.”

Other methods also reduce print costs, such as print hold systems whereby jobs are kept on hold until

released by a library staff member. Simply having students pick up print jobs at the library’s reference or circulation desk may inhibit some needless printing; decreasing margins, printing in draft mode, and changing default fonts (Calibri supposedly takes less toner to print than Times New Roman) can reduce printing costs. Software such as printgreener.com can help get rid of unwanted pages, text, and images.<sup>3</sup>

Sometimes a little imagination and creativity can go along way. For example, the librarians at Marlboro College have put together a “Sustainable Study Skills” to encourage students to reduce printing (<http://libraryguides.marlboro.edu/content.php?pid=156276>). Others have stacked up piles of wasted printed paper or empty boxes in which the paper came to demonstrate dramatically to students how much paper is used (and wasted) in the library. A recent survey revealed that about three-quarters of the responding academic libraries have implemented sustainability efforts related to paper and other supplies.<sup>4</sup>

### Libraries Should be Green Leaders

Libraries are fundamentally “green.” The very reason for their existence is centered on the “Reuse” of “Reuse, Reduce, and Recycle” mantra. That is, libraries acquire books and other information resources and make them available for multiple reuses. Historically, the large, often imposing, library building is treated as a symbol of the institutions commitment to the academic enterprise.

The academic library also can lead the way in serving as an important symbol of the institution’s commitment to environmental

sustainability. Such efforts can raise the consciousness of a wide range of library users from across the institution as to the importance of environmental sustainability. The money saved through such efforts could be used to acquire more information resources so the library can even better serve the academic community.

Academic libraries are encouraged to provide examples of their successful environmental sustainability efforts via their websites so others can learn and benefit. While every small effort helps, we all need to work together as a whole to sustain our environment.

### References

<sup>1</sup>Antonelli, M. (2008, Fall). “The Green Library Movement: An Overview and Beyond,” EGJ (Electronic Green Journal). Retrieved February 2, 2011 from <http://escholarship.org/uc/item/39d3v236>; Jankowska, M. A., and Marcum, J. W. (2010, March). “Sustainability Challenge for Academic Libraries: Planning for the Future,” College & Research Libraries, 160-170; Barnes, L. L. (2009, September). Selected Resources for Greening the Library, Illinois Sustainable Technology Center. Retrieved February 11, 2011 from <http://www.librisdesign.org/docs/SustainableLibDesign.pdf>.

<sup>2</sup>The fountain is produced by Eklay Corporation. Retrieved February 21, 2011 from [http://www.elkayusa.com/Files\\_Media/EZH2O%20Brochure.pdf](http://www.elkayusa.com/Files_Media/EZH2O%20Brochure.pdf).

<sup>3</sup> Crumpton, M. A. (2009, September). “Going Green in the Library: It’s Not Just for Contractors,” *Against the Grain*, 34, 36, 38.

<sup>4</sup> Miller, J. (2010, December-2011, January). “Building Sustainable Libraries Preliminary Survey Results,” *Against the Grain*, 16.



**Library Issues: Briefings for Faculty and Administrators** (ISSN 0734-3035) is published bimonthly beginning September 1980 by Mountainside Publishing Co., Inc., 321 S. Main St., #213, Ann Arbor, MI 48104; (734) 662-3925. **Library Issues**, Vol. 32, no.1 ©2011 by Mountainside Publishing Co., Inc. Subscriptions: \$84/one year; \$144/two years. Additional subscriptions to same address \$26 each/year. Address all correspondence to **Library Issues, P.O. Box 8330, Ann Arbor, MI 48107**. (Fax: 734-662-4450; E-mail: [sales@libraryissues.com](mailto:sales@libraryissues.com)) Subscribers have permission to photocopy articles free of charge for distribution on their own campus. Library Issues is available online with a password or IP access at <<http://www.LibraryIssues.com>>