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Designers Designing Design Education

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Students in our schools today face challenges more complex and urgent than previous graduates. Globalization, climate change, and digital data tools have transformed the profession, and each of these interconnected forces requires multifaceted and multidisciplinary responses. To grapple with these issues, architecturally trained students use the skills gained from an education based in the design studio—a model of synthetic, lateral, and iterative thinking. But perhaps even more important, their education must instill the will to take on these challenges and the expertise to do so.

In a world where “design” is no longer defined by qualifiers such as building design, urban design, landscape design, or product design, design education should likewise exhibit the nimble and flexible characteristics conventionally associated with design. However, by losing the core of traditional architectural building design, architectural education risks producing graduates who are exposed to many things but don’t actually know how to design. The expertise of an architect has always been and will continue to be a highly valued driver of design—design as traditionally defined within the discourse of architecture or design with intentionally blurred boundaries.

In 2008, the faculty at the University of Minnesota recognized that the structure of a professional degree should change to meet what we saw as new requirements for flexibility, diversity, and change, while maintaining generally established strengths of architectural education. Minnesota had earlier developed

a unique liberal arts undergraduate design degree, the Bachelor of Design in Architecture (BDA). Hands-on studio-based knowledge was built upon a foundation of design fundamentals and expanded through a broad and diverse range of design workshops. Working within a nonprofessional program gave us the freedom to test the effectiveness of studio-based formats to address provocative course material and new teaching methods not typically included in professional degree programs.¹ Applying what we learned to a professional curriculum, three guiding values emerged: build on tradition, embrace challenges, and expect change.² These values are facilitated by a structure that assumes there can be two very different and equally valuable modes in which students work—analogous to an athletic regimen of strength training alternating with aerobic training. In our curriculum, the structure and pace of the fall semester is very different from that of the spring semester. Fall semester is anchored by a central nine-credit design studio with non-studio support courses that coordinate their deadlines around the pace of studio projects and, whenever possible, directly tie into studio topics. Spring term is a decentralized collection of half-semester and semester-long courses. Some half-semester courses are “project-based,” akin to a seven-week studio project. Inserted into the break between the two halves of the semester is a weeklong “catalyst” workshop, an intensive exploration of a single topic.

Students remain with their entering cohort each fall semester

and are mostly enrolled in the same set of studio and non-studio courses. By contrast, the spring courses are vertically mixed with students from a variety of years, each individual following their own chosen combination of courses—essentially forming a kind of mass customization created from the choices presented in any particular spring semester. Students in any spring half-semester studio group will be from different years in their school career, enrolled in different non-studio electives and different catalyst workshops. Some may be planning to pursue study abroad options and others taking specialized courses supporting a concurrent Master of Science in Architecture (MS) degree. Serendipitous connections between courses vary from student to student. The return to cohort each fall assures cross-pollination as the varied experiences of the students from the previous spring affects the expertise, skills, and interests applied to fall studio topics. The expressed goals of our curriculum are to give students the confidence to grapple with large messy problems, impassion them to ask very big questions, and inspire activism to probe questions in tangible ways.

Five years of running this curriculum have demonstrated pedagogical strengths and weaknesses and forced the faculty and staff to offer the additional administrative support a dynamic curriculum demands. This curriculum requires proactive thinking on the part of students, faculty, staff, and administrators. A regular cycle of course review allows each faculty member to develop two or three module topics that can be rotated and

refreshed to keep the spring offerings relevant. An elected student advisory group is actively involved with curriculum committees to provide feedback and suggestions for course offerings, particularly for the spring semester. A high level of coordination for fall studio and non-studio offerings ideally forms through common values and consensus regarding the connection of each fall semester to the previous or subsequent fall semesters. These discussions are especially critical since the fall courses are well suited to addressing accreditation requirements. Some faculty migrate to a particular format of teaching as certain topics, methodologies, or teaching styles are suited to the semester-long format, half-semester module, or weeklong workshop. Some students tailor their spring choices around topics that eventually lead to their final thesis project and/or create a base for a concurrent MS degree in an area of specialization. Other students take every opportunity to sample widely divergent topics.

Curation of the spring semester and coordination within the fall semester sequence are the two greatest challenges of the program. Not surprisingly, meeting the challenge for one requires very different skills, attitudes, and processes than the other. Overall, implementation of the curriculum demands a fast pace of curricular development addressing a breadth of topics that stretch and challenge traditional norms of architectural production and education. A cultural shift among the faculty, staff, and students was required to acknowledge change as a normal and healthy state in our curricular offerings. Continuous improvement and adjustments to the curriculum create a constant dialogue in committees and meetings. We have improved our communication strategies and increased the planning horizon for faculty, staff, and administration to anticipate needs. All of these changes prepared fertile

ground for discussions that led to our most recent curricular innovation, the newly launched Consortium for Research Practices and related Master of Science in Research Practices (MS-RP).³

Around the time initial ideas for the MS-RP were forming, National Council of Architectural Registration Boards (NCARB) released a report, "NCARB by the Numbers," presenting relatively shocking data that the average length of time to licensure was eight and a half years after graduation, well beyond the three years implied by the 5,600-hour requirement.⁴ This information appeared as discussion on higher education included headlines that essentially gave the message: major in anything, just not architecture.⁵ This prompted Judith Kinnard, then president of the Association of Collegiate Schools of Architecture (ACSA), to issue a statement acknowledging that schools and graduates are facing "hard times."⁶ National discussion expressed general concern over student debt, calls to measure the return on investment for degrees, and debate within schools on their relevance and length of time to degree.⁷ This last issue escalated to the presidential level when President Obama issued public comment that a law degree should take two years, not three.⁸

A degree such as the MS-RP that promises licensure upon graduation for qualified students seems to address many of the calls for action. While the benefit to students is clear, the intention behind the degree is less about expediency and more about changing the relationship between professional schools and the profession. The underlying goal is to "close the knowledge loop," as Thomas Fisher has long been advocating.⁹ Fisher envisions a synergistic relationship where those in the profession can test research driven by the academy and professionals pinpoint research questions most in

need of academic focus. The benefit to both the profession and the academy is to have relevant research implemented and tested, leading to new sources of funding and metrics to establish value and potential for significant collaboration. In a January 2013 *Design Intelligence* article, "A Better Path to Licensure," I described how students benefit when research and practice are connected through a dynamic mixture of professional and academic experts who serve as mentors and supervisors. Efforts are centered on research questions that connect to long-term research priorities identified by the firm and school. Counting student hours for Intern Development Program credit, the work contributes to the pursuit of licensure, potentially upon graduation from the post-professional degree program.

While no data yet exist on MS-RP graduates (as we are just beginning our first year), early pilot projects have demonstrated ample potential for achieving this model. The process of collaboration amongst firms, faculty, and students to define shared research questions has been rewarding thus far, and we look forward to seeing how the collective results may spark additional research priorities, publication, and/or funding. We hope that this model inspires other schools to find effective means to connect research and professional goals to their academic programs.

The very best curriculum invisibly sets in motion certain trajectories; it allows faculty to teach their best and students to assemble the patchwork of serendipitous moments that inspire lifelong learning. True partnership with professionals can enhance the value of design for architects and for the broader society we serve. We live in a time where extreme care must be taken in stewarding education, specific skills need to be taught, urgent issues must be addressed, and change is a desirable state to maintain.

Author Biography

Renée Cheng is a Professor and Head of the School of Architecture at the University of Minnesota. She has been recognized for teaching excellence with numerous teaching awards. Her research involves documenting case studies of buildings that integrate design with emerging technologies. She is an active contributor to discussions on the future of practice and education. A graduate of Harvard's GSD and Harvard College, she is also a registered architect.

Notes

- 1 For more information on the BDA degree, see <https://sites.google.com/a/umn.edu/b-d-a-workshop/>.
- 2 The curriculum was submitted as "An Incomplete Curriculum for Transformation" and won an AIA Education Award in 2008. The title was a tribute to Bruce Mau's provocative "Incomplete Manifesto for Growth," originally written in 1998. The proposal was collaboratively authored by Ritu Bhatt, Renée Cheng, John Comazzi, Ozayr Saloojee, Marc Swackhamer, and Sharon Roe.
- 3 For more information on both consortium and degree, see rp.design.umn.edu.
- 4 NCARB By the Numbers, first edition June 2012, second edition July 2013, can be accessed at <http://www.ncarb.org/en/About-NCARB/~media/Files/PDF/Special-Paper/NCARB-by-the-Numbers.pdf>.
- 5 Catherine Rampell, "Want a Job? Go to College, and Don't Major in Architecture," *New York Times*, January 5, 2012, http://economix.blogs.nytimes.com/2012/01/05/want-a-job-go-to-college-and-dont-major-in-architecture/?_r=0 (accessed September 1, 2013).
- 6 Judith Kinnard, "Architecture Schools in 'Hard Times,'" *ACSA News*, January 6, 2012, <http://www.acsa-arch.org/acsa-news/read/read-more/acsa-news/2012/01/06/architecture-schools-in-hard-times-#.dpuf> (accessed September 1, 2013).
- 7 As an outgrowth of the think tank "Alternative Routes to Architecture," the new London School of Architecture is expected to launch in 2015. For further information, see <http://www.the-lsa.org/about>.
- 8 Peter Lattman, "Obama Says Law School Should Be Two, Not Three, Years," *New York Times*, August 23, 2013, <http://dealbook.nytimes.com/2013/08/23/obama-says-law-school-should-be-two-years-not-three/> (accessed September 1, 2013).
- 9 Thomas Fisher, "Why We Need a Knowledge Loop," *ACSA News*, December 2009.