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Trends in Law Library Architecture and Space Planning

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Submitted to

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Trends in Law Library Architecture and Space Planning

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Introduction

Libraries have been a place where people can visit for a multitude of purposes, whether to find information for a particular need, meet other members of the community, or just for pleasure. As the needs of the community evolve, the library space and services it offers evolve to meet these needs. In many ways, the academic law library is a constantly changing and evolving entity. These changes are spurred on by a variety of influences and they eventually lead to changes in the appearance of the physical library space. In the past several decades, factors such as advancements in technology and the changing needs of patrons have required academic law libraries to undergo major changes in their design. Due to the many factors at play, designing a library to meet all of these needs becomes increasingly complex and requires an understanding of the various details of library construction, architecture, and use of space.

Over the years, law libraries have undergone renovations and building projects to meet changes in law librarianship. From these projects, certain trends emerge which can give valuable insight into where law libraries as a physical space are headed and can inform others about possible changes they can make in their own libraries. As technology continues to change, it has become increasingly important to create library designs that can adapt for the future. The academic law library space is becoming more flexible and multi-purpose to allow for changes in its use. To meet the needs of patrons and encourage more people to use the library, less space is set aside for print collections and more space is created for research and collaboration. Technology, budget concerns, and evolving patron needs are just a few of the major factors leading towards a new future of the law library building and, as a result, our role as librarians.

Today, libraries look much different than they did in the past, and they will continue to change moving forward into the future. When you think of the libraries of the past, you may think of the very traditional image of the grand-

¹ Stephen G. Margeton, Introduction to Design for Law and Other Academic Libraries: Reflection and Change xxi (2nd ed. 2007).

² Wesley Cochran, *Integrating New Technology: Some Architectural Solutions*, 74 Law Libr. J. 643 (1981); John Palfrey, *Cornerstones of Law Libraries for an Era of Digital-Plus*, 102 Law Libr. J. 171 (2010).

³ Wesley Cochran, *Integrating New Technology: Some Architectural Solutions*, 74 Law Libr. J. 643, 644 (1981).

⁴ Michael Wescott Loder, *Libraries with a Future: How are Academic Library Usage and Green Demands Changing Building Designs?*, 71 College & Research Libraries 348, 354 (July 2010).

scaled reading rooms with tall ceilings, dark wood, and decorative architecture and furniture. The historical design of law libraries was centered on the collection and the reader. The room would be lined with books and there were grand reading rooms intended for quiet study which were decorative with the intention to be a symbol of prestige with little thought to the actual function of the space.

While other libraries have moved towards incorporating new technology, the legal profession as a whole, including law libraries, has been slow to change. However, with changes in technology, and the need to encourage patrons to continue to use the physical library space, it is necessary for the law library to update its image and reorganize its main functions to remain viable. 9

In this paper, I will examine some of the trends prevalent in law library architecture and space planning in recent years, where these trends may be heading, and some of the factors causing these changes in library design. Specifically, I will discuss the impact the changes in technology is having on the design and use of the library space, the trend of sustainable and "green" library designs, accommodations for physically challenged patrons, and how the changes in users' needs are changing library architecture.

Trends

Technology

For the past several decades, one of the greatest factors pushing law libraries towards change and influencing many design trends is the development

⁵ Adam Arenson, Libraries in Public before the Age of Public Libraries: Interpreting the Furnishings and Design of Atenaeums and Other "Social Libraries," 1800-1860, in THE LIBRARY AS PLACE: HISTORY, COMMUNITY, AND CULTURE 54 (John E. Bushcman & Gloria J. Leckie eds. 2007).

⁶ Scott Bennett, LIBRARIES AND LEARNING: A HISTORY OF PARADIGM CHANGE 5 (2009), *available at* http://www.libraryspaceplanning.com/assets/resource/Libraries-and-learning.pdf.

⁷ Robert C. Berring, *Deconstructing the Law Library: The Wisdom of Meredith Wilson*, 88 Minn. L. Rev 1381, 1386 (2005).

⁸ Michael J. Slinger & Rebecca M. Slinger, *The Law Librarian's Role in the Scholarly Enterprise: Historical Development of the Librarian/Research Partnership in American Law Schools*, 39 J. L. & Educ. 387, 403 (2010).

⁹ Berring, *supra* note 7, at 1389.

of new technology. ¹⁰ This area is constantly and quickly changing so it is important for libraries to create a space that can meet these continuing technology demands. Some of the major technological developments spurring this change in law libraries include the automation of library systems and the increase in online legal research. ¹¹ Online databases are growing as more print material is being digitized. ¹² The rise in popularity of the e-book adds the need for including these formats in the law library collection in addition to print. ¹³ This poses some questions as to the need for housing print materials in the library when the online versions are available, and whether space should be allocated towards book shelves or other storage to keep print materials. ¹⁴

Law libraries have been a place to hold print collections that patrons can only access by physically going to the library. However, in recent years, technological advancements have changed the face of law library collections and how patrons can access library holdings. No longer do patrons need to physically enter the law library in order to access legal information. Patrons can access the library catalog from home if they have a computer with an internet connection; and with the increase in electronic publishing and digitization projects, they can access the full-text of documents without setting foot in the physical library space. ¹⁷

So what does this mean for the physical library space? Some would argue the library space is unnecessary; however many others would say that there is absolutely a place for the library as a physical space – it just requires a new look and focus. ¹⁸

¹⁴ Michelle M. Wu, Why Print and Electronic Resources are Essential to the Academic Law Library, 97 Law Libr. J. 233, 234 (2005).

¹⁰ Cochran, *supra* note 3, at 643.

¹¹ Margeton, *supra* note 1, at 269.

¹² *Id.* at 398.

¹³ *Id*.

¹⁵ Thomas R. French, Law Librarians and Library Design, Construction, and Renovation: An Annotated Bibliography and Review of the Literature, 98 Law Libr. J. 99, 103 (2006).

¹⁶ F. Allan Hanson, *From Key Numbers to Keywords: How Automation has Transformed the Law.* 94 Law Libr. J. 563, 564 (2002).

¹⁸ Richard A. Danner, Blair S. Kauffman, & John G. Palfrey, *Twenty-First Century Law Library*, 101 Law Libr. J. 143 (2009).

The Impact of Digitization of Legal Materials and Online Databases on the Law Library Collection

One of the major developments in law library technology has been the automation of law library systems. The automation of library systems has allowed people to access the library catalog, conduct legal research and access full-text documents from their computer at home. ¹⁹ People are able to retrieve information from electronic media rather than print, and as a result, the needs of patrons in using the library are greatly changing and require more access to online information.

By now, every lawyer, law student, and law librarian is surely familiar with online databases such as LexisNexis and Westlaw which have for decades allowed for users to conduct legal research online as an alternative to traditional print searching. Online legal research databases provide a means of searching very large quantities of documents in an efficient and thorough manner. For many, online legal research has replaced using traditional print sources and, as it has become the predominant means of legal research, it is important to provide access to these systems in the library. ²¹

Online Legal Research & the Increased Need for Computer Access

With the advancement of technology and the increased reliance on online legal research, libraries have needed to provide a place for patrons to access online materials, including the library's own online catalog, through computer terminals.²² Offering wifi is also a common means of providing access for patrons with personal computers.²³

As more material becomes available online, it becomes increasingly important to provide patrons with access to this material. Although the use of personal computers is becoming progressively more prevalent, there is still a segment of the population who rely solely on the law library to provide them with

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¹⁹ Hanson, *supra* note 16, at 564.

²⁰ Hanson, *supra* note 16, at 566.

²¹ Carol M. Bast & Ransford C. Pyle, *Legal Research in the Computer Age: A Pardigm Shift*, 93 Law Libr. J. 285, 286 (2001) (arguing that the legal research paradigm is shifting to computer based research and a greater amount of research will be accomplished using the computer).

²² Margeton, *supra* note 1, at 271.

²³ *Id.* at 106

access to computers and the internet.²⁴ Often referred to as the "digital divide," this lack of access to information technology is still present in our society.²⁵ It is for this reason that it is vital, especially for public law libraries which see a wide cross-section of the population, to continue to provide computer and internet access to patrons.

There are several ways this can be achieved depending on the patrons' need. For those with a quick research problem, providing easily accessible computer terminals for online legal research is one option. Law libraries tend to limit the amount of time patrons can use these computers in order to provide access to a greater number of patrons. Then the space plan of the library, ease of accessibility is important. Placing these terminals in a readily identifiable area, typically in view of patrons as they enter the law library, is of great help to patrons.

With the vast changes in technology and the continuing reliance on computer based legal research, the need for legal research training has increased in order to bring users up to speed with the use of online resources. ²⁹ In order to research successfully and to its fullest potential, users need to understand how it works and how to locate the information they need. ³⁰ In response, law libraries have taken on the role of not only providing access terminals to online information, but also providing instruction in how to research and find information. ³¹ Because librarians are taking on the role of teaching legal research, it can be helpful to include classrooms directly inside the library.

²⁶ Margeton, *supra* note 1, at 271

Gail Warren, Trends Affecting the Future of Law Libraries in the Digital Age: Access to Information, in Beyond the Boundaries: Report of the Special Committee on the Future of Law Libraries in the Digital Age, 60 (July 2002), available at http://www.aallnet.org/Archived/Leadership-Governance/committees/final-report-including-appendices.pdf.

²⁵ *Id*.

²⁷ *Id*.

²⁸ *Id.* at 272

²⁹ *Id*.

³⁰ Carol M. Bast & Ransford C. Pyle, *Legal Research in the Computer Age: A Paradigm Shift*, 93 Law Libr. J. 285, 293 (2001).

³¹ 87% of law libraries surveyed provide legal research training. David Gee, *A Survey of Major Law Libraries Around the World* 41 Int'l J. Legal Educ. 108, 111 (2012); Margeton, *supra* note 1, at 272.

With the changes in technology, more people have personal and portable computers, whether in the form of laptops or Smartphones.³² Many individuals bring their own computer to the library rather than use the computer terminals provided by the library.³³ Because many law students and lawyers who frequently use the library and bring their own laptop computer with them, there is another consideration for libraries undergoing design changes. With an increase in personal computers comes an increased need in electric outlets and wireless sources.³⁴ Unless a library has undergone recent renovation, chances are, it does not have the capabilities to provide the number of power sources these patrons require so when designing a user space, this must be taken into account.³⁵ Space for people to "plug in" and use their computers plays a key role in whether a person will stay and use the space.³⁶ The placement of these electrical outlets is a very important consideration to make when designing the floor plan and deciding on the use of space in the library.

Impact on Collections

As the digitization of legal materials continues forward and the online databases continue to grow, there have emerged questions about what this means for the law library's print collection which can have a major impact on the space planning and renovation of the library. Do electronic resources decrease the need to retain print material, and if so, what do we keep? Will this print material still be necessary in the future?

There are several considerations which point to the need to keep print material and why it is important to include this in planning library renovation. Although electronic resources offer a great convenience, there are risks with

³² Responses to the 2011 survey observe a significant increase in the use of laptops, especially with the addition of wireless coverage in the library. Primary Research Group, REDESIGNING THE COLLEGE LIBRARY BUILDING 92 (2011).

³³ Although there is an increase in the number of students using personal laptop computers, in many cases, it has not decreased the number of students relying on library computer terminals. Primary Research Group, *supra* note 32, at 92.

³⁴ *Id.*

³⁵ Margeton, *supra* note 1, at 109.

³⁶ Due to the increase in laptop use and their limited battery power, the challenge for libraries is now to provide enough electrical outlets for patrons. Primary Research Group, *supra* note 32, at 92.

solely relying on online material.³⁷ Not all information is online and the majority of it still remains in a print or other non-electronic form.³⁸ However, on the other hand, not everything that can be found online can also be found in print.³⁹ There is also the issue of cost. When you purchase a physical item, the library owns it for a one-time fee. Accessing online material sometimes requires an annual subscription, and the library is only licensing the material rather than owning it.⁴⁰

The issue of whether the online material is the law library's to keep is an important one. Many vendors license the material to libraries, and while the library technically "owns" the right to use such a copy, this right could end when the license runs out or if the vendor goes out of business. Suddenly, the library could be without significant portions of their collection if they relied on ematerials alone. On a related note, changes in technology may mean that accessing certain electronic documents may become difficult or impossible without continually updating equipment or acquiring these documents in new formats. To avoid the unpredictability of such situations, it may be beneficial to keep a print collection up to date in conjunction with the use of e-materials. This would require space for the collection.

Predicting what sorts of materials will be needed and used in the future is extremely difficult, especially when designing a law library with the anticipation that it will last for at least the next twenty or thirty years. With fast changing technology having a wide influence on the access to information and resources, it becomes almost a guessing game in how to prepare for the future. There are benefits to both electronic and print resources. While print collections provide a sense of permanency and reliability, electronic resources use less space and offer convenience of use. It becomes a matter of balancing what works best for the library and the community it serves. Helpful resources on how information resources will be used in the future include studies on current library trends, talking to patrons about how they use information resources, and talking to publishing vendors and library planning consultants. It is helpful to also keep

³⁷ Michelle M. Wu, *Why Print and Electronic Resources are Essential to the Academic Law Library*, 97 Law Libr. J. 233, 234 (2005).

³⁸ *Id.* at 235

³⁹ *Id*.at 251.

⁴⁰ *Id*. at 236.

⁴¹ *Id.* at 242.

⁴² *Id*.

⁴³ *Id.* at 241.

⁴⁴ Virginia J. Kelsh, *Build it Right and They Will Come: The Librarian's Role in Library Construction*, 98 Law Libr. J. 269, 274 (2006).

⁴⁵ *Id* at 272.

on top of trends in the legal practice and education fields because they have some influence on library practices and services. ⁴⁶

The trend among law libraries today is to devote less space to collection and more for the user. ⁴⁷ However, if it is necessary to keep a collection, how can we store this material and design around the need to provide space to patrons? Many law libraries are downsizing or maintaining the size of their collections, and very few are actually growing them. 48 Less space is allotted to print collections so the space can be repurposed for other uses such as user-oriented study areas. 49 However, if a law library wants to create more space in the library but does not want to eliminate very much from their overall collection, there may be the option of holding a portion of their collection in off-site storage.

Law libraries have used off-site storage facilities to house material that are not used as often so that they are still available to patrons who order them. 50 The LIPA PALMPrint project is one attempt at maintaining a collection of legal materials in an off-site location.⁵¹ PALMPrint, or "Preserving America's Legal Materials in Print," believes that law libraries should not have to maintain duplicate collections of primary legal materials.⁵² Instead, their goal is maintain a

⁴⁶ *Id*.

⁴⁷ According to a 2011 survey of academic libraries, digitization of materials have caused about 43.24% of libraries to reduce the amount of floor space used to hold their print collections. These libraries also anticipate more space to be transitioned from holding print collections to other uses in the future. Primary Research Group, supra note 32, at 40.

⁴⁸ Of the libraries surveyed in 2011, about 50% of libraries have kept the space used for their collection the same while 39% decreased their collection space and only 10% increased. Primary Research Group, supra note 32, at 35.; Scott D. Bailey, Julie Graves Krishnaswami, The Future of Law Librarianship, in LAW LIBRARIANSHIP IN THE DIGITAL AGE 485 (Ellyssa Kroski, ed. 2014).

⁴⁹ 95% of libraries surveyed in 2011 plan to either keep the amount of space for seating for library users the same or increase it. Libraries also plan to either keep information commons at the current size (57.5%) or increase it (44%). Primary Research Group, *supra* note 32, at 36-37.

⁵⁰ Thomas Mann, *The Research Library as Place: On the Essential Importance of* Collections of Books Shelved in Subject-Classified Arrangements, in THE LIBRARY AS PLACE: HISTORY, COMMUNITY, AND CULTURE 192 (John E. Buschman & Gloria J. Leckie eds. 2010).

⁵¹ PALMPrint Preserving America's Legal Materials In Print, LEGAL INFORMATION PRESERVATION ALLIANCE.

http://c.ymcdn.com/sites/www.nellco.org/resource/resmgr/palmprint overview doc.pdf (last visited May 10, 2014).

⁵² *Id*.

shared collection of "historical primary materials" in a separate storage facility and circulate the material to participating libraries upon request.⁵³ In addition to freeing up space in law libraries for more student services, they cite the instability and impermanence of licensing digital collections as reasons for keeping this separate collection.⁵⁴ The project is expected to run for an initial three-year period, and may allow participating libraries more flexibility in the use of their space.55

Thomas Mann, on the other hand, argues that it is better to keep the collection in the actual library space.⁵⁶ According to Mann, one issue with keeping the books off-site, especially for research libraries, is that unless the information you are searching for is in the index, table of contents, or other information entered into the catalog record, you would not be able to find what you were looking for.⁵⁷ He used an example where there was relevant information in a book but it did not come up when only searching he catalog.⁵⁸ He says it helps greatly to see the books grouped together by subject in person, on the shelf. 59 The ability for users to browse the shelf and physically see the grouping and classification of books on the shelves is extremely valuable, especially when not everything can be found online. For law libraries, before deciding to keep it in a separate storage facility, it would be beneficial to understand the needs of your community and how they use the collection and balance it with the need for space.

Sustainability

Redesigning and updating a law library is a time-consuming and costly endeavor. A major renovation is not something that can be done very often so it is important to plan for the longevity of the design. When beginning a library renovation, there is naturally a lot of concern for the costs of initial construction and staying within the budget on immediate decisions related to the project. However, just as much concern should be granted to considering the long-term

⁵³ *Id*.

⁵⁴ *Id*.

⁵⁵ *Id*.

⁵⁶ Mann, *supra* note 50, at 192.

⁵⁷ *Id.* at 194.

⁵⁸ *Id*.

⁵⁹ *Id.* at 195.

cost of maintaining the structure and the day-to-day costs of running a library. ⁶⁰ In recent years, these costs are becoming an even greater concern, especially in the area of sustainable design. ⁶¹ In addition to considering options for designs that are cost-effective, especially in saving the library money in ongoing expenses, libraries are beginning to be designed in such a way as to make them environmentally friendly and reduce energy consumption. ⁶² Libraries have taken measures such as using energy saving light bulbs, taking advantage of natural light, using light sensors, adding insulation, double-pane windows, and fans to regulate internal temperature, and adding solar panels. ⁶³

There are several resources that may be of help in creating a sustainable and "green" library. The U.S. Green Building Council created the Leadership in Energy and Environmental Design (LEED) which clearly lays out standards and goals in achieving an efficient and environmentally-friendly building. ⁶⁴ Woodward recommends the U.S. Department of Energy's Building Technologies Program site which provides an explanation of the "whole building design." ⁶⁵ This theory is focused on using a holistic approach to designing a space that is energy-efficient. ⁶⁶ It recommends looking at the design as a whole and how various parts interact and work with each other rather than tackling each piece separately. ⁶⁷ The assumption is that this process will help architects and construction experts to develop ways to reduce waste and the building's impact on the environment. ⁶⁸

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⁶⁰ Michael Wescott Loder, *Libraries with a Future: How are Academic Library Usage and Green Demands Changing Building Designs?* 71 College & Research Libraries 348, 354 (2010).

⁶¹ *Id*.

⁶² The trend of redesigning libraries to be energy efficient is beginning to grow. In 2011, about 31.11% of libraries have made changes to be more energy efficient such as taking advantage of natural light and reducing energy consumption. Primary Research Group, *supra* note 32, at 38.

⁶³ The majority of libraries in the 2011 survey use energy saving light bulbs to reduce energy consumption (about 62%). The other options require more intensive renovation so the number of libraries implementing these options were smaller (for example, 13.33% have made architectural changes to use more natural light and have added double-pane windows). Primary Research Group, *supra* note 32, at 195-210.

⁶⁴ LEED, U.S. Green Building Council, http://www.usgbc.org/leed (last visited May 10, 2014).

⁶⁵ Jeannette Woodward, COUNTDOWN TO A NEW LIBRARY: MANAGING THE BUILDING PROJECT 108(2nd ed. 2010).

⁶⁶ *Id*.

⁶⁷ *Id*.

⁶⁸ *Id*.

It is helpful to see examples of how other libraries have approached environmentally-friendly designs and how successful they were in achieving this goal. There is an LEED certification system which rates buildings on its environmental impact. Referring to these building projects is a great way to inspire and plan your own sustainable design based on these exemplary models. The LEED rating system not only exemplifies libraries which have succeeded in meeting these standards, but being on this list provides these libraries with an added prestige. Paying attention to the LEED standards can help libraries save money in addition to providing a boost to the reputation of libraries who are able to meet these standards.

Recently, the John and Frances Angelos Law Center with the University of Baltimore School of Law received the LEED Platinum certification from the U.S. Green Building Council, the highest certification offered. The law center includes the law library which is spread across six floors. The building itself meets the LEED requirement of energy efficiency by adding technology for heating and cooling and a system for catching rainwater for reuse as well as natural light and garden spaces. The building design takes advantage of the natural light from the all-glass walls. This light helps to naturally regulate the internal temperature of the building. To further take advantage of this natural light, shorter book shelves (about four shelves high) are used on several of the floors to allow light to enter the space.

As evidenced by the University of Baltimore design, one important aspect of designing a sustainable law library is paying attention to sun light. By making decisions with the sun in mind, you could potentially save money on the cost of heating and cooling your law library. Depending on the geographical location of the law library, different choices may need to be made to naturally regulate the internal temperature of the building.

⁶⁹ *Id.* at 110.

⁷¹ Loder, *supra* note 60, at 349.

⁷⁰ *Id*.

⁷² Clement Chu-Sing Lau & Mary Elizabeth Murtha, *Going Green and Repurposing Space*, AALL Spectrum, May 2013, at 24.

⁷³ *Id*.

⁷⁴ *Id*.

⁷⁵ *Id*.

⁷⁶ *Id*.

⁷⁷ *Id*.

⁷⁸ Woodward, *supra* note 65, at 116.

If the focus is on reducing heat, especially during the summer months, you may consider structuring a library where a smaller portion is facing west where there is more sun exposure.⁷⁹ Alternatively, you may consider providing more insulation or reducing or eliminating the number of windows on the west side to lessen the amount of heat gained. 80 There are ways of retaining heat within the walls of the library as well which is especially useful during the winter months to cut down on heating costs. For example, placing larger windows on the south facing walls of the library will encourage heat from the sun to enter.⁸¹

Organizing the layout of the windows to take advantage of sunlight also has the effect of reducing the need for artificial lighting in those areas of the library. 82 In addition, particularly important during the summer months, this will reduce the amount of heat produced by artificial lighting. 83 Exterior features and landscaping design also have an effect on how heat is gained or deflected.⁸⁴ Because the sun's rays are angled differently depending on the season, outdoor features such as trees or building overhangs can be situated in such a way as to block direct sunlight during the summer, but allow sun light to enter the building during the summer.⁸⁵

Fred Schlipf is an architect who discusses some of the major mistakes he has observed while visiting libraries and among the mistakes he lists is the use of skylights. 86 Schlipf is of the opinion that the addition of skylights to a library space is often a mistake.⁸⁷ While there are certain benefits to skylights, Schlipf raises some important points to consider before placing them in your library.

The top of the building gets a lot of exposure form the sun, so it is a great source of heat. 88 Because of this, adding skylights may or may not be a good thing depending on the needs of your library space. To gain heat inside the library, skylights provide easy access for the sun to enter. 89 However, if cooling the library is the goal, skylights are not a helpful addition. It is important to keep

⁷⁹ *Id*.

⁸⁰ *Id.* at 117

⁸¹ *Id*.

⁸² *Id*.

⁸³ *Id*.

⁸⁴ *Id*.

⁸⁵ *Id*.

⁸⁶ Fred Schlipf, The Dark Side of Library Architecture: The Persistence of Dysfunctional Designs, 60.1 Library Trends, 227-255 (Summer 2011).

⁸⁷ *Id*. at 229

⁸⁸ *Id*.

⁸⁹ *Id*.

this sort of temperature regulation in mind when considering adding skylights to your space.

Skylights are also a great source of natural light and are particular beneficial in basement buildings with little access to natural light. The University of Washington Gallagher Law Library is a good example of a beneficial use of skylights to allow for natural light in a lower level library setting. On the other hand, it is difficult to control the light entering through skylights. If it is too bright, not much can be done to block the sun, and there is the added issue of books, furniture and other objects fading from the constant exposure to the light. ⁹²

Sound caused by skylights can be another issue. Skylights add additional hard surfaces and creates a space for sound to echo inside. Sound occurring below the skylit area can be amplified and echo to other areas of the library which could potentially disturb other patrons. There is also the problem of outside sound such as the rain which can create a very loud sound when it strikes the skylight windows. He will be skylight windows.

Ultimately, one of the main goals of creating a "green" library space is reducing energy consumption. According to Loder, one major way libraries are reducing energy use is by scaling back in size and limiting growth. ⁹⁵ In other words, "perpetual growth is an unsustainable fantasy." Having an idea of the collection size or a keeping a limit in mind which you will not exceed when working with the library space is often exhibited by libraries seeking to become sustainable. ⁹⁷ Reducing the size of the collection is one major way of reducing the space and therefore reducing the energy needed to store this collection. ⁹⁸

User Oriented Space

The way law library patrons are using the library is an important consideration when determining how to allocate space in the law library. Law

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<sup>90</sup> Id. at 231.
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⁹² *Id*.

⁹¹ *Id*.

⁹³ *Id.* at 228.

⁹⁴ *Id*.

⁹⁵ Loder, supra note 60, at 355.

⁹⁶ *Id*.

⁹⁷ *Id.* at 356.

⁹⁸ *Id*.

students, for example, tend to use the space not only to access law library materials, but also to study and collaborate with other students.⁹⁹

Antell and Engell examine whether there was a difference in library use depending on the age of the library user. 100 They determined that the younger "scholar" would tend to want to "settle in" to a space when using the library. 101 They would spend a long amount of time using the space to study, whether in the study carrels or a group study room, and they were much more likely than older users to bring food and drink with them into the library. 102 Based on this information, the idea of users wanting to "settle in" gives an idea of how libraries are being used, how these young users will continue to use the library in the future, and what sorts of services we can offer to further encourage students and other users to keep coming into the library.

A new feature some libraries are adding is a space for patrons to get coffee or snacks inside or near the library. 103 By doing this, libraries are creating a space much like bookstores or coffee shops with the convenience of allowing visitors to purchase food and drink. Adding a café or coffee bar can be an effective way of encouraging collaboration among library users and to promote the library as a gathering place. 104

When law students are looking for a place to study, they want a comfortable and welcoming space. 105 What this means is a space with controlled temperature and air, with bright, natural light, and soft, comfortable furniture. 106 Clean spacious work spaces are also sought after in library spaces. 107 By paying

¹⁰³ Margeton, *supra* note 1, at 352.

About half of the libraries surveyed considered adding or expanding a library café or restaurant to be an important part of their next library redesign. Primary Research Group, *supra* note 32, at 132.

⁹⁹ Camille Broussard, Ralph Monaco & Gitelle Seer, Law Library Management in LAW LIBRARIANSHIP IN THE DIGITAL AGE 92 (2014).

¹⁰⁰ Karen Antell & Debra Engel, Stimulating Space, Serendipitous Space: Library as Place in the Life of the Scholar, in The Library as Place: History, Community, and Culture 166-170 (eds. John E Buschman & Gloria J. Leckie 2010).

¹⁰¹ *Id*. at 174. ¹⁰² *Id*.

Broussard, *supra* note 99, at 92.

¹⁰⁵ Bailey, *supra* note 48, at 496.

¹⁰⁶ Lisa M. Given, Setting the Stage for Undergraduates' Information Behaviors: Faculty and Librarians' Perspectives on Academic Space, in The Library as Place: History, Community, and Culture 180 (Eds. John E. Buschman & Gloria J. Leckie) (2010). ¹⁰⁷ *Id*.

attention to details which create these welcoming and comfortable spaces, law students may choose to spend more time in the law library.

Traditionally, the law library has been a place for quiet study. While it has remained a quiet space, it is just as important to provide a place for a wider range of activity now that patrons are using the library as more of a social setting and as a meeting place for group projects. Law libraries are making a shift towards supporting activities in addition to quiet study such as collaboration and research training. 108 An emerging trend in patron usage of the law library is "collaborative learning" and treating the library as a space for community. 109 Study spaces are no longer just for solitary work, but now must accommodate space for groups of people to work together. Some of the most popular areas of the library are group study rooms which allow students or other patrons to work collaboratively. 111 A part of students' education has involved more group work, so it is especially important for academic libraries to provide adequate space to accommodate those students. 112 Many more libraries are including more group study rooms in their new designs and this has also been the trend in law libraries. 113 To allow for group study and the inevitable noise from the group's interaction in the typically quiet library space, a designated area will need to be provided. Special study rooms made for small groups will meet the study needs for students who want that interaction with others while protecting the quiet areas for those who prefer to work in solitude. 114 Providing whiteboards and power connections for laptops are especially helpful to students. 115 Along with formal collaborative study spaces which can be reserved ahead of time, it is equally important to provide informal gathering space for impromptu group collaboration. 116

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¹⁰⁸ Broussard, *supra* note 99, at 91.

¹⁰⁹ Broussard, *supra* note 99, at 92

¹¹⁰ Bailey, *supra* note 48, at 496; Richard J. Bazillion and Connie L. Braun, ACADEMIC LIBRARIES AS HIGH-TECH GATEWAYS: A GUIDE TO DESIGN & SPACE DECISIONS 118 (2nd ed. 2001).

Christopher Stewart, THE ACADEMIC LIBRARY BUILDING IN THE DIGITAL AGE: A STUDY OF CONSTRUCTION, PLANNING, AND DESIGN OF NEW LIBRARY SPACE 73 (2010); Bailey, *supra* note 48, at 496.

¹¹² Bailey, *supra* note 48, at 496.

Stewart, *supra* note 111, at 64 (91% of respondents to the survey say that they are providing at least 50% more group study spaces in their new facilities); Broussard, *supra* note 99, at 91.

¹¹⁴ Margeton, *supra* note 1, at 348-349.

¹¹⁵ Margeton, *supra* note 1, at 349.

Woodward, supra note 65, at 64.

Although group study spaces are becoming increasingly popular, it is still important to consider the needs of those who prefer to work in private. 117 Woodward explains that people who come to the library seek out their own private space or "nooks" where they can work away from others. 118 These nooks can easily be provided through the use and placement of study carrels and tables. 119

As with every part of the design process, an important consideration when designing user oriented spaces is how patron needs might change in the future and how these spaces can adapt to these changing needs. Planning ahead early in the design process can allow you to prepare for these future changes which can save the law library a lot of time and money later on. 120 According to Woodward, some safe assumptions that can be made about the future use of library space includes the decrease in acquiring books, that more computers will likely be added in the future, there will likely be a large increase in power usage so ensuring the building can handle such power usage is important, and that more electrical outlets will be needed as a result and that it is safe to include more of them in areas not commonly used by patrons (such as areas set aside for shelving in preparation for transforming the space into a study area at a future date). 121 Ultimately, when designing user space, it is important to create a flexible space which can be changed and adapted as needed. 122

Disability Access

Law libraries which have not undergone renovation in quite some time may require extra attention in the area of providing disability access. 123 While the Americans with Disabilities Act (ADA) provides minimum standards which every library must accommodate by law, more can be one above and beyond these regulations to make physically challenged patrons feel welcome in the law library. 124 As Margeton describes, it becomes more about "embracing the full *spirit* of the law." 125 By placing yourself in the place of those you are

¹¹⁷ *Id*.

¹¹⁸ *Id*.

¹¹⁹ *Id*.

¹²⁰ *Id.* at 68.

¹²¹ *Id.* at 68-69.

¹²² Broussard, *supra* note 99, at 91.

¹²³ Margeton, *supra* note 1, at 111.

¹²⁴ *Id*.

¹²⁵ *Id*.

accommodating you can understand and plan to provide certain fixes in addition to the ADA requirements. 126

Since the enactment of the ADA in 1990, libraries have been required to meet the basic standards of accommodation. 127 This includes requirements such as creating accessible entry and egress and walkways as well as providing accommodating furniture. 128

One common problem and an area where it helps to plan ahead is the use of heavy and oversized doors in the law library. Law libraries tend to favor doors that are heavy because they block sound and overall help the building to retain heat. 129 However, these large and heavy doors create a problem for physically challenged patrons. 130 A compromise would be to include a power-assisted feature that would open and close the doors. ¹³¹ To keep costs down, designing the power-assist feature into the door is less expensive than adding the feature in later. 132

For furniture such as study tables or carrels, the ADA only requires a small percentage (about 5%) to accommodate the height necessary for wheelchair access. 133 However, setting aside such a small number of furniture pieces in just a few areas of the law library can be very limiting for physically challenged patrons in where they can go in the library to work. ¹³⁴ As Bazillion and Braun describe the situation, "disabled library users should not be restricted to one part of the building when seeking basic accessibility that anyone would reasonable expect to enjoy."135 It would be ideal to include furniture that complies with the ADA requirements in all areas of the law library. If early in the design process, furniture can be selected or modified to accomplish this. 136 Some furniture can be made adjustable to provide use for all patrons. ¹³⁷ If not, there are temporary fixes such as raising table legs with blocks to provide more space underneath. 138

¹²⁶ *Id*.

¹²⁷ *Id*.

Americans with Disabilities Act, 42 U.S.C. §12101 et seq. (1990).

Margeton, *supra* note 1, at 113.

¹³⁰ *Id*.

¹³¹ *Id*.

¹³² *Id*. at 114.

¹³³ *Id*. at 117.

¹³⁴ *Id*. at 118.

¹³⁵ Bazillion, *supra* note 110, at 53.

¹³⁶ Margeton, *supra* note 1, at 118.

¹³⁷ *Id*.

¹³⁸ *Id*.

Finally, special tools to assist physically challenged patrons may be beneficial but require extra space to store. Special computer monitors or devices that can magnify documents are a great help to the visually-impaired. While an entire room dedicated these tools may be too much for a law library, they can be added to a pre-existing reading room or study space, preferably close to library staff that can assist patrons in using them. 141

Space Planning

Because the future is so unpredictable in regards to technology and the changing roles of the law library, it is best to create a design that remains flexible and change along with the times. ¹⁴² It is almost impossible to tell whether the future still holds a place for print materials or if some other format will take its place. So, when it comes to designing the law library space and allotting areas for print storage or electronic resources in "information commons" style study spaces, flexibility is the key to a lasting law library design. ¹⁴³ To create a flexible law library space, consideration should be given to the overall construction of the law library, furniture layout, and electrical access.

The modular law library building design has been used for around seventy years and continues to be used today. The basic idea behind modularity is "simplicity" with the overall structure of the building is a rectangle with smaller rectangles or square shaped rooms within the larger one. Modularity lends itself to flexibility by creating spaces that can easily be transitioned into other uses should the need arise. The original intention of modular design was to create spaces that could easily house print collections and shelving and spaces that can grow or shrink depending on the size of the collection. However, this mode of design may be becoming less popular due focus shifting to the needs of the user and the slowing growth or even shrinking sizes of print collections. A greater variety of spaces to meet specific needs of the user (not just the

¹³⁹ *Id*. at 119.

¹⁴⁰ *Id*.

¹⁴¹ *Id*.

¹⁴² Broussard, *supra* note 99, at 91.

¹⁴³ Id

¹⁴⁴ Bazillion, *supra* note 110, at 84-85.

¹⁴⁵ Loder, *supra* note 60, at 359.

¹⁴⁶ Margeton, *supra* note 1, at 144.

¹⁴⁷ Loder, *supra* note 60, at 359.

rectangular shape intended to accommodate book shelving) may be what is needed in the future. 148

Once the basic construction of the law library is complete, the spaces will then be filled with furniture and equipment to create a functional space. There will be a space for books and shelving, study rooms with tables or carrels, computer labs or classrooms or a separate area for computer terminals, reference and circulation spaces, and offices. Planning ahead for multipurpose spaces can allow a space previously used for shelving print collections to be transitioned into a study space for patron use at a later date. [149]

Natural lighting and electrical access can be important considerations when placing study areas. The periphery of the law library tends to have more electrical outlets available, so placing study areas nearby can allow users more access to power outlets to use their personal computers. ¹⁵⁰ This positioning also provides greater access to natural lighting which users often prefer. ¹⁵¹

Some libraries are taking an unconventional approach to space planning. For example, the Marquette University Law Library has created a "library without borders." ¹⁵² Spanning four floors of the law school, the library has been seamlessly integrated with the law school, eliminating doors and walls and allowing users to move freely between classrooms and the law library. 153 The integrated and open atmosphere of this library is a unique approach to creating an accessible space for law students. 154

Safety & Security

Safety and security is a necessity in designing a law library building. Not only is it necessary to prevent law library material from being stolen or damaged, but it is even more important to ensure the law library staff and patrons are safe. In addition to meeting the required safety codes, there are some design decisions that can help keep the law library more secure.

¹⁴⁸ *Id*.

¹⁴⁹ *Id.* at 358.

¹⁵⁰ Margeton, *supra* note 1, at 105.

¹⁵¹ Given, *supra* note 106, at 180.

¹⁵² Julia Jaet & Patricia A. Cervenka, A Library Without Borders, AALL Spectrum, May 2011, at 11.

¹⁵³ *Id*.

¹⁵⁴ *Id*.

Often, law libraries are designed in a way that the floor plan and furniture layout creates hidden spaces which could pose a security threat. ¹⁵⁵ To increase security, arranging furniture and shelving to create clear lines of sight allows staff to easily keep an eye on all areas of the law library. 156 In conjunction with arranging furniture and shelving, staff can be positioned in places, without being isolated, where they can see what is happening while they work. Areas that are out of view can still be monitored with security cameras even if they are only periodically turned on. 158

Security equipment is often used as a means of protecting the property of the library and keeping track of who accesses the law library. 159 There are several types of motion detectors that serve slightly different purposes. Motion detectors can trigger alarms when sensors recognize movement or body heat. 60 Similarly, vibration detectors can be placed on windows to detect if someone tries to break the glass. 161 One of the most effective and useful pieces of security equipment are window or door contacts which use a magnet to trigger an alarm when either is opened. 162

As with implementing any form of technology, consideration should be given to how long the technology will be viable. 163 This security equipment can at times be expensive so it is worth considering whether the technology will soon become obsolete. 164 On the other hand, also consider whether the technology is too new and may come with some unforeseen problems that have yet to be fixed. 165

Conclusion

Designing or renovating a law library is a lengthy, expensive, and complicated process which requires a great deal of knowledge of not only the technical aspects of architecture and space planning, but also the needs of patrons

¹⁵⁵ Woodward, *supra* note 65, at 190; Margeton, *supra* note 1, at 325.

¹⁵⁷ Woodward, *supra* note 65, at 190.

¹⁵⁸ Bazillion, *supra* note 110, at 50.

¹⁵⁹ Woodward, *supra* note 65, at 191.

¹⁶⁰ *Id*.

¹⁶¹ *Id.* at 192 ¹⁶² *Id.*

¹⁶³ *Id*.

¹⁶⁴ *Id*.

¹⁶⁵ *Id*.

and the changing roles of law libraries and librarians. This paper discusses some of the general trends of law library design and some of the main considerations which should be taken into account. Much of the design process is a guessing game. It is unclear just where technology will lead us in the future, what sorts of formats will emerge as the preferred method of information organization, and whether print materials will still be necessary. Much of law library design is geared towards the needs of the user. It is unclear just how we will need to adapt our spaces to continue to encourage people to come into the physical law library space.

There is no clear-cut answer to these questions. However, there are common themes in law library design. Technology is becoming more prevalent and important in legal research, and this is affecting the design and services of the law library in several major ways including the law library's own collection of legal materials. Law libraries are becoming more conscious of sustainability and designing environmentally-friendly buildings. This trend is just beginning to gain attention and will likely lead to some major changes for the law library building in the future. In addition, the law library space is designed with the comfort and needs of the user in mind from comfortable seating areas and library cafés to group study rooms.

The common theme in nearly every aspect of law library design is "flexibility." By keeping the focus on creating a flexible and multipurpose space which can grow and adapt to the constantly changing needs of patrons and the fast-paced advancements in technology, we can design law libraries which can last far into the future.