Architecture Library Needs Assessment

Report & Recommendations

Patricia Kosco Cossard

Library Review Committee:

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Marie Howland, Director, Ph.D. Program and Associate Dean for Student Affairs
Madlen Simon, Director, Architecture Program
Jim Cohen, Director, Urban Studies and Planning Program
Don Linebaugh, Director, Historic Preservation Program
Margaret McFarland, Director, Real Estate Development Program
Lara Otis, GIS Librarian
Doug McElrath, Curator, National Trust Library
Cindy Frank, Curator, Visual Resource Center
Cindy Larimer, Architecture Library
Amrita Kaur, Architecture Library
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Key Recommendations Note: Numbers correspond to Key Findings...
Key Findings

General

1. The school community prioritizes Services as the most mission-critical library function (43%). The second priority is Space & Use (23%), Technology (21%) third, and Print Collections last (13%).

Prioritized Library Functions

2. The branch library’s mission and name has not been updated since 1972, it is based on the program and student body of that time, which does not reflect today’s programs, student body, and priorities.

3. With the exception of the Ph.D. program, school programs lead to either pre-professional or professional degrees. The majority of the student body is graduate students (62%). All undergraduate students are in the Architecture program which is a Limited Enrollment Program, a competitive major at the University of Maryland that controls enrollment numbers to maintain program quality. Although it is part of the College of Agriculture and Natural Resources, the Architecture Library has traditionally supported the Landscape Architecture program. The Landscape Architecture Program has both a Limited Enrollment undergraduate body and a graduate professional program. In this way it complements the Architecture program.

Student Body by Program

4. The School’s Research Centers, the Colvin Institute of Real Estate Development, the National Center for Smart Growth Research & Education, and its affiliates (Environmental Finance Center,
Center for the Use of Sustainable Practices, Housing Strategies Group, and the Transportation Policy Research Group) are integral to the School and are currently underserved.

5. The school actively participates in the Study Abroad program (SAP), enrolling 70 students per year, with no formal library services. Two centers are affiliated with the School and support the classes the School offers: the UM Study Centre at Kiplin Hall (England) and Vesuvian International Institute for Archaeology and the Humanities (Italy). Paris, Rome, St. Petersburg, and other locations are the sites for the School’s SAP.

6. Historically, the library and visual resource center have collaborated to support the Architecture Program’s visual and information needs.

Services

7. Librarian-provided teaching (research strategy, information [text, image, spatial, GIS, etc.] navigation, electronic and print corpus, organizing information, citation standards, etc.), individual strategic research consultation, creating bibliographies and assisting with bibliographic management are considered mission-critical to the success of the School’s curriculum and students.

8. The long-term preservation and curation of data sets and born-digital objects created by the ongoing large- and small-scale research projects are not being attended to.

9. There is a general willingness to tolerate a waiting period for delivery of print resources, if it frees library footprint for group, individual and/or dedicated seminar spaces.

10. There is an expectation of innovative delivery of course materials, such as a whole studio borrowing items (often needed for the active, iterative, group learning of the Architecture studio); however, the current circulation policies pose a long-standing impediment which is often needed for the active, iterative, group learning of the Architecture studio.

11. Students often approach teaching assistants for research assistance before the librarian. Teaching assistants are not provided with any specific training on library skills or information literacy standards.
12. Lecturers are employed heavily by school programs to teach. Lecturers have a number of impediments to successfully and effectively teaching their courses. Access is linked to contract appointment dates even though they are long-term part-time instructors. There is currently limited library support for their ability to provide students with an excellent learning experience.

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Space and Use
13. Faculty and students need a variety of spaces: social, seminar, private, group/collaborative, and presentation in direct support of coursework.

14. Graduate students need a study space in the branch library that is available 24 hours.

15. The current library space is not handicap-accessible.

16. School computer labs, especially in Caroline Hall, are out-of-date and often suffer overcrowding.

Technology
17. Available library and school technology is insufficient for the work the disciplines require. Information, visual, spatial, and analytical software are scattered inconsistently among the computer labs, centers, and library. Often students go without software that supports their success because it isn’t affordable.

18. Students are particularly vested in the library’s scanning and printing operations; it is much more economical compared to the school’s Document Output Center (DOC).

19. Affordable large format high color-quality scanning, printing, and displaying are particularly needed by the spatial and visual nature of school disciplines.
20. Students use a variety of technologies to accomplish group work such as mobile Apps, web delivery (eBooks, remote access to databases, instant messaging, etc.), and teleconferencing.

21. Digital content delivery is highly valued.

22. The collection can be currently reduced by 40% by de-accessioning no-use and duplicate items.

23. More foot-print can be recouped by mass digitization and alternate shelving systems.

24. The growth of the physical collection will increasingly slow, due to rising availability of content in digital formats. Digital collection building and data curation are the collection development activities of the future.

25. The library serves to give a sense of disciplinary community. Faculty and students are in favor of a browsable print-limited collection that reflects the current core literature of the programs and the school’s interdisciplinary identity.
Key Recommendations  Note: Numbers correspond to Key Findings.

General

1. Strategically adjust library service, facility, technology, and collection portfolio to match prioritization made by the school’s faculty and students. Retain the services of a Design Professional(s) to redesign space provided by reducing print inventory.

2. Change the branch library’s vision, mission, and name to reflect all school programs and the Landscape Architecture program.

3. Serve the unique specialized needs of the above professional and academic programs with the services, space, technology, and collections.

4. Develop diverse specialized services, such as preservation and access to born-digital data to support and collaborate with the Colvin Institute of Real Estate Development, the National Center for Smart Growth Research & Education, and its affiliates (Environmental Finance Center, Center for the Use of Sustainable Practices, Housing Strategies Group, and the Transportation Policy Research Group).

5. Develop long-distance services (web-based content delivery, instant messaging, teleconferencing, etc.) to support the success of the school’s study abroad courses.

6. Consider the seamless delivery of service by considering collocating and coordinating the Library and the Visual Resource Center staff, resources, space.

Services

7. Collaborate with the school’s Visual Resource Curator and UM Librarians (such as GIS Librarian, National Trust Library [NTL] Curator, Digital Repository of the University of Maryland [DRUM] Coordinator, etc.) to provide a broad coordinated suite of literacy instruction (information, visual, spatial, GIS, etc.). Embed bibliographic management training into courses. Create YouTube tutorials. Provide specialized topical bibliographies to support faculty research and teaching.

8. Provide long-term preservation and curation services for data sets and born-digital objects created by the ongoing large- and small-scale research projects.

9. Provide patrons with 24-48 hour delivery service to obtain print material warehoused elsewhere.

10. Provide a service to create movable collections for individual courses collocated with class location. Utilize self-service check-out technology.

11. Establish a training program to teach advanced information and library skills to graduate Teaching Assistants so that they become front-line library liaisons to undergraduates.

12. Establish a training program for lecturers (adjunct faculty) to raise their proficiency with library services and information resources. Create a borrower’s status that provides annual access to library resources and services for long-term part-time lecturers.

Space & Use

13. Use space that is no longer needed for inventory warehousing to create a variety of flexible spaces: social, seminar, private, collaborative, and presentation. Create at least one seminar room for graduate study.
14. Reconfigure library so that part of or all non-collection areas are available to graduate students with swipe card access during the same hours the School building is open to them.

15. Install an elevator to connect the ground floor, main library floor, and mezzanine floor in compliance with the Americans with Disabilities Act [ADA] compliance.

16. Provide a technology lending service to fill the need for more computer stations.

**Technology**

17. Coordinate with the School’s IT professionals and Visual Resource Curator to organize scattered IT resources, find budgetary efficiencies, strategically fund software, and ensure content/software interoperability wherever possible.

18. Consider the seamless delivery of service by coordinating printing and scanning services.

19. Invest in large format, high-quality overhead scanners, printers, and monitors for patron use.

20. Create and/or provide mobile Apps. Partner with the school’s faculty and research centers to create new Maryland-specific knowledge (e.g., databases and open access resources).

21. Invest in technology to enhance web delivery of content and services, such as eBooks and readers, instant messaging, teleconferencing, etc.

**Collections**


23. Prioritize the Architecture collection for mass digitization.

24. Begin active collection development, curation, and archiving of digital content.

25. Become a Print Limited library. Limit the onsite print collection to new books, current journals, and a representative collection of main instructional themes and faculty research, as well as identifiable core disciplinary collections.
Appendix I: Committee Details

Background
The University Libraries and the School of Architecture, Planning, and Preservation both face pressures on limited space and budgets, the need to plan for new technologies, and to provide innovative educational experiences. These realities require that we radically rethink the role of the library in the new information society. There is a need to survey our current library patrons, examine models of cutting edge information gathering and sharing environments, as well as anticipate the needs of current and future patrons. We need to look at what other technologies are available, usage trends, where we have been buying collections, and where our funding has originated so that we may remain vibrant, dynamic, and attract top students.

Charge
In February 2011, the Architecture Library Review Committee was charged by Dean Patricia Steele and Dean David Cronrath, to review the Architecture Library mission in terms of the above issues and in light of serving all School Programs not just the Architecture Program. This review will result in a report that identifies the research and teaching resource needs of the School’s Programs and makes specific recommendations concerning staff, collections, services, and space.

Scope
The Committee’s work included:

1. Study current use and School needs in light of changes to the technology of research, curriculum, pedagogy, scholarly discourse, and the concomitant delivery of information.
2. Evaluate the fit between the current library collections and services to the school’s current and future needs.
3. Draft a prioritized proposal of services and collection areas.
4. Identify the budgetary implications and where investments in new technology can be found.
5. Identify innovative use of library space.

Guiding Principles

- USE EXPECTATIONS. Information needs for faculty research and teaching have changed and will continue to do so. Students expect to access information in drastically different ways than are traditionally available this also will continue for the foreseeable future.
- MODEL REVIEW PROCESS: Because the use of branch libraries has shifted dramatically, this review exercise is intended to provide a model for review of other branch libraries at the University of Maryland College Park.
- MODEL for PEER PROGRAM LIBRARIES. The review is focused on developing a robust model for branch libraries, incorporating change and serving to inform other peer branch libraries that serve our disciplines.
- OPEN, COLLABORATIVE PROCESS. The branch library review process will be open and will invite full input, with collaborative exchange and discussions between the Library and the School, including the Deans of both schools. Feedback and input will be sought from faculty, staff and students.
- STAFF CONSIDERATIONS. The Review Committee will take into consideration the branch library staff, holding to the focus of the library’s strategic plan which stresses efficiency, sharing across units, a cost/benefit focus, employee development and cross-training throughout the Libraries, all while not neglecting the importance of staff in the review process.
EFFICIENT USE OF LIMITED RESOURCES. The Libraries need to make the most effective use of limited resources; therefore saving money is an important and expected part of the considerations in developing the model branch library that serves our programs.

ALTERNATIVE SPACE USES. The present library space could be central to ideas and plans of the Dean of Architecture, Planning and Preservation, therefore alternative uses of the space will be proposed, considered and implemented as appropriate.

CHANGES TO BE IDENTIFIED. Any new model for the branch library will have changes and as part of the model review process those changes will be identified and the implications addressed in a creative and positive manner. Change decisions to the library ultimately rest with the Dean of Libraries.

Membership
Patti Cossard, Chair, Architecture, Planning, and Preservation Librarian
Marie Howland, Director, Ph.D. Program and Associate Dean for Student Affairs
Madlen Simon, Director, Architecture Program
Jim Cohen, Director, Urban Studies and Planning Program
Don Linebaugh, Director, Historic Preservation Program
Margaret McFarland, Director, Real Estate Development Program
Lara Otis, GIS Librarian
Doug McElrath, Curator, National Trust Library
Cindy Frank, Curator, Visual Resource Center
Cindy Larimer, Architecture Library
Amrita Kaur, Architecture Library
Appendix II: History

In the early 1960's, the University of Maryland at College Park decided to consider establishing a professional program in architecture. In 1964 a University President’s Blue Ribbon Committee issued its recommendations most salient to this report, the recommendation to establish an undergraduate major in architecture and a graduate program leading to the professional Master of Architecture degree. In the spring of 1967, the first Dean, John W. Hill, was named. Hill presented a ‘white paper’ to the University outlining his vision. It described the need for an architectural library and a visual aids collection, i.e. slide library, in the school. It also argued for the presence of a supply store and a coffee shop. The future envisioned the ultimate inclusion of academic programs in landscape architecture, urban planning and historic preservation.¹

When the School of Architecture was ultimately founded, the Architecture Program and the School were the same. An essential part of the School’s academic success, the library was afforded both substantial funding (collections and furniture) and a prominent building footprint, partly to qualify for National Architectural Accrediting Board (NAAB) accreditation and partly because the library was particularly valued by the founding faculty. Berna Neal was hired by the University Library to manage the architecture library. She was considered a de facto member of the school's community. Neal was instrumental in directing the formation of a collection which started out as 5000 volumes. Elizabeth Alley was recruited to establish the visual aids collection. Alley came from Princeton University where she managed their art and architecture visual aids collection. Together the library and image collections constituted one of the finest architectural libraries in the nation. Traditionally the Visual Resource Center and the Library have collaborated in both collections and services to provide a rich experience for students. Currently, both the content of the library and image collections are moving away from analog inventory control towards digital formatting.²

In the fall of 1967 the program opened its doors. The program initially was offered as a five-year undergraduate program leading to a Bachelor of Architecture professional degree. From the beginning, the School curricular development plan was based on limiting the number of students. Most importantly, the precept of limited and selective admissions established a definitive program for the design of the School's permanent building. Thus, the permanent library’s space, collection, and services were originally established to meet the specialized needs of a small number of undergraduates.³

In the intervening years, increasingly the School has become a predominantly graduate and research unit on campus by adopting new graduate degree programs and attendant faculty. In 1980, the transition to include a master’s program in Architecture was successfully inaugurated. This was followed by Urban Planning (1992), then Historic Preservation (2001), then the PhD program (2002), and most recently the Real Estate Development Master’s Program (2006).⁴ The School has a very active study abroad program, enlisting 70 students per year; two centers are affiliated with the School to support this program each with a small

¹ Accessed 12/5/11 [http://arch.umd.edu/about_the_school/history/foundation_years/beginnings.cfm](http://arch.umd.edu/about_the_school/history/foundation_years/beginnings.cfm)
² Ibid.
³ The School moved into its permanent building (its current home) in 1972. Accessed 12/5/11 [http://arch.umd.edu/about_the_school/history/timeline.cfm](http://arch.umd.edu/about_the_school/history/timeline.cfm)
⁴ Ibid.
library: the University of Maryland Study Centre at Kiplin Hall⁵ in England and the Vesuvian International Institute for Archaeology and the Humanities,⁶ in Italy. The School also created a number of research and instructional centers both on campus and off: the National Center for Smart Growth Research and Education,⁷ Center for the Use of Sustainable Practices,⁸ the Colvin Institute of Real Estate Development and the Environmental Finance Center.⁹

When the School first opened in 1972, there were 57 students in all. When the Architecture graduate program was included, the student population increased to about three hundred. Today, the school’s student body is still made up of undergraduates and graduate students, 488 students are currently enrolled in the different degree programs.¹⁰ Sixty-two percent are graduate students, 38% are undergraduate. Undergraduate admissions is highly competitive, it is classed as a “limited enrollment program. Fifty-six percent are all students are in the Architecture Program, 21% in Real Estate Development, 13% in Planning, 4% are in the Historic Preservation program, with the remaining 6% being in the doctoral program.¹¹ According to the School directory, there are thirty-two continuing faculty members of the different programs, four affiliated faculty members, and 48 lecturers.¹² With School and Library staff this brings the total community body to around 600.

The seminar is the pedagogical style that is used for all levels of students, and seminar space was identified as a need within the library. Studios are taught by all disciplines; primarily focused on the production of group work.

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⁵ The University of Maryland Study Center at Kiplin Hall, located in northern England, is a valuable resource available to students in the School of Architecture, Planning and Preservation. In recent years, preservation students have taken summer courses here (one group studied classic English pubs) and architecture undergraduates have used it as home base for a semester abroad in Europe. Accessed 12/5/11


⁷ Accessed 12/5/11 <http://www.smartgrowth.umd.edu/>


⁹ Accessed 12/5/11 <http://www.efc.umd.edu/>

¹⁰ Fall 2011.

¹¹ Data supplied from UMEG system by Jaime Oliver, the School’s Coordinator of Student Affairs November, 2011.

¹² Accessed 12/5/11 <http://www.arch.umd.edu/about_the_school/faculty/directory.cfm>
Appendix III: Research Library Trends

Academic research libraries are facing radical changes to use patterns and pedagogical trends, forcing them to respond in order to serve their institutions. The emergence of the mass-digitized book corpus, known as the HathiTrust, is transforming the academic library enterprise. On a per-volume basis, the shared digital repository, HathiTrust, is now larger than the average Association of Research Libraries (ARL) book collection. By 2013, the HathiTrust Digital Library collection may be equal in size to Harvard University Libraries (16 million volumes). Within a decade, it could cross the threshold of 30 million volumes, making it larger than the U.S. Library of Congress is today.

It is anticipated that the digital corpus and cooperative offsite storage facilities among ARL will dramatically reduce costs, enabling an optimization of legacy print collections and their warehousing needs. There is an opportunity for significant library space recovery associated with de-duplication of low-use titles. This will substantially increase the efficiency of library operations and facilitate a redirection of library resources in support of a renovated library service portfolio. The trend in research libraries is to create more spaces for digital resource access, group studies, media laboratories, and technology-based learning spaces in their sites on campus.

The purpose of the present Architecture Library Review is to evaluate the fit between the current library collections and services to the school’s current and future needs with these trends in mind.

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17 Appendix VII.
Appendix IV: User Needs Assessment Methodology

The overall project is to re-program the Architecture Library space and services within the School of Architecture, Planning & Preservation (MAPP) building. In Fall 2011, we will prepare an information base for a design process to follow later. The Architecture Library Review Committee of Library and MAPP faculty and staff volunteers will gather qualitative information about current library use, academic work practices of students and faculty, and the activities that MAPP constituents need to accomplish within library spaces in order to enhance their learning experience and to recruit future students of the highest caliber. The result of this work will be compiled and a report written for use by the Dean of the Libraries and the Dean of MAPP to further the design work.

Patricia Kosco Cossard has been trained by Dr. Nancy Fried Foster, an anthropologist on the staff of the University of Rochester River Campus Libraries and who has done pioneering work in participatory design of library space and ethnographic studies of library use. Cossard will lead or undertake the activities described below.

The findings of these four sets of activities will be compiled and analyzed by the team. The resulting report will be provided to the Dean of the Libraries and the Dean of the School of Architecture, Planning, and Preservation for future re-design work.

Project team member with Basic Human Subjects Research Training: Patricia Kosco Cossard (certified September 14, 2011)
Interview team members: Cossard, Marie Howland, Margaret McFarland, Lara Otis
Analysis team members: Cossard, Cindy Frank, Lara Otis

Subjects
1. UNDERGRADUATES ON-THE-SPOT INTERVIEWS at least 8 sets of interviews in accordance with the questions listed in the “On-the-spot Interviews” (Instrument 1). Sites will include interior public and studio areas of the MAPP building. Cossard will collate notes; collation will be analyzed by team.

2. MAPP GRADUATE STUDENTS FOCUS GROUPS will be asked a series of open ended questions in accordance with those listed in the interview instrument in the “Focus Groups of MAPP Graduate Students Interviews” (Instrument 2). Sites will include MAPP building classrooms, MAPP dean’s conference room, MAPP PhD Office. 2 team members will record notes; collation will be analyzed by team.
   a. Architecture graduate students
   b. Urban Planning graduate students
   c. Historic Preservation graduate students
   d. Architecture graduate students
   e. PhD students

3. RDEV LECTURERS FOCUS GROUPS will be asked a series of open ended questions in accordance with those listed in the interview instrument in the “Focus Groups of RDEV Lecturers Interviews” (Instrument 3). Site will include MAPP building classrooms, MAPP dean’s conference room, MAPP Librarians Office. 2 team members will record notes. Cossard will collate notes; collation will be analyzed by team.

4. TENURED AND TENURE-TRACK MAPP FACULTY INDIVIDUAL INTERVIEWS will be conducted either in MAPP faculty member's office or Library faculty member’s office by choice of the
participant. Faculty members will be asked a series of open ended questions in accordance with the
questions listed in the “Individual Faculty Interviews” (Instrument 4). There will be a single interviewer
for individual faculty. Notes will be recorded by interviewer (Cossard, Otis). Cossard will collate notes;
collation will be analyzed by team.

**Instruments**

1. **On-the-Spot Interviews**
   a. When did you last work on a class project or prepare for a review or pin-up?
   b. When did you last study for an exam?
   c. When did you last work on a precedent study?
   d. Follow-up questions for each:
      i. Date?
      ii. Time?
      iii. For how long?
      iv. Why did you work at that place? (What was it about that place that made it a good place to
         prepare at that time?)
      v. What does that enable you to do?

2. **Focus Group of MAPP Graduate Students Interviews**
   a. What were you doing before you began this program?
   b. What level of library skills would you describe yourself to have: Beginner, Intermediate,
      Advanced, or Expert?
   c. What was it about this program that made you decide to come to UMD?
   d. What do you value about the library and/or librarian which can be delivered either virtually or
      physically?
   e. How do you do your academic work?
   f. What technologies do you use for doing this work?
   g. How does the Library assist or impede your academic success in this program?
   h. What needs do you expect to be served by the library?
   i. What library needs do you have that are not currently being served?
   j. Is there anything else that you would like to share about how the library could improve?

3. **Focus Group of RDEV Lecturers Interviews**
   a. What level of students do you teach? Undergraduate, Masters, and/or PhD
   b. What type of instructional formats do you use? Lecture, seminar, and/or studio
   c. Do you have teaching assistants that work with you to instruct students?
   d. What do you value about the library and/or librarian that can be delivered either virtually or
      physically?
   e. What level of library skills would you describe yourself to have: Beginner, Intermediate,
      Advanced, Highly proficient?
   f. What level of library skills do your students need to be academically successful in your courses?
   g. What specialized resources do you need for your students to be successful?
   h. How do you do your academic/research work?
   i. What technologies do you use and/or expect your students to use?
   j. Describe current student behaviors that affect the program’s success.
   k. How does the Library assist or impede the academic success in this program?
   l. How does the Library assist or impede your success as an instructor in this program?
   m. What needs do you expect to be served by the library?
   n. What library needs do you have that are not currently being served?
   o. Is there anything else that you would like share about how the library could improve?
4. Individual Tenured/Tenured-Track MAPP Faculty Interviews
   a. What level of students do you teach? Undergraduate, Masters, and/or PhD
   b. What type of instructional formats do you use? Lecture, seminar, and/or studio
   c. Do you have teaching assistants that work with you to instruct students?
   d. Do you administer continuing assignments to your classes that build your research/teaching base?
   e. What do you value about the library and/or librarian that can be delivered either virtually or physically?
   f. What level of library skills do your students need to be academically successful in your courses: Beginner, Intermediate, Advanced, or Highly Proficient?
   g. What specialized resources do you need for your students to be successful?
   h. How do you do your academic/research work?
   i. What technologies do you use and/or expect your students to use?
   j. Describe current student behaviors that affect the program’s success.
   k. How does the Library assist or impede the academic success of this program?
   l. How does the Library assist or impede your success as an instructor in this program?
   m. What needs do you expect to be served by the library?
   n. What library needs do you have that are not currently being served?
   o. As you know the library resources are becoming increasingly available digitally, decreasing the need for a print inventory. This gives the library the opportunity to free up space for new uses. What would be an acceptable level of inconvenience in the delivery of print resources if you could redesign the library to better serve the needs of the program?
   p. Much of the cost of the library is invested in the labor budget, i.e. staffing the circulation desk. How open would you be to a distributed library collection to serve studios and seminars if you could redesign the library to better serve the needs of the program?
   q. Is there anything else that you would like share about how the library could improve?
Appendix V: Detailed Findings of User Needs Assessment

Overall Prioritization
Overall Faculty Prioritization of Library Functions

![Faculty Prioritization Chart]

Overall Student Prioritization of Library Functions

![Graduate Students Prioritization Chart]

Services

There are three main forms of academic instruction: lecture, studio, and seminar. Instruction by lecture is predominantly used for undergraduate classes with large enrollments. Some lower level lecture style classes (1xx-2xx) are offered broadly to non-affiliated undergraduates, that is, courses offered to meet general education requirements and/or will serve as prerequisites for upper level classes. Since lectures are not a prevalent style of teaching, distance learning is not particularly applicable to the School’s disciplines.

Studios are taught to both graduate and undergraduate levels. The studio method is used across all School disciplines. This method requires study to play a significant role in the production which occurs in a studio
space. A studio instructor is notable for the personal commitment to continuing education in his or her formal discipline. The studio method of academic instruction is maintained above the level of a mere production facility or workshop. Its specific purpose is to prepare students for the rigors of building sets of skills which require a continuity of practice in order to achieve growth and mastery. Studio classes provide active and cooperative learning environments, as well as provide a holistic learning environment that emphasizes individual learning and responsibility as a consequence of interactive engagement. Studio classes are designed to provide rich learning environments in which all activities and interactions move toward the same goals: meaningful content learning and individual intellectual development. Studio teaching is particularly appropriate for classes that cover complex information and ideas. In addition, the interaction with student peers can be very important during the learning process. The best learning occurs when students solve problems or discuss things together. Undergraduates reported access to their tools and peers as being the most important element in choosing where to do the academic work of, i.e., at their desk when preparing for pin-ups, class projects, and/or reviews.

Seminars are generally more specific in topical study. Seminars can revolve around research projects, presentations, and several other assignments. Undergraduates are allowed with permission to take these classes. There is some cross-listing as 4xx/6xx to provide for this.

Despite the prevalence of technology, the proximity to a resource professional who can provide reference, instruction, and access to collections is highly valued. The librarian is valued as an agent of classroom, faculty and student support. The librarian is seen as the agent for a number of literacies, primarily information and computer, but also spatial and visual, which are essential for the success of students both graduate and undergraduate. Library and research instruction is still a priority expectation. Students need to be trained to be highly proficient library users. Currently, information literacy is highly valued, but its mastery by students and adjunct faculty in particular is perceived as weak. Information literacy is considered an added value that the library provides to the School’s curriculum. Identified instruction needs include: intense census training for research, YouTube tutorials, and training students on how to make presentations. Collaborations with the information agencies in local federal agencies and museums are also valued.

Teaching assistants (T.A.’s), drawn from the Graduate student body, are regularly used to assist the main lecturer in both large undergraduate lecture and studio classes. Currently, specialized library training or services for this population do not exist, while it is widely available to faculty. Training for teaching assistants in information literacy is recommended especially in studios where peer learning is an important part of the learning experience. Instruction needed includes training Teaching assistants to teach information literacy to undergraduates.

The method of faculty research heavily relies upon field study as well as bibliography. Some faculty produce books, others articles. Library support is needed for a number of ongoing, iterative research projects carried out in course work under the direction of faculty. Services that specifically relate to these needs should be created.
Space & Use

Library space in the School’s building has and continues to be highly valued. Kaur’s Gate Count Study demonstrates that this is a de facto reality.\(^{18}\) According to the study, each student visits the library twice per week on average. There is an expectation reported by graduate students and faculty that this site of the branch library will continue to be provided. Traditionally, library space has been predominantly used for warehousing print inventory, i.e. collections. However, faculty and graduate students reported a need for a variety of spaces: social, seminar, private, group, and presentation. The library is perceived to be the site for provision of these to all students. Although the library currently provides little space for these activities, the acceptance and progress of digitally provided collections and services enable both populations to work

\(^{18}\) Appendix VI
wherever they may be. Graduate students reported they are willing to tolerate waiting period for supply of print resources, if it allows more footprints for group, individual and/or dedicated seminar spaces.

Community identity was the highest ranked reason why students chose to come to UMD. The Library as a place for experiencing and building identity was ranked as the highest need that the library should fill. Graduate students reported that the current communal and work space provided by the programs is unsuited to meet this need. Students perceive the office/desk space in Caroline Hall to imply the main building is privileging the Architecture program and serves to segregate their graduate experience rather than facilitate the marketed inter-disciplinary and collegial environment. Even Architecture graduate students, who have allotted desks in the studio, have a common need for spaces to think, read, focus, write, and develop collegial relationships with their peers. As a common site, they envision the library providing this, however current hours are prohibitive.

The other current major impediment in configuring the space to serve these needs is that the space is not handicap-accessible. Some form of an elevator is needed in order to come into American Disabilities Act [ADA] compliance.

The predominant course readings method is assignment of assorted readings, with projects being second. Textbooks are used sparingly. There is a tolerance to serve the need for course reserves by distributing small course libraries throughout teaching spaces in the school, i.e. studio spaces and seminar rooms. Lower level courses are generally lectures; digital reserves may be sufficient to serve them.

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19 Students reported one of the top factors in deciding to come UMD was a well-rounded graduate program, particularly the marketed attachment to design, construction, planning, preservation, and real estate development.

20 5th highest concern to faculty.
Technology

Students and faculty use a variety of specialized tools to do their work. These fall into the broad categories of spatial, modeling, analytic, and general. There is a prevalent opinion expressed that the technology resources provided are insufficient for the work the disciplines require. Specifically, it was recommended that the library needs to develop specialized Library Apps for mobile technology. Support for storing, accessing, using, and preserving the data needs (visual, statistical, and geographic) for the various disciplines was expressed as a need by all populations. Training is always seen as a need.

There were many requests for the library’s scanning and printing operations. In particular, providing color copying and overhead scanning stations (like those provided in McKeldin and Hornbake), large format scanning/printing, and interoperate with the School’s own technology network. It is also recommended that technology be used to make circulation and course reserves self-service.
Collections
Collections are highly valued and remain a priority expectation of what the Library provides. School disciplinary research relies upon library, archival, and/or database research. The Library is valued for providing access to discipline-specific as well as cross-disciplinary information; however, this is currently limited due to the focus of current collections. Having to travel to other campus libraries to find material primary to their disciplines ranked as a significant impediment to students’ academic success. Also, the lack of knowledge about the collections and services for adjunct faculty was another impediment to success. Along with a variety of subjects, digital delivery of information is highly valued. Building and preserving Maryland-specific databases is also identified as a collection need.

Traditional research papers and exams are not heavily used as a method of evaluating student achievement. Large just-in-case research collections need not be onsite. Moving print items offsite would be tolerated if items were either digitally available or delivered to the building in a quick (24-48 hours) turn-around time. New books, current journals, and a representative collection of main instructional themes and faculty research would be required to stay on site.

Currently the School’s library collection does not represent nor serve the disciplinary needs of the school. Meanwhile, the collections in the School Library continued to focus on Architecture to the disservice of the other programs, their students, and an integrated sense of community that reflects the interdisciplinary identity of the School. It is true that collections in the National Trust Library serves the research needs of Historic Preservation and McKeldin Library serves the research needs of Urban Planning, the subject areas collected and held in the School’s library need to be reconfigured.

Based upon Cossard’s evaluation, the aggregate collections footprint can be reduced by 40% using a combination of conservative collection management best practices such as de-accessioning no-use and duplicate items, including items now available through the HathiTrust public domain collection. Specifically

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21 2nd highest ranking of importance overall populations.
the Stack footprint could be reduced by 56%, the Folio footprint by 69%, Special Collections by 20%, and Periodicals by 10%. The further footprint reuse could be achieved by offsite storage of low-use items and alternate shelving systems.
Appendix VI: Methodology & Findings of Collection Study

Collection Reports ITD R\textsubscript{x}Web:
The following reports were requested through R\textsubscript{x}Web between August and September 2011. Dave Wilt supplied on Aleph Circulation Task Manager. These reports can be exported to Excel with one click in the Aleph client (display the report in Task Manager, right-click on it and choose "Export to Microsoft Excel"). Some were revised as explained below in section: Further Processing by Cassard.

No Use Items
Report on Circ Activities of Circulating Collections
R\textsubscript{x}: 7509a & 7509b
Date: 8/22/11
Type: Aleph Report books in the Stack and Folio Sections that have a publication date earlier than 2006 AND have NOT circulated since 2001. The report should include item location, title, publication date, item barcode, call number.
Analysis: pre-2006 pub date, no circulations since 2001
BIB Records = 9723; ITEMS 11116 out of 33106 = 34%
(The total number of ARCH STACK and FOLIO general circulation (01) items in the collection as of the last report = 33106.
Note: If you are only interested in things which have not circulated in the last 10 years, this is the list for pre-2006 Arch STACK and FOLIO items. None of these items has circulated since 2001. However, this report has a column labeled "Loan Count." You will see some items with a number higher than zero in this column. These represent pre-2001 (i.e., pre-Aleph) circulation statistics. We cannot provide any further information about these loans (when they occurred prior to 2001, etc.), because in the conversion to Aleph only the statistics were brought over, not the actual transaction records. If you look at the loan "history" in the Aleph client for one of these items, you will see it is empty, even though there are "2" (or whatever) loans in the statistics.
R\textsubscript{x}: 7509b
This is the same data as before, only put into the bibtag4 template, which adds the OCLC number (in exchange, you lose Description, IPS, and loan count).

CPARC Folio & Stack Duplicates
R\textsubscript{x}: 7533 & 7534
Date: 8/30/11
7533: Report out any items for titles having multiple copies in CPARC Folio or any items for titles with copies in CPARC STACK or CPARC FOLIO, as well as any collection in these other CP sub-libraries (CPMCK or CPSPE or CPART or CPPAL or CPCHM or CPENG or CPOSS or CPNMS). Display/Listing: include title, call number, sub-library/collection codes, barcode, item description, publication date, and IPS for each item. Sort: by call number.
7534: Same but for Stacks
These are not straight-forward reports. They take special development. It is possible, if it is broken into two reports, one showing duplicates within Arch Lib and one showing Arch Lib titles also held by other locations. These two reports contain the same items but have different data elements, bibtag3 and bibtag4. The reports provided in bibtag3 format (with OCLC number) contain the description (volume, etc.) information and barcode. Bibtag4 format includes the OCLC number but missing the item barcode, etc. due to bibtag3 format restrictions.
Note: both of these reports contain *all* CPARC duplicates, not just STACK and FOLIO items. However, both reports do display the Collection code, so if you wish to put them into Excel and strip out the
other collections (the most problematic one is PER), you may do that.

**Bound Periodical Titles**

Needed for HathiTrust/OCLC Evaluation

R_x: 7605

Date: 9/15/11

Request: Shelflist report of all items with sub-library CPARC and collection PER using the report template "bibtag-holnum."

Type: Bibtag-holnum, just a list of titles in CPARC PER like this (only easier to read): (bib doc, title, hol doc, sub-lib, coll, OCLC, call num). This does not display barcode or item description info, so you are not getting any volume information, which is not needed for the evaluation.

**All Items by Sub-Library**

Needed for HathiTrust/OCLC Evaluation

R_x: 7631

Date: 9/21/11

Type: report-items-bibtag3

Sub-library = CPARC, for the following collections: FOLIO, OVRSZ, REF, SCFLT, SCFOL, SCOVR, SCSTK, STACK, WFFOL, WFOVR, WFKSTK

**Number of Volumes & Titles by Collection**

This report is needed in order to understand the total size of collection as a basis for ratios. Breakdown of the following sub-locations: ATLAS, AUTOM, CRPER, DESK, FOLIO, MFICH, MFILM, OVRSZ, PER, REF, REFFO, RES, SCFLT, SCFOL, SCOVR, SCSTK, STACK, THSIS, WFFOL, WFOVR, WFKSTK.

Available in the Monthly SCMI report in Task Manager

**Further Processing by Cossard**

**No Use:**

1. This spreadsheet was the base for all comparisons of the circulating collection.
2. The goal was to derive the number of unique items that have never circulated for the past 10 years.
3. This spreadsheet needed to be split between Folio and Stack holdings.
4. So as not to count items more than once it was necessary to compare and collate duplicates, duplicates were removed.
5. *Theses* needed to be removed since they were designated as non-circulating a few years prior to the study.
6. Review processing items to remove missing/lost items

**Duplicates:**

1. In order to identify the number of duplicates in the circulating Architecture collection a number of detailed clean-up processes needed to occur.
2. Sub-locations needed to be added by comparing and collating R_x: 7533 & 7534.
3. Non-circulating sub-locations were removed.
4. OCLC numbers needed to be added by comparing and collating R_x: 7533 & 7534.
5. Review processing items to remove missing/lost items
6. Spreadsheets needed to be reviewed to remove “false duplicates”
   a. Set or Serial volumes
   b. Known duplicates by policy: e.g., Theses
7. Separate duplicates by branches.
HathiTrust and OCLC Holdings Analysis
In order to get the percentage of duplication of our holdings with HathiTrust items and the Median OCLC Holding Libraries, I sent lists by sub-location of OCLC records numbers provided by Dave Wilt. These reports were run by Constance Malpas, OCLC Research, between September and October 2011.

Overall
To give a sense of scope, for monographic titles alone, Malpas found find 46,553 titles held by UMD that are also represented in the HathiTrust. Only about 5% of these are in the public domain -- as Malpas discussed when she visited campus earlier in 2011, the art/architecture titles tend to skew more toward in copyright than some other subject areas. Of course, online access to the material is just one of the factors to consider.

Notes: Public domain and in copyright figures are only calculated for the material duplicated in the HathiTrust. OCLC Research relies on metadata provided by HathiTrust to establish copyright status, since this is not typically included in the bibliographic data represented in WorldCat. However, to calculate a 'ballpark' figure for all of the titles (not just those duplicated in the HathiTrust collections), look at the median publication date of the titles published in the US and make a conservative estimate based on the percentage published before 1924.

Notes: Calculating the median WorldCat holdings for the non-duplicated titles would require a different kind of analysis, much closer to the traditional WorldCat Collection Analysis service.

Sub-Library Bound Periodicals
Bound Periodicals Analysis
Total titles supplied: 241
HathiTrust matches: 154 (64%)
In copyright: n/a
Public domain: n/a
Median publication date: n/a
Median WorldCat holdings per matched title: 196

Preliminary report based on the OCLC numbers Cossard supplied found a 64% overlap at the title level, i.e. 154 of the 241 discrete OCLC numbers you supplied matched a title in the HathiTrust collection. This report is based on the June 2011 HathiTrust snapshot, so it's a little bit out of date. For serials, especially, a volume-level report is essential to understanding the availability of the content in HathiTrust, since individual volumes in the title-range may be deemed in-copyright or public domain. The periodical collection has not yet been analyzed at this level.

This report indicates the matching OCLC number, the title and imprint (MARC tags 245 and 260), ISSN, and number of holdings libraries in WorldCat for each of the matching titles. The median number of holdings libraries (i.e. holdings in WorldCat) per matched title in this set is 196. For purposes of comparison the average number of holdings per serial title/OCLCL number in WorldCat was 6 in July 2011. Of course, that average includes many titles that are held much more widely; but still useful to know that the profile of the journals we are looking here is much more like 'core' titles that are widely duplicated.

Malpas also included the broad and narrow subject area. She was interested to see some of the titles represent content that would be classed as Agriculture (e.g. landscape design) or Engineering (e.g. industrial design) in their Conspectus based taxonomy. This provided useful to data, suggesting that an overlap analysis based on subject area and institution is likely to miss some relevant content. She is working on a new indexing routine that should provide a better overlap analysis for serial titles like these. Once she's
worked out the kinks in that new report, she can run these titles again a product a listing of the specific volumes that are present in the HathiTrust collection.

Malpas also adds that if this analysis had been run a year or two ago (when the HathiTrust collection was smaller), the duplication rate would have been substantially less -- 45% in June 2009 and 57% in June 2010. This indicates that running the report annually may be advisable.

**Sub-Libraries: Stacks, Folio, Oversize, Reference, and World's Fair**

Malpas analyzed a total of 30,949 titles, of which 13,104 (42%) are duplicated in the HathiTrust collection. 99% of the titles analyzed are monographs, and for these Malpas supplied the current copyright status as it is represented in the HathiTrust metadata.

The duplication rate, average age, and median library holdings for these titles varies by location. Most of the variation is predictable. For example, the World's Fair collection has the greatest proportion of digital surrogates in the public domain, simply because the average of titles in that collection is older than for the reference collection. Similarly, the duplication rate for the Oversize titles is very low because relatively few oversize materials have been digitized.

**Summary of the HathiTrust duplication rate and median WorldCat holdings for each of the five sub-libraries:**

**Stacks Analysis**
Total titles supplied: 16698  
HathiTrust matches: 7444 (45%)  
In copyright: 91%  
Public domain: 9%  
Median publication date: 1979  
Median WorldCat holdings per matched title: 204

**Folio Analysis**
Total titles supplied: 12864  
HathiTrust matches: 5141 (40%)  
In copyright: 94%  
Public domain: 6%  
Median publication date: 1987  
Median WorldCat holdings per matched title: 175

**Oversize Analysis**
Total titles supplied: 79  
HathiTrust matches: 2 (3%)  
In copyright: 50%  
Public domain: 50%  
Median publication date: 1937  
Median WorldCat holdings per matched title: 155

**Reference Analysis**
Total titles supplied: 830  
HathiTrust matches: 367 (44%)  
In copyright: 97%  
Public domain: 3%
Median publication date: 1993
Median WorldCat holdings per matched title: 237

World's Fair
Total titles supplied: 481
HathiTrust matches: 150 (31%)
In copyright: 58%
Public domain: 42%
Median publication date: 1915
Median WorldCat holdings per matched title: 122

Sub-Library Special Collections
Malpas analyzed 1249 unique numbers (representing 1803 volumes) and found a match rate of 22% compared to the HathiTrust collection. Because the ARCH Special Collection contains a lot of historical publications, it's not surprising to find a relatively high proportion of public domain digital surrogates (60%) compared to in copyright digitized content (40%). Median number of holdings libraries for the digitized content is 67 per title.

Special Collections
Total titles supplied: 1249
HathiTrust matches: 175 (22%)
In copyright: 40%
Public domain: 60%
Median publication date: n/a
Median WorldCat holdings per matched title: 67

Please Note: Malpas ran the Special Collections report against the June 2011 HathiTrust/WorldCat snapshot, not the July 2011 data used for the stacks/folio, etc. report. The July research index was taken down almost immediately after Malpas sent Cossard the report yesterday to do some additional work on it. But the figures provided in the attached report wouldn't change much from June to July. The duplication rate would be a bit higher, but not enough to make a significant difference.

Findings

Overall Recommended Reduction

Evaluate Further 60%
Reduce 40%
Stacks 26%
Folio 12%
World's Fair 1%
Bound Periodicals 1%
Appendix VII: Gate Count Study

On average, September is the busiest month of the Fall Semester. The busiest time of day is between 3-7 pm. The peak is at 4 pm.

On the Weekends, the first hour of opening 1-2pm is the busiest; most likely due to the deadline for overnight course reserve returns. Visits spike on Sunday evenings in November most likely due to the deadlines for final reviews.
Appendix VII: Space Study
Appendix VIII: Printing Services Recommendations

Jeffrey Hines, Paul Brown, Uche Enwesi, and Mark Wilkerson met 1/26/12 to discuss how the Libraries and the School of Architecture can collaborate together.

Printers:
- Library will install the architecture department printer drivers on the library computers
- School of Architecture will install the library printer drivers on architecture department printers.
- In regards to the School of Architecture moving to pay for print, they will need to talk with the Dean of Architecture to get a formal approval to proceed.

When it comes to the plotter and large scanners, the students from the School of Architecture can take what they want to print or scan to the plotters and scanner room. There are no drivers to be loaded on the libraries computers.

Software:
There are costs and licensing issues associated with installing the Architecture department software on Libraries computers. Jeffrey provided the list of software he knows that are in high demand so that the Libraries can decide whether to obtain licenses. Please see list below.
Adobe - Design Premium CS5 (very heavy use) -- Already on libraries' Mac computers
Autodesk - Maya 2012 (normal use)
Graphisoft - ArchiCAD (little use)
Graphisoft - EcoDesigner (very little use)
AutoDesSys - formZ (heavy use)
AutoDesSys - Bonzai 3d (normal use)
Google - SketchUp Pro (very heavy use)
Google - Earth Pro (heavy use)
EIAS3D - Animator (heavy use)
EIAS3D - Camera (heavy use)
Stitching Blender Foundation - Blender (little use)
Microsoft Office (normal use) - Already on all libraries’ computer
Apple Standard Software (it’s used) - Already on libraries’ Mac computers

User Experience:
To make the user experience easier in the Architecture building, we felt that we could work together to have a single image that both the Libraries and the School of Architecture can use on all computers in the building.