Book Chapter, from **Architecture Live Projects: Pedagogy into Practice**
Edited by **Harriet Harriss**, **Lynnette Widder**
Routledge, 2014
http://www.routledge.com/books/details/9780415733526/

Chapter 2.4 LIVE PROJECTS AT MID-CENTURY: A PRE-HISTORY

Nils Gore

In 1954, in an AIA report entitled 'The Architect at Mid-century: Evolution and Achievement', Ralph Walker presciently noted:

> In some parts of the world architects are already fearful that **industrialization** in building will affect them adversely; … that the builder and the manufacturer will take over the design of the stereotype buildings. … There is, however, a great need for the master-designer fully conversant with construction requirements who can take leadership not only in production of architectural and engineering design but also in guiding the actual building in the field …. These circumstances and factors have important implications for the education of an architect. (Bannister 1954: xiv)

And, later in the same book:

> For some architects and educators, the gap between school and practice seems too wide to bridge. Professor Gropius, for example, wrote in 1950: 'Should architectural education then be separated from its **present academic framework**? Many architects would agree with a decisive turn towards greater emphasis on practical experience. I, personally, have grave doubts as to whether the present **bookish climate of universities** can offer at all a healthy breeding ground for architects. …[T]he greatest strength of American technical education lies in its development of ingenious demonstration apparatus and the provision of **teaching laboratories** in which students are led by carefully controlled projects to intimate knowledge of materials and their manipulation.' (ibid.: 153; emphasis mine)

Some 40 years later, a handful of universities in the US (Yale, Auburn, University of Kansas) started implementing significant design/build studios. Today, it is reported that 100 out of 123 schools of architecture in the US have some kind of design/build program (Gjertson 2011).

Why would something so clear to leaders such as Gropius and Walker take so long to be institutionalized in schools of architecture? And why is there still doubt among architectural educators about it?

Institutional inertia

Institutional inertia is the tendency for organizations to solidify their way of being in the world (Kingston & Caballero 2009; Hannan & Freeman 1984). In the early twentieth century, when our profession was securing its foothold in the larger culture of building, the AIA asserted that "he who bears the title of architect has the knowledge and ability needed for the proper invention, illustration, and supervision of all building operations which he may undertake. Such qualifications alone justify the assumption of the title of architect" ("Circular of Advice Relative to Principles of Practice and the Canons of Ethics" (AIA Document 163) cited in King 1922: 311). Additionally, "It is unprofessional for an architect – 1. To engage directly or indirectly in any of the building or decorative trades." Because builders have a vested interest in the cost, process, and outcome of a construction project, they apparently lack the level of detachment required for professional imprimatur: "An architect's honesty of purpose must be above suspicion; he renders professional services to his client and acts as his client's agent and adviser. His advice to his client must be sound and unprejudiced, as he is charged with the exercise of impartial judgment in interpreting contract documents" (AIA Document J-330 1964).

Oddly, according to the same standards of practice, the architect is responsible for "invention, illustration, and supervision of all building operations." One might fairly ask, how should the aspiring architect gain knowledge of construction? In that era construction generally adhered to traditional standards; workmen tended to follow best practices and exhibited pride in their work (Davis 1999). Buildings were simpler, material palettes were limited, and mechanical/electrical systems were few (Kieran & Timberlake 2004). Young architects' first assignments were to "trace designs done by more experienced people in the office" thus learning, by rote, construction details (Davis 1999: 64). By the time architects ascended to responsibility, they likely had gained the requisite knowledge. Organizationally, owners, architects, and contractors were primarily small, independent entities, operating cooperatively on local projects (ibid.: 66; Garber 2009). Relative to the canons of ethics of the time, the system worked.

A university education and professional internships were both paths into the profession. Unlike the practical training of interns, students completing the university path received a broader liberal base of learning intended to "cultivat[e] intellectual and ethical judgment, helping students comprehend and negotiate their relationship to the larger world, and preparing graduates for lives of civic responsibility and leadership" (Schneider 2004). In the face of an increasingly complex world following the Second World War, university-based professional education became the norm throughout the US and Western Europe (Boyer & Mitgang 1996).

Bannister's disparagement of the "bookish climate of universities" is a common one, rooted in the perception of colleges as cloistered communities of learned scholars surrounded by books in arcane languages and engaged in discussion of little practical use (Hofstadter 2012). At the same time, vocational education was perceived as "the kind of education whose chief aim is to promote the capacity to earn a living or, expressed in more social terms, the capacity to do one's share of the productive work of the world,' …. Vocational education has … its own pedagogy; and its methods may even be in opposition to

those of liberal education" (Snedden 1910: 4–6). Perkin characterizes the university as "transformed from a seminary for priests and a finishing school for gentlemen into a professional school for every expert occupation" (Perkin 2002: 5).

It's hard to know exactly when the system stopped working well, but the end of World War II, the rise of technocratic society, and a burgeoning middle class have something to do with it (Bledstein 1978). In the US, the GI bill expanded educational opportunities to a class of people who wouldn't have had access prior to the war, and postwar prosperity fueled new building projects beyond the institutions and wealthy individuals accustomed to hiring architects. The rise of the corporate developer client, with more mercenary (as opposed to symbolic) business objectives, and the rise of a more professionalized and organized construction sector undoubtedly played a role (Finkel 1997). More technically complex building programs, systems, and assemblies further destabilized the practice of architecture (Davis). Hence Bannister's discomfort in the mid-1950s with the perceived shortcomings of architectural education, which now seemed inadequate to confront the exertions of post-war capitalism.

In 1970 the federal government in the US struck a significant blow to the professions when it ruled that the Sherman Antitrust act should be applied to the professions' use of minimum fee schedules, declaring them "a means of price fixing" by commercial – as opposed to professional – entities and therefore illegal (Walzer 1972: 439). This ruling forced modifications to the AIA's Canon of Ethics, opening the door to architect selection by fee rather than qualification. In 1978 the ethical stricture against architects engaging in construction was eliminated by a vote of the AIA membership and design/build project delivery became a legitimate avenue of practice (Block 1984: 8). Raging inflation in the 1970s spurred "fast-track" construction management services by actors in the construction industry, who assumed an advisory role to building owners and displaced architects from the sole advisory position. In each instance, the clarity of the architect's societal role diminished and the architect's self-conception as a detached, selfless professional became less narrowly defined.

Looked at objectively (which is nigh impossible in the midst of rapid change), it should have been clear that it was a new world. But most architects just felt the increase in pressure and tried to behave as they always had. Legal agreements had their own inertia. Office policies and procedures didn't change overnight. Builders, banks, and realtors didn't radically alter their self-conceptions. The culture of building is vast and slow to change: an ocean liner does not turn on a dime.

In hindsight, it seems obvious that architecture school pedagogies would need revision. But institutional inertia is strong in the self-conception of both the architect and the universities. It's no wonder that it took 40 years to get around to having architecture students actually build something in the studio, then another 20 for it really to catch on in a majority of schools. Universities, despite the trumpeting of liberal ideas and ideals, are some of the most conservative institutions, perhaps because faculties are self-governed. In the absence of external forces requiring change in curricula and policies, they prefer to maintain the status quo than to engage in the hard work of persuading reluctant colleagues to respond to exigencies in the external world. Most professors truly believe in the value of the subject matter they teach; it is personally costly to

invent new coursework (Lipset 1982: 154). Unless space and equipment can be procured with research or endowment dollars, it is hard to justify to faculty and upper administration why scarce resources should be spent on tools and construction labs when the value to the profession is not patently clear. After all, similar institutional inertias are at work in the profession: the vast majority of architects still engage in a strictly traditional approach to their work. They design buildings, observe their construction in a detached way and administer the contract for construction. Neither entity – schools nor profession – wishes to take on any liability not required. It took a few courageous individual faculty – and a few bold university administrators – to make the initial forays into substantial student design/build projects. As those early projects were disseminated in the popular professional press and the scholarly academic press they gained attention, and other faculty and schools joined in. Their adoption over time, as legitimate pedagogical practices, climbed exponentially.

Since the turn of the twenty-first century pressures are coming at the architecture profession and its educational partners from numerous directions. Global climate change is an existential threat; catastrophic financial collapse has forced change on the culture of building; university funding streams have been curtailed; educational models and delivery methods have been reinvented; new construction business strategies have been developed. The technologies of representation change with each passing year, and, with them, relationships to fabricators, manufacturers, and consultants. Building systems and assemblies have become more sophisticated (and unknown). Instant communication with international partners enables new ways of being in the world.

Yet we still have at most five years to train productive professional citizens. There is abundant innovation in higher education right now. Lumping them together under the heading of "engaged learning," we find flipped and hybrid interactive classroom environments (as opposed to the passive, talking-head lecture), online delivery, study abroad, public interest design, and service learning. Design Thinking has emerged outside of traditional design education – particularly business. In that context, design/build projects in architecture school, rather than being erroneously thought of as "vocational" training in the building crafts, should be considered an active, engaged learning strategy to promote learning and brain development in ways that couldn't be done in the traditional design studio. We are past the point of having to justify these projects' existence. We need to evolve them into something even better.

References

AIA Document J-330 (1964). 'The Standards of Professional Practice'. *Architect's Handbook of Professional Practice.* American Institute of Architects.

Bannister, Turpin C. (ed.) (1954). *The Architect at Mid-Century: Evolution and Achievement. Volume 1 of Report of the Commission for the Survey of Education and Registration of the American Institute of Architects.* Reinhold.

Bledstein, Burton J. (1978). *The Culture of Professionalism: The Middle Class and the Development of Higher Education in America*. W W Norton & Company Incorporated.

Block, Hal G. (1984). 'As the Walls Came Tumbling Down: Architects' Expanded Liability Under Design-Build/Construction Contracting'. *John Marshall Law Review*, 17: 8 1-48.

Boyer, Ernest L., & Mitgang, Lee D. (1996). *Building Community: A New Future for Architecture Education and Practice Special Report*. Carnegie Foundation for the Advancement of Teaching.

Davis, Howard (1999). *The Culture of Building*. Oxford University Press.

Finkel, Gerald (1997). *The Economics of the Construction Industry*. ME Sharpe.

Garber, Richard (2009). 'Alberti's Paradigm'. *Architectural Design*, 79(2): doi:10.1002/ad.859.

Gjertson, W. Geoff (2011). 'House Divided: Challenges to Design/Build From Within'. In *Proceedings of the Association of Collegiate Schools of Architecture (ACSA) 2011 Fall Conference.* ACSA.

Hannan, Michael T., & Freeman, John (1984). 'Structural Inertia and Organizational Change'. *American Sociological Review*, 49:2: 149–164.

Hofstadter, Richard (2012). *Anti-Intellectualism in American Life*. Illustrated edn. Random House.

Kieran, Stephen, & Timberlake, James (2004). *Refabricating Architecture.* McGraw-Hill.

King, Clyde Langdon (1922). 'The Ethics of the Professions and of Business'. *The Annals of the American Academy of Political and Social Science*, 101: 105-114.

Kingston, Christopher, & Caballero, Gonzalo (2009). 'Comparing Theories of Institutional Change'. *Journal of Institutional Economics*, 5(2): 151–180.

Lipset, Seymour Martin (1982). 'The Academic Mind at the Top: The Political Behavior and Values of Faculty Elites'. *Public Opinion Quarterly*, 46(2): 143-168.

Perkin, Harold (2002). *The Third Revolution: Professional Elites in the Modern World*. Routledge.

Schneider, Carol Geary (2004). 'Practicing Liberal Education : Formative Themes in the Reinvention of Liberal Learning.' *Liberal Education* Spring, 2004. 6-11.

Snedden, David (1910). *The Problem of Vocational Education*. Houghton Mifflin Company.

Walzer, Roy S. (1972). 'Minimum Fee Schedules As Price Fixing: A Per Se Violation of the Sherman Act'. *American University Law Review*, 22: 439-454.