



The Risk of Cacophony

Supporting an open plan means good acoustical management

By Ben Markham, David Zenk, & Christine Verbitzki

Contemporary libraries have been transformed from static rooms with permanent walls, well suited to address sound isolation, to open floor plans and larger spaces that embrace dynamic concepts and maximize flexibility but present new acoustical design issues. The focus has been on creating environments that convey openness and let users quickly reconfigure and adapt their study areas. Furniture on casters, movable partitions, and group seating arrangements are key program elements that enhance flexibility. Additionally, these environments encourage conversation and discourse over the lower levels of quiet traditionally associated with individual study.

would be very distracting for the students studying in the open reading area.”

The right kind of noise

Many large libraries—public and academic—incorporate a central, open space that provides orientation and serves as a place for community engagement. They sometimes have books on shelves, but they are just as likely to include bistro tables with cafés nearby, computer terminals for public Internet access, a Wi-Fi hot spot, reference and circulation desks, and soft furniture. They are designed to be vibrant, bustling spaces that entice users to linger. Whether they work or not depends upon layout and circulation, events programming, daylighting, and acoustical design.

We also still need traditional quiet study areas and individual carrels. The main public floors are the most active areas, where users access services and resources. Then it follows, as you progress to the upper floors or distant areas, to create zones farther away from noise and distraction.

Best of both worlds

The newly renovated and expanded William Oxley Thompson Memorial Library at Ohio State University, Columbus (above), is just one example of how the floor plan supports programming and sound control. It includes two large atria separated by a central glass-encased book tower. “One can experience the bustle and energy created by groups of students working together but also be [sheltered] from it in a glass-enclosed study room,” notes library director Carol Diedrichs.

“It’s really the best of both worlds, ranging from the inspiration of the glass-enclosed stack tower, which clearly displays our print collection, to the tiered floors inside the atrium, which reduce the noise level. The spaces have an energy and vibrancy possible only with such an active student population, balanced with clear cues that this is a place of scholarly work and study, whether alone or in groups.”

Ben Markham, LEED AP, is a senior consultant in acoustics at Acentech. David Zenk, ALA, LEED AP, is a senior associate, and Christine Verbitzki, ALA, LEED AP, is associate, both at GUND Partnership architects and planners

At the Lewis Science Library at New Jersey’s Princeton University, a number of large open-plan spaces are surrounded by enclosed classrooms, seminar rooms, and group study spaces. These open areas serve a number of functions: individual study, classroom breakout space, group study, casual “hangout” area, and, in some locations where there are stacks, periodical search. At times, they are relatively sensitive acoustically, such as when a student studying quietly in the middle of the open-plan area doesn’t want to be disturbed by the noisy conversations of a class letting out and heading to the nearby elevators. At other times, the converse is true: a sometimes boisterous group study session could annoy a seminar taking place in one of the rooms at the periphery.

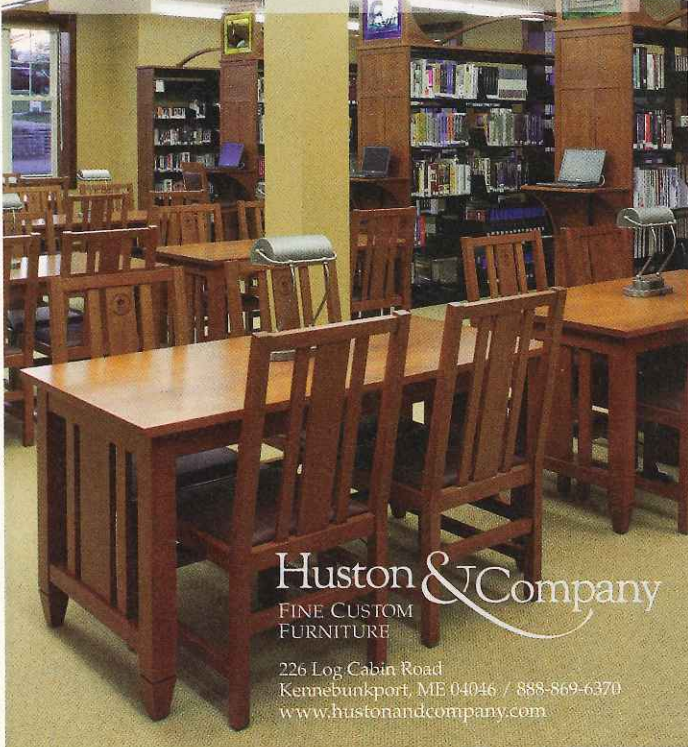
Dual-use barriers

Two important design features can mediate these potential acoustical conflicts: 1) sound-absorbing treatment, distributed throughout the ceiling, can minimize the reverberant buildup of activity noise, and 2) bookshelves, student lockers, and glass partitions can serve as partial-height noise barriers between the classrooms and the mixed-use open areas.

“The barriers make a huge difference,” says Anne Langley, Lewis head librarian. “Near the elevators, there is glass that allows light to pass through and creates a visual connection and also really cuts the sound. Without the barriers, it

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