REVISITING THE HISTORY OF LIBRARY ARCHITECTURAL DESIGN PRESENTS an opportunity to reflect on our current library spaces and the role of collections within a highly networked educational environment. In this chapter, I take inspiration from the late nineteenth century, when library stack design changed the way people interacted with information resources. The environmental conditions of libraries in this time necessitated several innovations, such as the development of fireproof yet compact shelving, translucent flooring to permit light to penetrate between floors, and library stacks that could be accessed directly by library visitors. Through a critical lens on the history of the stacks, a theoretical framing for contemporary academic library collection management emerges. Here I use Open Stacks as a methodology that allows for engaging, inclusive, community-centered, and action-oriented design and practice of library collection management activities.

In approaching this work, I believe that those who work in academic libraries have the ability and agency to improve equity in education for all of the communities with which the institution engages. My perspectives in this chapter are my own, rooted in my experience, family history, and interests in education as a liberating endeavor for all people. Over the past several years, I have worked in the Southwest on land that is the traditional homeland of the Akimel O’odham and Pee Posh Indian communities. When my team was tasked with designing the print collections for a massive, renovated research library at Arizona State University (ASU), the opportunity to rethink the role...
of print collections in library design presented itself. We employed a team-based, community-engaged, data-informed approach, and looked toward an increasingly networked future for collection development and stewardship. This chapter outlines the resulting collection management methodology that emerged from this experience. I am grateful to our team, our collaborators, and our communities, and for the privilege of leading this effort.

LEARNING FROM THE HISTORY OF THE STACKS

Prior to 1870, libraries in America were largely private or subscription-based. Their architectural designs were often inspired by Greek temples and Gothic chapels, featuring a large room with alcoves and one or more galleries, such as the Astor Library in New York City, shown in figure 1.1.

In the period between 1870 and 1930, a confluence of social and economic factors, institutional innovations, and increasing public support for education in America spurred significant growth in the development of public libraries. At this time, libraries that were open and free to the public were

FIGURE 1.1
Interior view of the Astor Library, New York, 1854

considered community-based institutions that fulfilled an educational as well as a social role.\(^2\) Academic libraries during this period were focused primarily on faculty interests and research. As academic programs grew more robust and sophisticated, library building spaces became more specialized in their purposes.\(^3\) For example, the University of Michigan’s library, completed in 1883, contained an art gallery, reference area, and seminar rooms in addition to a multitier structural steel stack.\(^4\) Multifloor or tiered stack arrangements were an architectural design response to the increasingly large book collections entering libraries. More dense shelving was needed for the burgeoning volume of printed matter supporting new and growing programs. However, the interior environmental conditions resulting from early heating, lighting, and ventilation systems and lack of fire suppression systems posed a significant design challenge for architects as building and collection sizes grew. In particular, mitigation of fire, mold, mildew, dust, low light, gases from oil lamps, and insufficient ventilation were critical for the comfort of library users and employees.

After 1870, American library design saw several innovations. Iron and steel bookstacks, such as those designed by Hecla Iron Works and The Snead and Company Iron Works, Inc., met the new demand for fireproof library interiors and offered a cost-effective alternative to wood shelving.\(^5\) The book stacks for the College of City of New York (figure 1.2) are an excellent example of the Hecla stacks system.

**FIGURE 1.2**

*Proposed book stacks in College of City of New York, 1908*

These stacks embraced the aesthetic of efficiency and took advantage of advances in structural engineering as applied to library furnishings. In 1891, the University of Pennsylvania opened its library, designed by architect Frank Furness, containing “a three-level stack constructed entirely of fireproof materials, all configured in a manner consistent with modern library operations.” Stack designs like these often had glass floors, enabling natural light to pass to each floor and supplementing oil lamps that allowed for book retrieval by staff prior to electric lighting. The open-backed fireproof shelving system with a series of floor grates to allow for natural ventilation served to minimize mold outbreaks and fire damage. Philanthropist James B. Colgate, in researching designs of academic library buildings in preparation for the new library at what is now Colgate College, wrote, “We went on consulting librarians, and found it was necessary to have a stack room, so arranged that the books should not be exposed to either heat or dampness, for these destroy bindings.” The stacks, then, served a collections preservation function in addition to improving the environmental conditions of libraries. Prioritizing efficiency and function in the housing of collections represented a push toward modernization in libraries.

Book stacks were originally intended for use exclusively by library staff, who were experts in library systems such as classification and the shelf list. In the eyes of librarians in the late nineteenth century, the stacks were not fit for the use of books, but only for their storage. Fletcher notes that the stacks were designed for “a place to keep books when not in use” and that if readers were to be encouraged admission to the stacks, there should be well-lighted spaces with tables and chairs positioned throughout for their use. He further emphasizes that “the idea of the book-stack is to provide compact storage for a large number of volumes” and that books are not supposed to be used in the stacks, but “conveyed for use to the reading-room.” As an access model, Fletcher viewed the closed stacks as a high-density storage mechanism for books, to be used only by trained staff along with the accompanying paper shelf list that indicated the location of the books in the stacks. It was seen by librarians at the time as a necessary barrier due to the technical information systems knowledge required and the somewhat cumbersome nature of paper-based storage and retrieval systems.

With the growth of libraries, and public libraries in particular, book stacks were increasingly made accessible to the public, thereby also serving social and
cultural functions. For example, the Lawrenceville Library in Pittsburgh was the first Carnegie public library to have a radial plan for its open book stacks. This design had two effects: it allowed for users to directly browse large collections of books and enabled librarian surveillance of users. Prizeman proposes that the newly opened stacks “presented an innovation in public transparency and navigability with its accessible stacks.” In this time period near the turn of the last century, the public transparency that he describes served to expose the public to scholarly, literary, and information resources, but in particular, those resources that librarians selected for the edification and betterment of the public. A book collection became an educational tool, not just to augment public schooling in America, but also to expose immigrants and laborers to white Euro-American middle-class norms and culture. Prizeman summarizes that “the use of a panoptic plan at Lawrenceville articulated its active role in promoting cultural cogency through its programme of Americanisation.” The library became a physical manifestation of American ideals and proved to be an effective method of enculturation.

Opening book stacks to users had several effects beyond enculturation. It exposed the intellectual work of librarians and associated information theories and practices to users; it created the need for education regarding information systems such as classification, shelf lists, card catalogs, and subject access points; and it began to change the relationship between information and users, building expectations that exploring information should be a self-directed endeavor instead of one facilitated by librarians. Browsing the stacks became a valued part of the library experience. Because the learning curve for understanding information systems was surmountable for many library users, and the stacks system continued to be an effective solution for warehousing large numbers of books, book stacks remained an integral part of library design until the rise of Information Communication Technologies (ICTs) and the development of networked electronic library systems.

**UPDATING THE STACKS**

There have been major sociocultural changes in American education since the first stacks appeared in libraries, and therefore many of the processes used by libraries are out of step with contemporary cultural views. In the 2017 white paper on the future of print collections, ASU Library emphasizes that it is “not
feasible for all American universities to cling to old models based on seventeenth-century educational practices. Similarly, it is dangerous for libraries to universally follow a model developed in Europe to serve the needs of a small elite.” The danger described here is that if libraries ignore the cultural and social norms that are communicated via the book stacks, they risk exclusion of Black, Indigenous, Latinx, Asian and Pacific Islander, and LGBTQ+ voices, and those of women, veterans, disabled people, and others who have been marginalized within the primarily white, Eurocentric, cisgender, heteronormative, patriarchal, and socioeconomically privileged scholarly traditions. Within this context, libraries should aim to serve all who seek education, and our collections should reflect a range of perspectives, knowledges, languages, and cultures. If libraries do not develop more inclusive collections that support all of our constituents, then we risk violating the fundamental human right to education.

Academic libraries are poised for major shifts in policy and practice in which the library can be a catalyst for change in education. Considering that our communities are increasingly connected with ICT and able to access digital information, and considering the trends toward openness in technology and education, there are more remote opportunities for learning than ever before. In my view, the stacks may now be used in referring not only to the dense mass of physical materials held by libraries, but also to the mass of digital content available to users, with all of the associated access mechanisms, preservation, and space considerations of a traditional stack environment.

I use the term Open Stacks as a contemporary and theoretical reconception of the traditional book stacks. Here I am proposing using the stacks as a critical action-oriented approach to improve equity in the educational environment through collections work. Using a Critical Race Theory (CRT) lens on library work aids in conducting sociocultural analyses of libraries that expose racism and other inequities and identify the impacts these have on education and learning. By employing CRT and adding a Tribal Critical Race Theory (TribalCrit) framework, an action-oriented agenda emerges that further exposes and aims to ameliorate colonialism, paternalism, and the inequities suffered by Indigenous Peoples. A critical lens on library collections offers information workers alternatives to the stacks as a Euro-American middle-class enculturation tool.
LIBRARY RENOVATION AS A CATALYST FOR CHANGE

In 2017, ASU Library began a dialogue within the university and with other academic institutions regarding library space design and the role of the academic library print collection. These discussions culminated in my coordination of the development of a white paper that presented ideas and considerations for the future of print. As the associate university librarian for the collections services and analysis directorate, I brought these ideas into our design of print collections for ASU’s Hayden Library renovation. Our plan was distilled into a proposal that was generously funded by The Andrew W. Mellon Foundation. “The Future of the Arizona State University Library Print Collection: A Collaborative and Data-Driven Approach to Stack Design and Curation” was an ambitious three-year project conducted in tandem with the Hayden Library renovation that pushed the boundaries of our traditional collection development workflows and processes, prompting us to seek new methodologies for engaging with users about our print collections. This was the beginning of the Open Stacks as methodology. Here are some of the ideas that shaped our thinking about what print collections should be within our current place and institutional context and how they should be developed with and for our communities:

1. Use a “library as community” approach to enhance opportunities for rich engagement with print collections in library spaces.
2. Employ a “community as library” approach. Listen carefully to and engage with community members to honor the knowledges of our communities, build trust, and work together to enhance digital skills and community capacity-building.
3. Critical theories are necessary for inclusive curation.
4. Embrace “openness as social praxis” for library collection management work.
5. Local and networked print collections inform each other. Local collections decisions inform the shape and depth of our state, regional, and national aggregated collection, and analyses of the broader network of available resources inform local collections decisions.

IDEA #1 | Use a “Library as Community” Approach

In 1958, Raymond Irwin of the University College, London, suggested that “a library can be defined as a community in which reader and writer meet, to which both contribute something of value, mutually forging the links of the chain as it passes from mind to mind and from generation to generation.”

Although Irwin was most likely referring to forging these links in a chain of learned scholars, I like to think about this quote as opening up the possibilities for anyone to participate in the process of building knowledge through use of the library. If we treat libraries as communities, would we design our collections or services differently? Would we think about those who use the library differently? Would we more carefully consider the knowledge-building activities that occur in the library and with library materials? I believe we would. Although academic libraries have historically designed their collections to support the content that scholars and researchers need, they often do not consider deeply their extended communities or the engagement and knowledge-building processes that occur with library materials when developing their collections and designing library spaces. The question of who libraries engage and how is at the center of Open Stacks as methodology.

By thinking about the library as community, we can imagine increased opportunity for rich engagement. In 1994, bell hooks characterized the classroom as the most radical space of possibility in the academy; through opening our hearts and minds to look beyond the boundaries of what is acceptable practice, we as educators can transgress these boundaries to promote education as the practice of freedom. I believe that libraries are also radical spaces of possibility and may be activated through transgression of traditional boundaries of acceptable practice. In this spirit, library spaces should be designed to reflect their place as a conceptual manifestation of land, culture, peoples, history, and society. This shifts normative practice in traditional academic libraries. Acknowledging the land and the Indigenous Peoples associated with the land sets up opportunities for reciprocity and dialogue. In particular, hiring, retaining, and empowering Indigenous personnel in libraries can help to realize the library as a space of possibility. Developing inclusive programs, collections, and services opens up the library as a safe space for Indigenous and other marginalized scholars and learners. Analyzing library practices to honor our communities is also advisable. For instance, ASU Library endorsed and adopted the Protocols for Native American Archival Materials to follow best
practices in culturally responsive care and use of Native American materials held by nontribal organizations. The “library as community” concept provides opportunities for the library to be a radical space of possibility within the academy.

IDEA #2 | **Employ a “Community as Library” Approach**

The “community as library” concept flips the emphasis of the previous concept and assumes that every member of a community contributes value to the educational environment. This view brings multicultural, multiracial, and multigenerational perspectives to the library. It prompts us to question the role of culture in education and how community knowledges may enrich the academic library experience. This approach uses a CRT lens. As stated by Ladson-Billings and Tate, there are three propositions for CRT: “1) race continues to be significant in the United States; 2) U.S. society is based on property rights rather than human rights; and 3) the intersection of race and property creates an analytical tool for understanding inequity.” These three issues produce inequities in education and are felt keenly by Indigenous Peoples and People of Color.

As a way to address these disparities, Yosso provides a concept of community capital, or community cultural wealth, that celebrates a range of ways of being and knowing, languages, and values. Yosso states that “the main goals of identifying and documenting cultural wealth are to transform education and empower People of Color to utilize assets already abundant in their communities.” Viewing the community as an immense source of wealth prompts libraries to expand the range of what we believe are authoritative sources of information. Oral histories, traditional stories, family photographs, recipes, clothing, jewelry, and other cultural objects, and even the embodied knowledge and languages of community Elders, become rich sources of information for learners and scholars. An example is the community-engaged work of the Labriola National American Indian Data Center at ASU, which develops collections, services, and programs for Native students, faculty, and community members through regular communication and dialogue. Who libraries employ, then, is critical. Their lived experiences, cultural perspectives, and community ties are assets to libraries in that our personnel are community members and reflect the racial and cultural diversity of the community. The “community as library” framing challenges our conceptions of the value of our communities to education.

IDEA #3 | **Critical Theories Are Necessary for Inclusive Curation**

Critical theories should inform library practices within institutions that hold diversity and inclusion as values. Critical librarianship can be useful as a practice for teaching information literacies, but often it does not inform library culture or collection management work.\(^{24}\) Updated approaches are needed for reviewing selection, acquisition, description, and management processes to further equity in access to education.

Along with CRT, TribalCrit is a framework for libraries that helps to situate academic library work on the land, and as a reflection of a place and the people whose traditional homelands the institution occupies. In a 2005 article, Brayboy outlined the nine tenets of his TribalCrit theory:

1. Colonization is endemic to society.
2. U.S. policies toward Indigenous peoples are rooted in imperialism, White supremacy, and a desire for material gain.
3. Indigenous peoples occupy a liminal space that accounts for both the political and racialized natures of our identities.
4. Indigenous peoples have a desire to obtain and forge tribal sovereignty, tribal autonomy, self-determination, and self-identification.
5. The concepts of culture, knowledge, and power take on new meaning when examined through an Indigenous lens.
6. Governmental policies and educational policies toward Indigenous peoples are intimately linked around the problematic goal of assimilation.
7. Tribal philosophies, beliefs, customs, traditions, and visions for the future are central to understanding the lived realities of Indigenous peoples, but they also illustrate the differences and adaptability among individuals and groups.
8. Stories are not separate from theory; they make up theory and are, therefore, real and legitimate sources of data and ways of being.
9. Theory and practice are connected in deep and explicit ways such that scholars must work towards social change.\(^{25}\)

TribalCrit prompts us to examine the relationships of culture, knowledge, and power and how they play out within educational settings. I believe that this calls librarians to recognize the land upon which their libraries are built, and work to develop and repair relationships with the Native peoples dislocated by the institution. It also prompts us to develop an awareness of culture,
knowledge, and power within our policies and work practices, and within our organizational culture. Schein and Schein surface the complexity of social systems and articulate ways to analyze an organizational culture. Developing an awareness of our academic environments and those who we encounter within them is a good first step on a journey of understanding the complexities of our organizations. How do we relate to others? Do we treat everyone with respect and dignity? Reflection on our own behaviors and our relationality to others helps us to listen and give them our attention. Active listening helps to center the voices of Indigenous Peoples within our communities and will uncover the changes needed to address culture, knowledge, and power imbalances within academia and within the curation practices of libraries.

ASU Library has taken a multidimensional approach to the Labriola National American Indian Data Center, which supports Indigenous students and faculty through culturally responsive programs and services. First, we hire, listen to, and engage Native library workers due to the important perspectives, experience, and knowledge they bring to the library. We engage with local Native community stakeholders, students, and faculty in dialogue around how the library can best support them. We also work with several administrative offices and academic support units across the university, such as the Office of American Indian Initiatives, which serves as a liaison between the university and the twenty-two federally recognized Arizona Tribal Nations and their citizens. Our communities benefit from the relationship-building, collaboration, and partnerships with Tribal Nations because what we learn and experience enriches and informs library work and enhances the educational environment. Developing Native community-engaged initiatives that bring a wealth of perspectives and experience to library work enables more inclusive collection development and services as well as growing safe spaces for learning, study, and research within the library. This helps us iterate toward decolonizing the library, centering Native voices along with those of People of Color, and working to dismantle oppressive institutional systems.

**IDEA #4 | Embrace “Openness as Social Praxis” in Libraries**

This section builds on ideas Shari Laster and I proposed in “Open Stacks in Library Design,” where we make the case for Open Stacks as a physical complement to Open Educational Resources (OER), which are free to use and employ participatory processes. Inspired by Smith and Seward’s conceptualization from *Transforming Print: Collection Development and Management for Our Connected Future*, edited by Lorrie McAllister and Shari Laster (Chicago: American Library Association, 2021).
of “Openness as Social Praxis,” we reframed print collection management in light of three processes: open production, open distribution, and open consumption. Laster and I have further suggested that libraries consider information work as a social praxis and that opening up library processes will enable moving theory into action.

Using open production in libraries enables wider participation in and co-creation of collections. By opening up collections decision-making processes, it becomes possible to employ community-engaged participatory approaches. This enables shared decision-making, where library workers collaborate with our diverse communities to develop collections that more accurately reflect the interests and perspectives of the community. At ASU Library, Nancy Godoy’s community-engaged approach to building archival collections in tandem with traditionally marginalized Black, Latinx, LGBTQ+, Indigenous, and People of Color is inspirational in this regard. Student workers from Godoy’s Community-Driven Archives team also created a circulating book display and faculty workshop that surfaced and celebrated marginalized community voices. Open production, then, shifts the power of decision-making away from traditional institutional perspectives toward our diverse users, serving to build trust and enhance knowledge of library work among our communities.

Open distribution enables wider access to library collections by more people, beyond the walls of an institution’s physical spaces. When viewed through the Open Stacks lens, collections exist in both physical and digital formats, allowing for wider distribution and use of information resources. This is much easier to do in our networked environment than in our physical libraries. However, I urge academic libraries to consider making their print materials more widely available for distribution and use. Through less restrictive access policies and participation in more borrowing and lending networks, libraries can connect more people with more resources. ASU Library lends at no charge to public libraries and community colleges within the state and is working to expand its borrowing networks. If all libraries increased opportunities for both digital and print distribution, libraries could collectively iterate toward further openness of information resources, contributing to equity in access to information. In digital formats this is achieved through OER and open access (OA) works discoverable through search engines. The Google Books Project, HathiTrust, the Library of Congress, and the Open Library from the Internet Archive aim to further open traditional print book consumption.
through digitization. We suggest that the future of print collections lies in their networked use. Increasing access to print works through participation in resource-sharing consortia and partnerships is key to opening up all library collections for wider use.

To increase open consumption of library collections, Laster and I urge academic libraries to allow expanded access to the data that underlies their collections. Drawing inspiration from “Collections as Data” work in libraries and cultural heritage organizations, we see possibilities for iterative and participatory change to collections instigated by members of our communities who are invited to explore, remix, and respond to data derived from collections. As an initial step, ASU Library released data about featured circulating collections developed with community collaboration for Hayden Library. We also look forward to opportunities to open our doors to new openly accessible digital collections.

**IDEA #5 | Local and Networked Collections Inform Each Other**

Library collections are typically viewed as local assets for use by an institution’s immediate communities. However, due to our increasingly networked environment, we may also look toward how we shape and manage the “collective collections” formed through various state, regional, national, and/or global institutional collaborations. When considering these collections in the aggregate, they become large swaths of the scholarly and cultural record and therefore impact learners and scholars across these localities. In our earlier work, Laster and I noted that “understanding how our local print collections are connected to collections at other libraries and collections in other formats—and how all of these collections overlap, complement each other, and, together, constitute a massive body of scholarly resources—is of both economic and social relevance to our mission.”

Practicing mindfulness in library work, then, is important when making local collections decisions due to their impacts on larger sets of information resources.

Large-scale collections efforts also impact local work. For example, collaborative large-scale shared print archiving programs for print materials bring value to the library and to our shared network of institutions. Shared print archiving commitments mean that our local collections processes must consider our contributions to the sustainability and preservation of the collective collection. At the network level, institutions can leverage metadata and
technical standards to achieve interoperability and make cooperation possible. Together, our group of institutions can achieve a preservation effort that would be impossible for one library acting alone.

Local implementation of the Open Stacks as a methodology affects the collective collection, too. Opening up and collaboratively engaging our communities in local collections decision-making processes expands the types of information available to educators, researchers, and learners; generates more culturally responsive description and resources; and creates added depth to the collective collection. The Open Stacks, therefore, offers a way to work toward dismantling oppressive Euro-American systems and building more inclusive collections, and will contribute to a more diverse networked collections environment.

CONCLUSION AND LOOKING FORWARD

Revisiting the history of library architectural design and book-shelving innovations presents an opportunity to reflect on our current academic library spaces and the role of collections within a highly networked educational environment. Print collections in open book stacks can now shift to become a “key component of space design, serving as important actors within the space and engaging their audience rather than serving merely as a backdrop for study.”³⁶

In order to engage our audiences and bring library collection management processes and practices into the current social, cultural, and technology-enabled educational environment, a critical lens on our work is needed. The Open Stacks as a methodology recasts the role of traditional book stacks within a contemporary digital information environment and with a critical theoretical lens. In this paradigm, print and electronic resources are considered as a holistic set of resources available to the user, employing community-engaged processes to inform critical and open library praxis. Open production, distribution, and consumption processes enable libraries to further expose collections practices, providing opportunities for library workers to listen, learn, and codesign the library in tandem with our local communities. This approach affords opportunities to acknowledge the Native peoples upon whose traditional lands the library rests, center the voices of historically marginalized peoples, and move toward decolonizing libraries and dismantling oppressive systems in education.

Library workers have the agency to improve equity in education for all of the communities with which we engage. The future of collection management in our contemporary networked environment requires us to be self-aware in our library praxis, centering the voices, experience, and knowledges of those who have been marginalized and historically oppressed by Eurocentric Western educational systems. Only then will we together develop a truly liberating education for all who seek it.

REFERENCES


NOTES

17. ASU Library, *Future of the Academic Library Print Collection*.


27. See https://americanindianaffairs.asu.edu.


35. ASU Library currently participates in the Western Regional Storage Trust (WEST) and the HathiTrust Shared Print Program, two examples of shared print archiving programs.