

## The First American Woman Architect – Louise Blanchard Bethune: An American Dream

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The Chicago World's Fair of 1893 was an extravaganza of scale and complexity never before seen in America. Considered the birth of the American consumer economy, the fair saw entrepreneurs introduce a plethora of consumer goods that have become standard items—everything from Aunt Jemima pancakes to zippers. The fair introduced 27 million visitors to the promise of the electric age with a “moveable sidewalk,” an automatic door opener, ironing machines, elevators, cash registers, carpet sweepers, doorbells, phonographs, clocks, dentist's drills, and dishwashers. The fair was intended to be a “first,” a culmination of everything new and amazing, as well as a virtual encyclopedia of the world's cultures.

The fair's masterminds were Chicago's business community, but it was Chicago's architects who organized the “White City” on a site designed by Frederick Law Olmsted twice the size of New York's Central Park. The buildings and the setting would fire the cultural imagination for decades. “With one or two exceptions, the buildings of the exposition are all among the most extensive structures with any pretensions to architectural beauty ever designed by man. They cover 606 acres of land—one building alone has a floor of 32 acres—and they are grouped so as to present the compact and orderly spectacle.”<sup>1</sup>

With one exception, the buildings were designed by America's most prominent architects. The inventors of twentieth-century architecture; Daniel Burnham, John Root, Le Baron Jenny, and Louis Sullivan created an ersatz Venetian Renaissance fantasy of artifi-

cial canals and gondolas, dramatically lit with electric lights and accessed by electric trains. The fair included full representation for women in all the exhibits and a building designed and decorated by women.<sup>2</sup>

The separate management of the Woman's Building, intent on having a woman architect staged a competition for the design rather than just picking the best women architect of the time—Louise Blanchard Bethune, America's one and only professional woman architect. Bethune found objection with the unequal terms and payment offered to the woman who would design the Woman's Building and the terms and the terms offered to the male architects of the rest of the buildings and she refused to participate. Bethune made clear her belief in equality of pay and this brought her to the attention of women historians of the late twentieth century. Bethune's stand has been presented wrongly as her central contribution to architecture by the historians who salvaged Bethune from obscurity.<sup>3</sup>

In 1891, Bethune was asked if her objection to the embarrassingly inadequate winner's fee for a woman architect, while all the other fair architects (male) had been invited and paid their normal fee for their work, meant that Bethune was agitating for women's rights, but Bethune separated herself from the movement demanding the right to vote for women. “The objects of the business woman are quite distinct from those of the professional agitator. Her aims are conservative rather than aggressive; her strength lies in adaptability, not in reform, and her desire is to conciliate rather than to antagonize.”<sup>4</sup>

Described as a woman of “an easy, graceful manner and at the same time with such force, always concise and to the point,” Bethune’s use of the term *professional* agitator may indicate more of an antipathy to tactics than sentiment.<sup>5</sup> It could also express a lack of concern for the right to vote as a critical step for self-actualization. But it is clear that Bethune did not intend to make a larger statement than one concerning the standards of proper treatment of professional architects, which carried with it implications she did not support. She said it was an unfortunate time for women to accept less pay for the same work a man does and she would probably be appalled this situation still exists 115 years later.<sup>6</sup>

At the same time, she was quite positive for women’s success in the profession. Bethune clearly kept current on the women studying to enter the profession and gave her audience a precise list of all the young women in the various architecture programs, both those who were continuing on to be architects and those who had chosen to remain in the drafting room rather than assume the responsibility of opening their own practices.<sup>7</sup> However, one of those, Lois Lilley Howe, did not mince words on the prospect of making a living as an architect. “As a means of livelihood for a woman, architecture is precarious and unadvisable, unless she has wonderful natural capacity combined with great tenacity of purpose, to which may be added exceptional opportunities.” Howe went on to describe the prejudice against women, “this prejudice is so great as to make it almost impossible for a woman to learn her trade.”<sup>8</sup> Howe is known for her support of younger women entering the profession through apprenticeships in her firm, which was prominent for residential design in Boston and a planned community in Mariemont, Ohio, a Cincinnati suburb.<sup>9</sup>

Howe’s description of what it took for a woman to make a living as an architect certainly described both herself and Bethune—natural capacity, what we call talent; great tenacity of purpose, single minded determination; and exceptional opportunities, and the ability to capitalize on them. Bethune accomplished her entrée, as many did in the nineteenth century, by following the best course of action available and having the good fortune of inspiring confidence in people who acknowledged her ambition.

Because she was a woman, Bethune did not enter architecture as many men did throughout the nineteenth century, from the building trades. She did not come from a family of builders or architects and inherit an existing business as occasionally allowed women to take control of commercial venture. Nor did Bethune come from a family with enough wealth to allow her to go through the formal educational preparation that Julia Morgan or Lois Howe did.<sup>10</sup>

The daughter of schoolteachers, Bethune made her way among men who had worked as hard as she had for their success, men who welcomed her into the profession—Root, Burnham, and Sullivan.<sup>11</sup> Bethune was not only in a minority of women (with Dozier and Howe after the mid-1890s) who ran architectural practices in the nineteenth century, but was part of a minority of architects (including all male architects) who were financially successful.<sup>12</sup> Bethune was the first American woman to open an architectural firm and she reinforced her commitment to architectural professionalism by joining the professional societies, serving on committees and in various officer positions, and training an apprentice.

If Bethune experienced impediments to her professional career, because of her sex it is not apparent in examining her extraordinarily successful career, from 1881 to 1905. Bethune moved with apparent ease among the businessmen of industrializing Buffalo receiving commissions as varied as her male counterparts—residences, stores, office buildings, schools, factories, churches—everything from a prison to a power station. This research found that the production of her career proved that merit trumped cultural expectations. So much so that for some twentieth century women, Bethune became a feminist example yet was not herself a feminist.

Before the age of thirty, Bethune had designed schools that transformed American grammar school design as well as police stations, an armory, and a state-of-the-art factories—accomplishments, which may still stand today. Before her career was complete she would design several more state-of-the-art factories, one of the largest luxury hotels in the country, and the first long distance power station with assistance from “electrician” Nikola Tesla, inventor of alternating current.<sup>13</sup>

Bethune's extensive work in Buffalo belies much that has been written about nineteenth-century women and a general concept of the Victorian appropriate sphere for women. Bethune clearly availed herself of the revised New York property law of 1860 in starting her firm before taking a partner who was her husband.<sup>14</sup> Bethune would have been seen as her contemporaries wanted to see her, which is to say possibly reassured by the presence in the firm of Robert Bethune. But Root, Burnham, and Sullivan were clearly delighted to have impeccably qualified Bethune apply to the Western Association of Architects. When AIA secretary, Alfred Janson Bloor caused problems with her induction into the American Institute of Architects, in 1888, Root maneuvered Bloor aside.<sup>15</sup>

Bethune grew up in this antebellum and Civil War period of transition, which offered opportunities and challenges, and the opportunity to choose one's challenges. The time, the place, and Bethune's family background must have encouraged in her the belief that a woman could achieve professionally all a man could and she never faltered. Bethune's family moved to Buffalo for her high school education and when she was offered an apprenticeship in the office of Richard A. Waite, Buffalo's most avant-garde architect she took the opportunity and quickly became invaluable assistant.

In 1881, on completion of her apprenticeship, she opened her own practice. While most women of that era stayed home, Bethune began working on the architectural challenges of indoor plumbing, central heating, ventilation, and demands for fire-resistant buildings—developing an expertise that would result in over a hundred built structures. When Bethune did marry, at age twenty-five, she made her draftsman husband, Robert Armour Bethune, a partner in her architectural firm and maintained her professional involvement through pregnancy and the birth of their son, Charles Williams Bethune.

Frustratingly for the historian, Louise Bethune left no personal papers, no letters beyond three in the AIA archive, no office records beyond one memo in the Buffalo AIA Chapter archives, and no other archive except for her built structures.<sup>16</sup> A famous woman in her lifetime, Bethune was a subject in several turn-of-the-century encyclopedic anthologies: "Some distinguished Women of Buffalo" in *American*

*Women's Illustrated* (October 7, 1893); Frances E. Willard and Mary A. Livermore, *A Woman of the Century: Fourteen Hundred-Seventy Biographical Sketches Accompanied by Portraits of Leading American Women in all Walks of Life*, 1893; and *National Cyclopedia of American Biography*, 1904, are the most informative and supply the information used by all following biographers.

In the early 1960s, women historians again began to look back for proof of successful and influential nineteenth-century women. Madeleine B. Stern in *We the Women: Career Firsts of Nineteenth Century America*, in 1962, consolidated the information available on Bethune from the turn-of-the-century encyclopedias into a narrative that became the basis of all following biographies. Stern listed sixteen buildings to illustrate that Bethune was not an amateur who designed houses for friends or a wealthy dilettante, but was a legitimate professional architect. She emphasized the connection between Bethune, the Chicago World's Columbian Exposition Woman's Building competition, and Sophia Hayden, the winning designer, a connection that became the central focus of interest in following references to Bethune.<sup>17</sup>

Adrianna Barbasch, elaborated on Bethune's buildings to include eighteen public schools and a dozen other structures, but, like Stern, failed to mention that Bethune designed possibly hundreds of buildings besides those named.<sup>18</sup> Barbasch and Stern did emphasize that Bethune was an active architect of multiple building types, but apparently were reluctant to attribute to her the larger number accepted by biographers during Bethune's own lifetime.<sup>19</sup> George E. Pettengill, the archivist at the AIA who worked with Stern published an article that included much of the information on Bethune in the AIA archives, in 1975. His account of Bethune's induction into the Western Association of Architects pointed out her significance for all women architects who followed, because of the precedent set making membership available to women applicants.<sup>20</sup>

In general architectural literature, Bethune is absent except for her impressive Lafayette Hotel, which was listed in Reyner Banham and Henry-Russell Hitchcock's guide to Buffalo architecture. This publication placed the crowning building of Bethune's career in the context of two other notable Buffalo buildings, Burn-

ham's Ellicott Square and Louis Sullivan's Guaranty Building.<sup>21</sup> Bethune's importance as architect of the Lafayette Hotel, the largest and most technologically up-to-date luxury hotel in turn-of-the-century America, was not realized by other architectural historians, because a documentation of the body of this architect's work—the essential information for making such a judgment—did not exist.

Bethune, like many architects whose names are lost, worked at the core of urban architecture, close to the city's functioning, creating thousands of the "anonymous" structures of the nineteenth century.. She designed for the city fabric—a school or police station that would stand with dignity within a jumble of homes, tenements, factories, and markets or perhaps mark a standard for a new neighborhood not yet built. These buildings drew attention, at the time, not because they were a certain design style, but because they were there, they were where nothing had been before and other new and interesting things were sure to follow.

Bethune and her fellow nineteenth century architects designed predominantly within a circumscribed budget. They designed to replace a successful store with a better more fireproof structure, they designed for speculation in new neighborhoods, and they designed to enlarge a business or to move families who could afford it into new neighborhoods away from pollution. In an age without retirement plans, they designed for income property or a secure home for later life or an inheritance for the family. They had to design a building that would be visually appropriate over time, while providing for the wife and mother who wanted safety and comfort for her family or the proprietor who had to provide new equipment and new work routines for his workers.

The vast majority of buildings needed first to meet a utilitarian need. Statements of style were for churches or extraordinary ventures like H. H. Richardson's New York State Hospital for the Insane, in Buffalo. That is not to say that clients avoided a stylistic statement, banks were particularly fond of them; but it was the practical comforts and efficiencies that a new building brought, which were foremost for the majority of clients.

Building had increased due to the growth of the city and its manufacturing; in 1880, Buffalo

had 1,183 manufacturing firms and a population of 155,134 and in 1890, there were 3,565 manufacturing places with over 50,000 industrial workers in a city of 255,664.<sup>22</sup> But building was not architecture and the inflated architectural listings for Buffalo (at the height of its membership the entire Western New York Association of Architects had this number) really indicates the problem faced by the architectural profession; the title of architect was validating to those who used it, but its use did not guarantee that the user had the training or the accountability that went with the title.

Bethune entered architecture at a time when understanding the new technologies and being willing to rethink architectural solutions to utilize and facilitate them made the architect particularly valuable. New technologies were complex before trial and error usage proved some solutions better than others. In 1888, *The Architectural Era* was still advising to seek information before making decisions on central heating and ventilation and urging the inclusion of a bathroom if "the owner can possibly afford it." Having a pantry for clean dishes and utensils, an indoor passage to the vegetable cellar storage, or a hood over the stove connected to the flue were not routine design items. Other common sense design elements such as windows in rooms were not common procedure; the strong admonition to have "direct light" simply meant the room should have a window, a kitchen should have two.<sup>23</sup>

Guidelines were being established and the health of the occupants of a building was being incorporated into architecture for the first time. By the 1890s many of these issues found satisfactory resolution, but Bethune entered the profession in time to participate in these advances and with the ability to do so. For women entering the profession later, in the 1890s, as Lois Howe or Julia Morgan did; domestic architecture, which was the first work most architects got, was seen as the only natural realm for the female architect and made moving into other building types quite difficult.

Unless the client was William Randolph Hearst and the house was a castle at San Simeon, architects of houses, like architects of stores, factories, warehouses, schools, police and fire stations were likely to go unnoticed in history. Even before the history was written, in the 1890s, architects began to understand that a

certain amount of self-promotion was necessary. A city with 14 architects is one thing and a city with over 50 is another. Survival professionally came to involve a conscious manipulation of individuality.

The lack of attention to women in architecture is almost as complete as the lack of attention to architecture in examinations of the development of professions. Architecture is considered by most historians as not important enough or too idiosyncratic to merit study, except for Mary N. Woods's recent history of nineteenth-century architectural practice. Woods' documents the strategies used by architects for economic survival, the economic realities of architectural practice—as Bethune put it, the “business” of architecture.<sup>24</sup>

The reality was that when fourteen-year-old Jennie Louise Blanchard contemplated her future about 1870, women's primary occupations were as domestic servants, agricultural workers, tailoresses, seamstresses, milliners, dress makers, and teachers.<sup>25</sup> Her family was not economically secure enough for her to devote her intelligence and talent to progressive volunteerism as did many women from more-well-off families. She chose instead to express her progressivism as a businesswoman in the profession of architecture.

Lacking Bethune's office records or a collection of drawings, it has been necessary to use the professional architectural journals as a source for buildings done before the city of Buffalo kept records. From these listings, Bethune's clients and the projects of other Buffalo architects can be compared. Journals are commonly used for architectural documentation, but usually done to verify known structures. I did this search without knowing what I might actually find.

Bethune's buildings can be examined just as one examines the entire oeuvre of an artist or author to understand better their interests and abilities. Buildings are particularly affected by cultural content because they combine social, economic, and personal realities, which can make them as revealing as works of art, and the journals provide contextual information on these issues that surround (literally) the announcement of a new building. The late Philip Johnson, architect and eminent architectural theorist, referred to this as “philosophical architectural history.”<sup>26</sup>

While we cannot know exactly what happened in nineteenth-century architectural practice and authorship of the majority of buildings has been lost, professional journals are increasingly being used to learn and explicate the professional environment.<sup>27</sup> Recent scholarship has used architecture's professional journals to expand understanding of nineteenth-century architects previously only known for a particular building or action, such as William Gibbons Preston, inventor of the bungalow style, circa 1880; Leopold Eidlitz, detractor of cast iron construction; Henry Van Brunt, defender of iron construction in the United States Capitol Dome debate of the 1850s; and William Ware, creator of the architecture programs at MIT and Columbia.<sup>28</sup> One result of this scholarly work is that it has shown how difficult it was to maintain a constant stream of work and how easily events could curtail professional progress.

The profession's journals reflect the issues the editors and readership deemed important.<sup>29</sup> These issues have “eras” and priority positions. In the 1880s, health and safety issues of fireproofing, proper ventilation, clean water supply and sewage disposal dominated; in the 1890s, fireproofing and municipal sanitation networks dominated as particular incidents returned those issues to the “front page.” In the 1890s, legal issues connected to fireproofing and architectural competitions got particular attention while support for a universal building code was dominant.

This research found that Bethune's designs for Buffalo's schools was sensitive to health and safety issues earlier than most cities, possibly because Bethune's father worked in the public school system and discussions of the conditions were part of her upbringing. Knowing that cities and large businesses increasingly preferred architectural competitions toward the end of the century and that Bethune was opposed to participating in them, the question arises,—how did this affect her practice?

Architecture was closely related to and affected by the industrial revolution, not so much in the constant absorption of innovation as in manufacturing, but in periodic campaigns of improvement that can be seen in the shifting emphasis of articles in professional journals.<sup>30</sup> Placing architects in the social, economic, and professional issues of their eras and geographical locations can contribute to an in-

creased understanding of the process actual development of architecture. This research shows that the period between the Chicago style skyscraper and the emergence of the modernist skyscraper, the profession of architecture was building the fabric that would support these future jewels.

The quantity of new buildings was increasing, but just as importantly the option of quality was increasing. The possibility of improved buildings; safer from the threat of fire, cleaner in sanitary engineering; designed for improved light and heating was an important dynamic and as new structures were built and the older ones were reused on a lower economic level—worker housing and undercapitalized businesses.<sup>31</sup> But the radical increase of population at the lower end of the economic scale meant there were many opportunities for the unscrupulous builder, a builder who discredited architecture at the time and left a legacy of disinterest in this period.

That the journals show no advocacy for a particular style of architecture can be accredited to a common understanding within the profession. Architects can be attracted to a “style” and build a body of work on that style, but more important they are given a piece of land, a budget, a purpose for the building and some set of restrictions and try to fashion the best solution they can within those restrictions. An architect can admire Richardson’s rough-hewn stone, but he or she has to have the stone, the appropriate workmen, the budget, and the project that is right for rough-hewn stone in order to produce that style of building.

Because there were no public records for most of the nineteenth century and drawings were not kept, it is fortunate that Bethune felt the professional responsibility to submit projects for publication. These notices revealed sensitive information such as the project budget so publication was a form of transparency in conducting one’s business. More than a hundred buildings were documented this way, but one has to assume this was not the total production of Bethune’s practice.

Architects in the nineteenth century built whole cities—an enormous number and variety of buildings—and tried an enormous number of styles. There was no time for or apparently need for consensus; most were running businesses and had no time to advocate a style.

The architects of the “White City” built a dream, a city out of time and place that provided a stylistic consensus; based on old world models from their education decades earlier—it was more an image of the past than a vision of the future.<sup>32</sup> Bethune and her colleagues were building a future of clean durable buildings and just how durable is apparent everywhere in the country.

## Endnotes

<sup>1</sup> M. A. Lane, “The Chicago Fair,” *Harper’s Weekly*, 2 July 1892, 645.

<sup>2</sup> Johanna Hays, “The Invisible Triumph,” *ACSA International Conference* (Mexico City, 2005).

<sup>3</sup> Jeanne Madeline Weimann, *The Fair Women* (Chicago: Academy Chicago, 1981), 147; and Madeleine B. Stern, *We the Women: Career Firsts of Nineteenth-Century America* (Lincoln: University of Nebraska Press, 1962); Judith Paine, “Pioneer Women Architects,” in Susana Torre, ed., *Women in American Architecture: A Historic and Contemporary Perspective* (New York: Watson-Guption Publications, 1977); Adriana Barbasch, “Louise Blanchard Bethune: The AIA Accepts Its First Woman Member,” in Ellen Perry Berkeley, ed., and Matilda McQuaid, associate ed., *Architecture: A Place for Women* (Washington: Smithsonian Institution Press, 1989); Barbara J. Howe, “Women and Architecture” in Page Putnam Miller, ed., *Reclaiming the Past: Landmarks of Women’s History* (Bloomington: Indiana University Press, 1992); and Adriana Barbasch, “A Tribute to the First Professional Woman Architect Admitted to the American Institute of Architecture: 1856-1913” (Buffalo: The American Institute of Architects, 2001), brochure.

<sup>4</sup> Louise Bethune, “Women and Architecture,” *Inland Architect and News Record* 17 (March 1891), 21; see Appendix 1.

<sup>5</sup> “Woman Architects: No Demand for Them Unless They are Willing to Do Men’s Work,” *Buffalo Daily Courier* (March 7, 1891), 6.

<sup>6</sup> Bethune, “Women,” 20; and Female members of the AIA (to 1940): 1888 Louise Blanchard Bethune (FAIA 1889); 1901 Lois Lilley Howe (FAIA 1931); 1905 Henrietta Dozier; 1918 Marcia Mead (Life Member 1929) and Theodate Pope Riddle; 1921 Agnes Ballard, Julia Morgan, and Ida Annah Ryan; 1923 Eleanor Manning; 1924 Katherine Cotheal Budd, Eleanor Raymond (FAIA 1961); 1926 Mary Almy, Marion I. Manley (FAIA 1956), Elizabeth K. Nedved; 1927 Emily Butterfield, Alice Walton; 1929 Elisabeth Coit (FAIA 1955); 1930 Carina Eaglesfield Mortimer, Georgina P. Yeatman; 1931 Lillian Jeanette Rice; 1932 Marion Frances Blood; 1933 Elizabeth Greenleaf Pattee; 1936 Margaret Goodin

Fritsch, Lulah Maria Riggs (FAIA 1960), Margaret F. Spencer; 1937 Verna Cook Salomonsky; 1938 Louise Leland, Olive Frances Tjaden (Mrs. Olive F. Johnson); 1939 Elizabeth H. Fleisher, Gertrude M. Sawyer..

<sup>7</sup> Bethune said the women graduates "can hardly exceed a dozen," but most have "renounced ambition" with the attainment of the degree. She predicts that there are a "few brilliant and energetic women for whom the future holds great possibilities."

<sup>8</sup> Lois L. Howe, "The Architect," in Catherine Filene, ed., *Careers for Women* (Boston: Houghton Mifflin Co., 1920), 47.

<sup>9</sup> "Historical Note," Howe, Manning, Almy, 1913-1937; Papers, 1883-1972, MIT Institute Archives & Special Collections, Manuscript Collection-MS 9; <http://libraries.mit.edu/archives/collections-mc/mc9.html> July 13, 2006.

<sup>10</sup> Mary N. Woods, *From Craft to Profession: The Practice of Architecture in Nineteenth-Century America* (Berkeley: University of California Press, 1999), 100.

<sup>11</sup> Only Sullivan proceeded directly into architecture and none of these famous Bethune contemporaries made an immediately financially successful living.

<sup>12</sup> Editorial, "The Century Speaks a Good Word for the Architect," *The Architectural Era* 3, (February 1889), 33-34; only one is five earned \$5,000 a year. This is in line with the survey John Randall did of numbers and output of architects in Buffalo; *Human Values*, 151. Kathleen McCarthy multiplies this time period monetary values by 12 to get value in 2000, which is \$60,000.

<sup>13</sup> Buffalo State Teachers Association, *Buffalo Past and Present: A Manual of Buffalo and the Niagara Frontier* (Press of Reinecke & Zesch, 1912), 53; <http://www.buffaloresearch.com/fulltext.html>, <http://historical.library.cornell.edu/cgi-bin/cul.nys/docviewer?did=nys557&seq=1> March 10, 2006.

<sup>14</sup> Kathryn Kish Sklar, "Separate Spheres, Female Worlds, Woman's Place: The Rhetoric of Women's History," in Linda K. Kerber, *Toward an Intellectual History of Women* (Chapel Hill: The University of North Carolina Press, 1997), 177; Sklar discusses the rhetoric of separate spheres as phases of feminist historiography; this research explores the space where the spheres overlapped.

<sup>15</sup> *The Western Architect: A National Journal of Architecture and Allied Arts* 20 (April 1914), 33-34. Lois Lilly Howe (1901) and Henrietta Dozier (1905) were the other female professional architects—Julia Morgan was not admitted until 1921.

<sup>16</sup> Two of her sets of drawings may be somewhere in Buffalo's city hall archives, but they have not been located as yet. It appears that it was not unusual to destroy all business papers when closing or leaving a firm. Apparently this was done to protect one's authorship and a firm's clients' privacy.

<sup>17</sup> Stern, *We the Women*, 61-67; and Madeleine B. Stern, "America's First Woman Architect?" *Journal of the Society of Architectural Historians* 18 (May 1959), 66. The Woman's Building has fit into most general discussions of women in nineteenth century architecture easier than a serious consideration of the remarkable production of this architect.

<sup>18</sup> Willard, *Woman of the Century*, 81.

<sup>19</sup> Barbasch, "AIA Accepts," 1989, 15-23; Barbasch has also written two brochures for the Buffalo Chapter of the AIA; "The Buffalo/Western New York Chapter of the American Institute of Architects: Celebrates 100 Years of Architecture, 1886-1986," (Buffalo: AIA, 1986); and Adriana Barbasch, "A Tribute to the First Professional Woman Architect Admitted to the American Institute of Architecture: 1856-1913" (Buffalo: The American Institute of Architects, 2001).

<sup>20</sup> George E. Pettengill, "How AIA Acquired Its First Woman Member," *AIA Journal* (March 1975), 35.

<sup>21</sup> Reyner Banham, Charles Beveridge, and Henry-Russell Hitchcock, *Buffalo Architecture: A Guide* (Cambridge: The MIT Press, 1981), 15.

<sup>22</sup> John F. Barry and Robert W. Elmes, eds., *Buffalo's Text Book* (Buffalo: Robert W. Elmes, 1924), 15.

<sup>23</sup> Victor C. Vaughan, "Building a Home," *The Architectural Era* 2 (August 1888), 152; this detailed essay illuminates the areas of change in house architecture was written by a medical doctor whose concern was what we now call "the healthy house."

<sup>24</sup> Woods, *Craft*, 179.

<sup>25</sup> Rosalyn Baxandall, *America's Working Women* (New York: Random House, 1976), 82-84.

<sup>26</sup> Peter Collins, *Changing Ideas in Modern Architecture: 1750-1950* (Montreal: McGill-Queen's University Press, 1965), 16.

<sup>27</sup> Amy Slaton, *Reinforced Concrete and the Modernization of American Building: 1900-1930* (Baltimore: Johns Hopkins University Press, 2001); Gail Cooper, *Air-conditioning America: Engineers and the Controlled Environment, 1900-1960* (Baltimore: Johns Hopkins University Press, 1998); and Sharon Vattay, "Defining 'Architect' in Nineteenth-Century Toronto: The Practice of John George Howard and Thomas Young" (Ph. D. diss. University of Toronto, 2001).

<sup>28</sup> Jean Follett-Thompson, "The Business of Architecture: William Gibbons Preston and Architectural Professionalism in Boston during the Second Half of the Nineteenth Century" (Ph.D. diss., Boston University, 1986); Kimberly Alexander-Shilland, "Ware and Van Brunt: Architectural Practice and Professionalization (1863-1881)" (Ph.D. diss., Boston University, 1999); and Kathryn Elizabeth Holliday, "Leopold Eidlitz and the architecture of nineteenth century America" (Ph.D. diss., The University of Texas at Austin, 2003).

<sup>29</sup> Thomas Bender, *Intellect and Public Life: Essays on the Social History of Academic Intellectuals in the United States* (Baltimore: The Johns Hopkins University Press, 1993) and *Intellect and Public Life: Essays on the Social History of Academic Intellectuals in the United States* (Baltimore: The Johns Hopkins University Press, 1993).

<sup>30</sup> The professional journals reviewed were: *The Inland Architect and News (Record)* was surveyed from 1883 to 1890, volumes I through VIII; *The American Architect*, 1881 to 1905; *Architectural Era*, 1888 to 1892, volumes II through VI; *The Sanitary Engineer*, December 1881 to September 1886, volumes V through XIV; *The Engineering Record*, December 1890 to December 1897, volumes XXIII to XXXVI; and *The Brickbuilder*, 1892 to 1899, volumes I through VIII.

<sup>31</sup> Raymond A. Mohl, *The New City: Urban America in the Industrial Age, 1860-1920* (Arlington Heights, Illinois: Harlan Davidson, Inc., 1985), 37; Mohl notes that trolley expansion of the 1880s and 1890s was for middleclass use and facilitated middleclass movement into areas away from downtown ("the walking city"), 30.

<sup>32</sup> Hays, "Invisible Triumph," 14.