FIAT LUX LET THERE BE LIGHT

McGill Library and Archives in the 21st century





Prepared by ékm architecture and Shepley Bulfinch for McGill University, October 2015

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FIAT LUX: WELCOME TO THE MCGILL LIBRARY & ARCHIVES

Dear Friends,

The McGill University Library and Archives is not a mere storeroom for books, but rather a pillar of the McGill community, serving as a place to work and a home away from home. It serves as the physical and virtual repository for generations of accumulated knowledge that sits at the centre of the teaching, research and learning enterprise that is the core of the University's mission. The Library plays a crucial role in providing the content, resources and services that cultivate curiosity, inspire ideas and stimulate research in the digital age.

It is now at a pivotal point in its history, sitting atop a cresting wave of technological revolution that has radically altered the long-accepted mandate of a library. To continue its central role in the University's Academic Mission and ensure McGill continues to attract and retain the finest students from Quebec, Canada and around the world, the Library must physically transform its facilities to meet the evolving needs of the 21st century student.

This nine-month planning exercise, spearheaded by dedicated McGill staff members and the EKM and Shepley Bulfinch architectural firms, allowed for a clear understanding of space needs and opportunities. The McGill community (staff, students, faculty and community members at large) were engaged throughout the effort, and in an outstanding gesture of support, this study received generous contributions from McGill's Friends of the Library, for which I am extremely grateful.

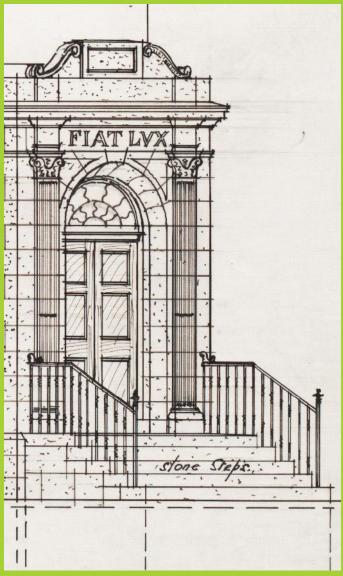
This proposed vision strives to exceed the highest international standards, creating a building complex that will unite all faculties, firmly entrench the Library at the edge of a bold new frontier and establish McGill as a guiding light throughout the 21st century.

Yours always,

C. Colleen Cook

Colleen Cook Trenholme Dean of Libraries





Detail of 1921 Redpath Library Drawing, Canadian Architecture Collection



1893 Interior of Redpath Hall, McGill Archives

Fiat Lux: liberating the past to forge the future

Since the founding of the University almost two centuries ago, the McGill Library and Archives has served as the integral repository for collective knowledge. When Redpath Hall, McGill's first dedicated library, was originally built, the words "Fiat lux" adorned the entablature above the entrance. These words, Latin for "let there be light," embody the concept of illumination as knowledge, a motto as timely today on the cusp of McGill's bicentennial anniversary as it was when the words were first carved into the limestone of Redpath Hall.

Through building, curating, and preserving an exceptional collection, the Library has fostered a dignified environment of inspiration and innovation for generations of students, professors, and researchers. McGill's rich intellectual heritage and international renown as an educational institution are inextricably linked to the quality of its Library.

To build on this heritage of excellence and continue this tradition of academic leadership, both the University as a whole and the Library in particular must reinvent itself. With a unique collection of print and digital material (including many rare treasures), a team of librarians dedicated to furthering the Library's mission, a cohort of ambitious and talented professors, and a student body eager to discover and learn, McGill is well equipped to address the evolving needs of higher education in an increasingly technology-driven world. To do so, McGill must reimagine the Library so that it can serve the community for generations to come.



1950s Interior of Redpath Library, McGill Archives

McGill Library and Archives in the 21st century

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CHALLENGES OF TODAY: THE LIBRARY'S EVOLVING ROLE

"I really like that the library is a quiet place to study with little in the terms of distractions," said [student Michal] Friedman. Unfortunately, she added, "there is not as much library space as there are students."

- *McGill studying ways to overhaul its libraries*, Montreal Gazette, December 10 2014

Left: Morrice Library of Islamic Studies, McGill University. Photo by Owen Egan.

CHALLENGES OF TODAY: THE LIBRARY'S EVOLVING ROLE

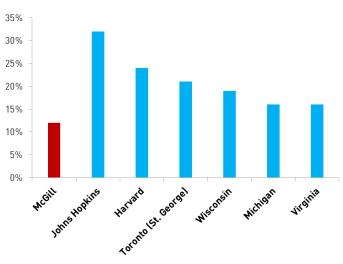
McGill Library and Archives has great strengths, but now faces significant challenges:

User Space:

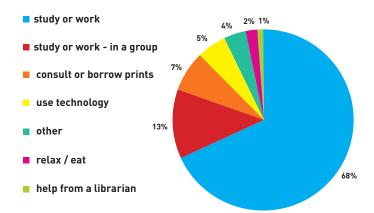
- The Library is an essential part of the academic experience. In 2014, the McGill Library system of eight branches across two campuses welcomed over 2.3 million visitors. That's more than 60 visits per enrolled student per year.
- Compared to its peers, McGill Library faces a significant shortfall in seating space proportionate to the student population. The Library is severely overcrowded.
- A greater variety of flexible workspace is required to fulfill the needs of 21st century scholarship. Informal and formal, individual and collaborative, these spaces integrate cutting-edge tools to visualize data, spark ingenuity and connect with the world. A comprehensive range of innovative teaching and learning spaces is needed to promote scholarly excellence, deep study and active exchange.

Collection Storage:

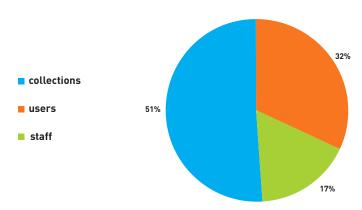
- Approximately half of the McGill Library's floor space is dedicated to collection storage, a disproportionately high percentage that severely limits room for the users themselves.
- 40% of McGill's print collection hasn't circulated in 20 years while digital resources become ever more utilized.
- Valuable downtown real-estate is inefficiently dedicated to book storage. The annual cost to store books on open-stack shelving is estimated at \$4.26 per volume, compared to \$0.86 for the same volume in dedicated high-density storage¹.
- Contemporary storage should be flexible and efficient, providing room to grow for evolving print and digital collections, while still allowing quick access to resources.



Seating as a Percentage of the Student Population at Peer Institutions (2013-2014)



Reason for Visiting the McGill Library System (One-day Snaphot Survey)



Space Allocation Across McGill Library System (2013-2014)

Staffing & Services:

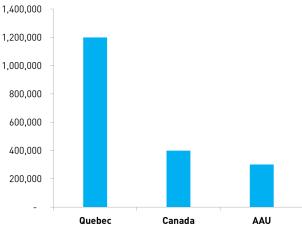
- Current space allocated for staff and partners is inefficient and corresponds to outdated modes of service delivery.
- Library services must be flexible, innovative, techbased, and accessible both in person and online to meet contemporary academic demands.
- The existing branch system must be retained to meet the needs of users across both campuses.

Stewardship of Special Collections:

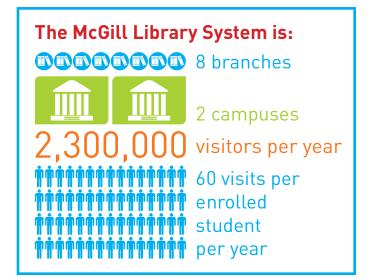
- The McGill Library hosts one of the finest Rare Books & Special Collections of printed material, manuscripts and artifacts in North America. Presently, this collection is scattered across the campus and sometimes stored in inadequate conditions, putting these documents at risk. This delicate collection requires environmentallycontrolled conditions to ensure its preservation.
- The Library lacks exhibition space to showcase these unique treasures and other gems under its curation, including the University's rich art collection.

University	Library Staff	Enrolment	Ratio
Yale	641	11,906	5.38%
Harvard	815	28,147	2.90%
Wisconsin	987	41,454	2.38%
Cornell	488	22,451	2.17%
Columbia	607	34,279	1.77%
Michigan	651	43,426	1.50%
NYU	460	43,263	1.06%
Toronto	642	77,862	0.82%
U Calgary	251	31,802	0.79%
U Alberta	302	39,502	0.76%
Penn State	601	90,903	0.66%
UBC	342	57,706	0.59%
U Montreal	342	62,557	0.55%
McGill	16 7	37,706	0.44%

Comparison of Staffing to Enrolment Ratio at Peer Institutions 2012-2013



Unique Titles held by McGill University Library



¹ Council on Library and Information Resources. (2010). *The idea of order: Transforming research collections for 21st century scholarship*. Washington, DC.



21ST CENTURY STUDENT: SCHOLARSHIP IN A DIGITAL WORLD

"Our vision is for a transformed environment, for teaching and learning and for conducting research and scholarship, an environment that is sustainable, accessible, state-of-the-art and healthy."

- McGill Principal Suzanne Fortier, March 28 2014

Left: Immersion Theater at the Hunt Library, North Carolina State University. Photo courtesy of NCSU, © NC State University.

21ST CENTURY STUDENT: SCHOLARSHIP IN A DIGITAL WORLD

Education, like all other aspects of contemporary life, is undergoing an inexorable shift towards digital, technology-based learning and pedagogy. McGill Library must be at the forefront of this new environment, creating exemplary spaces that will establish the benchmark for other academic research libraries. McGill is making bold plans that will accommodate evolving educational trends, proactively positioning the University and the Library to flourish in this rapidly evolving universe.

The library of the mid-21st century must move beyond a static nostalgia for books and towards becoming a space for work: convenient, comfortable, safe and available, and offering a wide array of virtual and physical resources, including rapid access to print media.

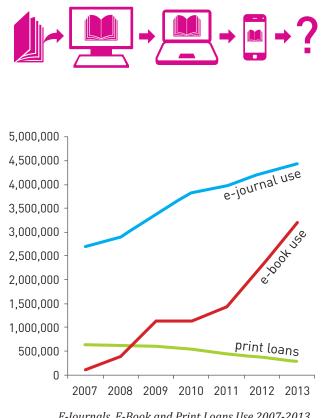
To meet these challenges and project the evolution of the library service-model, we have developed a comprehensive, forward-thinking strategy. This vision for the future of the Library is aligned with *Principal* Fortier's 5 Priority Areas:

Student Life + Learning:

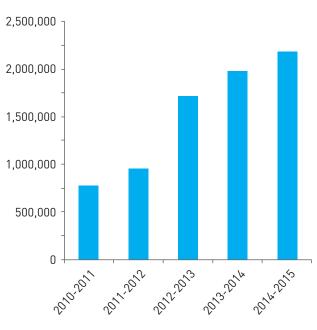
The new Library shall foster reflection, curiosity, creativity and innovation, provide a home away from home for students, and bridge the divide between different disciplines. It will offer versatile spaces that foster creativity and collaboration. Tangible encounters with primary sources will be especially beneficial to students who have been raised on digital, screen-based media.

Research:

Innovative research is vital to a robust learning environment, and the Library is a space tailor-made for contemporary, trans-disciplinary research. The Library should facilitate the access to a broad spectrum of information and powerful research tools. The continued development of remote-access and dataanalytics will play an important role as the Library works with McGill partners to expand its role as a research hub, while maintaining a rich learning environment.



E-Journals, E-Book and Print Loans Use 2007-2013



E-books in the McGill Library Collection

Engagement:

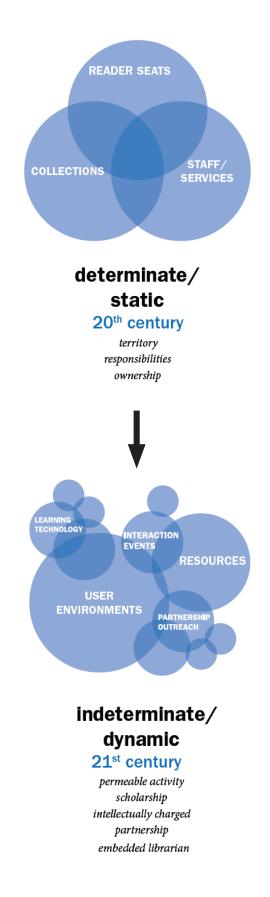
The reimagined Library will facilitate the sharing of our rich collection of current and rare materials with the widest possible audience. The collection will be showcased for the broader community, allowing them to embark on a journey of inspiration, curiosity and life-long learning. Custom-designed spaces will host exhibitions, colloquia and events, drawing in a diverse group of users and scholars from throughout the city and across the world.

Learning Organization:

Stewardship, curation and mentoring are key to the Library's role as a preserver and disseminator of knowledge. High-capacity storage will securely store the Library's treasures, safeguarding them for future generations while still allowing quick accessibility today. By providing infrastructure for advanced pedagogy, while reaching out to the wider community, the Library will build upon McGill's legacy as a top-tier educational institution.

Space:

Even as digital increasingly becomes the dominant medium, there remains an intrinsic need for face-toface encounters not only with tangible resources and artifacts, but with other users, as well. The reimagined Library will provide a wide range of high-quality working, learning and teaching environments. Whether alone or together, quiet or engaged, these connected, well-serviced spaces will offer a diverse array of learning tools and services in a dynamic, light-filled setting with lovely views towards the campus and Mount Royal.





FORGING A CLEAR PATH: REDEFINING THE LIBRARY'S MANDATE

"The value of libraries can't really be underestimated. They are the heart and the brain of the university body."

- LibQUAL+ Survey

Left: MIT Media Lab, Boston. Photo courtesy of Leers Weinzapfel Architects, © Anton Grassl / Esto.

Based on a broad vision, significant community consultation and expertise in the field, a series of objectives were developed to guide the Master Plan:

User Space:

- prioritize user space rather than collection storage to provide seating capacity for a minimum of 15% of the student population.
- create physical and virtual spaces that inspire, motivate and facilitate creativity and collaboration.
- develop varied seating that accommodates diversified social interaction, collaborative study and meaningful conversation, while providing quiet space for deep study, solitude and immersive research: studying alone together.
- design inviting and flexible spaces suitable for a variety of current and evolving teaching and learning activities.

Service:

- offer intelligent integration of powerful digital teaching and learning tools.
- implement the capacity to share print and digital media with the largest possible community.
- locate all Library staff and key academic partners on-site, providing easy access by students, professors, researchers and scholars.
- provide infrastructure for a wide range of exhibitions, events and shows that reinforce the role of the Library as the heart of the University.

Storage and Stewardship:

- develop an effective strategy to securely store and render rapid-access to the print collection.
- house, catalogue, preserve and display McGill's unique Rare Books & Special Collections in unparalleled environmentally monitored facilities.
- maintain a significant browsable collection in open-stack shelving to promote serendipitous discovery.



Robert W. Woodruff Library, Atlanta University Center. Photo courtesy of Shepley Bulfinch, © Anton Grassl / Esto.



McGill Service Point at the McLennan Library. Photo courtesy of EKM.



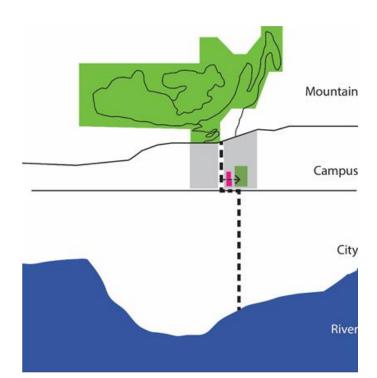
Automated Storage and Retrieval System at the UBC Library. Photo courtesy of UBC Library Communications.

- create dedicated, secure and efficient archival storage for physical volumes.
- implement a robust storage system to ensure rapid on-demand delivery of print materials using tried-and-true robotic technology.

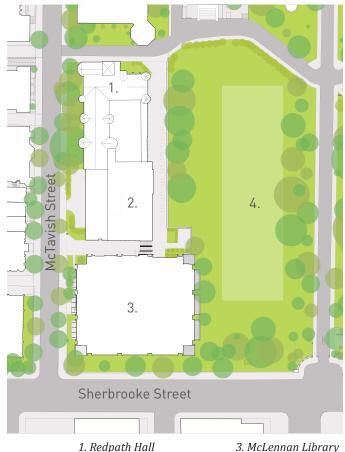
Design Guidelines:

- provide an inspirational and respectful design which maximizes natural light and views towards the historic campus and Mount Royal.
- create a legible circulation path and landscape strategy that ensures a more inviting and fluid access between the campus and McTavish Street.
- prioritize sustainability and longevity by choosing high-quality materials, maximizing flexibility to keep the space relevant over generations, ensuring efficient energy management for the collection, and providing an accessible space that fosters relationships which support a healthy community.
- responsibly retain and utilize as much existing infrastructure as possible:
 - restore the architectural glory of Redpath Hall, while embracing the diverse user base it serves.
 - minimize interventions to the highly flexible and robust McLennan Library Building.
- optimize the potential of Redpath Library Building site:
 - maximize site capacity to create more quality user space.
 - improve the connection between McLennan and Redpath Hall buildings, creating a unified complex at the centre of campus.
- develop a project with a realistic timeframe and implementation strategy that can be realized in phases as financial resources become available. The project should be prudent but ambitious in terms of its budget.

For a thorough account of these, as well as the planning principles see the Library Master Plan.

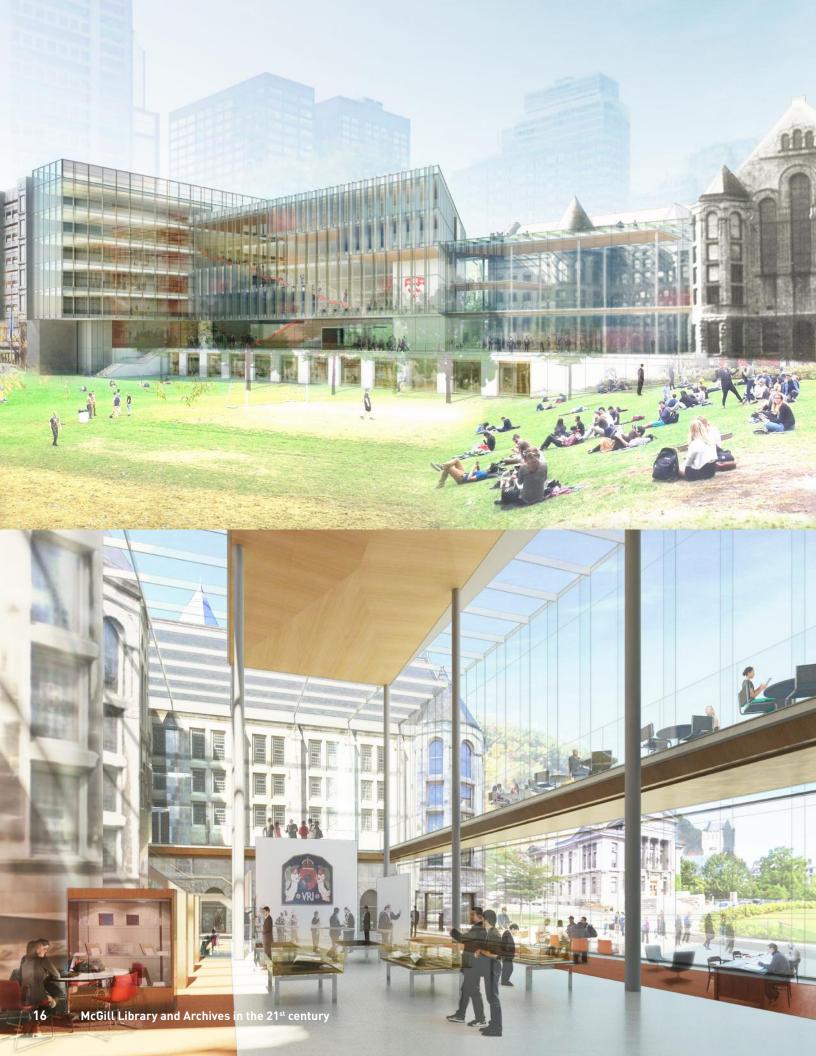


The Library and its relationship to the city.



2. Redpath Library

3. McLennan Library 4. Campus Green



VISION FOR THE FUTURE: LIBRARY OF THE MID-21ST CENTURY

"This project is so important because this is the one that's for everyone. It's time for McGill."

- Colleen Cook, McGill's Trenholme Dean of Libraries, July 13 2015

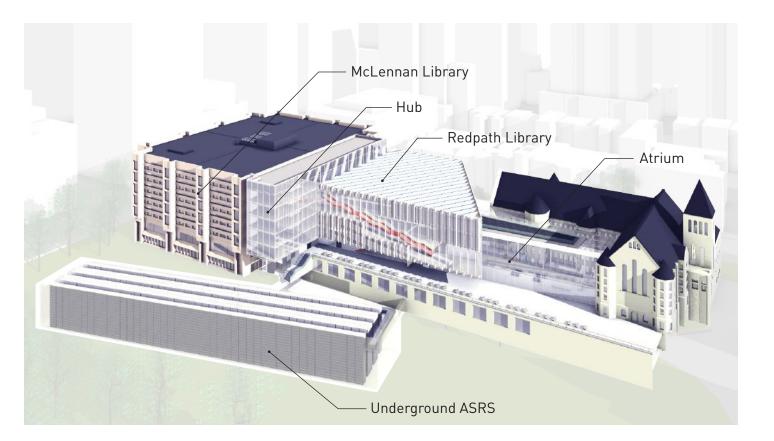
Upper left: View of the proposed project from the campus green. Lower left: Interior perspective of the proposed atrium in front of Redpath Hall.

VISION FOR THE FUTURE: LIBRARY OF THE MID-21st CENTURY

The following components have been identified as key to the success of this project:

- rebuild the 1950's Redpath Library Building to provide quality work space for users, appropriate facilities for academic partners and cutting-edge work environments for staff and librarians.
- introduce an exhibition and event space in the form of a light filled atrium, highlighting the beauty of the restored façade of historic Redpath Hall, seat of the original McGill Library.
- insert a linear hub at the core of the project to house essential library services, including the retrieval desk for print material from the ASRS.

- renovate the McLennan Library Building to become a robust and versatile structure providing a wide variety of work and study spaces and the browsable collection in an open-stack configuration.
- build an Automated Storage and Retrieval System (ASRS) underneath the campus green to securely store print and archival collections of the library, while ensuring rapid access to collections and more space for users.



Upper right: Interior view of the renovated McLennan Library. Lower right: Interior perspective of the linear hub.



The project:

The reimagined McLennan-Redpath complex is highly flexible yet flowing. The architectural design places two activity poles at the north and south ends of the complex linked by a new multi-functional structure that replaces the former 1950's Redpath Library.

The redeveloped Redpath Library Building, a transparent modern space open to the campus, would house a new double-story entrance and ground-level light-filled café on McTavish Street. The building's volume would be set back from the adjacent Redpath Hall, revealing the elegant south-facing façade that has been unceremoniously blocked for the last 60 years. Its floors would be perfectly aligned with the renovated McLennan Library Building to facilitate movement of people and books.

The entire library would be linked by a generous grand staircase, spanning from the Cyberthèque and café on the street level; through bustling 24/7 teaching, learning, collaboration and study spaces adjacent to the popular outdoor terraces; past a stepped forum where lectures and projections would punctuate a McGill day; and up to an iconic reading room with views to Redpath Hall, the campus and Mount Royal.

The new building's north end would feature a new multi-functional hall and exhibition space, imagined as

a light filled **Atrium** adjacent the restored façade of the historic Redpath Hall, inspiring all users of the Library. In keeping with the spirit of the historical architecture, a rare books reading room would be located adjacent to this space.

To the south, the renovated McLennan Library Building would offer a variety of reconfigured study and work spaces, and a browsable three-storey, 500,000 book collection.

Between the new Redpath Library and McLennan Library Buildings would be the linear **Hub**, which concentrates stairs, high-speed elevators, washroom facilities, and library services, including the retrieval desk for documents ordered from the **Automated Storage and Retrieval System** (ASRS).

The **ASRS** is a new high-tech facility purpose-built under the campus green just west of the McLennan-Redpath complex. This facility will securely house and render accessible the 2.7 million volumes that presently occupy over half of existing library space, while still allowing for future collection growth. This feat will be performed by a half-dozen 'book-bots,' mechanized units which can stow and retrieve documents within minutes, once summoned by a user with a few swipes on a smart phone or clicks of a mouse.



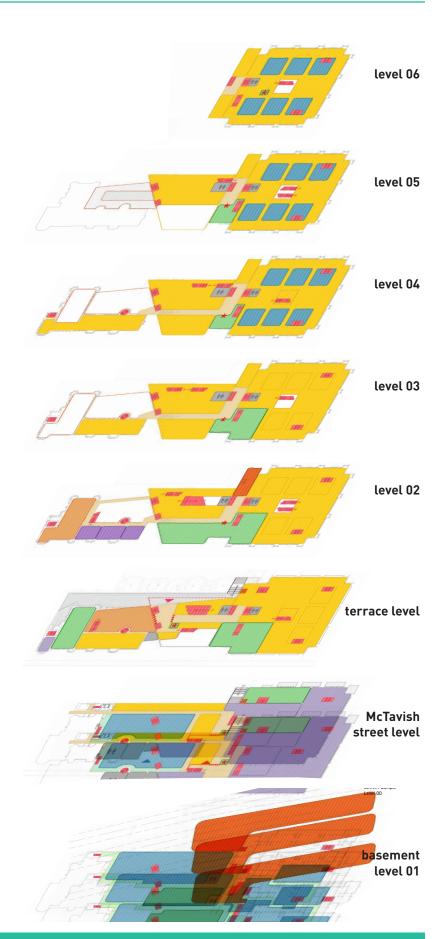
Upper right: Interior view of the McTavish Street entrance. Lower right: Interior perspective of the iconic reading room.



EXPLODED VIEW OF THE PROPOSED LIBRARY

LEGEND

- Vertical Circulation
- 📒 User Circulation
- User Seating
- 📕 Special
- Automatic Storage & Retrieval System (ASRS)
- **Collections**
- Instructional
- Campus Amenities
- Staff
- Staff Circulation
- Services



Build and load ASRS under the campus green next to McLennan Library. Light refresh of former stack spaces in McLennan and Schulich to support study, service and staff spaces.

Time frame: **2 years** Cost: ≈ **\$65M**



Rebuild Redpath Library, restore Redpath Hall and build new "Hub" connecting Redpath and McLennan. Library continues to function in McLennan throughout construction.

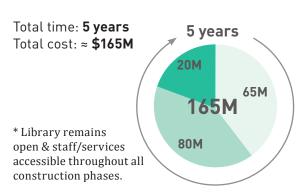
Time frame: **2 years** Cost: ≈ **\$80M**



Renovate McLennan. Library continues to function in newly built Redpath.

Time frame: **1 year** Cost: ≈ **\$20M**

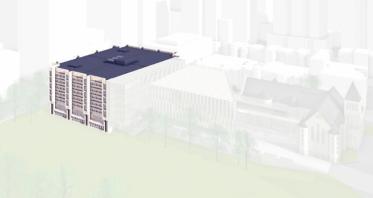














HEART OF THE CAMPUS: AHEAD TO MCGILL'S BI-CENTENNIAL

The vision proposed in the Master Plan for the McGill Library and Archives maximizes our resources through a robust design, while providing flexibility to accommodate a shifting academic landscape. Our facilities will showcase our precious collection of the past, invite the community to share the knowledge of today and provide effective work spaces for the scholars of tomorrow.

The University's advancement depends on the free flow of information across disciplines, traversing boundaries. McGill Library and Archives has a rich heritage, and this legacy will continue to shape the library of the mid-21st century.

Fiat lux embodies the bold vision of the library of 2050: Light will indeed flow, both literally, through the glass walls of the gleaming new facility, and figuratively, through the sharing of knowledge and inspiration between past, present and future generations of scholars.

Left: Exterior view of the McTavish Street entrance.



FIAT LUX – LET THERE BE LIGHT sets out the vision for the future of McGill Library, looking towards the University's third century of academic excellence. It celebrates the rich history of the McGill Library as a bastion of shared knowledge, identifies present challenges, and outlines the way forward.

