

Fast houses in the United States

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ABSTRACT: John Brown, University of Calgary, has likened residential design in North America to the fast food industry.¹ The emphasis on mass production made easy and affordable, albeit not necessarily good, has led to the current landscape of domestic buildings. To understand how and why this situation developed in the US specifically, requires an understanding of the history of the profession, architectural education and culture. This paper discusses the many contributing factors that led to the current reality of house design and construction in the U.S. This industry that accounts for roughly 65% of the gross domestic product in North America or \$354.8 billion dollars and, as such, it is a significant component of the national economy, is outside the domain of trained designers.² The only way to impact this—assuming one seeks to do so—is to understand the complexities that led to the situation in the first place. As a result of the manner in which most houses are designed and constructed, the single-family house design sector has not benefited from the exploration of new materials and methods and extensive research that commercial buildings have in the past. The first part of the paper discusses the history of the architecture profession in the U.S. The second section outlines the debates surrounding architectural education in the U.S. as the first programs were developed.

KEYWORDS: Single-family, Houses, Architecture, History

INTRODUCTION

This paper explores the relationship of the architecture profession to the history of single-family house design in the U.S. between the founding of the profession and the early 20th century. The paper addresses the history of the architecture profession, the founding of the first professional organizations and the resulting definition of “Architecture” which impacted the role of the architect in single-family house design.

1.0 BACKGROUND

1.1. History of professional architects in the U.S.

Several scholars have studied the history of the architecture profession in the U.S. All seem to agree that the early roots of the profession date to Benjamin Henry Latrobe. The traditionally accepted view is that there were three types of early designers—the untutored folk builder, the master builder, and the gentleman architect—although the line between these paths was not always clear.³ Further, printed sources were available long before the architecture profession became established in the U.S. This created a fertile environment for confusion about who was required in order to design a house.

Scholars have characterized residential design prior to the Civil War as a predominantly non-architectural activity.⁴ As architects began to define their own profession (as distinct from builders and plan book writers) they made some inroads to house design but the longstanding tradition of not needing a trained design professional was firmly in place and few would-be homeowners saw the need to hire an architect to design their homes.

Latrobe, the first professionally-trained architect in the U.S., hailed from England in 1795 and became a friend of Thomas Jefferson’s. Despite their relationship, Latrobe criticized Jefferson as an architect from books without professional training. Latrobe set up the first professional architecture practice in the U.S. and plotted a course for architects that still impacts the profession today. Chief among his contributions to the profession include an emphasis on monumental projects, a focus on professionalism and charging for one’s designs and time, and a disdain for the untrained architect and builder.

Educated in England, Latrobe brought with him strong ideas about the architectural profession. These included a sense of the “superior and comprehensive character of his acquired architectural knowledge, asserting that it was qualitatively and quantitatively distinct from both his client’s taste and the practicing builders’ experience.”⁵ In 1806, writing to his pupil Robert Mills, Latrobe outlined what he considered to be the main points of the profession: the marketable skills of an architect are his time and ideas; an architect had a comprehensive knowledge of construction and design; management and supervision of a project must be separated from construction; an architect should have complete control of a project; an architect must always charge for his time; and drawings were the intellectual property of the architect. Despite his words, Latrobe did not always obtain the fees that he would have liked and his projects inevitably ran over budget, as he had little understanding of the cost of building or the American economic system. Latrobe focused on

public projects doing work for the U.S. Capitol, the Virginia State Penitentiary, the Baltimore Cathedral, and other large public projects.⁶

Latrobe's writings on professionalism and his own mentorship of young American architects left a lasting imprint on the architecture profession. To this day, many architects vehemently oppose any compromise that might endanger their design. Furthermore, American Institute of Architects (AIA) contracts retain the architect's ownership of drawings. Latrobe's early efforts to distinguish the trained architectural professional from the common builder foreshadowed the development of the profession in the post-Civil War period. Under his tutelage, the next generation of architects, including William Strickland and Robert Mills, followed in the tradition of focusing on public projects and the professionalism of architecture.

Historians describe Latrobe as arrogant, inconsistent, and temperamental. Clients often fired him for going over budget. Ironically, many other European transplants to the U.S. seem to have embodied similar difficult personalities. Steven Hallet (ca. 1760-1825) disagreed with William Thornton on the U.S. Capitol, and, disobeying orders, was fired. Pierre L'Enfant's (1754-1825) legendary "sharp tongue and high fees alienated clients."⁷ According to Mary Woods "architects found it difficult to accommodate their attitudes and working methods to an American building market dominated at one end by builders and at the other by a few master artisans and gentleman architects."⁸ Despite their somewhat troubled careers, these early architects left an indelible mark on the public's perception of architects as difficult and on architectural culture where it is preferable to defend the integrity of one's idea over pleasing a client.

Strickland and Mills were among the twenty-three architects who formed the American Institution of Architects in 1836.⁹ While short-lived as an organization, these early efforts led to the development of a formalized system of architectural office training and ultimately architectural licensing. As proponents of public commissions, little attention was given to domestic design.

Architects in the U.S. struggled with how to position themselves within a democracy. Some early architects allied themselves with social reform seeing architecture as having the ability to affect human behavior and the good of humanity. Alexander Jackson Downing and Andrew Jackson Davis allied taste with social class (although at the same time opposed a class structure in the U.S.) They believed that using tasteful design could influence the neighbors and thus spread good design.¹⁰

Unlike their counterparts in Europe, American architects had to market their services and convince potential customers why they should be hired when, by all appearances, contractors were providing "design services" for free. Motivated by this and the expressed need to "protect the public" from the unqualified, mid-western architects fought for licensing and eventually registration laws although architects in the east did not embrace this notion at first. The division between east and west continued to haunt architecture's "unified voice" throughout the nineteenth century and well into the twentieth.

Architects in the U.S. have always struggled to educate the public about their value. As architects tried to identify their own professional knowledge in the nineteenth century, they segregated themselves from builders and craftsmen, much as Latrobe had sought to do when he first arrived in America. Concurrently, builders and craftsmen developed a tradition of manuals that instructed up-and-coming builders in construction, particularly residential. Simultaneously, communities of builders developed construction cost information and did not want to share it with architects.¹¹ As a result, a large share of domestic design fell to builders. Builders knew how to construct houses using readily available wood and their instruction manuals showed framing methods and designs. Additionally, architects failed to convince the consumer of the need for a professional architect. Consequently, architects involvement in domestic design tended to be relegated to the design of one-of-a-kind houses for the wealthy.¹² Despite architects' best efforts, the general public did not feel the need for architect-designed houses. Dell Upton summarizes the situation as follows: "Finally, and importantly, clients were unwilling to grant architects control of such an important aspect of everyday life as the design of their houses."¹³

Throughout the nineteenth century, architects in the U.S. attempted to differentiate themselves from builders and raise their own prestige. One of the ways in which this was done was to establish oneself as a gentleman, architect, and artist. Latrobe first used this approach when he stationed himself as equal to his clients. Ithiel Town and A.J. Davis followed suit. Another route was an artistic pedigree like Richard Upjohn. Richard Morris Hunt attended the Ecole des Beaux Arts in Paris in an effort to legitimize his training.¹⁴ By attending the Ecole, architects could easily claim design knowledge not available to a builder.

As the profession developed, so did building codes and legislation. One of the primary outcomes of these developments during the early twentieth century was that architects were not granted a monopoly over design services. Engineers, and eventually other design professionals, were granted equal rights under the law to provide stamped drawings for new buildings. This lack of monopoly has since allowed other professions—interior design, residential designers, contractors and developers—to take away market share

of building design in the U.S. Today, *the International Building Code* uses the terminology “design professional” which can be interpreted by each jurisdiction.¹⁵

By the time architects united to advocate for licensure, the system of a client working directly with a contractor to build (and design) his single-family home was firmly established. While architects fought for registration, they focused on those they viewed as competitors—engineers and contractors—for public buildings. Latrobe’s legacy impacted professional associations and the emphasis on public work, an arrogant and inflexible attitude, and an assumed superiority over the trades. The Ecole education of many AIA members then reinforced these notions and was integrated into the first architecture curricula. Because single-family house design was not viewed as “Architecture,” architects exerted little effort on behalf of house design. As a result, by 1938, members of the AIA estimated that architects designed only 2% of the houses being built.¹⁶ The 2007 U.S. Census attributed 83% of homes built in 2005 to merchant builders.¹⁷

This situation led to fertile conditions for the residential building industry without architects. While architects fought to educate the public and establish themselves professionally, builders simply gave people what they wanted: cheap and easily obtainable houses. Builders provided designs and methods, had well worked out budgeting and could show a potential homeowner a variety of built houses. Anyone could pick up a hammer and train himself to build houses. Technical design expertise was not required to work with wood. Architectural services were not required for house design or for structural purposes. As building codes became established around the country, they contained footing sizes, load guidelines, span tables for various species of wood for floors and roofs, and other information a builder could use to figure out structural issues. Coupled with the builders’ own resources—pattern books, magazines, and other builders—architects were not needed in either the design or construction process.

The ways in which architects sought to distinguish their profession ultimately relied on education (both theoretical and technical) and experience. In the mid-nineteenth century the focus was on the science of architecture with an emphasis on technical aspects of design. With architects training at the Ecole des Beaux Arts a focus on the art and design of architecture surfaced. Using an understanding of history, theory, structures, and the principles of design—architects attempted to inform the public about the services they could offer. In the tradition of Latrobe, these efforts centered on monumental public buildings, with little interest in single-family house design for the masses. Wright explains: “...there was the implicit dismissal of most domestic architecture as too lowly for professional consideration. The profession would favor theory over practicality, theoretician over user, monument over common building, as well as man over woman.”¹⁸

1.2. History of architecture education in the United States

The training of an architect has been a subject of conversation and debate since Latrobe. Many authors have written about the history of architectural education in the U.S. with some positing a tri-partite division for architectural design education in the period prior to the Civil War. These three pathways to becoming an architect included the gentleman architect, the carpenter architect, and the trained architect. Three well-known examples of these types include Thomas Jefferson, Asher Benjamin, and Benjamin Henry Latrobe. Asher Benjamin, of the carpenter tradition, wrote “how to” pattern books for designer-builders. Benjamin learned his trade on the job and from other books. Thomas Jefferson designed buildings, not as a vocation, but as a side-interest and was self-taught from books. Although the distinction between these three paths was actually far less clear, these three scenarios provide a rudimentary model for the early education of an architect.

Formalized education for those interested in building design and construction took place on a regional level. In Philadelphia, like in other major cities of the day, local builders and architects formed institutions to disseminate knowledge about building and design. The first two of these, the Carpenter’s Company (proposed 1804-1805) established in 1833 and the Franklin Institute, 1824-1923, offered night classes to working people. The Franklin Institute catered to “mechanics”—the name often used for architects of the day—and stressed mechanical science. Architects William Strickland and John Haviland taught at the Franklin Institute. The Carpenter’s Institute, on the other hand, was formed in an effort to help builders compete for work. Owen Biddle, a carpenter-builder, taught there to a clientele consisting of carpenters and builders.¹⁹ The lack of distinction between builders and architects was evident in these early programs and the training needs of each group led to a proliferation of schools.

What the Philadelphia example provides is a lens through which the murky boundaries between architecture, engineering and building construction in the nineteenth century can be seen. Additionally, the many programs demonstrate the desire among architects and builders for knowledge about design and construction, the natural outcome of which was the development of academically-based architecture and engineering programs which arose later in the nineteenth century.

A university-based architecture curriculum was the topic of discussion among many architects in the late nineteenth century. *The American Architect and Building News (AABN)* was a key publication for architects

during this time and devoted much of the discussion to architectural education and training. The articles within the *AABN* ranged from a general discussion of the components of an appropriate education to a critique of the systems in use in France, Germany and England as well as the curricular specifics about the new programs in the U.S.

The system in France was centered on the Ecole des Beaux Arts. Arthur Drexler's seminal work on the architecture of Ecole des Beaux Arts outlined the history of the Ecole and its primary emphasis on the plan and the monumental building.²⁰ In "The Teaching of Architecture of the Ecole des Beaux Arts," Richard Chafee outlined the history of the formation of the Ecole. Originally formed in 1617 under the King of France, the purpose of the Academy (the former name for the Ecole) was to increase the King's glory through work on royal buildings. The King appointed the members of the Academy who were then elevated to the level of philosophers from mere craftsmen.²¹ The end result was that the making of the building was separated from the philosophy and drawing of the design. The Academy, and later the Ecole, focused on drawing as the preeminent skill of the architect.

The Academy sought to outline the universal principles of architecture under its first leader, Francois Blondel. These principles stressed the rules of proportion, the five orders, Roman antiquities and buildings of the Italian Renaissance.²² J.F. Blondel added French Classical Architecture to this list.²³ Students were encouraged to study classical details as inspiration for contemporary buildings. While the original curriculum of the Academy did not emphasize construction, a shift occurred in the latter part of the eighteenth century adding the study of Gothic buildings and Greek ruins.²⁴ Gothic cathedrals provided a clear understanding of building structure. This emphasis on many historic styles characterized the Beaux Arts education as received by American architects in the nineteenth century.

Of particular impact to the profession of architecture in the U.S. and to the system of architectural education as it relates to the design of single-family houses were the project types assigned at the Ecole. During the first class, students received design assignments for schools, museums, hotels, theaters and large country houses and manors. The "equisse" problem focused on a small space such as the entry to a palatial hall, a boutique, or a clock tower. The Grand Prix, or final problem, included projects such as an addition to a grand palace, a façade design "equisse" problem, and a monumental public building assignment for a museum, hospice, an embassy building, or university or other building of higher education.²⁵ Students were trained to work on large buildings particularly those associated with the King and his royal holdings.

The Ecole had a lasting impact on the education of an architect and the practice of architecture in the U.S. First, the project types assigned by the Ecole are the same types still used in architecture studio classes and preferred by most architects in the U.S. Second, the atelier model parallels that used within the studio format of education in the U.S. Students are assigned to specific studio groups and are led by a master architect (a design educator) through a project which is then critiqued by a formal jury process involving educators and professionals. Like at the Ecole, entry into architecture programs is highly selective. An emphasis on drawing and theory separates the architect from the craftsman.

The German system of educating an architect relied heavily on the technical aspects of building. In the *AABN*, one critic described the system as "scientific, hard, barren and formal."²⁶ The educational system in Germany was state sponsored and under government control.²⁷ No one was permitted to be a full time teacher because of "the tendencies to pedagogic degeneracy, often said to characterize men who give all their time to teaching, is justly feared."²⁸ Thus, all teachers of architecture also practiced.

By contrast the English system was a great deal looser. Individual masters set up their own training offices and acquired apprentices. The training varied greatly from one person to the next with no consistent way of becoming educated as an architect. The writers of the *AABN* disparaged the English system stating in 1879 "There is no such thing as an English architectural curriculum. There has never been even a serious attempt in England to establish an architectural school of any importance, we believe; certainly no such school exists."²⁹ During the late nineteenth century, many English architects called for a formalized system. While the Royal Academy began offering some courses in 1808, the first full-time program was formed at Kings College under Sir Bannister Fletcher in 1892.³⁰

Of the three European models—the Ecole de Beaux Arts, the English system and the German system—the American educational system most closely aligned itself with the Ecole. An *AABN* article comparing the German system with the English once, found both systems lacking. "It is contended that it is precisely those features of the German training that critic (Herr Reichenspberger) most disparages, that the English architects feel they are most in need of."³¹ The German system was criticized by the writer as overly technical and focused on teaching one historic style while the English system was praised for fostering creativity and freedom. While critics and writers occasionally referred to the other two countries' approaches to training architects, the main focus of discussion centered on the Ecole des Beaux Arts. Despite its popularity and overall acceptance as a model for academic programs in the U.S., some critics also complained about Ecole methods of training: "In nearly all the schools which ape the Ecole, a vast amount of

time is given to the matter of academic rendering, I wish I knew just what this training is supposed to accomplish.”³²

Despite the occasional complaint, the Ecole methods informed most of what eventually took place in early academic programs. Furthermore, the editors and writers for the *AABN* tended to agree with the focus on drawing and historic stylistic prototypes promoted by advocates of the Beaux Arts. In 1879, one contributor said: “The pencil (or the brush) is the architect’s chief educational reliance...”³³ Throughout the late nineteenth and early twentieth century’s, the *AABN* presented contemporary information about architectural education.

The call for formalized architectural education paralleled the rise of professionalism in the nineteenth century. Clason Weatherhead divided architectural education before 1941 into three distinct periods: formation of early schools, “demonization” of the principles of the Ecole des Beaux Arts, and the “Modern” style.³⁴ The first architectural programs established in higher education dated to the period following the Civil War: Massachusetts Institute of Technology (MIT) in 1868, Cornell in 1871, and the University of Illinois in 1873.³⁵ Like the *AABN*, Weatherhead identified two sources for architectural education in the U.S: the Ecole des Beaux Arts and the educational systems of Germany and England.³⁶ Weatherhead’s dissertation stated that architectural education in the U.S. owed its theoretical roots to the French system.³⁷

In his summary of the early period, Weatherhead points to wide variation among the earliest schools, although the Ecole impacted each profoundly. The key courses of the curricula included courses on design, construction (albeit cursory), the history of architecture, drawing, and other academic subjects with an emphasis on the design studio as the central experience.

The second period of architectural education was a period of eclecticism. Weatherhead summarized it in eight predominant characteristics: (1) dominance of eclecticism and the Beaux Arts, (2) emphasis upon theory and unreality, (3) little encouragement of creative ability, (4) lack of integration among the subject groups, (5) design the important subject, (6) professional ethics stressed, (7) lack of instruction in the business phases of architecture, and (8) and lack of transition between the school and the office.³⁸ It was during this period that many schools of architecture were formed across the U.S. Firmly rooted in the Beaux Arts methods and tradition, these schools educated the next generation of American architects.

By 1894, the Society of Beaux Arts Architects had been formed in the U.S. with seventy-two members. Alumni of the Ecole were added to the faculty of MIT, Pennsylvania, Cornell, and Columbia all of which were subsequently reorganized incorporating atelier style studios. The majority of early programs were located in the northeast (seven) with two in the Mid-west. By 1911, eleven additional programs had been established. Forty-seven programs existed by 1947. “The Society of Beaux Arts Architects failed to secure the establishment of a national school, but it won an even greater influence on American architectural education as the use of its design competitions reached national scope.”³⁹

A slightly different view of the history of architectural education in the U.S. is provided by “Patterns of Education for the Practice of Architecture” as included in the 1954 report conducted by the American Institute of Architects entitled *The Architect at Mid-Century: Evolution and Achievement*.⁴⁰ The AIA report differentiates architectural education in the U. S. from its European counterparts. As a part of the American university system, architectural education incorporated a well-rounded liberal arts education that surpassed that of a technical school. One of the legacies of this approach has been a separation between education and practice that has made the transition from one to the other notoriously difficult for graduates.

The AIA report presents an overview of the first decade following Weatherhead’s dissertation work, the post-1941 period. Early interest in the “International Style” and the work of the Bauhaus increased substantially with the hiring of Walter Gropius at Harvard University in 1936. “Although the Bauhaus point of view naturally prevailed, the result was nevertheless a new phenomenon, for it operated within the American collegiate system.”⁴¹ Two years later, Mies van der Rohe was appointed to head the school of architecture at Illinois Institute of Technology, expanding the Bauhaus influence on architectural education in the U.S.⁴² The Bauhaus workshop tradition with both teacher and student working together was integrated into the established studio system. This Americanized-Bauhaus approach continues to have influence over the structure of architectural education in the twenty-first century at some schools in its modified form. Many programs have established shops where students and faculty can participate in the “making” of architecture.

Subsequent studies of the profession have been conducted. These include “A Study of Architectural Schools 1929-1932” conducted by the Association of Collegiate Schools of Architecture (ACSA), the AIA report on the Architect at Mid-Century, the “Architecture Education Study” also known as the Princeton Report, the 1967 “Study of Education for Environmental Design” also known as the MIT Report, Robert Gutman’s work on the profession from the mid-1980s, and Mitgang and Boyer’s 1996 report. Many of the issues which first plagued the profession—an emphasis on theory versus practical matters, disagreement over the art or

science of architecture, alienation with other disciplines and territorial disputes, and studio versus lecture classes—continued to be identified.

CONCLUSION

The history of the development of the profession up to the time of the Industrial Revolution resulted in a reduction of responsibility coupled with a sense of elitism and need for large public projects most often associated with church or state sponsorship. The profession has proceeded to progressively lose additional areas of knowledge to others: site design to landscape architects and civil engineers, structural design to engineers, mechanical, electrical and plumbing to mechanical electrical and plumbing engineers, and the design of interiors to interior designers. This has occurred in practice and has been institutionalized through American Institute of Architects' contracts and legislation in the U.S.

It is undeniable that many architects in the U.S. have been engaged in single-family house design. Furthermore, some members of the profession have thought it is their moral duty. Generally speaking, however, single-family house design falls into two categories: single commission for the wealthy or utopian vision. In the former case, the design is for a specific, often wealthy, person with a specific site. The examples of this type are numerous and iconic and include many projects by Frank Lloyd Wright, the Glass House by Phillip Johnson, the Farnsworth House by Mies Van der Rohe, and many others. These house commissions rose to the level of monumental that makes them "Architecture" in the eyes of architects. In the latter case, the project seeks to improve how people live. An example of this type includes Frank Lloyd Wright's Broad Acre City. In general, however, architects have not been successful in obtaining a large share of the ordinary single-family house market.

In summary, the culture of architecture requires an architect to produce serious "Architecture" or risk not being taken seriously by his peers. Single-family house design in the U.S. has developed into a capitalist venture. Mass production leads to repeated designs with little creativity while also less expensive. An architect is trained to design a solution for a client on a specific site. Further, monumental aspirations are best achieved through public design commissions or designs for the wealthy. An architecture student goes through processes that teach him his own value and the value of his ideas. Long hours, all-nighters, isolation, and intense competition lead to a dedication for the cause of Architecture. The serious architect is not willing to reduce himself to doing anonymous designs for an uneducated public.

LIMITATION AND SCOPE

This paper addresses the rise of the single-family house up to World War II and outlines the role of the architecture profession in the design of these single-family houses in order to explain the current lack of participation by architects in the design of the majority of single-family houses in the U.S. today. This does not imply that architects do not design houses or housing; rather that the houses most people live in in North America are not designed by architects and how and why this came to be the case.

ACKNOWLEDGEMENTS

This document was adapted from my PhD dissertation written for the University of Missouri, PhD Architectural Studies, 2008, abstracted portions from chapter 2. Committee Chair, Benyamin Schwarz.

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- ⁶ Woods, *From Craft to Profession: The Practice of Architecture in Nineteenth Century America*.
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- ²⁹ *The American Architect and Building News* (1876-1908): March 8, 1879, 74; APS Online.
- ³⁰ Jonathan Foyle, "Architect: Other titles are Remarkably More Flexible," *the Architects Journal* (2008) 39-41. This conflicts with Weatherhead who attributes the first program to the University of Liverpool in 1894.
- ³¹ *The American Architect and Building News*; April 24, 1880; 7, 226; APS Online
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- ³⁴ Clason Weatherhead. . "The History of Collegiate Education in Architecture in the United States." Dissertation (New York: Columbia University, 1941).
- ³⁵ Ibid.
- ³⁶ Ibid.
- ³⁷ One thing which Weatherhead does not address is the lack of text books in English for teaching architecture. Mary N. Woods PhD dissertation completed at Columbia University addresses how the *American Architect and Building News* periodical served this purpose until text books were developed.
- ³⁸ Weatherhead, 171-173.
- ³⁹ Ibid, 101.
- ⁴⁰ American Institute of Architects. "The Architect at Mid-Century: Evolution and Achievement." Volume 1, edited by Turpin C. Bannister (New York: Reinhold Publishing Corporation, 1954).
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