

THE UNIVERSITY OF CALGARY – TAYLOR FAMILY DIGITAL LIBRARY (TFDL)

Although initial planning began several years earlier, Provincial funding was announced in the spring of 2006.

- In the summer of 2006, a new Provost (Alan Harrison), who would exercise executive authority for the new building, and a new University Librarian (Thomas Hickerson), who would lead programmatic design, arrived almost simultaneously. Steven Dantzer (Associate Vice President for Facilities Development), managed the project; Bill Chomik (Kasian Architecture) was Principal Architect; and CANA Construction was Construction Manager.
 - Both Harrison and Hickerson were advocates of ideas espoused by Scott Bennett in *Libraries Designed for Learning* (2003), in which he advocated that libraries focus on social spaces for student learning rather than on the housing of books -- spaces "owned by students," a focus on spaces defined by their users is essential to our concept of permeability.
 - As a result, the construction project also included a remote high-density storage facility for housing a major portion of the library's books and archives off site.
 - The project received a substantial private gift from Don and Ruth Taylor (\$25M), and the re-landscaping of the quadrangle immediate adjacent to the new building was added to the project, eventually totaling \$205M in total costs.
- Access to information is now ubiquitous, and libraries should now be designed for Knowledge Creation by both students and scholars. Technology and space design should focus on such goals.
 - The TFDL, which also includes the University art museum and rich special collections, should reflect a Convergence of Knowledge and Culture. These cultural assets will be increasingly important in teaching, scholarship, and community engagement.
 - Libraries should be designed for the Library we know now, for the Library we can imagine, and for the Library we cannot yet imagine.

Essential Design Elements

- Raised flooring throughout the building providing comprehensive electrical and network connections.
- Heating and cooling distributed from a plenum under the floor contributing to energy efficiency and uniquely clean air.
- 60% + of the walls are demountable (non-loadbearing) providing the capacity to make major spatial changes without expensive structural changes.
- Openness and transparency throughout the building on all six floors including external glass walls on all sides. Seeing activities within and without is an essential aspect permeability.
- A ground-floor café space sets the tone as a space for individual comfort and serendipitous social connection.

Vision

In addition to the focus on learning and social spaces for students, primary elements of the vision include:

- Libraries are now in a state of continuous change and should be built to enable and advance ongoing spatial and programmatic change.

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- Organized by elevation: the lower two floors are open, loud, and “student owned.” These two floors are open 24 hours a day during much of the year. Floors three and four including programmatic spaces for both student instruction and high-end research support, e.g. 35M pixel visualization studio and Spatial and Numeric Data Services. Five and six are quiet learning spaces and include Archives and Special Collections, and a Graduate Student Commons.
- A Student Success Center, managed by the Office of the Student Experience, situating student services in the center of this busy hub of student life.

Major Construction Decisions and Challenges

- The decision to sheath the second floor learning spaces with a stainless steel grid to reduce glare on computer screens and afternoon heat while retaining the sense of openness, required careful attention to design impact.
- Total costs escalated, and in December 2007, the University Librarian, assisted by a consultant in Vancouver, decided on \$40M in necessary cuts, reducing the total footprint of the building and excluding certain programmatic spaces. However, the resulting building remained consistent with the defining vision.
- Engineering challenges resulting from the long rectangular length of the building initially limited the effectiveness of the filled-plenum approach to air distribution. Post-occupancy adjustments were made.
- Today, more functional support for multidisciplinary scholarly and student research is being added. A new facility called Lab NEXT was created to serve as a technology hub and interdisciplinary project space, part of a campus-wide network for support of “grand challenges” research.

Highlights of Permeable Design

- A building designed and constructed to enable and stimulate ongoing change shaped by its uses and its users.
- A consistent effort to balance technological innovation with the “humanness” of transparency, comfort, and a sense of connection.
- A first floor café located in an atrium-like space visually open to the outside and the inside.
- Windows strategically placed on all floors to take advantage of exterior views of the campus quadrangle and the prairies and the mountains beyond.
- Digital signage promoting library and campus events.
- Alumni offices promoting connection between alumni and current students
- Event and teaching spaces that consistently attract members of the campus and external community.
- Special collections and museum events attracting community and media interest, accenting the role of the library as a steward of intellectual and artistic heritage.
- In the interest of generating ideas and exchange by librarians, architects, planners, and university administrators, the Library in partnership with the Coalition for Networked Information (CNI) held the first Designing Libraries for the 21st Century Conference in 2012, and since, in partnership with North Carolina State University and alternating between the two locations, have now held seven such conferences in response to ongoing demand. The 8th will be held this year at Georgia Tech University.