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In most cases, we seek to avoid the mistakes of the past but in the case of libraries we might want to avoid some of the successes. So much has changed in the world of information that we would not want to build a 21st century academic library on a 20th century model—even a very successful one. We need to envisage and design academic libraries in a way that goes beyond incremental improvement to true innovation. Engaging the community in the design process may help us do just that.

A recent book by James W. P. Campbell, *The Library: A World History*, provides insight into the changing forms and functions of library buildings as they relate to the physical nature and purpose of books.¹ Early libraries were devoted to texts, often sacred, written on vellum, papyrus and, later, paper, and presented in the form of sheaves, scrolls and codices. Libraries contained cabinets, lecterns and other fittings for reading and storing them and for furthering their higher meanings and messages.

Reading through the book's fascinating text and admiring the superb photography of Will Pryce, one is struck by a trend of significant but infrequent changes to the way that libraries were built. In Western Europe, for example, small, poorly lit rooms in which large folios were chained to lecterns slowly gave way to larger, lighter rooms in which smaller books were stored on shelves. While the books and lecterns and shelves changed, the shape of libraries and their decoration and ornamentation also changed. Meaning was conveyed by the texts as well as by the buildings themselves in ways that built up and evolved slowly over time.

What would it be like to design an academic library based not on precedent but on everything we can learn right now about the work practices of people who already use academic libraries, while also taking into account education's highest ideals and purposes?

Campbell's book thus leads us to wonder about academic libraries in our age—an age in which the precedents of even a decade ago no longer serve us, and in which both the exigencies of information storage and access and the purposes of the academy are constantly changing. We need a new way of designing academic libraries that enables us to understand current and emerging academic work practices and information formats—the exigencies—as well as the ideals and purposes of scholarship in our universities—the transcendent qualities that the aesthetics of the library qua physical space convey.

This raises the question: What would it be like to design an academic library based not on precedent but on everything we can learn right now about the work practices of people who already use academic libraries, while also taking into account education's highest ideals and purposes? In *Studying Students: A Second Look*, I suggest that the design of the academic library has long been in the hands of a small group of “experts”—architects, senior administrators, and perhaps the university librarian.² Their concerns have mainly been to accommodate rapidly growing paper collections, ensure that the library looks pleasing within the existing campus, and pay attention to local particularities, such as the institution's disciplinary strengths, affiliations and so on.

When faculty members and library staff have been let into the process, it has often been done in a limited and controlled way, mainly to identify research and teaching areas in which collections need to be developed, or to point out functions that must be accommodated in the library work areas that complement reading rooms and book stacks.

Including the “community” in library design projects has emerged only recently and has mainly meant providing an opportunity for community members to comment on plans that are nearly complete and to provide additional information on “what they want.” In most cases, including individuals beyond the designated expert group has been done to achieve buy-in rather than to work in a truly collaborative way with those expected to use the facility later on, or even to test assumptions about what people might need to be able to do in and with the space.

It is precisely around this last point that one alternative emerges. Basing new projects on information about work practices and purposes offers a powerful two-pronged design approach. One side of the process revolves around the tasks people plan to do in the building and the exigencies of various information formats; the other addresses the community’s mores and its highest academic ideals—the reason people undertake work in academic libraries or use scholarly resources in the first place. Physical collections are shrinking by the year and more people than ever are employing electronic devices and services to find and use information for teaching, learning and research. The way people connect to one another is also changing. Now they can work in real time with scholarly communities that may be spread across vast geographic areas, or collaborate with colleagues—even colleagues physically beside them—with new communication and productivity tools. Yesterday’s libraries, as beautiful as they may be, often cannot support these new activities without extensive and even destructive renovation.

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Many of us who use academic libraries feel that it is not enough to design the space solely for efficiency; when we go to the library, we may need to read and write and be productive, but we also need to think, dream, imagine, and connect to communal beliefs and aspirations. Here is where the community’s mores and ideals should also guide the work of architects. An approach called participatory design provides a way to understand and incorporate information related to both sides of what the community needs—the practical and the transcendent—into the design process.

Participatory design refers to a way of sharing information and authority in the design of technology, spaces, services and resources in all kinds of workplaces.³ Take as an example the design of workplace technology, which is most successful when the expertise of people in the workplace is incorporated into the design process by other experts on the team. In participatory design, a technology design team will comprise a number of traditional experts, such as computer scientists, software engineers or interaction designers, along with people who are experts on the work that is to be done with the technology. The role of workplace experts is to provide

as much relevant information as possible about their work, the ways that current practices are effective or ineffective, how workers overcome obstacles they encounter, and so on. The role of the technology experts is to address needs, solve problems, and respond to whatever requirements emerge from the information provided by the workplace experts. An anthropologist or other social scientist plays a necessary role in enabling workplace experts to provide rich, understandable information to technology experts. Local leaders and stakeholders still take responsibility for the process, but now decisions are based on evidence rather than assumptions and authority is shared, as it must be, because no individual or group possesses all the necessary information and expertise.

Two recent projects exemplify this process and demonstrate its value and possibilities. The library systems of both the University of Maryland and Purdue University have integrated participatory design components into their design processes to yield better library design.

When a university experiences a major shift in pedagogy along with dramatic changes in the form and use of scholarly information, either its library can be dragged along or it can join the vanguard.

At the University of Maryland, Patricia Steele (Dean of University Libraries) brought in David Cronrath (Dean of the School of Architecture, Planning and Preservation) and Sandra Parsons Vicchio (Principal at Sandra Vicchio & Associates, LLC) to engage architecture students in the re-programming of McKeldin Library. Dean Steele believed that incorporating a real-life teaching and learning experience into the re-programming process would help identify the purposes of the library while leading to better, more innovative design ideas. To enhance the process, she engaged a practicing anthropologist to facilitate user research by librarians and library staff to understand how people make use of the library, where else they engage in academic work, and the qualities and affordances of different possible work spaces. At the same time, a professor of anthropology, Dr. Michael Paolisso, assigned a related project in his methods class, asking graduate students to conduct an ethnographic study to gather information about how students conceive of the library and how they make use of campus libraries in doing their schoolwork.

The University of Maryland's large team of experts included traditional participants—architects, institutional leaders—as well as non-traditional ones—library staff, students—who together supplied a wide range of expertise and knowledge. Team members reached out farther into the community, gathering information about work practices and purposes from a large number of faculty members, staff and students spread across various divisions and departments.⁴ In the culminating architecture studio course taught by the practicing architect, students developed plans to accommodate new ways of work, satisfy the exigencies of digital and physical resources, promote the higher purposes of academic work, and inspire individuals to create and innovate on the intellectual legacy that the library preserves and provides. The University of Maryland library project exemplifies participatory design in general and shows how the institution was able to move beyond its traditional role and become the site of exciting, innovative teaching and learning.

At Purdue University, Dean of Libraries James Mullins developed partnerships with professionals in other academic and administrative areas within the provost's office, as well as several leaders of facilities and planning offices. Their shared objective was to design and erect a new classroom building that would provide sufficient teaching space to accommodate the university's new "active learning" initiative. The Instruction Matters: Purdue Academic Course Transformation (IMPACT) program helps faculty members learn and implement new technologically enhanced pedagogical approaches to teaching face-to-face, blended, hybrid and fully online courses. Instructors receive support from Purdue's Center for Instructional Excellence, Discovery Learning Research Center, information technology and distance learning divisions, and libraries.

When a university experiences a major shift in pedagogy along with dramatic changes in the form and use of scholarly information, either its library can be dragged along or it can join the vanguard. At Purdue, Dean Mullins pushed hard to conceive of the university's new building as an "active learning center"—that is, an integrated library-classroom building. In such a building, the work of a class could continue after class time, designated classroom space could become available for general use when not occupied by a class, and teaching and library faculty could jointly experiment with complementary changes in pedagogy and librarianship. The Purdue Libraries engaged a practicing anthropologist to organize and facilitate a participatory design process in which students provided information about their current academic work practices and, along with staff and faculty members, imagined library spaces and adjacent areas as they would appear and be utilized in the new building. The data gathered through this collaborative process supplied a base of information on which to develop a qualitative program that could be shared with planners and architects. Emphasis was placed on what people would need to do in the building in terms of both the accomplishment of work tasks and the achievement of favorable mental states.⁵ The project exemplifies how breaking with design precedents while honoring intellectual legacies can propel libraries into the future.

We cannot build new libraries just as past generations built them because we need to conduct different activities in libraries with different forms of information. Fortunately, we need not build our libraries the way they have always been built because we have a better alternative. We can design libraries and other educational and cultural institutions for the future by engaging the community, paying attention to the work to be done in them and aligning library spaces with guiding ideals and aspirations.

END NOTES

1. James W.P. Campbell, with photographs by Will Pryce, *The Library: A World History* (Chicago: University of Chicago Press, 2013).
2. Nancy Fried Foster, "Designing Academic Libraries with the People Who Work in Them," in *Studying Students: A Second Look* (Chicago: Association of College and Research Libraries, 2013), 103–21.
3. See Nancy Fried Foster, Jennifer Bowen, and David Lindahl, "Why Do User Research for the eXtensible Catalog Project?" in *Scholarly Practice, Participatory Design and the eXtensible Catalog*, edited by Nancy Fried Foster, Katie Clark, Kornelia Tancheva, and Rebekah Kilzer (Chicago: Association of College and Research Libraries, 2011) <http://hdl.handle.net/1802/12375>. See also Douglas Shuler and Aki Namioka, editors, *Participatory Design: Principles and Practices* (CRC/Lawrence Erlbaum Associates, 1993). See also Clay Spinuzzi, "The Methodology of Participatory Design," *Technical Communication*, 52, no. 2 (2005).
4. See Patricia Steele, David Cronrath, Sandra Parsons Vicchio, and Nancy Fried Foster, *The Living Library: An Intellectual Ecosystem* (Chicago: Association of College and Research Libraries, forthcoming).
5. See Nancy Fried Foster, Teresa Balsler, Rae Lynn Boes, Dianna Deputy, William Ferrall, Michael Fosmire, Jeremy R. Garritano, et al., "Participatory Design of Purdue University's Active Learning Center Final Report" in *Libraries Reports* (West Lafayette, Ind.: Purdue University, 2013) <http://docs.lib.purdue.edu/libreports/1>.