

LOUISE BLANCHARD BETHUNE: ARCHITECT EXTRAORDINAIRE AND FIRST
AMERICAN WOMAN ARCHITECT, PRACTICED IN BUFFALO, NEW YORK
(1881-1905)

Except where reference is made to the work of others, the work described in this dissertation is my own or was done in collaboration with my advisory committee. This dissertation does not include proprietary or classified information.

Johanna Hays

William F. Trimble, Co-Chair
Professor
History

Ruth C. Crocker, Co-Chair
Professor
History

Donna J. Bohanan
Professor
History

Christa Slaton
Professor
Political Science

Joe F. Pittman
Interim Dean
Graduate School

LOUISE BLANCHARD BETHUNE: ARCHITECT EXTRAORDINAIRE AND FIRST
AMERICAN WOMAN ARCHITECT, PRACTICED IN BUFFALO, NEW YORK
(1881-1905)

Johanna Hays

A Dissertation

Submitted to

the Graduate Faculty of

Auburn University

in Partial Fulfillment of the

Requirements for the

Degree of

Doctor of Philosophy

Auburn, Alabama
August 4, 2007

DISSERTATION ABSTRACT

LOUISE BLANCHARD BETHUNE: ARCHITECT EXTRAORDINAIRE AND FIRST
AMERICAN WOMAN ARCHITECT, PRACTICED IN BUFFALO, NEW YORK

(1881-1905)

Johanna Hays

Permission is granted to Auburn University to make copies of this dissertation at its
discretion, upon the request of individuals or institutions and at their expense.
The author reserves all publication rights.

Signature of Author

Date of Graduation

DISSERTATION ABSTRACT

LOUISE BLANCHARD BETHUNE: ARCHITECT EXTRAORDINAIRE AND FIRST
AMERICAN WOMAN ARCHITECT, PRACTICED IN BUFFALO, NEW YORK

(1881-1905)

Johanna Hays

Doctor of Philosophy, August 4, 2007
(B.S., Columbia University, 1967)

341 Typed Pages

Directed by William F. Trimble and Ruth H. Crocker

Jennie Louise Blanchard Bethune (1856-1913) was America's first professional woman architect at a time when few women chose careers except when faced with economic necessity. The only child of teachers, Bethune's education was directed toward a career path of her own choosing. She chose to become an architect and built one of the more successful practices in Buffalo. Her schools were among the most innovative in the United States, and her commercial buildings were known for their efficiency and cost effectiveness. Bethune probably did not consider her innovations in functionally oriented structures as anything other than the proper work of an architect. She was not a feminist and did not promote feminist causes; she viewed herself as a businesswoman and responsible member of her profession.

This study describes and analyzes her training, her commissions, her clients, and her relationship to the professionalization of architecture in the context of the social, economic, and technological changes that transformed Buffalo, New York, as well as most American cities between 1880 and 1905. Bethune's success reflected her ability to apply correctly the new scientific developments in sanitation, ventilation, fireproofing, and function that challenged late nineteenth-century society. Her successful solutions through design and responsible construction made her one of Buffalo's and the nation's most respected and trusted architects. Through a quarter century of successive economic expansion and depression, Bethune maintained a financially successful practice while promoting professionalization of architecture by participating in the development of licensing standards for the profession. While few women followed Bethune into the profession until a century later, her status in the American Institute of Architects (AIA) opened the profession to women and served as a role model for those who have followed.

ACKNOWLEDGEMENTS

Searching for evidence of the career of Jennie Louise Blanchard Bethune has been a fascinating immersion in publications of the nineteenth century and an extended meandering through the work of many historians. I was impressed with the richness, depth, and variety of Bethune's work and the impressive number of completed buildings comparable to any practicing architect at her time, but had I not discovered some amazing detail of Bethune's life and work at a few critical moments I am quite sure I would have moved to another more firm area of investigation. Through this exercise, which at times felt like futility, Bill Trimble and Ruth Crooker patiently offered avenues of inquiry to keep a sense of progress tangible.

During this research I learned to respect the advocates of history who chronicled the businesses, charity organizations, and public servants of their day—H. Perry Smith, Frank Severance, Ellie Shepard, Mary A. Livemore to name a few—believing the facts of ordinary life would be important to someone some day. Particular thanks to Ellen Weiss of Tulane University for her assistance and advice, librarian Mary Kasulaitis, and particularly James Strueber, champion of support for the long haul.

Deepest thanks to Louise Bethune who reminded me life was not about asking permission, but just going ahead and doing.

Style manual used: The Chicago Manual of Style, 15th ed. Chicago: University of Chicago Press, 2003.

Computer software used: Microsoft Office Word 2007, Microsoft Office Excel 2007, Microsoft Office Publisher 2003.

TABLE OF CONTENTS

INTRODUCTION	1
1. FROM IDYLLIC WATERLOO TO BUSTLING BUFFALO	34
2. SPECIAL CAPACITIES FOR A PARTICULAR WORK	58
3. RATIONAL FOUNDATIONS: ESTABLISHING A PRACTICE.....	81
4. ARCHITECTURE DETERMINED BY FUNCTION AND TECHNOLOGY	113
5. PUBLIC BUILDINGS FOR PUBLIC IMPROVEMENT	134
6. BUILDING PROFESSIONALISM.....	174
7. CULMINATION OF A CAREER.....	208
8. CONCLUSIONS.....	245
BIBLIOGRAPHY	260
APPENDIXES	283
A. LIST OF BUILDINGS	284
B. LIST OF ILLUSTRATIONS.....	290
C. ILLUSTRATIONS	292
D. VERIFICATION OF SCHOOLS	327
E. BETHUNE SPEECH.....	330

INTRODUCTION

The World's Columbian Exposition (WCE), better known as the Chicago World's Fair of 1893 was an extravaganza of scale and complexity never before seen in the United States. Considered the birth of the American consumer economy, the fair saw entrepreneurs introduce a plethora of consumer goods that have become standard items— Aunt Jemima pancakes, chili con carne, Crackerjacks, the zipper, yellow pencils, and picture postcards sold as souvenirs. 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. Everything about 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.¹

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 the famous landscape architect Frederick Law Olmsted that was almost the size of New York's Central Park. The design of the buildings and 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.

¹ John E. Findling, *Chicago's Great World Fair*. (Manchester: Manchester University Press, 1994), 12-13; Daniel H. Burnham, *The Final Official Report of the Director of Works of the World's Columbian Exposition* (Chicago: World's Columbian Exposition, 1893; reprint, Joan E. Draper, ed., New York: Garland Publishing, 1987), 1; William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W. W. Norton, 1991), 341.

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.”² All but one of the buildings was designed by America’s most prominent architects. The pioneers of twentieth-century architecture, Daniel Burnham, John Root, Le Baron Jenny, and Louis Sullivan, created a Venetian Renaissance fantasy of ersatz canals and gondolas, dramatically lit with electric lights and accessed by electric trains.

The fair’s Board of Lady Managers (a board conceived to sit on committees that gave prizes to exhibits “produced in whole or in part by female labor”) decided to build an exhibitions building designed by a woman to showcase the achievements of women.³ The board of 117 women representing all of the states did not appoint an architect as Daniel Burnham and John Root, directors of the fair’s building committee, had done. Factions within such a large group insisted on a competition to select a woman architect for the Woman’s Building.⁴ At the time, the American Institute of Architects (AIA) opposed juried competitions because the judges were generally inexperienced in reading architectural plans or relating the plans to the actual costs that might result and thus were infamous for not selecting the best design, producing over-budget buildings, or simply awarding a political favorite under the guise of a fair competition. Hoping to eliminate competitions as a procedure for selecting buildings, many AIA member architects boycotted them and Buffalo architect Louise Bethune was one of the most adamantly opposed to selection by competition.

Aggravating the conditions of the Woman’s Building competition, the managers had devised the competition for the design of the Woman’s Building with an award of

² M. A. Lane, “The Chicago Fair,” *Harper’s Weekly*, 2 July 1892, 645.

³ Jeanne Madeline Weimann, *The Fair Women* (Chicago: Academy Chicago, 1981), 36, 51.

⁴ Bertha Honore Palmer, “Addresses and Reports of Mrs. Potter Palmer, President of the Board of Lady Managers, World’s Columbian Commission”; Report to J. W. Candler, Chairman World’s Fair Committee, Washington, 12 December 1890, 24-30; Weimann, *Fair Women*, 144.

\$1,000 (one-tenth of the customary fee) and a requirement to spend considerable time on site creating working drawings and supervising construction. The men who were invited to design the other fair buildings were each paid \$10,000 for their “personal artistic services.” The working drawings for their buildings would be completed and construction supervised by Daniel Burnham, managing architect of the fair, and his draftsmen.

Bethune’s objection to this competition meshed with the AIA’s decision that members were not to participate in competitions that were not monitored by qualified architects. But Bethune also opposed competitions in principle, and had she been invited to do the design, she surely would have refused to take less than proper payment for “personal artistic services.”⁵ (This competition also violated the AIA’s concern that some architects reduced their fees in order to secure work in a competitive market, but Bethune was the only professional architect to protest as she was the only woman AIA member.)

Because a cursory reading of the events surrounding the competition for the Woman’s Building architect made it appear that Bethune was taking a stand on equal pay for women and not the broader AIA principles of equal pay and ethical treatment of all architects, she came to the attention of historians of women of the late twentieth century. Bethune stated that it was particularly unfortunate and damaging for women to violate AIA guidelines.⁶ While her motives have been misinterpreted, it is true that this limited assessment of Bethune’s accomplishments salvaged her from obscurity.

⁵ Louise Bethune, “Women and Architecture,” *Inland Architect and News Record* 17 (March 1891), 21; see Appendix 3.

⁶ Weimann, *Fair Women*, 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 and Matilda McQuaid, eds.,

In 1891, when Bethune was asked whether her objection to the inequality of the architecture fees at the WCE meant that she was agitating for women's rights, she made a distinction between the necessity of uniform procedures for men and women in the profession and 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."⁷

Bethune's use of the term *professional* agitator may indicate more of an antipathy to tactics or individual personalities than to the issue of franchise. It could also express a lack of concern for the woman's right to vote as a critical step for self-actualization, a view held by some publicly visible women of the period such as popular architecture critic and historian Mariana Van Rensselaer.⁸ In context, it appears that Bethune did not intend to make a larger statement than one concerning the standards of proper treatment of professional architects. Nevertheless, she added that it was an unfortunate time for women to accept less pay for the same work as a man, and she would probably be appalled this situation still exists 115 years later.⁹

Bethune's opening statement at her 1891 Women's Educational and Industrial Union (WEIU) lecture noted that she was invited to speak on "Women in Architecture"

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.

⁷ Bethune, "Women and Architecture," 21.

⁸ Mariana Griswold Van Rensselaer, *Henry Hobson Richardson and His Works* (New York: Dover Publications, Inc., 1888, 1969) vi; this work still stands as the authoritative explication of Richardson's importance; also Van Rensselaer published a pamphlet in 1894, *Should We Ask for the Suffrage?*, which suggests trying to get the vote may not be the best use of women's time and energies.

⁹ Alice Kessler-Harris, *In Pursuit of Equity: Women, Men, and the Quest for Economic Citizenship in 20th-Century America* (Oxford: Oxford University Press, 2001), 6-7, 23-25; in 1900 six million women worked for pay constituting a quarter of the paid labor force, but at a level below "self-sufficiency and independence."

and that she changed the title to “Women and Architecture,” because “in order to have any topic at all, we must talk of women *and* architecture, assuming a connection which it is hardly safe to assert.”¹⁰ At the same time, she was optimistic about women’s “future” in the profession. Bethune 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.¹¹

A quarter of a century later, in 1914, *The Western Architect* editorialized that it was hard to understand why there were not more women in the profession or why more women had not taken advantage of the opening Bethune created by entering the AIA when she did. This endorsement of women’s suitability for the profession was similar to an article published in *Inland Architect and Builder* in 1884;¹² the publicly professed attitude toward women as architects had not changed in thirty years, but this theoretical acceptance had not materialized.

By 1920 the situation for women apparently solidified in a negative way. Elizabeth Kemper Adams, former Smith College professor and Assistant Chief, United States Employment Service, cited the improved federal census figures on women in

¹⁰ Bethune, “Women and Architecture,” 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 Salamonsky; 1938 Louise Leland, Olive Frances Tjaden (Mrs. Olive F. Johnson); 1939 Elizabeth H. Fleisher, Gertrude M. Sawyer.

¹¹ Bethune said the women graduates “can hardly exceed a dozen,” but most have “renounced ambition” with the attainment of the degree. She predicted that there were a “few brilliant and energetic women for whom the future holds great possibilities.”

¹² Lulu Stoughton Beem, “Women in Architecture,” *Inland Architect and Builder* 4 (October 1884), 40.

architecture (17 in 1880 to 302 in 1910), but the rate of entry into architecture had dropped to only four women earning architectural degrees in 1916, and Adams admitted that women represented less than 1 percent of all architects. She pointed out that many women architects worked in drafting rooms and suggested low-income housing, interior design, and remodeling as possible areas where women could survive against male competitors.¹³ This was not the career start that Bethune followed in the 1880s; hers was more typical for any architectural apprentice intending to become an architect—work on a large variety of projects of increasing difficulty and assume more responsibility as skills developed.

Architect Lois Lilley Howe was more direct and far less hopeful in the essay she contributed to a study done for the Women’s Educational and Industrial Union on professions open to women in 1920. Howe was one of the few women who had her own practice from 1894, and incidentally convinced Sophia Hayden to submit a plan to the Woman’s Building competition in 1891. (Howe placed second in the competition and probably fared better than Hayden by receiving a \$500 award and by not having to deal with the construction of the building.)

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 as “so great as to make it almost impossible for a woman to learn her trade.”¹⁴ Howe worked to support younger women entering the profession through apprenticeships in her firm. Her firm was well-known for residential design in early

¹³ Elizabeth Kemper Adams, *Women Professional Workers: A Study Made for the Women’s Educational and Industrial Union* (Chautauqua: The Chautauqua Press, 1921), 318-319.

¹⁴ Lois L. Howe, “The Architect,” in Catherine Filene, ed., *Careers for Women* (Boston: Houghton Mifflin Co., 1920), 47.

twentieth-century Boston and she designed several houses for John Nolen's experimental planned community Mariemont, a Cincinnati suburb, in 1924.¹⁵

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 (or talent), great tenacity of purpose, single-minded determination, exceptional opportunities, and the ability to capitalize on them. But truthfully these are the same qualities still needed for all architects—male or female—and for all successful persons in almost any endeavor, but Howe saw the opportunity to apprentice in an architect's office as the particularly critical hurdle for women.

Bethune accomplished her entrée 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 through the building trades as did many men throughout the nineteenth century. Nor did she come from a family of builders or architects and inherit an existing business that occasionally allowed women to take control of a commercial venture. Bethune's family did not have the wealth typical of the families whose daughters went through the formal educational preparation process that Sophia Hayden and Lois Howe did. That her family did what was necessary so Bethune could attend high school and attend a year of honors education after high school seems to indicate they would have found the means for her to proceed even if she had not landed an appropriate apprenticeship.¹⁶

The daughter of schoolteachers, Bethune made her way among men who had worked as hard as she had for their success and who welcomed her into the profession,

¹⁵ "Historical Note," Howe, Manning, Almy, 1913-1937, Papers, 1883-1972, MS 9, Manuscript Collections, MIT Institute Archives & Special Collections, Cambridge, Massachusetts; <http://libraries.mit.edu/archives/collections-mc/mc9.html> (accessed July 13, 2006). The existence of these papers suggests an in-depth study of this architect is possible and overdue.

¹⁶ Mary N. Woods, *From Craft to Profession: The Practice of Architecture in Nineteenth-Century America* (Berkeley: University of California Press, 1999), 100.

and among architects who supported her such as Root, Burnham, and Sullivan.¹⁷

Bethune was not only in a minority of women (with Henrietta Dozier and Howe joining her 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.¹⁸ The first American woman to open an architectural firm, Bethune reinforced her commitment to architectural professionalism by serving on committees and in various officer positions in the professional architectural societies and by training an apprentice.

Bethune did not see herself as one of a handful of women in architecture, but as one of the first women and as one of the financially successful minority of architects. This was not a small accomplishment, and like another largely forgotten woman architect, Henrietta Dozier of Atlanta, she conducted her practice in the conventional manner of her male counterparts in the profession.¹⁹ 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, nor from any of her comments that could be found.

Bethune moved with apparent ease among the businessmen of industrializing Buffalo, receiving commissions similar to and as varied as her male counterparts—residences, stores, office buildings, schools, police stations, factories, warehouses, an armory, and additions to a prison and a hospital. By 1881 when Bethune opened her

¹⁷ Only Sullivan proceeded directly into architecture and none of these famous Bethune contemporaries made an immediately financially successful living.

¹⁸ Editorial, “*The Century* Speaks a Good Word for the Architect,” *The Architectural Era* 3 (February 1889), 33-34; only one in five earned \$5,000 a year. This is in line with the survey John Randall did of numbers and output of architects in John D. Randall, A.I.A., *Buffalo and Western New York, Architecture and Human Values* (Buffalo: Artcraft-Burow, 1976), 151. Kathleen McCarthy multiplies this time period monetary values by 12 to get a value in 2000 of \$60,000 or note that a teacher’s salary was \$500 to \$800.

¹⁹ Woods, *Craft*, 99; Dozier was one of the first women to graduate from MIT and in 1894, Charles McKim refused to consider apprenticing her. She moved to Atlanta where she listed herself as H. Dozier or Harry Dozier.

practice, Buffalo had changed completely from the frontier village it was at the beginning of the nineteenth century. In a half-century the community of German and Irish immigrants and sons and daughters of Revolutionary War families had made Buffalo the thirteenth-largest American city, with a population of just over 155,000 closely followed by Cleveland and Pittsburgh. By 1890, Buffalo with 255,000 people was the eleventh-largest city, and Detroit and Milwaukee were approaching Buffalo's size as new industrial centers of about 200,000.²⁰

Bethune's success proves that merit trumped all cultural or career expectations for women and may have been influenced both by the strong German cultural influence in Buffalo that historian David A. Gerber documents and the tradition of work and determination of both the German and New England cultures. German respect for cultural amenities and scientific rationality and an American post-revolutionary optimism for the "fair chance" may have contributed to the acceptance of Bethune as an architect and businesswoman in Buffalo.²¹ Many members of Buffalo's American business community were from the farms of central New York, although the cultural influence of the German community was consistent throughout the nineteenth century and profound for its financial role in the building societies.²² Bethune succeeded so well that for some

²⁰ Department of the Interior, *Report on Population of the United States at the Eleventh Census: 1890*, www.census.gov/prod2/decennial/documents/1890a_v1-01 (accessed January 10, 2006). David A. Gerber, *The Making of an American Pluralism: Buffalo, New York, 1825-60* (Urbana: University of Illinois Press, 1989), 114, 333, 212, 174-175; Gerber contends the secular German traditions muted the Protestant community. In 1855, 18 percent of the heads of households were Irish, 39 percent German, 12 percent English and Canadian, and 5 percent German-speaking Alsatians; 74 percent were non-American born. Only three of Buffalo's thirteen wards had American born majorities, and many American-born residents preferred to live in "German" wards, because this was where quality shops, businesses, and professional offices were located; 77-78. the first all-German-language newspaper was founded in 1837 and the Young Men's Association in 1836 (the Young Men's Christian Association was not founded until 1852).

²¹ Van Rensselaer, *Richardson*, 18; Gerber, *Pluralism*, 177. The German immigrant was highly skilled, largely self-employed, and committed to education; 49 percent arrived with skills as masons, carpenters, coopers, and shoemakers, while the Irish immigrants in 1855 were 68 percent unskilled, and most found themselves in manual labor jobs on the docks.

²² Mark Goldman, *High Hopes: The Rise and Decline of Buffalo, New York* (Albany: State University of New York Press, 1983), 104; Virginia Yans-McLaughlin, *Family and Community: Italian Immigrants in*

twentieth-century women historians, she became an example for later feminists, yet in her lifetime she did not think a *political* women's rights stand was necessary or appropriate for her.

Before the age of thirty, Bethune had designed schools that transformed American grammar school design and at least one state-of-the-art factory—accomplishments that still stand today for their thoughtful design and high-quality workmanship. Before her career was complete she designed one of the largest luxury hotels in the country and the first long-distance power station, collaborating with the inventor of alternating current Nikola Tesla.²³ Bethune's extensive work in Buffalo belies the image of nineteenth-century women as confined to domestic duties and dependent on a husband for economic support. Bethune availed herself of the revised New York property law of 1860, which preserved women's property ownership in marriage, by starting her firm before making her husband a partner.²⁴

Bethune not only established an architectural firm, but also earned the professional respect of highly respected architects Root, Burnham, and Sullivan who were clearly delighted to have the impeccably qualified Bethune join the Western Association of Architects (WAA). When AIA secretary Alfred Janson Bloor caused

Buffalo, 1880-1930 (Urbana: University of Illinois, 1982) 36-37. Most of the influx after 1880 built on the existing base of German, Irish, and Polish nationalities (in 1876 Buffalo elected its first in a long line of German mayors); by 1900, the Italian population was 6,000, a definite minority plagued by its transient character. James F. Crooker, *Department of Education Report: Superintendent of Education, City of Buffalo 1886-1887* (Buffalo: Laughlin & Co. Publishers, 1887), 18. In 1880s Buffalo, twice as many public schoolchildren were German as American. *The History of the Germans in Buffalo and Erie County, N. Y. with Biographies and Illustrations of the Aforementioned German-Americans who have Influenced the Development of the City of Buffalo* (Buffalo: Reinecke & Zesch, 1898), 77. Polish immigrants began entering Buffalo in 1862, so by the 1880s the Polish schoolchildren were second and third generation.

²³ 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> (accessed March 10, 2006).

²⁴ Barbasch, "AIA Accepts," 21.

problems with her induction into the American Institute of Architects in 1888, Root in support of Bethune successfully challenged Bloor's manipulation of the qualifying procedure and Bethune became the AIA's first woman member. She accomplished this on merit through the process of application and not through the automatic transfer of membership from the WAA to the AIA that occurred in 1889 as stated in other accounts.²⁵

Her family's work ethic and her position as a single child probably contributed to her atypical decision to have a career as an architect. The ideology of hard work and just reward were fundamental to the world of Bethune's childhood in Waterloo, New York, where the farming village was transformed by the Erie Canal and the industrial revolution. Waterloo and the surrounding region were first known as the "breadbasket" of the nation and later the city became an industrial center recognized for the cast iron pump and the steam-powered fire engine. The Waterloo area was also part of the "burned over district" where the Mormon Church, Utopian sects like the Millerites and Fourierists, and antiprostitution and antialcohol movements originated. Women in the region were prominent in prison and asylum reform, antislavery networks like the Underground Railroad, and charity fairs as funding for these causes.²⁶ At Waterloo

²⁵ Editorial, "Feminism and Architecture," *The Western Architect: A National Journal of Architecture and Allied Arts* 20 (April 1914), 33-34. Lois Lilley Howe (1901) and Henrietta Dozier (1905) were the other female professional architects—Julia Morgan was not admitted until 1921.

²⁶ Nancy A. Hewitt, *Women's Activism and Social Change: Rochester, New York, 1822-1872* (Ithaca: Cornell University Press, 1984). Hewitt documents the Rochester women's charity fairs as key to Frederick Douglass's Rochester relocation and support of *North Star*. "The burned over district" is from Whitney Cross, *The Burned Over District: The Social and Intellectual History of Enthusiastic Religion in Western New York, 1800-1850* (New York: Harper & Row, 1950).

Bethune's extended family, the Hunts hosted the planning of the historic Seneca Falls Woman's Rights Convention in 1848.²⁷

Bethune grew up in this antebellum and Civil War period of foment and reform, which offered opportunities and challenges, and the opportunity to choose one's challenges.²⁸ The time, the place, and Bethune's family background must have inculcated in her the belief that a woman could achieve professionally all a man could, and she never faltered. Bethune's family moved to Buffalo so she could get a 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 his invaluable assistant.

In 1881, on completion of her apprenticeship, Bethune opened her own practice. She began working on the then-new architectural challenges of indoor plumbing, central heating, ventilation, and demands for fire-resistant buildings, developing an expertise that would result in more than 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.

Charles was born while Bethune was running one of the busiest architectural firms in Buffalo, which she continued to do until her son graduated from medical school. (Bethune's social responsibility was carried on as Dr. Bethune worked most of his career

²⁷ Judith Wellman, *The Road to Seneca Falls: Elizabeth Cady Stanton and the First Woman's Rights Convention* (Urbana: University of Illinois Press, 2004), 186.

²⁸ Lori Ginsberg, *Untidy Origins: A Story of Women's Rights in Antebellum New York* (Chapel Hill: The University of North Carolina Press, 2005), 166.

in medical social services for workers and their children.)²⁹ In 1905, with her son's education complete and the most expensive building of her career, the Lafayette Hotel, open to the public, Bethune retired to other endeavors, among them registrar of the Daughters of the American Revolution and active participation with the Buffalo Historical Society.³⁰

In spite of her interest in history and family connections during her early retirement, Bethune left no personal papers. With the exception of three letters in the AIA archive and no office records beyond one memo in the Buffalo AIA Chapter archives, Bethune's legacy and archive are the buildings that still remain.³¹ As 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*

²⁹ "Dr. Charles Bethune, County Examiner for Child Labor, Dies at 69," *Buffalo Evening News* (October 2, 1952), 55.

³⁰ 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* (Buffalo: Charles Wells Moulton, 1893), 80-81; *National Cyclopedia of American Biography* (New York: James T. White, 1904) 9.

³¹ See Appendix A for some of the buildings that remain (printed in bold type). Two sets of her 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.

Women: Career Firsts of Nineteenth Century America in 1962 consolidated the information then available on Bethune from the turn-of-the-century encyclopedias into a narrative that became the basis of all following biographies. Stern listed only sixteen of the more than a hundred buildings that Bethune built to illustrate that she was not an amateur who just designed houses for friends or a wealthy dilettante, but was a legitimate professional architect. She emphasized the connection between Bethune, the Chicago WCE Woman's Building competition, and Sophia Hayden, the winning designer. These connections became the focus of interest in following references to Bethune rather than the sheer volume, quality, and technological innovations of her work.³²

Adrianna Barbasch, in her six-page chapter on Bethune in *Architecture: A Place for Women*, edited by Ellen Perry Berkeley, used Stern's first contemporary biography but added to Stern's portrait some detail and context on Buffalo in Bethune's day. Barbasch listed the date of Bethune's retirement from the firm as 1908, which was when she made legal arrangements to end her partnership, but she had actually ceased practicing in 1905 when she stopped signing her name to building permits.³³

Barbasch repeated an inference from Stern that Bethune announced the opening of her office during the Ninth Congress of the Association for the Advancement of Women in October 1881. This cannot be confirmed and runs counter to the public

³² 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 more easily than a serious consideration of Bethune's remarkable production.

³³ Barbasch, "AIA Accepts," 21. The date of 1905 is based on the examination of city records. From 1897, when architects were required to sign for building permits, until 1905, the signature on the ledger was Bethune, Bethune, and Fuchs. In 1906 the signature was Bethune and Fuchs.

statement made by Bethune.³⁴ Although Barbasch elaborated on Bethune's buildings to include eighteen public schools, this research could only confirm nine schools (one designed, but not built), and some of her inclusions of other structures were completed by the firm after she stopped practicing. Like Stern, Barbasch was apparently unaware that Bethune designed over a hundred buildings besides those she named.³⁵ Barbasch and Stern did emphasize that Bethune was an active architect of multiple building types but apparently were reluctant to attribute to her the large number accepted by biographers during Bethune's own lifetime.³⁶

Briefer summaries of Stern's treatment of Bethune appeared in famous "first" women in architecture anthologies. One, in 1977, was Judith Paine's chapter on "pioneer" women architects in *Women in American Architecture: A Historic and Contemporary Perspective*, edited by Susana Torre for the Whitney Library of Design.³⁷ This biography was excerpted in an article in *Progressive Architecture* in 1977.³⁸ In *The Fair Women*, Jeanne Madeline Weimann drew on Paine's chapter and on Bethune's March 6, 1891, speech reprinted in the *Inland Architect and News Record*. While this is

³⁴ "Minutes," Ninth Congress, Association for the Advancement of Women, Buffalo, October 19, 20, 21, 1881, <http://pds.harvard.edu:8080/pdx/servlet/pds?id=2582369&n=31&s=4> (accessed March 8, 2006); Bethune, "Women and Architecture," 21.

³⁵ Willard, *Woman of the Century*, 81.

³⁶ 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).

³⁷ Paine, "Pioneer Women Architects," 60.

³⁸ Judith Paine, "Women in Architecture: the New Professional: Historic Beginnings," *Progressive Architecture* 58 (March 1977), 41-42.

the briefest and least informative reference to Bethune, it has probably done the most to make known her problematic relationship to the issue of women's suffrage.³⁹

In a recent compilation of "firsts" for professional women, in Page Putnam Miller's *Reclaiming the Past: Landmarks of Women's History*, Barbara J. Howe repeated the previous accounts, but alleged that Bethune attended Cornell for two years, which she did not do.⁴⁰ This research will address Bethune's decision to accept the opportunity to apprentice in Richard A. Waite's office rather than pursue her plan to enter Cornell when the architecture program became available in 1876.⁴¹ Howe also stated that only 10 buildings can be attributed to Bethune, but my research has documented more than 110.

In 1975, 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. His account of Bethune's induction into the Western Association of Architects pointed out her significance for all women architects who followed, because it set the precedent for membership of women applicants.⁴²

In general architectural literature, Bethune is absent except for her impressive Lafayette Hotel, which was listed in Reyner Banham, Charles Beveridge, 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,

³⁹ Jeanne Madeline Weimann, *The Fair Women* (Chicago: Academy Chicago, 1981), 144-145, 147, 154.

⁴⁰ Howe, "Women and Architecture," 47; the Cornell archive and alumni office have no record of Louise (Jennie) Blanchard.

⁴¹ Willard, *Woman of the Century*, 81.

⁴² George E. Pettengill, "How AIA Acquired Its First Woman Member, Mrs. Louise Bethune," *AIA Journal* 63 (March 1975), 35.

Burnham's Ellicott Square and Louis Sullivan's Guaranty Building.⁴³ It is surprising that with this listing, Bethune's importance as the architect of the Lafayette Hotel, one of the largest and most technologically up-to-date luxury hotels in turn-of-the-century America, was not realized by other architectural historians. This could be just the lack a documentation of the large body of her architectural work—essential information for making such a judgment—or it could be simply that the architect of this important Buffalo building was a woman and not worth further investigation.

None of these publications seriously addressed Bethune's work or asked how she became so successful. What was Bethune's client base? Who engaged a woman architect in late-nineteenth-century Buffalo? How were she and other architects affected by the enormous changes to the city of Buffalo and the national cycles of a boom and bust economy? Documenting the buildings Bethune designed and placing her work in the context of professional and technological concerns of the era presents a clearer picture of the work of the nineteenth-century architect and makes a significant contribution to an understanding of late-nineteenth-century culture, technology, and the architectural profession. This documentation has revealed how significant Bethune was in the development of many building-related technological innovations, space planning, and safety issues that we now take for granted.

The difficulty in documenting Bethune's work does not mean it should be ignored or misrepresented or that a lifetime's accomplishment should be reduced to ten or twenty buildings, as previous historians have done. Some of her buildings do still exist in

⁴³ Reyner Banham, Charles Beveridge, and Henry-Russell Hitchcock, *Buffalo Architecture: A Guide* (Cambridge: The MIT Press, 1981), 15.

Buffalo, although many have fallen victim to “redevelopment,” lost along with the thousands of other “anonymous” structures of the nineteenth century.

Bethune worked at the core of urban architecture during the time American cities were experiencing rapid and uncontrolled growth. 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 and still should now, not because they were a certain architectural style, but because they successfully applied cutting-edge technology and worked better and were safer than other buildings being built at the time. They were built to a new standard, in new neighborhoods, and indicated to many observers the positive value of progress.

Bethune and her fellow nineteenth-century Buffalo architects designed predominantly within circumscribed budgets. They were hired 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 buildings for income property or a secure home for later life or an inheritance for the family. They had to design buildings 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 requirement. Statements of style were for churches or extraordinary ventures like H. H. Richardson’s

New York State Hospital for the Insane. 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 that were of foremost importance for the majority of clients. By studying the shaping of the urban environment, as historian Roy Lubove has suggested, the city as a critical artifact can contribute to understanding social organization, human interaction, and priorities.⁴⁴ This broader understanding of architecture needs careful consideration beyond the output of a few prominent firms.

Audacious exteriors and lavish interiors were slow to take hold in Buffalo, but by the end of the century they did, largely because speculative builders were able to incorporate them at little additional expense. The style that made this possible was Queen Anne, which involved a *mélange* of stylistic details with an appealing variety that passed as uniqueness to the lay person. In 1891, when Bethune gave her lecture on architecture, the Queen Anne style was at the height of its popularity. At the very least, Bethune considered the speculative builder's version of the Queen Anne house an unfortunate development, a "serious practical joke about on a par with those perpetrated in the name of the much maligned Sir Charles Eastlake."⁴⁵ Clearly she felt the style was abused in the hands of the untrained, but it was the asymmetrical composition and flexibility of spatial relationships that made it popular as the default style of the late nineteenth century.

Her own work used the fashionable eclecticism of the period, which included a restrained Queen Anne as well as what we call Richardson Romanesque. Buffalo's two

⁴⁴ Roy Lubove, *The Urban Community: Housing and Planning in the Progressive Era* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967), 1-2.

⁴⁵ Bethune, "Women and Architecture," 21.

most prominent buildings were the County Hall (now called Old County Hall and designed by Rochester architect Andrew Jackson Warner, 1871-1876)⁴⁶ and the H. H. Richardson New York State Asylum complex, 1870-1896.⁴⁷ In her factory, warehouse, and institutional structures she integrated the Round Arch style—clean round arched windows—that showed off the fine craftsmanship of the pressed brick with hairline mortar joins.

Architectural historian, Mark Girouard puts the origin of the style in the mid-1850s with the friendship between British artists and designers Dante Rossetti, William Morris, Edward Burne-Jones, and Philip Webb. This group formed an interior furnishings company, Morris, Marshall, Faulkner and Co., which responded to dissatisfaction with the Gothic architectural style, ponderous grand manner theorizing, and the exclusion of the rising interest in Japanese and English vernacular architecture. The desire was to move away from rhetorical Christian architecture and its antithesis, commercial vulgarity. In the 1860s Richard Norman Shaw and William Eden Nesfield were developing the English country home along similar lines.⁴⁸ Function and comfort, as well as respect for craftsmanship and traditional building forms meant that the client's tastes and comforts became more central to the architectural design.

An advocate of the style, Reverend J. L. Petit, said in 1867 that this style satisfied modern requirements “whether we want size or number of rooms, fine proportions, good ventilation and lighting, convenience of passages and staircases, or a stately and dignified

⁴⁶ “Old County Hall,” *Buffalo as an Architectural Museum*, <http://freenet.buffalo.edu/bah/a/franklin/92/index.html> (accessed June 19, 2007).

⁴⁷ “H. H. Richardson Complex,” *Buffalo as an Architectural Museum*, <http://freenet.buffalo.edu/bah/a/forest/400/index.html> (accessed June 19, 2007).

⁴⁸ Mark Girouard, *Sweetness and Light: The “Queen Anne” Movement 1860-1900* (Oxford: Clarendon Press, 1977), 13, 25.

aspect.”⁴⁹ The trained architect in America seized on this English development to combine the desire for more modern architecture with an appropriate historical architectural form, but it was a dynamic era for building, and the proliferation of ersatz Queen Anne was an indication that much of the building was happening outside the involvement of the architectural community.

In 1886, Buffalo had fourteen architects “working in a harmonious manner” according to Bethune, then the WAA committee chair of New York state.⁵⁰ Sixteen years later the 1902 city directory listed fifty-four architectural firms.⁵¹ Construction had increased due to the growth of the city’s 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 255,664.⁵² But building buildings is not architecture and the inflated number of architectural firms in the Buffalo directory—while at the height of its membership the entire Western New York Association of Architects had about fifty members—really indicates the problem faced by the architectural profession of unqualified persons calling themselves architects. The title of architect validated those who used it, but its use did not guarantee that the user had any training or the accountability that went with the title. At this time anyone could list himself or herself an architect because there was no required schooling, practical

⁴⁹ Ibid., 37. This lecture at the St. Albans Architectural and Archeological Society referred to architecture during the reign of Queen Anne, 1660-1710. The term “Queen Anne” applied to a new building does not appear in print until 1872.

⁵⁰ “Western Association of Architects, Annual Convention in Chicago, November 17, 1886,” *Sanitary Engineer and Construction Record* 14 (November 27, 1886), 614.

⁵¹ Randall, *Human Values*, 151.

⁵² John F. Barry and Robert W. Elmes, eds., *Buffalo’s Text Book* (Buffalo: Robert W. Elmes, 1924), 15.

training, examinations or membership in professional societies, as there is now, and many contractors called themselves architects to increase their respectability.

Bethune entered architecture at a time when understanding the new technologies and being willing to rethink building solutions to utilize and facilitate them made the professional architect particularly valuable. The new technologies of fire safety, indoor plumbing, proper light, and adequate ventilation were complex to integrate into buildings. It took architects like Bethune to show through careful application of trial-and-error usage which solutions were better than others.

In 1888, *The Architectural Era* was still advising architects 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 ventilating 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.⁵³

Guidelines were being established, and concern about the health of the occupants of a building was being incorporated into architecture for the first time. By the 1890s, when many of these issues had found satisfactory resolution, Bethune had already been in the profession in time to participate actively in these advances and had demonstrated her ability to innovate. For women entering the profession later, in the 1890s, as Lois Howe

⁵³ Victor C. Vaughan, “Building a Home,” *The Architectural Era* 2 (August 1888), 152. This detailed essay illuminating the areas of change in house architecture was written by a medical doctor whose concern was what we now call “the healthy house.”

or Julia Morgan did, domestic architecture, the first work most architects get, was seen as the only “natural” realm for the female architect and made moving into other building types difficult.⁵⁴ Unless the client was William Randolph Hearst and the house was a castle at San Simeon (Julia Morgan’s major project), architects of houses, like architects of stores, factories, warehouses, schools, and police and fire stations are likely to go unnoticed by scholars. Even at the time, architects in the 1890s began to understand that a certain amount of self-promotion was necessary. A city with fourteen architects is one thing and a city with over fifty is another. Professional survival came to involve a conscious manipulation of individuality.

During the twentieth century, emphasis on individuality in architecture has received so much attention that even a discussion of the influence of architecture on social and cultural development has not received the attention that aesthetic architectural issues of particular architects have. In 1977, Spiro Kostof, one of architecture’s most prominent historians, began to address architectural professionalism while admitting that the “process of architectural practice, the structure of the profession and the social standing of the architect” have been of “secondary importance” to individual architects’ aesthetics.⁵⁵ Until recently, his book was the only history textbook for university architectural students that addressed women in the profession, and in it Gwendolyn Wright emphasized the marginal role of women in the profession, seeming to be in agreement with Bethune that young women were generally lacking in the determination

⁵⁴ Linda K. Kerber, *Toward an Intellectual History of Women* (Chapel Hill: The University of North Carolina Press, 1997), 174-177. “Separate spheres” ideology imposed the domestic realm context on women even in the architectural profession.

⁵⁵ Spiro Kostof, *The Architect: Chapters in the History of the Profession* (New York: Oxford University Press, 1977), vii.

to do something productive in architecture with their university degrees and thus created a century of stasis among women in architecture.

The lack of attention to women in modern histories of architecture is almost as complete as the lack of attention to architecture in the various studies of the development of professions. Most historians have considered the development of the practice of architecture 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 and the economic realities of architectural practice—or as Bethune put it, the “business” of architecture. Woods, who teaches at Cornell, sees the American architectural profession as a long continuum that has maintained and privileged the individual practice of architecture long after most other professions have accepted the business (corporate) reality of their professions.⁵⁶

In spite of their attempt at inclusiveness in the 1880s, architects found they had to limit who could be called an architect simply to define their own difference from builders and contractors. Restrictions in acceptable education and training, intentionally or not, worked against women as similar restrictions did in the developing professions of medicine, law, and science.⁵⁷ The same tendency ultimately to exclude women from positions of authority occurred in the bastion of female dominance, social work.⁵⁸

⁵⁶ Woods, *Craft*, 179.

⁵⁷ Regina Markell Morantz, “The ‘Connecting Link’: The Case for the Woman Doctor in 19th-Century America,” in Judith Walzer Leavitt and Ronald L. Numbers, eds., *Sickness and Health in America: Readings in the History of Medicine and Public Health* (Madison: The University of Wisconsin Press, 1985), 164-167. Nineteenth-century cultural values of nurture and gender “delicacy” allowed some women to become physicians for women’s ailments—an expansion of the traditional midwife.

⁵⁸ Ruth Hutchinson Crocker, *Social Work and Social Order: The Settlement Movement in Two Industrial Cities, 1889-1930* (Urbana: University of Illinois Press, 1992), 216-217.

Historian of science Margaret W. Rossiter documents the movement of well-educated women into the sciences throughout the 1800s. But increasingly after mid-century women were seen as encroaching on male domains until in the 1880s and 1890s, when the professionalization of science began excluding women or at least relegating them to subordinate positions of relative invisibility.⁵⁹ Like professionalization, health concerns were also directed against women, most famously by Dr. Edward Clarke's *Sex in Education* (1873), a diatribe on the health dangers of education to women's reproductive function and destiny.

The reality in 1870, when fourteen-year-old Jennie Louise Blanchard contemplated her future, was that the primary occupations for women were as domestic servants, agricultural workers, tailoresses, seamstresses, milliners, dress makers, and teachers.⁶⁰ If a woman was middle-class and white and single, teaching or possibly office work were the most likely career options. Because Bethune's 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 ambition as a businesswoman in the profession of architecture.

The nineteenth century is full of talented women like Bethune, whose careers were exceptions to the prevailing options for women and the prevailing ideology of "separate spheres." It was more common as historian Karen J. Blair has suggested, that volunteering to help their communities, linked to the rise of progressive support and

⁵⁹ Margaret W. Rossiter, *Women Scientists in America: Struggles and Strategies to 1940* (Baltimore: The Johns Hopkins University Press, 1982), xvii.

⁶⁰ Rosalyn Baxandall, *America's Working Women* (New York: Random House, 1976), 82-84; Kessler-Harris, *Pursuit*, 25.

advocacy groups, gave women a means of expression and accomplishment without the financial risk of actually entering inherently risky and limited professions like the arts and theater.⁶¹ Volunteerism also afforded an opportunity to use organizational skills when the woman was not particularly drawn to a profession.

The work of progressive women, done in most cases without economic compensation as volunteers, has been a focus of a great deal of historical research focusing on women who sought to protect or uplift those beneath them.⁶² The post-1890 period may have influenced many educated and economically secure women in the way Blair suggested, but Bethune was closer to April F. Masten's women artists who in this period comprised an invisible class of several thousand who worked as illustrators and were proud to make their livings doing creative work.⁶³ Seeking a career, a means of developing her talents, a way to contribute to society, and an avenue to financial security, Bethune became a business woman in the profession of architecture—a position not generally held by women.

Historians Wendy Gamber and James J. Connolly are among those looking more closely at the pluralist middle class of the late nineteenth century. Gamber focuses on women in the millinery trade and documents a more nuanced social complex than generally held. Gamber suggests that women's presence in the workplace was far more

⁶¹ Karen J. Blair, *The Torchbearers and Their Amateur Arts Associations in America: 1890-1930* (Bloomington: Indiana University Press, 1994), 3-4.

⁶² An excellent history of this movement is Maureen A. Flanagan, *Seeing with Their Hearts: Chicago Women and the Vision of the Good City, 1871-1933* (Princeton: Princeton University Press, 2002); Crocker, *Social Work*; also Kathleen D. McCarthy, *Women's Culture: American Philanthropy and Art, 1830-1930* (Chicago: University of Chicago Press, 1991), and *American Creed: Philanthropy and the Rise of Civil Society, 1700-1865* (Chicago: University of Chicago Press, 2003), and Lori D. Ginzberg, *Women and the Work of Benevolence: Morality, Politics, and Class in Nineteenth-century America* (New Haven: Yale University Press, 1990).

⁶³ April F. Masten, "The Work of Art: American Women Artists and Market Democracy: 1820-1880" (Ph. D. diss., Rutgers University, 1998), 2.

diverse than usually assumed requiring an expansion of our historical imagination. The women who worked as draftspersons in architectural offices could be seen as extensions of Gamber's millinery working women, but Bethune apparently avoided being locked in to the draft person level and operated as office manager and architect's assistant in a small office that required versatility from its members.⁶⁴

This research presents Bethune and her professional architectural career, which was financially successful and allowed her to execute her career without having to sacrifice having a family. Because she was a woman during a period that sought to restrict women, her work has been presented from an embattled feminist view point that oversimplifies her life and career. Bethune's feminist stance was one of example not rhetoric. Her refusal to compete for the design of the Woman's Building for the 1893 World's Fair was not a feminist statement; it was a statement of belief that equality and fairness to all were qualities to be defended. Her significance was her ability to utilize her talent as a successful professional architect. She did not need the publicity of the World's Fair commission to validate her work. This study stresses her unusual position as a financially successful businesswoman and presents her work in the cultural and professional context of Buffalo between 1880 and 1905.

Because neither Bethune's office records nor a collection of her drawings have survived, it has been necessary to use professional architectural journals as a source for buildings she did 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

⁶⁴ Willard, *Woman of the Century*, 81; Wendy Gamber, Michael Grossberg, and Hendrik Hartog, eds., *American Public Life and the Historical Imagination* (Notre Dame: University of Notre Dame Press, 2003).

commonly used for architectural documentation, mostly to verify known structures rather than using them to establish authorship of buildings. Using this method I was able to credit the design of more than 110 buildings to Bethune. This surely represents only a portion of her body of work; in Bethune's application to the AIA she submitted drawings from eight projects, and five of these are not listed in any publication. Typically an architect may not submit everything he or she is designing, clients may not wish to have their buildings published, and a publication for its own reasons will not necessarily list everything that was submitted. Several publications periodically published separate supplements and libraries have not necessarily kept these in their collections.

Bethune's buildings can be examined just as one examines the entire oeuvre of an artist or author to understand better his or her interests and abilities. Cultural context particularly affects buildings because they combine social, economic, and personal realities, which can make them as revealing as works of art. Contemporary journals can provide contextual information on the issues that surround (literally) the announcement of a new building. The late Philip Johnson, architect and prominent architectural critic, referred to this as "philosophical architectural history."⁶⁵ Buildings are also different from art and literary works because they impose major constraints—they have to meet the intended use, be structurally sound, be pleasing and acceptable to the client, and they require considerable capital to produce. One can argue that these conditions make them even more culturally determined than other aesthetic forms.

⁶⁵ Peter Collins, *Changing Ideas in Modern Architecture: 1750-1950* (Montreal: McGill-Queen's University Press, 1965), 16.

While we cannot know exactly what happened in nineteenth-century architectural practice, and authorship of the majority of buildings built then has been lost, scholars are increasingly using professional journals to learn and explicate the professional environment.⁶⁶ Recent scholarship has used architecture's professional journals to expand understanding of nineteenth-century architects previously known only for a particular building or professional role, such as William Gibbons Preston, architect of the bungalow style, 1879; 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.⁶⁷

Nineteenth-century architectural journals are also useful for their comments on the social, economic, and political realities that affected architects. For example, the national depression of 1873 seriously constrained the work of Frank Furness, Frederick Law Olmsted, and Henry Hobson Richardson, the most renowned architects of the era. This depression affected every city except Chicago, which having burned to the ground in 1871 was in the midst of an enormous building boom that attracted Louis Sullivan, Le Baron Jenney, John Root, Frederick Law Olmsted, and others.

The study of architects' works is a social history because the form of an architect's practice is determined by the particular needs of society, available building

⁶⁶ 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).

⁶⁷ 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). Chris Brown and Martin Wachadlo have done extensive documentation in Buffalo.

materials, technologies, economic conditions, methods of practice, needs of the client, methods of awarding contracts for work, and the interests and skills of the architect. Having limited sources on her thoughts on the practice of architecture, I will use the buildings to “read” the professional life of this architect and the context within which she worked.

The profession’s journals reflected the issues the editors and readership deemed important and demonstrate areas of concern over time. In the 1880s, such health and safety issues as proper ventilation, clean water supply, and sewage disposal dominated; in the 1890s, fireproofing techniques and municipal sanitation networks were uppermost as particular incidents returned those issues to the “front page.” In the late 1890s, legal issues connected to fireproofing and architectural competitions got particular attention while support for a universal building code was widespread. Journals show that cities and large businesses toward the end of the century increasingly preferred architectural competitions, which tended to focus on style above everything else. Because Bethune was opposed to participating in competitions, the question arises: how did this affect her practice?

In the last quarter of the nineteenth century, Bethune and other urban architects faced a revolution in sanitation technology, widespread alarm over the threat of catastrophic fire, and the rapidly expanding need for new building types as well as for large numbers of traditional structures. Changing technology demanded new types of buildings for factories, for housing large numbers of people moving from rural areas to work at these new jobs, for commercial and entertainment buildings, for police and fire protection facilities, for schools, train depots, electrical power plants, water reservoirs

and pumping stations. The variety of these requirements, combined with the application of competitive business practices and accountability in expenditures of public money, changed the practice of architecture and its aesthetics.

It may be that Bethune became one of Buffalo's more successful architects because she was sensitive to and kept current on the technological issues affecting buildings rather than just focusing on style. My research found that Bethune's designs for Buffalo's schools were sensitive to health and safety issues at beginning of the development of the purpose-built urban classroom-school building. This could possibly be in part because Bethune's father worked in the public school system as a principal and discussions of the facility conditions were part of her upbringing. Her personal experience may have also provided her a more encompassing understanding of this building type as a result.

Just as important as the increase in the quantity of new buildings in Buffalo was the option of level of quality. It was possible to have improved buildings safer from the threat of fire, cleaner and healthier with properly functioning plumbing, and designed for improved light and heating, but these improvements were at an economic cost. As new structures were built, the older ones were reused at a lower economic level—as worker housing and undercapitalized businesses.⁶⁸ At the same time, the radical increase in population at the lower end of the economic scale meant there were many opportunities

⁶⁸ David P. Handlin, *American Architecture* (London: Thames and Hudson, 1985), 80; Raymond A. Mohl, *The New City: Urban America in the Industrial Age, 1860-1920* (Arlington Heights, Illinois: Harlan Davidson, Inc., 1985), 30, 37. Mohl notes that trolley expansion of the 1880s and 1890s was for middle-class use and facilitated middle-class movement into areas away from downtown (“the walking city”). Also see Sam Bass Warner, Jr., *Streetcar Suburbs: the Process of Growth in Boston, 1870-1900* (Cambridge: Harvard University Press and the MIT Press, 1962).

for the unscrupulous builders whose notorious practices discredited architecture and left a legacy of historical disinterest in this period.

Because there were no public building records for most of the nineteenth century and architectural drawings were not kept, it is fortunate that Bethune felt the professional responsibility to submit at least some of her projects for publication. It is also fortunate that professional journals published lists of buildings under construction or just contracted giving the address, contractor or architect, owner, project budget, and brief description of the structure (number of floors, square footage, building materials). These lists were a form of transparency in conducting one's business and appear to have functioned in some cities like New York, Chicago and Brooklyn as city building records. Buffalo was not always listed but was listed often enough to verify additional Bethune designs and establish that some buildings have been incorrectly attributed to her. The appendix lists all the confirmed buildings and the rationale for why some buildings have been mistakenly credited to Bethune.

Bethune's success as an architectural professional belies the belief that the profession was not open to women. My research establishes what type of practice she had, who the clients were, and what made her one of the few successful architects in a powerful commercial and industrial city. This research also suggests that along with Bethune there are other successful women architects needing scholarly attention, including Lois Lilley Howe, Henrietta Cuttino Dozier, and Josephine Wright Chapman (who designed a dormitory for Harvard).

One result of this scholarly work is that it has shown how difficult it was for professional architects to maintain a constant stream of work and how easily events could

curtail their progress. Architects in the nineteenth century built an enormous number and variety of buildings and were adept at many styles. There was no time for or apparently need for consensus on style; business was the driving force in society and most had no or little time to advocate a style.

Bethune appears to have received more than enough commissions to maintain an active practice over her lifetime. I believe that this was due in part to her reputation for economically efficient and functional buildings with the most current technological advances available at the time. Her buildings have a solid fine crafted dignity, but her production time was under a year for most structures. Also we must note that Bethune also belied the expectation that a nineteenth-century woman could not command the authority necessary to design and supervise the construction of houses, factories, stores, schools, police stations, and structures requiring broad civic support like a hospital wing, an addition to a penitentiary, a state armory and a livestock exchange building. Looking at the architectural practice of Bethune and Bethune and then Bethune, Bethune, and Fuchs we see an exceptionally successful firm serving all parts of Buffalo's business, industrial, and residential community.

CHAPTER 1

FROM IDYLLIC WATERLOO TO BUSTLING BUFFALO

The task is over, the work complete
And Erie's waters with ocean meet
Bearing afar their rich bequest
While smiling commerce greets the West
—composed by a journeyman mechanic, 1825¹

Here, of course, comes in the question of doing good. Now I think a person can do the most good by that which he can do best.
—Mary Abigail Dodge, 1859²

Jennie Louise Blanchard was born on July 21, 1856, to Dalson Wallace Blanchard and Emma Melona Williams, in the village of Waterloo, Seneca County, in the picturesque Finger Lakes region of New York. Waterloo was only three miles down the Cayuga-Seneca Canal from Seneca Falls, where the first Woman's Rights Convention of July 1848 was held and where Elizabeth Cady Stanton began her life's work for women's rights. Both towns of about 4,000 persons each were nineteenth-century regional mercantile centers that prospered during the years the Erie Canal provided the critical link between the eastern seaboard and the new western territories. Louise grew up in an environment of independent thinkers who were the beneficiaries of the nation's first experiment in transportation technology, 454 miles of engineered waterways.³

Far from growing up in an isolated and timeless rural town, Louise was raised amid discussions of progress, reform, and the latest advances in engineering expertise.

¹ Richard C. Brown and Bob Watson, *Buffalo: Lake City in Niagara Land, an Illustrated History* (Buffalo: Windsor Publications, Inc., 1982), 42.

² H. Augusta Dodge, ed., *Gail Hamilton's Life in Letters* (Boston: Lee and Shepard, 1901), 208.

³ Noble E. Whitford, *History of the Barge Canal of New York State: Supplement to the Annual Report of the State Engineer and Surveyor for the Year Ended June 30 1921* (Albany: J. B. Lyon, 1922), 25.

Engineers and workmen from the State Surveyors Office engaged in extensive re-engineering and replacement of canal walls with new cement masonry throughout the 1860s.⁴ Unlike most rural villages where the rhythm of farming blended with school, church, and family routine, Waterloo was constantly involved in the political affairs of Albany, the economic issues of the region, and the debates on the cost-rewards of the most recent engineering technology. Waterloo was a vital cog in the growing American industrial machine. The canal improvements needed to handle the larger coal barges and to keep the aging locks in working order made decisions in Albany critical to the functioning of the whole canal and continued economic success for wheat and manufacturing in the Seneca region. The dynamic of America's industrializing economy meant constant revision and improvement.

The villages of Waterloo and Seneca Falls were located on the two major falls between the Cayuga and Seneca lakes in the heart of Iroquois farmland. Many of the first European American settlers of the area, at the end of the eighteenth century, had served with Revolutionary War General John Sullivan, who "discovered" the Seneca farmlands and proudly but brutally destroyed the Iroquois Nation villages in 1779. The area opened to white settlers with the creation of the 1782 "Military Tract" and by 1800, the rich farmlands supported an estimated 5,000 immigrants.⁵ This beautiful region of woods,

⁴ Noble E. Whitford, *History of the Canal System of the State of New York: Together with Brief Histories of Canals of the United States and Canada*. Albany: Brandow Printing Company, 1906, <http://www.history.rochester.edu/canal/bib/whitford/1906/Chap08.html>, endnote 6 (accessed July 15, 2005).

⁵ Frederick Cook, Secretary of State, *Journals of the Military Expedition of Major General John Sullivan Against the Six Nations of Indians in 1779 with Records of Centennial Celebrations* (Auburn, New York: Knapp, Peck, and Thompson Printers, 1887), 321; and Edward Countryman, "A New Empire," in Milton M. Klein, ed., *The Empire State: A History of New York* (Ithaca: Cornell University Press, 2001), 263-265; because of the delay until 1789 in clearing Iroquois titles, speculators acquired some of the land, but

orchards, farms, and small mills utilized the natural falls along the river so that like Lowell, Massachusetts, the Seneca-Cayuga region was visually idyllic and had the natural topography necessary to industrial development.⁶

Waterloo was originally named New Hudson by Louise's mother's relative, Elisha Williams (1773-1833), a lawyer and banker from Hudson, New York. Williams acquired 640 acres on the north bank of the Seneca River, in 1807, and created a town plan for Waterloo with a park, an industrial area, and a county courthouse that he paid to have built. Williams was a charismatic orator who served in the New York legislature and had introduced the first bill, in 1791, to build what became the Erie Canal. He used his seat in the New York legislature to bring the benefits of the Erie Canal to the area and personally paid for the initial stages of development of the Seneca-Cayuga Canal.⁷

The economic foundation of the region was wheat farming, developed in the early 1800s by the European American immigrants along with the excellent orchards of the first Native American residents. By the 1820s, the wheat grown in this region made it the country's breadbasket until Midwestern wheat surpassed Seneca-Cayuga production in the late 1830s.⁸ In 1809, during this period of the supremacy of Seneca County wheat,

whether an original grant, a purchase or occupied by squatters, the territory was designated for individual development signaled by the end of the law against feudal tenure in 1786.

⁶ Klein, *Empire State*, 8 (color insert page); the charm of these towns was advertised through bird's-eye perspective illustrations that showed the countryside, homes and churches, and resources for business opportunities. One painter, Joseph H. Hidley, painted promotional views of the small towns around Albany, while at the other extreme, Frederick E. Church, in "Niagara" of 1857, promoted the scenic and implicit industrial potential of Niagara Falls.

⁷ James Grant Wilson and John Fiske, eds., *Appleton's Cyclopaedia of American Biography* (New York: Appleton and Co., 1887-1889), <http://www.famousamericans.net/elishawilliams/> (accessed July 10, 2005).

⁸ Goldman, *High Hopes*, 57-59; Ohio grain production passed New York in 1836, but shipping still went through Buffalo; exports increased by the repeal of the Corn Laws in England, 1847; Klein, *Empire State*, 238, 261-264. These rich Iroquois lands had been disputed before the war by rival British settlers, the Iroquois had pushed the Seneca Nation out of their lands west to the region that would become Buffalo, and the states of Massachusetts and New York held original British Crown land grants to the area. General

the difference between shipping wheat by land, \$2.00 per barrel, and the \$0.25 per barrel cost by water motivated local canal development, which became the Erie Canal.⁹

The opening of the Seneca Canal in 1815, inspired a boat building industry and the connection to the Erie Canal, in 1828, brought immigrants into the region that expanded the industrial base to include factories for fine woodworking, pianos, barrels, carriages, and iron pumps. A similar shift to manufacturing as a result of the changes in regional transportation options affected Buffalo after the financial crisis of 1857.¹⁰

Industrial expansion and the benefits of entrepreneurial energies augmented the prosperity of the region's farming, and societal changes accompanied the industrialization of wool knitting and cotton weaving factories established about 1830. Historian Judith Wellman notes that the communities debated the effects of these economic changes. The new immigrant workers who came into the area had no family ties, community commitment, or understanding of the Anglo-cultural base, and the established residents worried about possible negative effects. There were strong concerns that canal and factory enterprises would diminish the strength of farming as a unifier of the community, which was based on a barter economy.¹¹

Sullivan destroyed hundreds of thousands of bushels of wheat and caused more than 12,000 farms to be abandoned in 1779. The title dispute between Massachusetts and New York was not resolved until 1791 and then a "war" of sorts continued between small landholders and large ones. Tens of thousands of New Englanders moved in to establish towns in the New England tradition. Williams was one of those; he bought an entire county for 4,062 pounds in 1791.

⁹ Klein, *Empire State*, 268.

¹⁰ H. Perry Smith, ed. *History of the City of Buffalo and Erie County, with Illustrations and Biographical Sketches of its Prominent Men and Pioneers*, vol. 2 (Syracuse: D. Mason and Co. Publishers, 1884), 238; Buffalo was the crown jewel of Great Lakes ports until the advantage of rail shipping during the winter and the financial crisis of 1857 demonstrated the wisdom of a more diverse economic base.

¹¹ Wellman, *Seneca Falls*, 141.

As the shift to a cash economy occurred, new workers were not willing to receive pay in goods and services. Workers sought jobs based on cash payment and refused to make long-term contracts with employers. Some of the new industries raised moral issues for the Quaker community, such as the cotton textile industry, which benefited the community but was reliant for its raw material on the despicable institution of slavery.¹² Louise's childhood was spent at this crossroads of American technological change, social progress, and economic transformation.

As historian Judith Wellman points out, the period after the War of 1812 was one of definition for the young American democracy. As various states legislated voting rights, the process brought to the surface the ill-defined position of women, freed slaves, and white males without property. The formalization of voting rights raised questions about slavery and freed slaves, about industrialization and landless workers, and about just how government should control such social behavior as drinking. The apparent contradiction between universal rights, social order, and moral control fueled a culture of debate, petitions, and public declarations that had yet to take the turn to civil war.¹³

Opposition to slavery characterized the region both within and without the extensive Quaker community and western New York state has been noted as a region of independent thinking and unconventional religious affiliations since Whitney Cross's exploration of the evangelical movement labeled it the "Burned-over District" in 1950. Cross saw Puritan fervor transformed by younger generation of rural New Englanders

¹² Ibid., 140, 73; and http://www.cr.nps.gov/history/online_books/wori/shs1.htm (accessed July 11, 2005).

¹³ Milton C. Sernett, *North Star Country: Upstate New York and the Crusade for African American Freedom* (Syracuse: Syracuse University Press, 2002), 121; Sernett brings the Constitution to the fore—Garrison's view of it as proslavery and Douglass's view of it as abolitionist, which illustrates my view of the definition of this document as the prime mover of all rights debates. Also, Wellman, *Seneca Falls*, 12.

who settled the rural area west of the New Military Tract and set the conditions for important national social involvements in abolition and prohibition.

Cross credited a dynamic Puritan zeal under the influence of evangelists like Charles Grandison Finney with the emergence of a variety of formulations for the perfection of mankind. While Cross warned that the “relationship of Burned-over District enthusiasms to specific sociological conditions could easily be overdrawn” he found the influence of “men who sought always the right and never the expedient, according to insights which were invariably individualistic” a compelling contribution to nineteenth-century social development.¹⁴

Unconventional religious practice and individualistic behavior in general were united in Cross’s understanding of the evangelical activity in the region. Cross also noted the prominence of Mother Ann Lee, founder of the Shakers (1774), and Jemina Wilkerson (1787), founder of the community of the Publick Universal Friend in the first round of revivalist religions. Subsequent historians—Nancy Hewitt, Mary P. Ryan, Judith Wellman, and Curtis D. Johnson—further explored the prominence of women in developing and challenging the new religious structures. This personal commitment was also expressed in abolitionist activity.¹⁵

¹⁴ Cross, *Burned-over District*, 74. The name comes from the analogy of forest fires to spiritual fires. Cross defined these spiritual fires as “crusades aimed at the perfection of mankind and the attainment of millennial happiness,” 3.

¹⁵ Judith Wellman, *Grass Roots Reform in the Burned-over District of Upstate New York: Religion, Abolitionism, and Democracy* (New York: Garland Publishing, Inc., 2000), xxvii, 131. Wellman finds the region stretched from western New England into Ohio and was symptomatic of the geographic, economic, social, and cultural instability of pioneer communities attempting to create stable institutions. The most active areas were those with emerging market economies, but abolitionists and women’s rights advocates were largely not from revivalist traditions, but instead “found sustenance” in the Declaration of Independence and the ideology of evangelical Protestantism.

The women of the closest urban center in western New York, Rochester, were particularly strong supporters of antislavery issues, a sympathetic environment that caused Frederick Douglass to locate his family there in 1847. Issues of political tactics versus morality eventually came to fracture the abolitionists, but in the second quarter of the 1800s there was unified support in these Erie Canal communities for the American Antislavery Society, William Lloyd Garrison, Frederick Douglass, and the Free Soil party as there was for self-improvement in general.

An important antislavery tool in this region was the Underground Railroad. Rochester was a major terminal for passage into Canada, and the Erie Canal and the communities of Seneca Falls and Waterloo were actively involved—Quakers and non-Quakers alike. (The influence of the Quakers in the area also restored some of the land taken from the Seneca tribes to those who remained in the region.)¹⁶ Historian Daniel Walker Howe also points to Margaret Fuller’s nonsectarian writing on self-culture and self-improvement, *Woman in the Nineteenth Century* (1848), for its influence on antebellum feminists and “the thousands of rank-and-file nineteenth-century women who read her works.”¹⁷

How to balance progress and community responsibility were open discussions and practical realities in these idyllic central New York communities. One of those discussions concerned keeping the canal system technologically current and competitive as railway transport increasingly cut into canal revenues. Between 1835 and 1862, the

¹⁶ Wellman, *Seneca Falls*, 73.

¹⁷ Daniel Walker Howe, *Making the American Self: Jonathan Edwards to Abraham Lincoln* (Cambridge: Harvard University Press, 1997), 233. In Margaret Fuller’s farewell address (she left for Europe in 1846) she put “superlative importance on promoting national education by heightening and deepening the cultivation of individual minds, and the part which is assigned to women in the next stage of human progress in this country....”

Oswego, the Champlain, the Cayuga, and the Seneca canals as well as the Erie branch were under constant enlargement. With barely a pause, engineers returned to Seneca Falls and Waterloo to survey and argue the merits of additional improvements. It seems likely that the constant discussions of the mechanics of canal dimensions and lock size and construction would not have gone unnoticed by a bright young girl whose father was an exceptional mathematician and could explain the principles involved.¹⁸

In 1848, two events in Seneca Falls have kept the region historically notable. One was the invention of the all-iron water pump, which became essential equipment in mining and agriculture during the expansion of the western states. In that year, Abel Downs and John Wheeler established the first company to produce cast iron pumps, which they developed from the local industry of wood pump manufactories. By changing the pump's material from wood to iron, Downs and Wheeler improved something that worked and was in demand as it was, but quickly was the most popular pump on the market. The pump was a favorite throughout the developing western territories and became known as the Goulds pump after Seabury S. Goulds who bought the business, in 1852.¹⁹

The Seneca-Waterloo industrial community flourished and became known throughout the country for the straightforward improvement of two artisans who worked from 1839 to 1848 to solve the technical manufacture of the all-iron pump. Then Birdsall Holley transformed the iron pump into the first hand-pump fire engine in 1849. Holley constantly improved his invention until by 1855 he had produced the first rotary steam

¹⁸ *National Cyclopaedia*, 9; Whitford, *Canal System*, 15.

¹⁹ "Goulds Manufacturing Seneca Falls, Seneca Co., N. Y.," <http://www.senecafalls.com/history/goulds-manufacturing.php> (accessed on January 10, 2005).

fire engine. Holley's fire engine was shipped throughout the country, bringing additional national recognition to the Seneca Falls manufacturing community. Holley went on to apply steam-driven pumps to the problem of providing water to municipalities.²⁰ These were local successes of careful problem solving that had enormous benefit for the economy of the region.

The second occurrence was the Seneca Falls Woman's Rights Convention, in July 1848, an unassuming local event planned at Jane and Richard P. Hunt's house in Waterloo. The Williams family was connected by marriage to the Hunt family, and Louise's mother would have been in her early twenties when Elizabeth Cady Stanton, her friend, Quaker preacher Lucretia Mott, and Mott's sister Martha C. Wright met at the Hunt home. There is no archival record of the Williams family involvement except the signature of Justin Williams on the *Declaration of Sentiments*.²¹

As historian Wellman notes, the convention was a community event, part of the current dialogue on slavery and women's rights that had been fueled by the challenge to women's property rights in New York state. In 1828, New York passed the *Revised Statutes of the State of New York*, which removed the protection of women's private property once they married; this affected all married women and would have been part of Louise's mother's experience. Efforts to restore these property rights were repeatedly thwarted until the first Married Woman's Property Act passed in April 1848.²²

²⁰ James Sullivan, ed., *The History of New York State* (New York: Lewis Historical Publishing Inc. 1927), 633-634. Gould pumps are still manufactured in Seneca Falls.

²¹ Wellman, *Seneca Falls*, 93, 224.

²² *Ibid.*, 28, 153; also see Elisabeth Griffith, *In Her Own Right: The Life of Elizabeth Cady Stanton* (New York: Oxford University Press, 1984) and Norma Basch, *In the Eyes of the Law: Women, Marriage, and Property in Nineteenth-Century New York* (Ithaca: Cornell University Press, 1982).

The July convention's *Declaration of Sentiments*, authored by Elizabeth Cady Stanton with assistance from Elizabeth M'Clintock and Lucretia Mott and over the objections of Henry Stanton, articulated the argument for the equality of women as citizens and marked Stanton's entry into active advocacy of the woman's right to vote. Frederick Douglass attended the convention, signed the declaration, and published the declaration—a modest twelve-page booklet titled *Report*. Sixty-eight women and thirty-two men signed, but only Douglass, Lucretia Mott, Martha Wright, and Stanton became nationally recognized figures.²³

Far from a celebrity event, Douglass's presence, support, and participation was an expression of the mutual support in the long-standing relationship between Quaker abolitionist women and supporters of women's rights throughout the region. Sympathizers with both causes worked with William Lloyd Garrison and members of the American Antislavery Society to raise funds through antislavery fairs, which were held several times a year rotating the location among Rochester, Seneca Falls, and Waterloo. The financial success of these fairs and the friendship of Anthony, Mott, and Stanton brought Douglass and his family to Rochester in 1848, where he began publishing the *North Star*.

Douglass spoke to the convention and encouraged Stanton to make a strong stand on the issue of the right of women to vote, a natural extension of the women's rights issue in the Quaker community.²⁴ Many considered the relationship between husband and wife

²³ Wellman, *Seneca Falls*, 204; also, 193. Henry Stanton thought Elizabeth would be ridiculed for bringing the right to vote—politics—into the *Declaration* and refused to attend, he was an active politician and organizer of the Free Soil party.

²⁴ Lori D. Ginzberg, *Untidy Origins: A Story of Women's Rights in Antebellum New York* (Chapel Hill: The University of North Carolina Press, 2005), 161. Ginzberg found no repercussions for or additional action taken by petition signers, except Stanton and Mott, because as she says, "If their action was unusual, even within their antislavery community, their views were unremarkable."

one of equality and mutual dependence and for many the demand for individual rights conflicted with this fundamental tenet of marriage, which may be why Stanton's generally supportive husband thought she was making a mistake to move the issue of women's rights into the political arena.²⁵

That the first American woman professional architect was raised in the Seneca Falls area has made it tempting to make some connection between the *Declaration of Sentiments* and her almost unique presence in a male-dominated profession. Stern's portrait of Bethune as an American "first" linked the Women's Congress, supposedly held in Buffalo in 1881 (although this research has not been able to confirm that) to Bethune opening her practice in 1881. Also, Buffalo journalist and historian Austin Fox speculated on the influence of the Seneca heritage on young Louise in his *Buffalo Spree* column on architecture in 1986.²⁶

It is difficult to believe that such an important event held in these small communities would not have lived on as a highlight of local history; so many of the signers were from Waterloo that the *Buffalo Morning Express* referred to the meeting as the Waterloo Female Convention.²⁷ Although Wellman found no further mention of the event in the lives of most local signers, she indicates that a number of women had their own businesses and careers.

²⁵ Wellman, *Seneca Falls*, 116, 99.

²⁶ Austin Fox, "Louise Blanchard Bethune: Buffalo Feminist and America's first Woman Architect," *Buffalo Spree*, 1986, reprinted in *Buffalo as an Architectural Museum*, <http://freenet.buffalo.edu/bah/a/archs/beth/bethfox.html> (accessed December 28, 2004). The first volume of Stanton, Anthony, and Gage's *History of Woman Suffrage* was published in 1881.

²⁷ Wellman, *Seneca*, 205, 207; Wellman found the Hunt-M'Clintock-Pryor family of Waterloo were key to the planning of the convention and Mott denied being the "moving spirit of the convention," giving the honor to Cady and the M'Clintocks.

Two daughters of a male signer became preceptresses at Seneca Falls Academy: Eunice Newton Foote (a signer with her husband) was a scientist and inventor and read papers on physics at the American Association for the Advancement of Science in 1856 and 1857; Mary Gilbert and her sister-in-law ran a successful millinery business and her niece became a photographer.²⁸ The *Declaration of Sentiments* paraphrased the *Declaration of Independence*, adding women to the wording and all humans to the message, but this was not a revolutionary position in the Waterloo-Seneca Falls communities. The women of this post-Revolutionary War period felt the entitlement of the *Declaration of Sentiments*' principles and acted on that entitlement.

For Louise's family and the families of rural New York communities like Seneca Falls and Waterloo, the American Revolution was recent history, part of the family history and a shared community history kept alive throughout the nineteenth century in historic paintings and popular fiction.²⁹ The idealistic Declaration of Independence was fought for and respected and expected to define the future. In practical terms, grandfathers and great uncles had fought for those ideals and most had been rewarded with land grants that made the dream of a substantial farm for their families a reality. For these Americans the eighteenth-century ideal of the yeoman farming family was not an abstraction, it was the first promise met by a republic achieved through service and sacrifice for the independence of the country.

Both of Louise's parents were from families that had settled in the Massachusetts colony by 1640 and were among those who patriotically fought in the Revolutionary

²⁸ Ibid., 222-223.

²⁹ The most prevalent example of this were the novels of James Fenimore Cooper and the paintings of the Hudson River School, notably Thomas Cole and Frederick Church.

War. Her father was of French Huguenot descent, from a long line of entrepreneurial farmers who followed the opportunities of each new frontier—eastern Connecticut, western Massachusetts, western Vermont, and upstate New York. Louise’s mother’s family had emigrated from Wales and included prominent seventeenth-century colonial ministers, a signer of the Declaration of Independence, and one of the most distinguished of General Washington’s soldiers.³⁰

Both families—the Blanchards and the Williamses—were among this country’s founding families, so genealogical research has been published on them. The genealogical tables for the Blanchards are complex, because of the number of generations of large families that moved with the opening of agricultural land from Massachusetts to Connecticut and New York and back to western Massachusetts. A member of the Hunt side of the family who relied on Louise to verify his information established the connection of Louise’s family to the Thomas Blanchard of the famous Springfield armory stocking lathe.³¹

The Williams records are more difficult, because most of the genealogical studies are directed toward trying to establish a particular family’s connection to Roger Williams, and we have no family diaries or archives to guide research. Fortunately, in 1904, Louise joined the Daughters of the American Revolution, and from this we know her “patriot” forbear was her great-grandfather Ebenezer Williams, born in Lebanon,

³⁰ Willard, *Woman of the Century*, 80-81; *National Cyclopedia*, 9.

³¹ Jonathan Hunt, *History of the Blanchard Family from 1636 to the Present Time* (Attica, Ohio: Journal Press, 1900). Jonathan Hunt showed in this genealogy—specifically stated—the Hunt connection to the Blanchards through marriage to Anna Blanchard in 1805 who was a cousin of the Thomas Blanchard who invented the Springfield lathe among other machines key to the American Industrial Revolution. Louise Blanchard Bethune did the index for Jonathan, showing that she was aware of her own connection to the famous inventor.

Connecticut, whose land grant brought the family into upstate New York.³² It appears Bethune was more interested in establishing her connection to the American Revolution than to her more distant pilgrim heritage.

The Williams land grant, like others in the New Military Tract, was created out of the Iroquois Nations tribal lands after Mohawk Chief Thayendanegea sided with the British during the Revolutionary War.³³ Initially soldiers who signed up to serve were promised 100 acres at the end of the war. The grant was increased to 600 acres in 1781 to increase enlistments—at least two additional battalions were needed. These grants were dependent not only on winning the war but on finalizing treaty agreements with the Indian Nations; so the land was not surveyed and available to the veterans until 1790.³⁴ Both sides of Louise’s family were drawn to upstate New York by these generous land grants ceded by the Iroquois Nations.

Ebenezer Williams was part of the Lebanon, Connecticut, Williamses who foresaw the inevitable break with England and encouraged it to happen. Louise’s great-great-grandfather Jonathan and his brother William Williams were involved in the early organization of the colonial rebellion. William was a signer of the Declaration of Independence, and Jonathan’s son Ebenezer was one of the first to sign up to serve as a foot soldier in the revolutionary army in 1775, before the Battle of Bunker Hill.

Ebenezer fought in eleven states and Canada, rising from a foot soldier to captain. He was one of the two captains in charge of storming Lord Cornwallis at Yorktown, thus

³² DAR records, Karen H. McKee, Katherine Pratt Horton Buffalo Chapter Registrar; Bethune’s mother, Emma Melona was the daughter of Jonathan Whitney Williams and Elizabeth Fenner.

³³ Klein, *Empire State*, 259. Chief Thayendanegea’s portrait was painted by Gilbert Stuart, the same artist who painted the most famous portrait of George Washington in 1786.

³⁴ Bernie Corcoran, *The Central New York New Military Tract*, Cayuga County NY GenWeb Project, www.rootsworld.com (accessed March 19, 2006).

earning the right to be part of the victorious entry into New York and to be present at the formal surrender of Burgoyne and Cornwallis. Ebenezer was one of the officers Washington chose to be present at his end-of-command ceremony on December 4, 1783. At the close of the war he was elected a member of the Massachusetts Society of the Cincinnati, an association of Revolutionary War soldiers who had the longest and most distinguished service.

After the war, Ebenezer became a prominent member of the Lenox, Massachusetts, community until a loss of capital in 1799 caused a “mercantile failure.” Because he was a “gentleman” he was allowed to file a polite form of bankruptcy in 1803, which included the sale of his Lenox Hill home. He apparently then chose to exercise his land grant to 600 acres in the New Military Tract and moved with his wife and family to Schoharie County, west of Albany.³⁵ Ebenezer’s financial reversal required him to seek retirement in rural New York and re-center family connections from urban Lenox to rural New York where he lived to the age of ninety-eight. His brother Enos settled in Hamburg, Erie County. Both Williamses died in the 1840s, when Louise’s mother was a young adult, but it is certainly possible some of the immediate Williams family was located in the Hamburg-Buffalo area, which may have influenced the family move to Buffalo as Louise approached high school age.

The New Military Tract land grants also brought Louise’s father’s family, the Blanchards, into the region about 1800. Abiel Blanchard, Louise’s great-grandfather, was the Revolutionary War soldier on her paternal side. Abiel was born in Killingly in

³⁵ New England Historic Genealogical Society, *Ebenezer Williams OM*, www.newenglandancestors.org (accessed March 31, 2006); and *New York Reformer*, 17 March 1859.

eastern Connecticut, in 1748, about thirty-five miles from the Lebanon area where Ebenezer's branch of the Williams family had also settled after leaving Massachusetts. When Abiel married in 1770, he sold his share of his father's land and moved to western Massachusetts where he established a 100-acre farm and bought three 160-acre tracts for investment or speculation.

When the Revolutionary War broke out, Abiel served in the Battle for Fort Ticonderoga, the Deerfield militia, and the Bennington (Vermont) militia. After the war, he relocated his family to Bennington, buying and selling land and working as a surveyor of roads. By 1897, his older sons had moved to Onondaga County, New York (Syracuse) to take advantage of the military land grant, and by 1800 the entire family was in New York.³⁶

In Onondaga County, Louise's father's father Thomas, who had attended school in Bennington before the family moved, was both a successful farmer and the justice of peace of the town of Orville. His older brother Orlow, Louise's uncle, continued the family tradition of farming and land speculation, but also became a successful manufacturer of doors and window sashes—Burnhans and Blanchard Doors and Sashes. Among the other businesses, Orlow and his wife ran a quarry and bought out each of Orlow's siblings' share of the paternal farm as they married or moved out of the area. Louise's father went to go to college and was possibly the first Blanchard to take up a life completely unconnected to farming.³⁷

³⁶ Fletcher Blanchard, George Blanchard and Descendants [son of Thomas and Elizabeth Blanchet/Blanchard (Blanchard-L at Roots Web, 1998), TG3-789-4 (accessed March 31, 2006).

³⁷ Dalson Wallace Blanchard was the fourth of nine children of Thomas C. Blanchard and Sarah C. Cunningham, born in 1823 and died August 16, 1891; <http://homepages.rootsweb.com/~blanch->

Louise's father, Dalson, was in the first graduating class of Albany Normal School in 1848.³⁸ The school was an educational experiment first funded, in 1844, by the New York legislature, after the apparent success of the Boston Normal School. A railway depot building was refurbished to house the program until state politicians were sure of its success. The first students, predominantly male, attended to get entrée into schools of law and medicine, because the school was one of the few institutions of higher learning in upstate New York; but the program was intended to provide training for teachers and principals in the common school system.

According to the 1850 census, Louise's father was teaching in a small farming town, Chenango, on the Albany-Binghamton Canal. By 1856, when Louise was born, her father was clerk of school district No. 1 in Waterloo, but we do not know exactly where and when he married her mother Emma Melona Williams. Historians have assumed the Blanchards remained in Waterloo throughout Louise's childhood, because her birth is recorded there and local historian John Becker listed Dalson Blanchard as principal of the Waterloo Union School in 1871.³⁹

The census reports of 1860 and 1870 contradict historian Becker's account. The Blanchards appear on the 1860 census as living in Alexander, New York, fifty miles east of Buffalo, and deed records show that Dalson sold his interest in the family farm to his

[/GeoB/ff93035.html#PTG3789](http://GeoB/ff93035.html#PTG3789) (accessed March 26, 2006). Dalson was born near Syracuse, Onondaga County, in Fayetteville or Orville, which was where Grover Cleveland spent part of his childhood as his father was an itinerant minister and worked in New York state after leaving Caldwell, New Jersey. Grover Cleveland, like Louise's family, moved to Buffalo for more opportunities.

³⁸ Onondaga Historical Association, card file, www.rootsweb.com/~blanch-l/GeoB/ff93076.html (accessed February 2006).

³⁹ John Becker, "A History of Waterloo," 1949 (archives of Waterloo Library and Historical Society), 465, 200; letter March 31, 2006; this research unfortunately has not been able to determine the date of their marriage. The 1871 date is contradicted by the 1870 census which places the Blanchards in Buffalo.

eldest brother in 1859.⁴⁰ Louise's father was teaching at the Genesee Wesleyan Seminary, one of the first coeducational seminaries in the country and where Belva Lockwood, one of the country's most famous woman lawyers, graduated. Louise was three and her mother was not working at this time, although all other census reports list her as an employed teacher. When the Civil War broke out, a third of the men at the seminary enlisted in the Union Army, throwing the school into economic distress and forcing it to reconstitute itself later as the Syracuse College in 1866. Apparently the Blanchards returned to Waterloo, and Dalson's career as a college-level teacher ended.⁴¹

The 1870 census lists the Blanchards in Buffalo and both parents employed as teachers. Louise's father, a "mathematical instructor, noted for his mental agility and accuracy," moved up from teacher to principal and was in that position until his death in 1891. In Buffalo, the Blanchards lived at 325 Porter, a house owned by Dr. W. C. Colburn between 1870 and 1880 with the doctor and his wife and child. In 1880, Robert Bethune was also a boarder in the house.⁴²

Dalson Blanchard's first teaching assignment, in Chenango, then a village of several hundred residents, paid teachers in food, cloth, and the appreciation of the community.⁴³ When Louise's father married and started his family in the bustling progressive town of Waterloo, cash payment for services was reshaping the small town's economic life; teachers were paid in cash, but at the end of the semesters, which required

⁴⁰ "Children of Thomas and Sarah Blanchard," <http://homepages.rootsweb.com/~blanch-l/GeoB/ff93076.html> (accessed March 6, 2006).

⁴¹ *United States Census Report 1860*; Dalson's worth was listed as \$200; and http://www.crossroadscouncil.org/html/historic_lima.html (accessed March 6, 2006).

⁴² *United States Census 1870* and *United States Census 1880*. Much of the 1890 census was destroyed by fire.

⁴³ <http://homepages.rootsweb.com/~blanch-l/GeoB/ff93076.html> (accessed April 1, 2006).

careful planning and a certain amount of living on credit.⁴⁴ During this period, Louise was home schooled, possibly because of her delicate health and the death of her younger brother, which may have made the family particularly cautious, possibly because more formal instruction involved needless expense, and possibly because her parents wished to protect her from the gender bias of formal education.⁴⁵

Historian Linda K. Kerber has explored the work done by historians of women over the last decades on women's marginalized social and economic position in nineteenth-century America.⁴⁶ The rhetorical key to avoiding empowering women as equal contributors was the ideology of separate spheres, which gave men the challenging domain of enterprise in the world of politics and rapidly changing economic and professional possibilities, and reserved the cloistered world of household work, church work, and children's education for the women privileged enough to remain out of the wage force.

The "separate spheres" definition of women's avenue for contribution to society might not have worked so well if women had seen equally attractive alternatives. Author and essayist Gail Hamilton, who entered teaching and found it a brutal occupation for young women, often wrote on the subject of women's opportunities and the dangers of the separate spheres. She said of a woman, "She does the work that is not paid for, and she belongs to the sex that is pillaged." Hamilton pointed out that women had

⁴⁴ Wellman, *Seneca Falls*, 76-77.

⁴⁵ *National Cyclopedia*, 9; Willard, *Woman of the Century*, 80; Barbara Solomon, *In the Company of Educated Women* (New Haven: Yale University Press, 1985), 16-17. Solomon found the program of education was determined by the local community so goals for young girls were based in the dynamics of individual communities; for example, the Second Awakening Churches supported women's education so they could be good Christian mothers and teachers.

⁴⁶ Kerber, *Intellectual*, 190; Estelle Freedman, "Separatism as Strategy: Female Institution Building and American Feminism, 1870-1930," *Feminist Studies* 5 (Fall 1979), 512-529, esp. 513.s.

successfully managed the United States Sanitary Commission (without pay), so their capabilities were beyond dispute, yet women high school teachers were paid \$600 a year while men received \$1,000 a year. Hamilton concluded that separate spheres only meant that society offered women a bad bargain: “she must rear the children, she must manage the society” and if she had to work she would not earn on equal terms with men.⁴⁷

Perhaps Louise’s parents, involved in public education as her father was, knew that attitudes they possibly considered old-fashioned were not appropriate for the new possibilities they felt would be open to their daughter. As mid-nineteenth-century parents perhaps they did not want their daughter exposed to the idea that women’s “work” was domestic or that she should have her ambitions curtailed. Perhaps instead of bringing sewing projects to school, they thought drawing and solving mathematics problems were better for her development. And perhaps they did not want her to be told that the pitfall of education for girls was “high notions” and “arrogance.”

Poor and helpless will that woman be, who does not learn, when a girl, to employ her hands in useful labor. She may have enough, but she will not know how to use it for the comfort of her family. She may be well educated, and able to converse interestingly. She may play the piano. And all this is well. But, if she does not understand *work*, her common everyday duties cannot be done; and these are what, in all circumstances, contribute most to the comfort of every-day life.⁴⁸

This social message of usefulness was not the usefulness of paid work; it was the rhetoric of usefulness to the comfort of the home and husband for the young women who

⁴⁷ Gail Hamilton (Mary Abigail Dodge, 1833-1896), *A New Atmosphere* (Boston: Ticknor and Fields, 1865), 130, 121, 34, 134, 41. Hamilton published at least six books and wrote in *The Atlantic Monthly*, *The North American Review*, and *Scribner’s Monthly* from the late 1850s to 1892; in “My Book,” *The Atlantic Monthly* 13 (January 1864), 102, she said of *A New Atmosphere*, “And I shall not confine myself to my sphere. I hate my sphere. I like everything that is outside of it,—or better still, my sphere rounds out infinitely into space.”

⁴⁸ Harvey Newcomb, *Anecdotes for Girls: Entertaining Narratives and Anecdotes, Illustrative of Principles and Character* (Boston: Gould, Kendall and Lincoln, 1849), 59, 51.

had “enough” that they would not have to work. The message to young women who were educated was that there was much to be done in the home for the comfort of all and this was the important work.

Solomon notes that the first “array of great innovators”: Sarah Pierce, Emma Willard, and Catharine Beecher among others, started academies dependent on private fund-raising and devised plans for the education of girls and young women for a future of training other young women.⁴⁹ Even New York socialite Abby Buchanan was puzzled as to how a woman remained herself; “Unambitious women can have no idea how difficult it is for their opposites in intentions and hopes to maintain their self-respect and be true to their ideals and yet get on—mount upward—on the ladder of fashion, and arrange a brilliant social career to their liking.”⁵⁰

Society on all levels gave women and young girls like Louise a double message—one that survives today with the first complaint of working women that they are required to do two jobs and to do them both well. The double message had many rhetorical frameworks, as in James Parton’s popular book for girls, *Daughters of Genius: A Series of Sketches of Authors, Artists, Reformers, and Heroines, Queens, Princesses, and Women of Society, Women Eccentric and Peculiar, From the Most Recent and Authentic Sources*, (1888). Just the title and the table of contents could call forth extensive discussion on the lauding of the female by defining her relationship to a male or putting her in the category of “eccentric and peculiar.”

⁴⁹ Solomon, *Company*, 17-19. Also see “Distinctly a Class Privilege:” Troy Female Seminary, 1846-1847 in Ruth H. Crocker, *Mrs. Russell Sage: Women’s Activism and Philanthropy in Gilded Age and Progressive Era America* (Bloomington: Indiana University Press, 2006).

⁵⁰ Abby Buchanan, *A Debutante in New York Society* (New York: D. Appleton, 1888), 24.

The reader is introduced to “Abraham Lincoln’s Good Stepmother,” Queen Victoria and Princess Louise, “Miss Alcott,” and the “Wife of Thomas Carlyle.” But the theme was ways to achieve exterior recognition without stepping outside interior domestic parameters: “The most important result of the better civilization of our time is the increased power of women. We know that in the limited spheres their influence was always incalculably great; but now, without losing their ascendancy at home, they find a career in many of the trades, most of the professions, and all the arts.”⁵¹

All the early biographies note the move Louise’s parents made to Buffalo was in part due to the increased opportunity for their daughter’s high school education, which included sciences, foreign languages, and classical literature in the original languages.⁵² Also Buffalo was in the process of a dynamic transformation into the second largest rail terminus in the nation and many rural families were immigrating for the increased economic opportunities. Barbasch maintains that the family moved in 1866, but research has shown the move occurred after 1871.⁵³

In September 1871, Buffalo’s Normal School opened, the second in the state after the one in Albany that her father attended. Grover Cleveland was appointed to the original Board of Managers, a “progressive citizen” and Buffalo sheriff. (Cleveland lived part of his childhood where Louise’s father had grown up.) The Blanchards may have

⁵¹ James Parton, *Daughters of Genius: a Series of Sketches of Authors, Artists, Reformers, and Heroines, Queens, Princesses, and Women of Society, Women Eccentric and Peculiar, From the Most Recent and Authentic Sources* (Philadelphia: Hubbard Bros., 1888), 3; from *Open Collections Program: Women Working, 1800-1930* (Harvard University Library <http://ocp.hul.harvard.edu/ww/allbooks.html>) (accessed March 2006).

⁵² Fox, “Bethune,” <http://freenet.buffalo.edu/bah/a/archs/beth/bethfox.html> (accessed February 20, 2006).

⁵³ John Becker, *Some Waterloo Citizens of Yesterday* (Waterloo Historical Society, unpublished manuscript, 1949), 200. Dalson Blanchard was principal while the Union school was raising money to rebuild the obsolete building, 1870-1871.

seen that Buffalo, a city dedicating enormous resources to new public facilities like the Olmsted park system, offered a more enlightened environment.

When Louise's family moved to Buffalo, the Civil War was recently over and the city, the nation's tenth largest, had increased from just over 80,000 before the war, to almost 120,000 in 1870. This was an expansive era: from 1869-1871, Mark Twain lived in Buffalo as editor and part owner of the *Buffalo Express*; Frederick Law Olmsted was engaged by the city; Chicago architect George Johnson was constructing the Niagara and Plimpton Fireproof Grain Elevator using the new combination of iron and clay tile; and work began on the City and County Hall, the first million-dollar building in Buffalo.⁵⁴

Buffalo had reorganized its schools in 1838 into a free school system, and when Louise's father entered the system as a mathematics teacher there were almost 10,000 students and fourteen new school buildings.⁵⁵ Dalson taught at Public School (P.S.) 3 and P. S. 4 and then was assigned as principal of P.S. 3 for the rest of his teaching career. A principal position carried a salary that began at \$1,000 and increased to \$1,400 per year at a time when teacher salaries were between \$500 and \$800 per year. The Blanchards lived as renters in the home of a young doctor, Dr. W. C. Coburn, his wife, and four-year-old child. The 1870 census lists Louise's mother as a teacher, so both parents were working. The home at 325 Porter Avenue was a two-story frame house in the middle-class residential area north of downtown with parks nearby, but on a trolley line.⁵⁶

⁵⁴ Randall, *Human Values*, 34-36.

⁵⁵ Smith, *History*, 317.

⁵⁶ United States census, 1870; the Superintendent of Education reports give the school assignments and salaries of all school employees.

High school was the highest level of education most students were likely to attain in the 1870s. Only 2 percent of the population attended any college, and many of the existing colleges were little more than schools of religious instruction.⁵⁷ At the high school level almost twice as many females attended as males, reflecting, as Superintendent of Education James F. Crooker suggested, that the need to begin wage-work pulled many male students out of high school and into the labor force.

The high school curriculum was challenging with two tracks: standard courses and classics courses. The mathematics courses included algebra, geometry, trigonometry, and astronomy. The sciences were chemistry, physics, geology, botany, and physiology. Latin, Greek, French, and German were taught to the level of prose composition along with English, literature, and history. Elective subjects included rhetoric, politics, moral philosophy, bookkeeping, and drawing. The emphasis on the classics included special courses on Homer, Virgil, Caesar, Cicero, Sallust's *Cataline*, and Virgil's *Eclogues*.⁵⁸

Such a varied and rigorous curriculum prepared Louise for many professional possibilities. But what were those possibilities? What career options actually existed? Her choice was to enter the field of architecture, but what was required to do that? The New York State Normal School guaranteed a young woman of Louise's intellect a career in teaching. She did not choose that course and apparently never considered it seriously, although it may have been the option her parents considered in their decision to move to Buffalo.

⁵⁷ Thomas L. Haskell, *The Authority of Experts: Studies in History and Theory* (Bloomington: Indiana University Press, 1984), 41.

⁵⁸ James F. Crooker, *Report of the Superintendent of Education of the City of Buffalo, 1887-1888*, 92-93.

CHAPTER 2

SPECIAL CAPACITIES FOR A PARTICULAR WORK

Now in every civilized country women of talent and genius, in both public and private station, are promoting the moral and material welfare and progress of the age.
—James Parton, 1888.¹

The Woman is Predestinated, is Called, is Justified, is Glorified, and wears that Golden Chain as well as the Wisest and the Strongest of Mankind.
—Roger Williams, 1676²

In 1856, the year Louise Blanchard was born, Sigmund Freud, Booker T.

Washington, Nikola Tesla, Woodrow Wilson, Frederick Winslow Taylor, Louis Sullivan, and George Bernard Shaw were also born. None knew what their life's work would be and most became famous for excellence in fields of endeavor undreamed of when they were growing up. The world was particularly open, in flux, indeterminate.

The options for self-construction were historically unprecedented and, as historian Daniel Walker Howe says; “the practice of self-construction was not particular to intellectuals as a social group (or even people of intelligence, which was a much larger group).” The practice of self-construction became over the nineteenth century the cult of the “self-made man” and this evolution of American liberalism was the “progressive

¹ Parton, *Daughters of Genius*, 49.

² Edward H. Clarke, M. D., *Building of a Brain* (Boston: James R. Osgood and Company, 1874) 5. Clarke's more popular *Sex in Education; Or, A Fair Chance for Girls* went into at least eleven editions.

democratization of the model [of the balanced character], as it is extended to include poor men, women, and people of color.”³

Louise was educated and while not wealthy, her family was not in need, leaving her in the enviable position to choose her future. What she chose in pursuing architecture was a profession she believed went back to the beginning of recorded time and was constantly visible in daily life. In the Waterloo and Seneca Falls of her childhood and the Buffalo of the 1870s, architecture was part of the industrial transformation of society. While today architecture requires licensing, in the late nineteenth century it was a skill to be acquired on the job. There were no examinations, no licensing board approval, no set course of study or training. Architects constructed their authority on a variety of educational backgrounds, social connections, their own economic resources, or on political connections; most often it was a combination of several of these.⁴

In the 1850s, education as a basis of professional entry began to supersede the social and political factors in what Thomas Bender calls the shift from “civil professionalism” to “disciplinary professionalism.”⁵ These professions were almost exclusively in the male domain, but the introduction of specific educational routes into the professions, at least in theory, opened the way for women and African Americans into professional endeavors.⁶ However, this was not the case in architecture; the career of Louise Bethune shows that there was a path for intelligent, educated women with

³ Howe, *American Self*, 2, 8; Charles R. Hearn, *The American Dream in the Great Depression* (Westport, Connecticut: Greenwood Press, 1977), 8.

⁴ Woods, *Craft*, 4-6. Illinois was the first state to pass a licensing law (1897), only four states followed so “registration” was substituted although the difference is basically one of semantics.

⁵ 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), 6.

⁶ Woods, *Craft*, 77.

confidence in themselves and their right to self-definition before the university path. It was a path not as wide as that for men yet not as obstructed as many believed, but nevertheless a path for a few.

Men were liberated from the confines of doing the work their fathers had done. This brought the creativity of thousands to the task of building the Industrial Revolution and the systems of development and management, of communication and finance, of transportation and distribution. Opportunity for determined white men and some women prevailed over the nineteenth century only to diminish into a search for “efficiency” that sociologist Andrew Abbott contends ultimately diminished character in favor of technique.⁷ For Louise’s parents, in mid-century, the professional reality was that her father chose teaching mathematics over farm labor and her mother was also a teacher. Entry for women into most professions—areas of special training—other than grammar and primary school teaching was still achievable only by the most determined.

“Each human being is created with special capacities for a particular work in a particular time. No one is born out of time or place; yet, of the vast multitudes that live, how few accomplish the work they were born to do! The question then arises, how may each one recognize his particular work?” This was the theme of the president Henry Miller Pierce to the second graduating class of the Rutgers Female College in 1868. The answer that followed, quoted from Milton, was not one that Louise or her parents would have chosen to follow—“They also serve who only stand and wait.”⁸

⁷ Andrew Abbott, *The System of Professions: An Essay on the Division of Expert Labor* (Chicago: The University of Chicago Press, 1988), 190.

⁸ Henry M. Pierce, *Address to the Second Graduating Class of Rutgers Female College: Delivered in the West Presbyterian Church, on Sabbath Evening, May 31st, 1868* (New York: Agathyian Press, 1868), 6.

Actually, Louise did have to “wait,” because neither the Buffalo Female Academy nor the new State Normal School provided the course of study she required. The Buffalo Female Academy, well respected and supported by Buffalo’s philanthropists, offered only two years of college-level work. The academy was a private educational institution—the influential model was Sarah Pierce’s Litchfield Academy in Litchfield, Connecticut, founded in 1791, which had educated Buffalo’s elite women since 1851.

Academies usually started with kindergarten and carried through to the equivalent of two or three years of college-level liberal arts education. Historian Barbara Solomon found that they could be quite complete in the sciences and mathematics as well as providing proper Christian education, drawing, music, and encouragement to be active in philanthropy. In spite of available institutions, actually less than 2 percent of the women between eighteen and twenty attended college in any of its forms, so this level of education was automatically an entry into an elite status, but one that was also achievable through private instruction. Until the end of the century, two years of college made most professional occupations accessible.⁹

A more academically rigorous version of the academy was the seminary, which the Buffalo Female Academy briefly pursued in the late 1890s, but by that time Buffalo University provided a nonsectarian alternative for all women. Many female academies and seminaries were sponsored in the first half of the nineteenth century by Congregationalists, Presbyterians, Unitarians, Methodists, Quakers, Baptists, and

The school was founded in 1839 as Rutgers Female Institute, which meant education included religion, work skills and academics.

⁹ Solomon, *Educated Women*, 23, 64. The academically rigorous academies of the Northeast avoided using “college” and preferred to label their institutions as seminaries. George B. Tindall and David E. Shi, *America: A Narrative History* (New York: W. W. Norton and Company, 1989), 524. In 1870, there were 52,000 college students, 157,000 in 1890, and 600,000 in 1920.

Catholics desiring to supply women teachers of their denomination for the schools in newly settled communities. This support during the Second Awakening gave a Christian and philanthropic cast to these early educational institutions.¹⁰

By mid-century, the existing women's academies and seminaries provided education centered on these genteel roles of educated motherhood for the privileged who could afford them. Men's private academies and seminaries, also directed toward two years of college liberal arts education, were in most cases lacking in any consistent academic standards. Such institutions varied tremendously in the quality of education offered and their ability to remain open; only a few were prestigious enough to attract endowments. Seen as stepping stones to marriage for women and entrée into professional training for men, these schools rarely had permanent private or state support.¹¹

On the other hand, state normal schools provided a nonsectarian two-year curriculum specific to teaching and based on Prussian educational theory, which maintained that the process of teaching was as important as the content. In 1855, there were 60,000 female schoolteachers in the country, which caused concern among those focused on the education and the employment of women that sheer numbers were depressing women's salaries. Teaching was not as oppressive as industrial work, but the pay was comparable.¹² By the time the second normal school in New York opened in

¹⁰ Ibid., 16-18. After mid-century, academies were usually comparable to high schools; "Buffalo Academy of the Sacred Heart," http://buffaloseminary.org/Home/aboutsem/Sem_s_Story (accessed March 2006). This academy was established in 1877 to provide an education in arts, science, and humanities. It was formed specifically to expand the educational opportunities to immigrant young women beyond the dressmaking and meal preparation classes then available.

¹¹ Solomon, *Educated Women*, 24.

¹² James Monroe Taylor, *Before Vassar Opened: A Contribution to the History of Higher Education of Women in America* (Boston: Houghton Mifflin, 1914), 94. The Association for the Advancement of

1871 in Buffalo, teaching had become a women's profession and its student body was 87 percent female.¹³

For Louise to go to Boston for MIT's program in architecture was probably not any more financially possible than entering Cornell's, which was just opening up to women. Louise's honors year at high school was probably in preparation to begin teaching, but she apparently found a way out of that career. Apprenticeship was the path Louise pursued this probably was a far greater achievement than going to Cornell. Historian Alice Kessler-Harris notes that the real restrictions for women came after their educations because men controlled apprenticeships as well as loans for opening professional offices, meaning an excellent education was no guarantee of success.¹⁴

The difficulty of finding a mentor willing to guide an educated woman into a profession other than teaching partially explains why women filled the ranks of teachers in the common schools, where such mentoring was not required. Teaching was virtually the only profession for educated women and was the fifth largest occupation for all women—after agricultural work, domestic service, and the textile and millinery industry.¹⁵ Estimates vary between 72 and 83 for the percent of college-educated women who taught at some point in their lives. Law had almost no women, but women had achieved visibility in medicine largely through the advocacy of Dr. Elizabeth Blackwell,

Women Annual Congress, Buffalo, 1882, noted most primary teachers were women, three-quarters of the students at the two normal schools were women, but all the principals and department heads were men.

¹³ Sarah Slavin, "Stephen Grover Cleveland, Trustee: The Board of Managers of the State Normal School at Buffalo, NY, 1870," presented at Buffalo State College, March 18, 1996.

¹⁴ Kessler-Harris, *Pursuit of Equity*, 24.

¹⁵ Edith Abbott, *Women in Industry: A Study in American Economic History* (New York: Arno and The New York Times, 1969), 5; Abbott's chapter on "The Problem of Women's Wages" is a complete documentation of the inequality of women's pay from the Colonial period onward; Solomon, *Educated Women*, 127.

the dramatic achievements of Florence Nightingale, and the inclination of male physicians to accept as logical that female practitioners might be more appropriate to handle intimate female disorders. But as nursing became a “woman’s” profession this progress was reversed.¹⁶

Louise could look to the gains of women in medicine and law as an indication of the opportunities that were becoming available to women, but she pointed out that the similarities only went so far. In her 1891 address to the Buffalo’s Women’s Educational and Industrial Union, she said:

Architecture is a profession, and one of the newest of professions. When women entered the professional field and became physicians they filled a long-felt want. There is no need whatever of a woman architect. No one wants her, no one yearns for her, and there is no special line in architecture to which she is better adapted than a man.

After fifteen years in the profession, she saw no particular mandate for women, but also did not see any particular impediment either; she continued in her address: “When a woman enters the profession she will be met kindly, and will be welcome—but not as a woman, only as an architect.”¹⁷ This was certainly her experience and she gave thanks to the men of the architecture profession who had welcomed her, because there had been some setbacks for women professionals in Buffalo—the Medical College of Buffalo had changed its policy of accepting women in the mid-1850s, closing admission to them about the time Louise was born. But in 1891, the situation was apparently improving with the policy change at the Niagara Medical College that started accepting

¹⁶ Elizabeth Blackwell, *Address on the Medical Education of Women: Read before a Meeting Held at New York Infirmary, December 19th, 1863* (New York: Baptist and Taylor, 1865).

¹⁷ “Women Architects,” *Buffalo Daily Courier* (March 7, 1891), 6.

women, and the University of Buffalo had just graduated its first female African American Ph.D. So, on a local level it must have seemed that opportunities were increasing and previous restrictions were being removed.¹⁸

Some of the obstacles for women had been legal. Kessler-Harris notes that when resistance to enter a profession was met head-on even the law could undermine the progress some women had made. In a historic decision in 1873, the Illinois Supreme Court upheld the Illinois bar in its refusal to admit a woman who was an experienced lawyer. Myra Bradwell was one of the five women lawyers listed in the 1870 census. She read for the law with her husband who was a judge and passed the Illinois bar exam, but was denied the right to practice. The court said: “The natural timidity and delicacy which belongs to the female sex evidently unfits it for many occupations of civil life The paramount destiny and mission of women are to fulfill the noble and benign office of wife and mother. This is the law of the Creator.”¹⁹

The Illinois bar reversed its position in 1885, in spite of its Supreme Court victory. It is possible that the Chicago architects who supported Bethune’s entrance into the Western Association of Architects in 1885 and the American Institute of Architects in 1888 were aware of the retrograde finding at the Illinois bar and awkward (to some of them) reversal. Bradwell, with Mary Livermore and Kate Doggett, formed the first female-run organization in Chicago, the Chicago Sorosis, in 1868. All three had worked for the Northwestern Sanitary Commission during the Civil War and had broadly

¹⁸ Goldman, *High Hopes*, 101-102; and Dr. Zdenka Gredel-Manuel and Dr. John Stranges, *Niagara University Historical Highlights, 1856-2000*, www.niagara.edu/news/Inauguration%202000/History.htm (accessed April 4, 2006).

¹⁹ Kessler-Harris, *Pursuit*, 24-25; “Myra Bradwell,” Committee of the Historical Records of the New York County Clerk, Inc. and the Arthur W. Diamond Law Library, Columbia Law School; http://library.law.columbia.edu/rise_of_women/practice/myra_bradwell.html (accessed April 2006).

dedicated the Chicago Sorosis to “increase the social relations of women and mankind” with women’s suffrage as a right of political equality.²⁰

If law was not natural to women, teaching was. The perception of women as naturally nurturing made teaching in the primary and grammar schools readily socially acceptable, and by the mid-nineteenth century women dominated the staffing of the common schools.²¹ But women educators’ numbers thinned as one looked farther up the educational structure. The antebellum women’s colleges and seminaries (high school and some college-level liberal arts) produced a limited number of opportunities for women in academie, but the women faculty numbers were not impressive; these schools often had one or two female faculty out of a total of four or five.

Although college teaching did not necessarily require a graduate degree any more than an architect was required to complete a university course of study, scholarly work increasingly required a Ph.D. and it was only toward the end of the century that women made noticeable progress toward such advanced degrees. The first American Ph.D. was awarded to a woman at Boston University 1877, while the degree had been available in the United States to men since 1862 (at Yale) and by 1900 the ratio was 1:10, women to men earning the degree. In 1900, 228 women and 2,372 men earned American doctorate degrees.²²

²⁰ Maureen A. Flanagan, *Seeing with their Hearts: Chicago Women and the Vision of the Good City, 1871-1933* (Princeton: Princeton University Press, 2002), 31, 73, 230n 3.

²¹ Christine A. Ogren, *The American State Normal School: “An Instrument of Great Good”* (New York: Palgrave Macmillan, 2005), 192. Before 1903, normal schools did not offer bachelor degrees, but were designed to prepare teachers for the common school system. The demand for high school teachers at the end of the nineteenth century caused the normal schools to extend their programs to allow training for the high school level teacher.

²² Solomon, *Educated Women*, 134.

But adding to the dearth of schools offering graduate education to women was the problem of the uneven quality of undergraduate work. Vassar president James Monroe Taylor's history of higher education for women, *Before Vassar Opened*, provided details on the variation in standards between institutions; many coeducational colleges had "ladies courses" separate from the "male" curriculum and they kept women faculty from teaching the academic curriculum. "The higher classes may enjoy the privileges of the higher departments 'as shall best suit their sex and prospective employment,' but the female seminary is not regarded as equal to the college, Taylor wrote."²³ At Oberlin College (open regardless of race or sex), the "female department" did the "domestic work, washing, ironing, and much of the sewing for the students, and attended recitations with the young gentlemen in all departments." After a few years of no applicants for the women's college courses adjustments were made, resulting in a "continuous if small line of girls who availed themselves of the larger opportunities" by entering the school.

Skepticism as to the value of higher education for women hindered opportunities. Taylor explained the prejudice against investing in higher education for women in his account of the 1865 Vassar family battle over committing their sizeable fortune to that end. Family members felt that a hospital was a more worthy investment, in part because a survey of a "woman's college"—Oberlin—revealed that between 1833 and 1865 only seventy-nine women had graduated with the A. B. degree. Since the cost of \$200 per year was not considered the impediment to attending, low attendance was attributed to a lack of demand from women. Another argument against establishing a women's college comparable to Yale and Harvard was that should the institution succeed in attracting the

²³ Taylor, *Vassar*, 35.

requisite numbers of women students such an education would “awaken aspirations that can never be satisfied.”²⁴

If Louise knew the odds against her, we have no indication of it. Looking back from 1891, she was matter-of-fact about her entry into the profession. She was equally straightforward that a casual remark, a challenge really, made her choose architecture as a profession in the first place.²⁵ After Louise graduated from Buffalo Central High School in 1874 she spent an additional year of postsecondary studies as an honors student.²⁶ An honors year at Buffalo High School would have included most of the mathematics, geometry, physics, and drawing subjects proper to a course of study for architecture.²⁷ Material not covered, like calculus, was something she could have easily learned from her father.

Turn-of-the-century encyclopedia entries stated that Louise planned to attend Cornell University. The institution opened as an all-male college in Ithaca in 1868, under the Morrill Act and with the private philanthropy of Ezra Cornell. In 1872, it opened classes for women and four years later instituted an architecture program in 1876. The architecture program was the second in the country, the first being at MIT, and Cornell’s Morrill Act status would have made it affordable, but living facilities for women were not immediately available.

²⁴ Ibid., 38-41, 89, 99. Milo P. Jewett, developer of the Ohio public school system and Judson Female Institute in Marion, Alabama, in 1839, was the driving force of the Vassar plan and the first Vassar president.

²⁵ Stern, *We the Women*, 62.

²⁶ “High School,” *Buffalo Courier* (May 29, 1875), 5.

²⁷ Henry P. Emerson, *The Buffalo High School List of Pupils, 1873-1891*; and *Buffalo Spree*, Summer, 1875.

Cornell architectural historian Mary N. Woods suggests that the university was possibly more interested in qualifying for the Morrill grant, which required the institution to be coeducational, than it was in accommodating female students. Margaret Hicks was the program's first woman graduate (1880), and the first woman to graduate from an American university in architecture.²⁸ The 1880 graduating class was the first possible graduating class for the architecture program and was the class Louise would have been in had she not chosen to go into an apprenticeship instead. Hicks married in the year following college and did not go on to a career in architecture, just as her close friend and classmate M. Carey Thomas feared.

A university course was only, as it is today, the first stage in the journey to architectural practice. Like medicine and law, an internship was expected before an aspiring architect qualified to open an office.²⁹ Louise's choices were to enter an architectural office and train for five years or go into a university architectural program and then spend a year or two in an office; university training was too new for differences between the choices to be apparent, although in her 1891 talk it was clear she kept abreast of the number and successes of women in the various university programs.

In principle, the Morrill Act settled the issue of female education in 1862. Small college towns had much at stake as state legislatures went into political battles over

²⁸ Woods, *Craft*, 75; Torre, *Women in American Architecture*, 56. For a concise list of architecture programs open to late nineteenth-century women and for a concise list of how they made a living afterwards see Woods, *Craft*, 69. On Margaret Hicks, see Bryn Mawr College Library Special Collections, <http://www.brynmawr.edu/library/speccoll/guides/thomaspersonal.shtml>, Reel 32 (accessed April 13, 2006). "M. Carey Thomas Personal Papers; Outgoing Correspondence: Mary Whitall Thomas-Young People of the Bridesburg M. E. Church: 1882-1888" and Reel 62: "M. Carey Thomas Personal Papers; Incoming Correspondence: Margaret Hicks Volkmann-Helen Jane Zillman." Margaret Hicks was a Cornell classmate of M. Carey Thomas who became the second president of Bryn Mawr. Thomas was distressed when Hicks decided to marry; Hicks became Mrs. Volkmann, August 30, 1881.

²⁹ Woods, *Craft*, 36.

where these windfall land grants would be located, a decision that had to be made within five years of the act's signing. The New York State Agricultural College at Ovid, fifteen miles from Waterloo, was upset in its bid for land grant status by state senators Andrew Dickson White and Ezra Cornell and their proposal for a university at Ithaca.

By the end of the Civil War, some educators had voiced concerns about just what opportunities existed for the educated woman after college. John C. Harkness, president of the State Normal University in Wilmington, Delaware, published—"by the request of many friends"—the speech he made before the American Normal Association, at Trenton, New Jersey, in 1869, which had been "suppressed by the acting President and Assistant Presiding Officer of the Association, on the ground that it is too strong an advocacy of 'Women's Rights,' the objectionable points being her admission to college, professional schools and the learned professions."

Harkness's speech simply called for open colleges and universities, as well as polytechnic, law, medical, and divinity schools. His complaint was that "many branches of honest, healthful, and lucrative industry" are not open to women and that "you have shut her out from your own professions, in every one of which, her talents and tastes qualify her to succeed and excel." His message was to "make woman independent." Clearly this was not well received by some of the men paid by the states to educate those women.³⁰

³⁰ John C. Harkness, *The Normal Principles of Education: An Address* (Trenton: Charles Scott, 1869), 16, 19; <http://pds.harvard.edu:8080/pdx/servlet/pds?id=3791421andn=4ands=4> (accessed April 4, 2006).

In architecture, apprenticeship with an acknowledged architect as employer and mentor was necessary, with or without university education.³¹ This meant the commitment of a male professional for Louise, Julia Morgan, and Lois Howe, the three officially practicing women architects of the period. Architect Robert Swain Peabody mentored Howe and she was a draftsman for Allen and Kenway; it took her four years to get her first commission and ten before she opened her own firm. Louise apprenticed with Richard A. Waite, and Morgan with John Galen Howard; both immediately opened their own firms.³²

In the 1870s, it was still common for men to move from the building trades into architecture, usually through an interim step working in an architect's office. It was not unusual for a builder simply to declare he was an architect, often moving back and forth between the two designations, as John Randall discovered in his study of nineteenth-century city directories in Buffalo. Until there were building codes in the early twentieth century, there was no legal reason to hire an architect.³³

In Buffalo in 1876, there were eleven declared architects in the city directory, an increase from just five three years before, but only four of those had what were considered substantial practices.³⁴ The most cosmopolitan, successful, and technically avant-garde architect of them, Richard Alfred Waite, for reasons that remain obscure,

³¹ 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), 38-40.

³² "Howe, Manning and Almy, 1913-1937; Papers, 1883-1972," Manuscript Collection-MC 9 (Cambridge: MIT Institute Archives and Special Collections); and Gwendolyn Wright, "On the Fringe of the Profession: Women in American Architecture," in Kostof, *The Architect*, 288.

³³ Woods, *Craft*, 36. In 1912, two-thirds of all AIA members still augmented university education with apprenticeship.

³⁴ Randall, *Human Values*, 151.

offered the young female high school graduate an apprenticeship. In Waite's office Louise was exposed to prestigious large-budget projects that afforded her training in the latest technical advances and artistic embellishments. Also, in Waite's office she met her future husband, Robert Bethune, who was one of Waite's draftsmen.

Louise must have impressed Waite to have been offered the opportunity of apprenticeship—perhaps he recognized her ambition. Waite's own journey to professional success had not been an easy one. He had come to Buffalo from England as a boy. After the deaths of his parents he went to New York, seeking training as an engineer. In New York, Waite apprenticed with John Ericsson, designer of the ironclad U.S.S. *Monitor*, but found that architecture interested him more.

Waite then entered John Kellum's architectural office as a draftsman, where he trained with one of the most prestigious practitioners of the day. Waite probably worked on the Mutual Life Building, the Tiffany Building, and the Working Women's Hotel, as well as the New York County Courthouse; it is not known how many draftsmen Kellum used for these complex projects.³⁵ Kellum's New York County Courthouse was the \$5,000,000 project that ended "Boss" William M. Tweed's political career, although Waite had finished his apprenticeship and returned to Buffalo in 1868 before those events reached their notorious conclusion.

Waite had become a celebrity in Buffalo when he beat out H. H. Richardson in a competition for the Christ Church commission in 1872. Although the church was not

³⁵ Deborah S. Gardner, "The Architecture of Commercial Capitalism: John Kellum and the Development of New York, 1840-1875" (Ph. D. diss., Columbia University, 1979), 420-425. The Mutual Life Building is not the one in the television commercial, which was done by Cass Gilbert in 1928. Kellum maintained his practice from 1859 to his death in 1871.

built until over a decade later, Waite was established as a local architect able to prevail over Boston's Richardson, who had just gotten the largest commission in Buffalo history—the Buffalo State Hospital with landscaping by Frederick Law Olmsted.³⁶

In 1876, when he offered nineteen-year-old Louise an apprenticeship, Waite was just twenty-seven and was completing construction of the George L. Williams house, now the Mark Twain Museum, at 249 North Street. Waite's design for the City and County Hall had been front-page news in the *Commercial Advertiser* as the design that should have been used and he had just finished the monumental German Insurance Building, a six-story cut stone Romanesque structure with a complex cast iron decorative façade that was his mentor's trademark. The building combined Richardson monumentality and Kellum's decorative cast iron detailing.

In 1920, the building was noted as an example of Buffalo's commitment to modern steel construction principles and enduring aesthetic excellence.³⁷ The German Insurance Company would prove the most stable financial institution in Buffalo and was the preferred business address for architects until Burnham's Ellicott Square Building was opened in 1896. The building remained a landmark on Lafayette Square until 1957 when it was demolished during "enlightened" urban renewal, which also eliminated Frank Lloyd Wright's Larkin Building and threatened Sullivan's Guaranty Building.

³⁶ Martin Wachadlo and Christopher Brown, "Richard A. Waite: A Forgotten Master," *Western New York Heritage* 6 (Winter 2004), 5-6. In 1870, Buffalo lawyer William Dorsheimer brought Richardson to Buffalo to design the eleven-building asylum complex on 200 acres following the Kirkbride plan of asylum design. This project was Richardson's largest and longest—it was completed in 1896, nine years after his death. The main building is being restored at this time. Dorsheimer also brought Olmsted to Buffalo to do the city plan.

³⁷ *Buffalo: America's Gateway To and From the Great North West: 1920 Year Book of Industrial, Commercial, Financial, Educational, Civic Buffalo* (Buffalo: J. W. Clement Company, 1920), 53.

Among the first projects Louise worked on in Waite's office was a \$125,000 grand hotel for "tourists and invalids" with more than 250 rooms situated on Prospect Park overlooking Lake Erie. When it opened in 1878 after two years of construction, the six-story "fireproof" hotel had the first telephone and the first elevator in Buffalo. Cast iron porches and balconies gave a bon vivant gaiety to the Second Empire styled structure. Waite played down the extensive mansard roof he had used on the German Insurance Building to highlight the offset steeple with an observation deck 126 feet above the ground.

Elegant and commanding, the building was the ambitious gem in the crown of Buffalo's most successful businessman, Dr. Ray Vaughn Pierce. Pierce had made his fortune with mail-order elixirs that were popular throughout the United States, Canada, and England. His success began with "Dr. Pierce's Favorite Prescription," for women's ailments; his "prescriptions," like other mail-order medicines of the day, included harmless concoctions and not so harmless opium solutions. Pierce was a New York state senator and a United States congressman who, not surprisingly, fought against government regulation of consumer goods.³⁸

Waite was the obvious choice for Pierce's resort-clinic, because he practiced the latest style, which distinguished itself from the more traditional styles of the competing architects of the decade who did either utilitarian structures or austere neo-Classical compositions. Waite also used any opportunity to promote iron construction as

³⁸ Dick Hirsch, "The Emperor of Elixir: Buffalo's Most Famous Doctor," *The Heritage Magazine* 6 (Summer 2004), 10; Wachadlo and Brown, "Waite," 7.

fireproofing technology, consistent with his training with Ericsson and Kellum.³⁹ Just as Louise was finishing her apprenticeship, the Pierce Palace Hotel burned down, something that happened to several of Waite's buildings, possibly because occupants took "fireproof" too literally.

The promise of a fireproof building was beginning to be a standard requirement of late-nineteenth-century buildings, but it was the airy effect of large glass windows broken only by delicately molded iron columns that drew clients to Waite-designed buildings:

Mr. Waite, having a proper knowledge of the laws of form and the lines of beauty, may be depended upon to always erect structures of symmetry and magnificence. He does more than this by attending to the laws of health and hygiene, and it will be noticed that all of the buildings erected in accordance with his plans are light, well ventilated, and well drained from cellar to roof. He is devoted to his art, and has done much to increase the adornment and substantial value of the city.⁴⁰

The next project Louise worked on was a large, five-story commercial building on Main Street for William Glenny's Crockery and Glassware Emporium. The Emporium featured large plate glass windows set in a decorative painted iron façade, which brought New York City cosmopolitan elegance to the pragmatic Buffalo commercial district. Waite learned the style while working for Kellum in New York; dry goods magnate A. J. Stewart selected Kellum to create the first American example of the open-space retail store, and Waite brought the concept to Buffalo. The large storefront windows and central glass skylight filled the space with natural light and became the standard in

³⁹ Gardner, "Kellum," 414.

⁴⁰ Richard Edwards, ed., *New York's Great Industries* (New York: Arno Press, 1884, 1973), 81.

elegant shopping for a hundred years. The building still exists, the last cast iron front building in Buffalo, at 257 Main St.⁴¹

In 1879, Waite began his Canadian career with several commercial structures in Toronto. One building was the *Mail* newspaper's Toronto office, which opened in 1880 at the corner of Bay and King streets. Waite's "skyscraper" was well received and he was asked to be a juror in the competition to design the Ontario Legislative Building. When funds were finally available in 1885, Waite, who in the meantime had designed the impressive cut stone Canada Life Assurance Building in Hamilton, Ontario, was invited to reevaluate the designs. He found the entries under consideration defective in heating, ventilation, and lighting, and the project was turned over to him by the Commissioner of Public Works, causing outrage among Canadian architects.⁴²

During Waite's absences to supervise his Canadian buildings, Louise had the opportunity to assume more responsibility in his Buffalo office. She worked on the office building for the *Commercial Advertiser* newspaper, the Genesee Hotel (both \$150,000 projects), additions to Waite's own home, and the drafting for P. S. 31.⁴³ When she left his office to open her own practice, Waite was preparing to start the Canada Life Assurance commission.

⁴¹ Gardner, "Kellum," 57-60. The original A. J. Stewart store, not by Kellum, had 7-by-11-foot panes of glass imported from France because that size of glass was not manufactured in the United States in 1846; Thomas J. Schlereth, *Victorian America: Transformations in Everyday Life, 1876-1915* (New York: Harper Collins, 1991), 146-147. Stewart founded his merchandizing innovations on an elegant building with light-filled spaces inspired by Bon Marche in Paris and "Ladies Parlors."

⁴² Wachadlo, "Waite," 12; and "Centennial of the Ontario Legislative Building" (Ontario, 1993), np; from the Special Collections vertical file, Buffalo and Erie County Library. Waite is most known for his Richardson Romanesque Ontario Parliament Building (1886-1892); and "Building Intelligence," *The Inland Architect and Builder* 2 (August, 1883). The completed building of Connecticut brown stone, with "semi-Gothic" roof and turrets at the four corners—one turret being a clock tower—was hailed as elegant and "as a whole, this interior has no equal in Canada."

⁴³ Martin Wachadlo, "Richard A. Waite (1848-1911), Architect, Buffalo, NY," Special Collections, Buffalo and Erie County Public Library, 1996, np.

Between 1876 and 1881, Louise not only learned the practice of architecture from Waite, but established relationships in the community that would serve as the foundation for her own practice after 1881. Her 1893 biography says, “In 1876, she received an offer of an office position as draughtsman and relinquished her former intention of college study. The hours were from eight to six, and the pay was small, but her employer’s library was at her service.”⁴⁴

She learned from Waite’s expertise in public works done in the early years of his practice; among them the Main Police Station and some of the first district stations, schools, firehouses, and the waterworks plant. According to his biographer Martin Wachadlo, many thought Waite got these commissions because he had married the daughter of the city contractor, Isaac Holloway. True or not, when his wife Sarah died in 1901, his practice suffered and in 1905 he sold his home and left Buffalo.⁴⁵

After leaving Waite’s firm, Louise opened her practice, at 531 Main Street, with the secured capital of half interest in her mother’s Porter Avenue lot in the prestigious “Circle” residential neighborhood of North Buffalo.⁴⁶ Louise had learned all aspects of running an architectural practice while serving as Waite’s assistant and probably had some commissions in hand when she decided the timing for launching her own firm. She also had the assistance of an experienced draftsman from Waite’s firm, Robert Armour Bethune, who became her husband on December 10, 1881, shortly after the firm opened.

⁴⁴ Willard, *Woman of the Century*, 81.

⁴⁵ Wachadlo, “Waite,” 6, 15-16.

⁴⁶ Blanchard genealogy; <http://homepages.rootsweb.com/~blanch-1/GeoB/ff93076.html> (accessed February 3, 2006). Noted was the property transfer November 1, 1881; Block 109 (604-6302), Porter Avenue and a second lot bought by Blanchard from her mother March 26, 1891, the year her father died.

Robert Bethune was a Canadian who had entered the United States in 1865. He received his education in the Detroit public schools and apprenticed with architect Gordon W. Lloyd from 1873 to 1876, and for a short time with architect L. A. Pratt in Bay City, Michigan. Apprenticing with Lloyd, an eminent English-born architect who trained for architecture at the Royal Academy, gave Bethune a classical architecture education with a strong focus on masonry construction. Lloyd was prominent throughout the Midwest for his Gothic and Romanesque revival churches and is noted as an early supporter of Tiffany's new line of stained glass windows in the 1870s.⁴⁷

When Bethune moved to Buffalo in 1878-1879 and entered Waite's office, Louise was already employed there. In 1879, he worked briefly for Morrison, Field and Company on the Niagara railroad suspension bridge and then returned to Waite's employ in 1880. The 1880 census shows Bethune living in the same house as the Blanchard family at 325 Porter Ave. (In 1879, Louise's mother Emma bought three pieces of property in this block of Porter, and the house is shown as the residence of the Blanchards, Emma's older sister Mrs. Lawrence, Robert Bethune as architect, and sixteen-year-old Minna Mier as "servant.")⁴⁸

In October 1881, Emma transferred to her daughter half interest in one of the properties presumably to finance opening the office at 531 Main Street. On December 10, 1881, Robert Bethune and Louise Blanchard were married.⁴⁹ Their architectural practice was a legal partnership; Louise had a formal document drawn up when her

⁴⁷ "The Architecture of Gordon W. Lloyd," <http://www.geocities.com/SoHo/Workshop/1885/lloyd/> (accessed February 4, 2006).

⁴⁸ United States Census Report 1880, schedule 1, 193. It would appear Emma's widowed sister came to live with them and her assets or a combination of assets allowed the purchase of these properties.

⁴⁹ *National Cyclopaedia of American Biography* (New York: James T. White, 1904) 8-9.

husband became a partner and when Will Fuchs joined the firm. In self-description and on paper, the new Mrs. Bethune was a progressive businesswoman whose business was creating architecture.⁵⁰

In the description of Bethune's practice in 1893, the division of work in her office is clear; she took "entire charge of the office work, and complete superintendence of one-third of the outside work."⁵¹ Bethune apparently had a strong business sense and was meticulous about the legal and accounting paperwork, which would account for her success in organizing the Buffalo and Western New York chapters of the AIA. In the 1880s, there were no standard contracts, materials forms, or labor contracts. Most agreements between client and architect and between architect and contractor were done on a handshake, but the age of such honor-bound business deals was rapidly coming to an end, and Bethune took these details quite seriously.

Bethune's success as a woman who became one of the most respected architects in a major American city would possibly not intrigue us as much if she had been, as she believed at the time, simply the first of many successful women architects to fill the professional ranks. In her 1891 address to the young working women of Buffalo, she enumerated in detail all the women connected to the architecture profession over the preceding decade and those studying in the various architectural programs and their success or lack thereof. From this we know she communicated with other members of the profession specifically on this subject. In her address, she expressed hope that educational opportunities were improving, even suggesting that Ecole des Beaux Arts

⁵⁰ Barbasch, "AIA Accepts," 22; from Bethune's will; and Bethune, "Women and Architecture," 20.

⁵¹ "Some Distinguished Women in Buffalo," *American Women's Illustrated* 29 (October 7, 1893) SPC Scrapbook, Ser. 29, p. 326.

training might soon be available to female students, which happened when Julia Morgan prevailed and broke this barrier in 1898.⁵²

Optimism, self-confidence, and faith in the future characterized Bethune's message to the young working women, as well as the example before them of her own success in a still predominantly male professional world. She stressed the importance of determined hard work to achieve a woman's desired goal. But other successful women in the field remained few in numbers. Shortly after her death in 1913, the almost complete absence of women following her footsteps into the profession caused an editor at *The Western Architect* to question in print why this was the case:

This absence of woman practitioners is neither logical nor seemingly necessary . . . There has been one exception, however that should prove the rule. For more years than we like to mention, until her death some months ago, Louise Bethune practiced architecture in and around Buffalo, where some of the most notable structures in that city are monuments to her ability as an architect and superintendent. She was a member of the American Institute of Architects, and competed with other architects on equal ground and with success.⁵³

Indeed she did. She constructed an architectural practice more financially sound and varied in its output than almost any other in Buffalo. What Bethune accomplished was not the result of the WAA or the AIA accepting her into the brotherhood. Rather, what she accomplished made it possible for those professional associates to accept her.

⁵² Sara Holmes Boutelle, "An Elusive Pioneer: Tracing the Work of Julia Morgan," in Berkeley, *Place for Women*, 115, fn 2. It took two years in France and three attempts at the exam (given in French), but Morgan passed, entered, and completed the course in 1902.

⁵³ "Feminism and Architecture," editorial, *The Western Architect* 20 (April 1914), 33.

CHAPTER 3

RATIONAL FOUNDATIONS: ESTABLISHING THE PRACTICE

[We] are beginning to feel the necessity for basing all our work on rational foundations, for taking as our guide intelligent, cultivated thought, not apathy or impulse, not mere vague artistic aspirations nor a merely formal adherence to the examples of some other age.

—Mariana Van Rensselaer, 1888¹

Versatility was the distinguishing attribute of the nineteenth-century architect.

Beginning with her apprenticeship in Waite's office, Bethune worked on small remodeling projects and modest homes, as well as the technically innovative and expensive government and private buildings that had made Waite famous. Bethune was well trained for the challenge presented by a variety of building types, and it is clear from her refusal to accept the title of school building specialist that she enjoyed the challenge.

During her career, Bethune designed at least nine public schools, seven for Buffalo, which established design standards for Buffalo's school buildings. Bethune designed half of the city's new police stations when the police department decentralized into the neighborhoods, an armory building that served multiple functions for the community for over a half century, one of the country's first settlement houses, buildings for a penitentiary and a hospital, an electric power station, and one of the first hotels with running water and telephones in every room. Each of these architectural

¹ Van Rensselaer, *Richardson*, v-vi.

accomplishments represented a new building type in the last quarter of the nineteenth century.²

Expanding populations, the effect of new industries, and the demands for sanitary plumbing and central heating increased the number of new buildings as well as the types of new buildings. Even traditional buildings like homes, offices, shops, and factories underwent major architectural changes.³ Social and economic realities transformed by a dynamic marketplace provided opportunities for competent and intelligent analysis of traditional architectural form and provided new solutions to old forms.⁴

But above all, architects needed to survive financially as architecture shifted from an avocation of prosperous gentlemen to a profession requiring training and fiscal accountability. America's first professionally trained architect, Benjamin Henry Latrobe, had declared bankruptcy in 1817, after a career as a peripatetic architect and engineer moving from city to city and job to job.⁵ But by the time Bethune apprenticed, in 1876, the expanding industrial economy seemed ready for well-trained professionals, and Richard Waite, whether as a friend of the family or a friend of opportunity for women,

² Robert M. Fogelson, *America's Armories: Architecture, Society, and Public Order* (Cambridge: Harvard University Press, 1989), 151. Also see, Jon C. Teaford, *The Unheralded Triumph: City Government in America, 1870-1900* (Baltimore: The Johns Hopkins University Press, 1984), 251-282.

³ Henry Van Brunt, "On the Present Condition and Prospects of Architecture," in William A. Coles, ed., *Architecture and Society: Selected Essays of Henry Van Brunt* (Cambridge: The Belknap Press of Harvard University Press, 1969), 165. Also see Lindy Biggs, *The Rational Factory: Architecture, Technology, and Work in America's Age of Mass Production* (Baltimore: The Johns Hopkins University Press, 1996) and Betsy Hunter Bradley, *The Works: The Industrial Architecture of the United States* (New York: Oxford University Press, 1999).

⁴ M. G. Van Rensselaer, "American Country Dwellings. I," *The Century Magazine* 32 (May 1886) 3.

⁵ Woods, *Craft*, 25; Woods documents Latrobe's architectural business failings, seen as arrogance and spendthrift, in the American marketplace and the resulting negative public image for architects, which to some degree endures.

gave Bethune the chance to prove she was capable and suited to the profession.⁶ When Bethune opened her office in late 1881, she was professionally prepared for the architectural marketplace.

What may be most remarkable was Bethune's success competing with other architects in the professional architectural business.⁷ Bethune publicly emphasized her identity as a "businesswoman," making the distinction for her audience at the Women's Educational and Industrial Union (WEIU) that architecture was not an avocation, but a business.⁸ In the first two years, her firm completed at least \$105,000 in buildings.⁹ By the end of 1885, the firm had received more than \$300,000 in commissions. At the customary rate of 5 percent, this represented \$5,000 per year in fees, making hers by the profession's own definition a successful firm. *The Architectural Era* estimated that only five architects in each major city earned \$5,000 per year.¹⁰

In 1897, prominent architecture critic Montgomery Schuyler pointed to the difficulty architects had maintaining enough work. An architect, he said, had to "spend most of his time in looking out for profitable work. If you pardon the vulgar expression,

⁶ Woods, *Craft*, 36, 70-71, 98, 167. Office training was "regular education" for AIA architects from the mid-1850s to well into the twentieth century, and most university programs required it.

⁷ Catherine E. Kelly, *In the New England Fashion: Reshaping Women's Lives in the Nineteenth Century* (Ithaca: Cornell University Press, 1999), 15. The professional woman in the nineteenth century was such a small subgroup of women workers that even a concerted search does not uncover the numbers needed for a "class." Kelly, in discussing women's volunteer groups notes the lack of an "autonomous social space," 203. In anthologies of nineteenth-century women, such as, Blair's *The Torchbearers* or Miller's *Reclaiming the Past*, women architects as a "group" are mentioned far more than women businesspersons—rather amazing when one thinks about it. Woods's scholarship stresses the marketplace aspect of architecture as opposed to the state support of the profession in Europe.

⁸ Bethune, "Women and Architecture," 21; Masten, "Work of Art," 2. "Avocation" covers the common occurrence of businessmen, politicians, and elite men and women declaring themselves the "architect" of some project or proposed project; Buffalo's mayor Beebe is an example. Also, see the WAA discussion in chapter six over the definition of architect.

⁹ Based on the published work budgets.

¹⁰ Editorial, "The Century Speaks a Good Word for the Architect," *The Architectural Era* 3 (February 1889), 33-34. This is in line with the survey John Randall did of numbers and output of architects in Buffalo; *Human Values*, 151.

he must ‘hustle for a living.’” After listing the competing needs for the architect’s time, Schuyler suggested that there was no time to design, which was why so many architects turned to the “classic formulas, the greatest labor saving devices of which the history of architecture gives any account.”¹¹ It is difficult to imagine that Bethune chose architecture because she aspired to become a wealthy woman; but since her alternative was to be a five-hundred-dollar-a-year teacher, even modest success would exceed that mark.

Gail Hamilton (Mary Abigail Dodge), a popular essayist in *National Era*, discussed the employment options available to women and suggested school teaching was a socially accepted choice that was not an acceptable way of life. She argued repeatedly for the dignity of choosing a profession and the responsibility of parents—fathers in particular—to support this path above the culture’s norm of seeking a suitable husband for one’s daughters. Like Bethune in her speech, Hamilton stressed that “determination” was critical to successfully entering a profession and used medicine as an example of a field where determined women were successful.¹²

Bethune’s apprenticeship in Waite’s office taught her not only that a living could be made in architecture, but also that success demanded an understanding of the latest technologies of heating, ventilation, and sanitary engineering. In the 1870s, these improvements were conveniences for the wealthy; by the 1880s, the professional literature provided survey after survey that health issues for the whole community could be improved dramatically by simply providing clean water and efficient waste removal.

¹¹ William H. Jordy and Ralph Coe, *American Architecture and Other Writings, by Montgomery Schuyler* (Cambridge: The Belknap Press of Harvard University Press, 1961), vol. 1, 80.

¹² Hamilton, *New Atmosphere*, 30-33.

Clean water was in fact a revolution in architecture and urban planning that raised life expectancy from thirty-eight years to fifty-six years. Most of this revolution occurred in the last quarter of the nineteenth century under the exigency of public pressure on city governments. In the home, school, and hospital proper indoor plumbing was not a vanity but a necessity and architects as well as the civic leaders could hardly afford to ignore these issues.¹³

This was a dynamic period in the technological aspect of architecture and one question we ask from our perspective, knowing how few women architects there have been until recently, is who were Bethune's initial clients and how did she get the opportunity to prove herself in this difficult and male-dominated profession? The second question is that because there were no building requirements to use architects (codes or required permits), who employed architects?

When Bethune opened her practice, Buffalo was not that dissimilar from other large American cities affected by industrial and technological change. After the opening of the Erie Canal in 1825, Buffalo doubled its population every decade, in spite of frequent economic depressions. Immigration was part of this increase, which muted the dominance of New England Protestant culture found in other eastern cities.¹⁴ Regional migrants from farms in upstate New York were an important element of the population increase throughout the century, and many of Buffalo's business community were from the farms of central New York, as was Bethune's family.

¹³ Smith, *History*, 148.

¹⁴ Gerber, *Pluralism*, 174-177.

The cultural influence of the German community persisted throughout the nineteenth century and played a financial role through its building societies.¹⁵ Buffalo also tended to keep its workers by providing good schools, parks, and decent work places. This ran counter to what historian Raymond Mohl calls in-out migration, which he estimated as 60 percent of the workers moving into cities and then leaving them to seek opportunities in another city to be replaced by other (less skilled) workers. This movement did not change the overall population, but did add to the turmoil and temporality of the urban environment.¹⁶

The new population mix, new industries, new commercial opportunities, and new concerns for health also generated new opportunities for architects. New tastes in buildings and new social patterns contributed to the vocabulary of urban life, producing its own eclecticism and individuality. Public commissions such as schools, police stations, fire stations, and private structures such as stores, theaters, hotels, and factories all broadened the possibilities for architecture. But the doubling of population each decade also brought serious health issues to the public's attention.

A dramatic example was the 1849 cholera epidemic that sickened more than 3,000 inhabitants and killed at least 900 in a period of weeks. Because the large number of deaths strained existing facilities, the 240-acre Forest Lawn Cemetery was created five miles north of downtown in an undeveloped portion of the city, which soon became a

¹⁵ Mark Goldman, *High Hopes*, 104. Virginia Yans-McLaughlin, *Family and Community: Italian Immigrants in Buffalo, 1880-1930* (Urbana: University of Illinois, 1982) 36-37, made the case for the heavy immigrant population of Buffalo, but even the immigrant influx after 1880 failed to supersede the existing base of German, Irish, and Polish nationalities. In 1876, Buffalo elected its first in a long line of German mayors. In 1900, the Italian population was 6,000, a definite minority plagued by its transient character.

¹⁶ Raymond A. Mohl, *The New City: Urban America in the Industrial Age, 1860-1920* (Arlington Heights, Illinois: Harlan Davidson Inc., 1985), 8, 25.

rural retreat from the urban center. So many people flocked there that by 1856 tickets were sold to control the crowds.¹⁷

Awareness of the deadly aspects of the urban environment and the public response to the opportunity to utilize a cemetery as a recreational park caused civic leaders to discuss seriously establishing urban parks. To do so, the city first had to incorporate boundaries in 1853; then it had to survive the financial panic of 1857 and the economic disruptions of the Civil War.¹⁸

In 1868, prominent liberal Republican lawyer William Dorsheimer, convinced of the visionary parks approach to urban environments, brought Frederick Law Olmsted to Buffalo to discuss the city's future. The cost of Olmsted's Central Park in New York City was still being debated publicly, but Dorsheimer had faith in Olmsted's vision of an amenable urban environment as a guarantee of continued economic growth, consequent prosperity, and public well-being. With the support of a citizen's committee, Dorsheimer engaged Olmsted to study Buffalo and devise a comprehensive city plan.

Olmsted's presentation to the Citizens' Committee, along with the promise of the benefits of "refreshment, recreation and health to the people," included a fairly negative summation of the city. Olmsted characterized Buffalo as cut off by the lake, railroads, rivers, and canals, precluding any reasonable opportunity for its residents to escape to "rural quiet." Because land could not be carved out of the already densely developed downtown area except at extraordinary expense, Olmsted suggested that Buffalo acquire

¹⁷ Gerber, "Germans," 52.

¹⁸ Smith, *History*, 121; and Scott A. Carson, "Frederick Law Olmsted and the Buffalo Park and Parkway Systems: A Study of the Planning and Design Responses to 19th century Urban Growth, and Changing Needs and Values of the 20th century" (M.L.A. thesis, State University of New York, Syracuse, 1993), 60.

areas in the northern portion of the city where land was affordable and almost nothing had yet been built. Probably influenced by his experience in New York City, Olmsted drew attention to the long development time for parks and suggested ways to avoid unnecessary expense.¹⁹

Bethune's family had recently moved to Buffalo when Olmsted's plan was presented and debated publicly. Olmsted articulated the northward development of Buffalo by designating neighborhoods, streets, and lot sizes. Bethune's mother acquired three lots in the undeveloped area, one of which she transferred to her daughter when she opened her practice.²⁰ Like the business community deciding on the merits of the Olmsted plan, the Bethunes believed this investment would bring future economic rewards.

Stressing the need to fund long-term maintenance, Olmsted warned that the rewards would not be immediate.²¹ This ambitious park plan brought awareness of the importance of planning and design as tools for future prosperity. Although he would share design of the buildings and bridges for the parks with Calvert Vaux, everything about Olmsted's plan brought validation to the practice of architecture and the benefits of planning, creating a positive atmosphere for Bethune and other architects in the decades that followed.

¹⁹ Ian R. Stewart, "Politics and the Park," in Neil Larry Shumsky, ed., *The Physical City: Public Space and the Infrastructure* (New York: Garland Publishing, Inc., 1996), 138-142.

²⁰ Erie County deeds, 1879, 1881; <http://homepages.rootsweb.com/~blanch-1/GeoB/ff93076.html> (accessed February 3, 2006). It is not clear if these lots were previously purchased or inherited.

²¹ Carson, "Frederick Law Olmsted," Appendix A, 260; Olmsted arrived in Buffalo to study the city for a possible park site on August 16, 1868—three weeks after his invitation from Dorsheimer—then went on to Chicago for a presentation there and returned to Buffalo prepared for a full presentation to the Citizens' Committee and the press on August 25. By May 1870, the state law to permit the bond issue and the project timetable were in place.

Heeding Olmsted's warning that current taxpayers might not respond well to paying for future benefits, the city decided to place more of the financial responsibility on the areas most directly affected by the park. In April 1869, the city passed the Olmsted, Vaux and Co. Act to fund the selection, location, maintenance, and embellishment of parks, through general taxation and \$500,000 in bonds. A Board of Commissioners was formed by November, and work began on the first \$300,000 of land and buildings in September 1870. To ensure public support for the project the city made certain that by the following summer a few areas of the park were accessible to the public.²²

As in New York City, Olmsted proposed a large park that anticipated the future expansion of the city, but the Buffalo plan also included small parks around the rest of the city as available land allowed. An innovative aspect of Olmsted's plan was the incorporation of parkways to connect the two major population areas with the park. The incorporation of a citywide traffic circulation plan as part of the park system that included areas of future development followed Baron Haussmann's restructuring of Paris, but was untried in America.²³

Children's playgrounds and the focal-point pond areas were the first areas developed in order to garner the maximum public support for the park during the ten years of construction. In 1879, a trolley line connected downtown Buffalo to these important pedestrian areas of the park. During the decade of construction, which included the depression of 1877-1878, the park project supplied jobs for unskilled

²² Smith, *History*, 487-501. Smith gave a complete account including Olmsted's original proposal, budgets and details of improvements year by year up to 1883.

²³ Francis R. Kowsky, "Municipal Parks and City Planning: Frederick Law Olmsted's Buffalo Park and Parkway System," *Journal of the Society of Architectural Historians* 46 (March 1987), 49-64. Kowsky treats the Buffalo park system in the Second Empire and English park context.

laborers, and the absence of financial scandals ensured continued support by the business community for the bond issues.²⁴

Judicious planning and the financially responsible supervision of the parks by business leaders meant that Buffalo approached the 1880s with confidence in its leadership. The lack of scandal is probably responsible for an almost complete lack of notice in the literature of this magnificent aggregation of landscaped public lands—the 1873 rejection of Olmsted’s Tacoma plan has been far better documented.²⁵ Even Mark Twain, an editor of the *Buffalo Express* from August 1869 to the end of 1870, never mentioned the park plan, the city’s vision, or challenged the wisdom of buying the barren land for future beautification. The decade-long park project, like Dorsheimer’s other civic endeavor—H. H. Richardson’s State Insane Asylum—never deviated from its original plan. When the park system was finished in 1900, Buffalo had more than 1,000 acres of developed park lands with recreation structures, ponds, sports fields, and parkways at a cost of just under five million dollars.²⁶

Bethune’s clients were largely from the city’s progressive business class—the long-range planners and involved citizen caretakers of their city. These men had built their businesses from virtually nothing and had survived economic and physical disasters

²⁴ Carson, “Frederick Law Olmsted,” 141-160. In 1890, the city called on Olmsted again to plan three parks for the southeastern region of the city, Cazenovia, South, and Red Jacket parks. A boating pond, botanical garden, and a large conservatory building (designed by Daniel Burnham) were constructed, and by the end of the decade Buffalo had 300 additional acres of parks with access parkways designed by Olmsted.

²⁵ Norman J. Johnson, “The Frederick Law Olmsted Plan for Tacoma,” in Shumsky, *Physical City*, 101-108.

²⁶ Carson, “Frederick Law Olmsted,” 141-160. Unfortunately, in the mid-twentieth century Buffalo would become famous for destroying most of the downtown’s nineteenth-century heritage and Frank Lloyd Wright’s most innovative structure. Wright’s Larkin Building, 1904-1905, was the administrative office building for one of the country’s largest mail order businesses designed on an atrium plan of tiers commonly used now in hotel and office buildings. Wright’s tiers were open floors flooded with light from the core’s skylight and the environment was completely controlled—cooling, heating, and ventilation.

through creative diversification of their products and services.²⁷ The Buffalo business community had literally created the city with its determined support of the Erie Canal and individual investment in harbor improvements; it was completely confident of the benefits of planning and financial commitment.

How did Bethune get support from some of Buffalo's most respected and wealthy citizens—Charles Bingham, Richard Noye, Spenser Kellogg, David Bennett, and Samuel Fields—the steel and grain merchants who had made Buffalo a major American city? Several possibilities come to mind. One was her family connection to the public school system through her father who was a principal in the system since 1873, another was that the Bethunes shared with the city leaders a common background of rural upstate New York, and finally there was her work as an apprentice to Waite, the most respected architect in Buffalo.

Bethune's new practice may have taken over some of the public work from Waite's office. He was engaged in projects in Canada when she started her practice, and in early 1881, his office was designing P.S. 31. As his assistant Bethune may have garnered some of the small renovations of school buildings that were in progress all over Buffalo at that time.²⁸ In 1883, Bethune received her first substantial school commission, which suggests she must have done some preliminary work to meet with the favor of Buffalo's business community and the clients Bethune garnered in the opening years of

²⁷ Many examples can be found in any city directory of the 1870s and 1880s; the more familiar example would be the Pierce Arrow automotive firm, which started by dabbling in iron manufactures including birdcages, refrigerators, and toilet fixtures; Smith, "Biographies," *History*, 6.

²⁸ Wachadlo, "Waite, buildings," np.

her practice—the older progressive members of the business community—were the school system’s supporters.

Many of the business community were millionaires, but few of them built personal residences beyond the most modest homes. William Tyler, Carl and William Lautz, Abner Cutler, and Roger W. Graves demonstrated the penchant for the nineteenth-century self-made man to keep a modest profile and invest capital in his business and not the home. With each decade bringing a serious financial crisis, these survivors were clearly not anxious to invest heavily in their homes. But it appears that the rural ambiance of the northern sections of Buffalo and new water supplies, a trunk sewer line, and gas lines convinced them to build new homes.²⁹ For Bethune’s millionaire clients, a new home did not mean a lavish “Gilded Age” home.

The builders of Buffalo’s commercial and industrial wealth and the wives who had achieved this new status were apparently not willing to accept the additional responsibility of large mansions and the requisite staff. In Buffalo, the generational shift of business founders to sons controlling the company appears to begin its transition in the 1880s, but lavish fin-de-siecle expenditures in personal residences were still in the future.

Bethune’s skills and experience met the demands of this clientele for straightforward commodious homes as did her expertise with effective indoor plumbing and central heating in her school commissions. The visibility of Bethune’s firm before the city commissioners, the Common Council, and her success in handling the

²⁹ Sam B. Warner, Jr., *Streetcar Suburbs: The Process of Growth in Boston, 1870-1900* (Cambridge: Harvard University Press and the MIT Press, 1962), 29. Until the 1870s a mixture of municipal and private agencies supplied water, sewer, and rubbish removal. As the organization of these services improved, development into new urban areas proceeded.

modernized schools and police stations while keeping them within budget gave her firm a reputation for honest reliability. That many of her clients were from the same rural area of New York state where her family had settled after the American Revolution also helped. Grover Cleveland, for example, was raised in her father's hometown, where her grandfather was justice of the peace and Cleveland's father was a minister.³⁰

Historically, the Buffalo business community was committed to managed planning and achievable goals. After the financial panic of 1857, they understood that Buffalo needed to embrace manufacturing to augment the "pass through" merchant economy and sent circulars across the country advertising the advantages of the city's low rents and clean water for new manufacturing enterprises. City merchants decided "the city needed permanent industrial interests that could stand independent of the fluctuations of commercial matters and their regular intermission in the winter seasons."³¹

The oldest and most financially powerful industry in the city was the transfer and processing of grain. The need to make the loading and unloading of grain more efficient led to a technological advance involving iron manufacturing. Joseph Dart, in 1842, built the first steam-powered bucket system for transferring grain from ships to the elevators, successfully expanding on what Oliver Evans began a half century earlier. While some grain wholesalers felt that "Irishmen's backs were the cheapest elevators," Dart's system unloaded an unprecedented 230,000 bushels of grain in 1843. As other entrepreneurs

³⁰ Francis J. Walter, "Grover Cleveland and Buffalo," (Buffalo: Buffalo and Erie County Historical Society, 1963, pamphlet), 2; Richard E. Welch, Jr., *The Presidencies of Grover Cleveland* (Lawrence: University of Kansas Press, 1988), 22. Cleveland grew up in Fayetteville until 1841.

³¹ Smith, *History*, 238.

followed Dart's lead, by 1882 more than 52 million bushels of grain moved through Buffalo, with a support industry of iron manufacturing supplying the machinery.³²

The growth in grain transfer, which required machines, produced exponential expansion in heavy manufacturing. After 1860, the machine manufacturing industry was worth just under \$400,000; by 1880 it was a \$40 million industry. John T. Noye pioneered the synergy of the grain transfer and machine manufacturing industries and his eldest son Richard was one of Bethune's first clients. Noye learned the milling trade as a young immigrant and built a small flour mill into a prosperous manufacturing firm of 350 employees. He was the first grain merchant to buy Chicago wheat and export it to Europe. In 1848, Noye sent \$3 million worth of grain and produce to Ireland during the famine before shifting his business in the 1850s from milling grain to the manufacture of flour milling equipment in a factory that took up a large industrial block near Lake Erie.³³

Noye's generosity during Ireland's famine set an example for Buffalo's business community of responsible civic behavior. His son Richard continued that work on the board of the Buffalo Female Academy, as librarian of the Buffalo Society of Natural Sciences, as treasurer of the Buffalo Fine Arts Academy, and as trustee of the Merchants' Exchange. In 1882, Richard was on the jury to select an architect for the new Merchants' Exchange Building.³⁴ The following year Richard gave one of the commissions for two houses to Bethune and the other to Joseph Lyman Silsbee, who became famous as one of

³² *Ibid.*, 215-216, 260; remark of a merchant who had tried horse power for his grain elevator.

³³ *Buffalo City Directory* 1869, 406. The factory was located between Lake View and Fourth Avenue, Jersey, and Pennsylvania streets with an office at 128 Washington Street, in downtown Buffalo; Smith, *History*, part 2, 61-62.

³⁴ Smith, *History*, 323, 541.

the architects Frank Lloyd Wright apprenticed with in Chicago. These were the first major residential commissions for both young architects.³⁵

Noye's two house commissions were near each other on "The Circle" (a European-style traffic circle) at the southern edge of the Olmsted planned neighborhoods. Bethune's design at 31-35 Richmond Avenue was for his brother's widow—his brother E. Hayward Noye had died in 1882. Still in existence, the Bethune-designed house is a two-and-a-half-story wood-frame structure that cost \$15,000 to build in 1883.³⁶ Noye's own house at 291 North Street is about the same size as the Bethune-designed home, but cost \$25,000 and was made of brick in the Romanesque-Richardson style.³⁷

Bethune's design is Queen Anne in its basic characteristics, but lacks the "gingerbread" often associated with the style. The front-facing gables and front porch protecting the main entrance are classic Queen Anne, as are the columns supporting the porch area. The asymmetric configuration and variety of shingle patterning on the exterior are typical of Queen Anne design. The right-hand exterior wall curves, suggesting the curved towers characteristic of Queen Anne structures, and the "Romanesque" windows on the ground floor relate it to other houses in the area—including Silsbee's main Noye house.³⁸

³⁵ This attribution has caused confusion because both houses were for Noye at the same time.

³⁶ Smith, *History*, part 2, 61-63; *Sanitary Engineer* 8 (August 30, 1883), 307; *1894 City of Buffalo Atlas* (New York: American Atlas Company, 1894), plate 26, http://www.erie.gov/atlas/buff_94/vol_1/html/city_atlas_1_t.html. (accessed June 20, 2007).

³⁷ *The Sanitary Engineer* 7 (January 25, 1883), 184. Until building these two homes, the Noyes lived downtown at 83 Mohawk, within a few blocks of the elder Noye's residential compound and office.

³⁸ Mark Girouard, *Life in the English Country House: A Social and Architectural History* (New Haven: Yale University Press, 1978), plate 118; Harleyford, Buckinghamshire, Sir Robert Taylor, 1755, shows a similar curved wall solution. Queen Anne as a style designation covers an unwieldy range of structures and derives its characteristics from 150 years of architecture, almost anything asymmetrical is called Queen Anne—Girouard does not use the term; Paul Kruty, *Frank Lloyd Wright and Midway Gardens* (Urbana: University of Illinois Press, 1998), 167. Silsbee left Buffalo for Chicago and became one of the most

At the same time Bethune received the Noye commission, she also received a commission to design a house for the lot next door to Noye's at 39 Richmond Avenue. This house was for William W. Tyler, a wholesale lumber dealer whose warehouse was downtown on Ganson in the loading docks area of Buffalo.³⁹ There was probably some connection between these side-by-side commissions. Although Tyler's was a more modest \$8,000 house, it was about the same size as the Noye house, indicating that the difference was in the interior finishing. Tyler's lot probably cost more than the house.

Noye may have noticed Bethune and Silsbee in connection to the commission for the Merchants' Exchange Board Building. According to historian H. Perry Smith, "every architect" in Buffalo—sixteen firms—competed for the \$150,000 commission, which was awarded to Milton E. Beebe, an architect who had lost to Grover Cleveland in the 1881 mayoral race.⁴⁰ It would be interesting to know if Bethune competed and if this event turned her against architectural competitions or possibly she drew attention by refusing to compete in what appeared to be a gift to the mayoral contest loser. This incident could have been the source or the confirmation of her principled stand against competitions.

This commission and other residences for Buffalo's wealthiest businessmen reflected the general tenor of an antebellum business class that chose well built homes of quiet dignity. Buffalo's cultural conservatism is illustrated by the local legend of the

famous practioners of American Queen Anne, but largely is remembered as the architect Wright worked for in 1887 before going to Adler and Sullivan.

³⁹ *Sanitary Engineer* 7 (February 15, 1883), 254; and *1894 Atlas*, Plate 35.

⁴⁰ *Sanitary Engineer* 8 (August 30, 1883), 307; Smith, *History*, 213-214; and *The Industries of Buffalo: A Resume of the Mercantile and Manufacturing Progress of the Queen City of the Lakes* (Buffalo: The Elstner Publishing Company, 1887), 30. Beebe's building ended up costing \$250,000. Another Bethune client, Edward B. Smith, was also a Merchants' Exchange Board trustee.

millionaire who complained he could not spend enough of his money in Buffalo and left for New York City where he could lavishly spend his fortune and the society there would appreciate it.⁴¹ Short of leaving Buffalo for more fashionable cities, Buffalo's wealthy could build homes in the rural ambiance of The Circle and Richmond Avenue district where the tree-lined unpaved streets provided a favored site for informal horse race competitions between the residents.

The Circle marked the beginning of the neighborhoods laid out by the Olmsted and Vaux plan of 1869, with Richmond and Delaware avenues as thoroughfares connecting the 121-acre "Water Park" to the west and the 234-acre "Meadow Park" to the east.⁴² With a few exceptions, all the homes Bethune designed were in these expanding northern neighborhoods. Bethune and other architects benefited from the residential expansion into the Olmsted-designed areas of northern Buffalo in the 1880s and multiple factors affected the area's growth, including new gas mains, improved trolley service, and a reorganized water system with a new network of reservoirs and sewers.⁴³ Historian Smith proudly declared that Buffalo in 1883 had 113 miles of paved roads, 27 miles of sewerage, and a "great trunk sewer." Fire protection included nineteen fire engines, a telegraph fire alarm system, and police protection included 230 peace officers.⁴⁴

Residentially, this expansion into the northern part of Buffalo was largely a middle and upper-class movement, but some industries were relocating on the northern edge of the city or in the old Black Rock district in the northwest section of the city as

⁴¹ Frederick J. Shepard, "The City of Buffalo," *New England Magazine* 14 (April 1893), 251.

⁴² Smith, *History*, 501.

⁴³ Carson, "Frederick Law Olmsted," 105.

⁴⁴ Smith, *History*, 147.

these same individuals saw benefits for their businesses. The trolley lines and new railroad network ended the necessity of locating industry in the downtown areas.

Building also continued in the southern portion of Buffalo, but the pollution of the Hamburg Canal continued to discourage substantial investment in the area.

Typically industrial development within the city shifted as industrialists financed their own technical advances, but city support was needed for water and sewer lines and at the end of the century, for low-cost electricity. Business and the public united behind the demands for clean water and a coordinated response to escalating sewerage deficiencies.⁴⁵ City politicians who addressed these issues were rewarded with popular support.

The promise to put professionals in charge of the public works made Buffalo lawyer and sheriff Grover Cleveland the surprise winner of the 1881 mayoral election. Cleveland's agenda included clean water, clean streets, and a clean canal.⁴⁶ Cleveland became an overnight hero by forcing the Common Council to move forward on a trunk sewer line, which was needed to save the Hamburg Canal from becoming a large open sewer. His success in Buffalo moved him swiftly to governor of New York and then president of the United States, one could say, on the strength of a sewer trunk line.⁴⁷

⁴⁵ Teaford, *Triumph*, 219-221; comparative charts for some major American and European cities.

⁴⁶ Welch, *Presidencies*, 24. Cleveland was a strong believer in engineers to solve the street cleaning and sewer problems in Buffalo, which was also a campaign against patronage awards. See also, H. Paul Jeffers, *An Honest President: The Life and Presidencies of Grover Cleveland* (New York: William Morrow, 2000), 47.

⁴⁷ Klein, *Empire State*, 484; Tindall, *Narrative History*, 550; and Smith's *History*, 130. Cleveland told the Common Council; "Your honorable body has quite enough to occupy your time in the ordinary matters of municipal affairs, which from week to week are urged upon your consideration; and our city engineer and his corps of assistants should be constantly employed in the city's affairs, which necessarily fall to his department." With logical fiat, Cleveland took the politics out of the project and broke the stalemate of opposing political forces, although Buffalo did not officially adopt the city commission plan until 1916; Mohl, *New City*, 119.

Industry and the propertied classes influenced the development of Buffalo, but nothing affected the city as much as its growth into the second largest terminal for railroads after Chicago. The expanding role of Buffalo as a railroad transportation crossroad was possibly most dramatic in the spring and summer of 1883 when construction of the Lackawanna Railroad destroyed most of the business district west of Main Street, isolating some neighborhoods and completely destroying others. This was an unforeseen result of Cleveland becoming governor, because he consolidated several railroads into the New York Central Railroad, which headquartered in Buffalo. The obliteration of much of the original industrial district marked the beginning of a building boom for Buffalo's architects.⁴⁸

The New York Central's terminals disrupted more than a third of the city and replaced most of Buffalo's east side along the Hamburg Canal, through the old Creek Indian Reservation and beyond the eastern border of the city. The web of rail lines in and out of the city created isolated sections of city that were extremely difficult for residents to move in and out of freely. Much of the politics of the 1890s centered on forcing the railroad to correct this situation; with twenty thousand railroad workers and thousands of support businesses in place the railroad had become an indispensable part of the economy. While during the national railroad strike of 1877 Buffalo had shut down rail transportation with a united front of working and middle-class support, by the end of the

⁴⁸ Lloyd Graham and Frank Severance, *The First Hundred Years of the Buffalo Chamber of Commerce* (Buffalo: Foster and Stewart Pub., 1945), 93.

century, Buffalo would no longer look favorably on industrial action against the railroads.⁴⁹

Many of Bethune's first clients were businessmen affected by the superimposition of the railroad terminus into the middle of the eastern industrial center. In 1883, Charles F. Bingham of Bingham and Morgan Foundry had Bethune build a \$7,000 wood frame residence on Seventh Street several blocks north of the industrial area where his father had built the original foundry in 1848.⁵⁰ This was a substantial home and probably housed a plant manager or head engineer given the location between the industrial area and Bingham's own exclusive address at the Saturn Club, 419 Delaware Avenue.⁵¹ Providing housing to employees was still an active tradition—almost all the public schools had a resident caretaker, for example.

Another Bethune client was Spenser Kellogg, who moved his young family and his share of the family business, started by his grandfather in Amsterdam, New York, to Buffalo, and had his company building and residence designed by Bethune. In 1885, she designed a \$15,000 three-story brick linseed oil factory, 40 by 150 feet, as well as Kellogg's residence at 211-15 Summer Street, just north of The Circle. The house was also a \$15,000 project and stands today as one of the outstanding pre-1900 houses in Buffalo—a large Queen Anne frame structure.⁵²

Kellogg owned grain elevators and was considered the largest manufacturer of linseed oil in the country. His son, Spenser Kellogg, Jr., had Green and Wicks design an

⁴⁹ Klein, *Empire State*, 454; and Carson, "Frederick Law Olmsted," 167. Buffalo had 600 miles of rail lines on 3,000 acres of land within the city limits.

⁵⁰ Originally the Clinton Iron Works at 157 Church Street.

⁵¹ *Sanitary Engineer* 8 (August 30, 1883), 307; *Buffalo City Directory 1886*.

⁵² *The American Architect and Building News* 17 (February 28, 1885), 107; *Inland Architect and Builder* 5 (June 1885) 79; Smith, *History*, 222.

elaborate Tudor Onondaga stone house at 128 Lincoln Parkway in 1913 where he established himself as a printer of rare books by importing the original William Morris hand book press and installing it in his studio.⁵³ This house is the classic Gilded Age property and illustrates that it is the fourth generation that has the wealth and freedom from building the business to enjoy self-indulgent spending.

Also in 1885, Bethune designed a large residence for Horatio G. Brooks in Dunkirk twenty miles west of Buffalo on Lake Erie. Brooks was chief engineer for the New York and Erie Railroad until he resigned in 1869 when the railroad moved from Dunkirk to Buffalo. Brooks then took over the Dunkirk facilities and established a steam locomotive plant there, rapidly getting production up to seven locomotives a month. The Brooks Locomotive Works employed 4,500 workers at its height in the 1920s and remained in business until 1962.⁵⁴

The Brooks home had similar height and proportions to the Kellogg house, but was made of brick and cost \$38,000, the most expensive Bethune-designed home I have found.⁵⁵ The austere, loosely characterized Queen Anne house was a centerpiece in the town in part because it was the most substantial structure besides the locomotive factory and because it was the home of the man who saved Dunkirk and its residents from

⁵³ “Spenser Kellogg and Sons, Inc., Observes 100th Anniversary,” *The Buffalo Times* (June 26, 1924), <http://freenet.buffalo.edu/bah/a/linc/128/128ext/index.html> (accessed June 27, 2006).

⁵⁴ “Building News,” *Inland Architect and Builder* 5 (June 1885), 79.

⁵⁵ Robert Bethune, Buffalo, New York, to Henry Lord Gay [Chicago], ALS, 9 November 1885, Microcopy 34, Reel Number 3, *Western Association of Architects* Record Group 800, Western Association of Architects, American Institute of Architects Archives, Washington, D. C.. This letter also mentions a building for General George S. Field and Edmund Hayes of the Cantilever Bridge Company, Niagara Falls, and projects for George Waterman, Albion retailer, Buffalo lawyer Arthur W. Hickman, and furniture magnate Abner Cutler. These and about a dozen other properties have not been specifically located and may be outside Buffalo or, more likely, were investment properties that the owner/builder never lived in, hence no city directory listing.

economic oblivion. Brooks served three terms as the town's mayor and built the house for his retirement.

In 1885, Bethune received her first two factory commissions, one from H. T. Koerner Typography for a \$22,000 factory, and one from Cosack and Company. Cosack announced its plan to move from temporary headquarters at 43-53 Swan Street to a new three-story brick factory at 94-100 Lake View Avenue on the west side of Buffalo. Cosack was nationally known for their popular engraving of President Lincoln's portrait and as official printers for all printing connected with the 1876 Philadelphia Centennial Exhibition, including the famous picture of the Corliss steam engine. The Cosack factory was one of the first factories forced to relocate by the consolidation of the New York Central Railroad in 1883.⁵⁶

Herman Cosack started his business in 1864 and joined with H. T. Koerner after the death of his partner Hugh M. Clay in 1880. Both Cosack and Koerner were "practical lithographers of commanding talent and skill," who personally superintended the operation of their plants. Another partner, Charles E. Hayes, ran the business department and the company branches in New York, Chicago, Philadelphia, Boston, and other cities.⁵⁷ The move of these two large lithography plants to new facilities far from their traditional downtown locations, "in the center of an immense open square," may have

⁵⁶ Smith, *History*, 265; Elstner, *Industries*, 95. The *Commercial Advertiser* was one of the endeavors of Cosack Lithography.

⁵⁷ Cosack listing, *Inland Architect and Builder* 5 (June 1885), 79; Koerner listing, *The American Architect and Building News* 17 (February 28, 1885), 107; and *Buffalo City Directory*, 1885. *The American Architect and Building News* listing for H. T. Koerner has the street with no other information, and the *Inland Architect and Builder* listing for Cosack listed the building as "underway." *1894 Atlas*: 264 x 60 feet with two wings extended the full width of the lot (99 feet).

been influenced by a fire at the *Commercial Advertiser*, Buffalo's largest newspaper, on December 21, 1882, which killed a fireman and cost a half million dollars in damages.⁵⁸

The building was on a grade, which allowed the largest press room in the country (70 x 200 feet and 40 feet high) to be accessible from Lake View Street and was "without a single post, partitions, belt, shaft, or pulley to obstruct the view or impede the movements of the employees." A 200-foot-tunnel accommodated all shafts and driving machines, the room had fourteen trusses on brick and stone abutments, and the presses were positioned in one direct line 147 feet long. At the back of the room were windows allowing a view of the lake, the Niagara River, and a proposed park. Under this room was the machinery to run the presses and the drying room, a 70 x 70 x 40-foot room with 14,000 feet of racks and a separate bindery room to keep the drying room free of contaminants. Below that and accessible from Fourth Street were the boilers "with Andrew Ritter's smoke consumer attached," presumably an early form of pollution control and an eighty-horsepower Rice automatic engine for the Weston incandescent electric light dynamo. The building was, by this contemporary report, the largest and most modern in the country and employed 200 workers at \$18,000 per week in salaries.⁵⁹

Built a few years after the much commended Pullman Palace Car Factory (1880), the Cosack factory had an open plan of extraordinary sophistication. Historian Betsy Hunter Bradley credits Detroit architect Albert Kahn with one of the first open-plan factories, which was the George H. Pierce Company plant (Lockwood and Greene

⁵⁸ Smith, *History*, 518. Cosack had occupied the *Commercial Advertiser* building from 1867 to 1880.

⁵⁹ Elstner, *Industries*, 95-96;

<http://historical.library.cornell.edu/Dienst/UI/1.0/Display/cul.nys/nys200?abstract=andpages=7:29:132:102> (accessed June 25, 2007).

engineers, 1906-1907) in Buffalo. But the Cosack and Koerner plant is twenty years earlier and creatively utilizes an unusual site to great benefit and may have been the inspiration for the Pierce plant design.⁶⁰

In the late 1880s, Buffalo was establishing an industrial area north of the Olmsted parks and residential areas, which by 1900 Lackawanna (Bethlehem) Steel would dominate.⁶¹ In this early industrial park, Bethune designed at least two large factory complexes in 1889-1890.⁶² The first was a heavy industrial machine factory for Volker and Felthausen at 189 Tonawanda with two structures, 40 x 80 feet and 60 x 500 feet. The Volker and Felthausen partnership may have changed before construction was complete, because the factory opened as the Buffalo Malleable Iron Works and later was called Acme Steel Works.⁶³ Buffalo Malleable Iron had begun as makers of saddle hardware in 1860 but by the end of the century they were manufacturing locomotive wheels and body frames.⁶⁴

Another factory was the brick works for Buffalo Hammer Company at 1548 Niagara Street. This was a two-story \$15,000 brick structure, 50 x 200 feet. A third factory, for Hall and Sons, at 69 Tonawanda Street was cited by Barbasch, but my research did not find it in the journal survey. Bethune did supervise the construction of a

⁶⁰ Bradley, *Works*, 160.

⁶¹ Carson, "Frederick Law Olmsted," 168. Walter Scranton was allocated 1,000 acres to develop steel facilities that employed 6,000 workers when the plant opened in 1904 and utilized the electric power from Niagara Falls.

⁶² Bradley, *Works*, 79. These instances are noted in part because documentation of nineteenth-century structures is far from established and some of the recognized innovators may have built more on earlier precedents than has been realized.

⁶³ *The American Contractor* 9 (January 1889), 7.

⁶⁴ Robert Holder, *The Beginnings of Buffalo Industry* (Buffalo: Buffalo and Erie County Historical Society, 1960), 16.

home designed by a New York City architect for one of the Hall and Sons owners John Hall, which was built in 1890.⁶⁵

Not all the commissions for residences were in the northern areas. Sometimes family connections kept development in downtown locations like the home for the widow of Frank Collignon at 271 Oak Street. The oldest Buffalo family estates were in the downtown area and Bethune had several commissions to add or replace structures in the heart of the business district.⁶⁶ Bethune also designed a weaving factory, the only textile works in Buffalo, for Sarah Howard of the Howard Iron Works family on an industrial site at 208-212 Terrace Street, in 1896.⁶⁷

Also in downtown was Bethune's commission for the office and residence hotel of the Guard of Honor at 620 Washington Street, facing the Washington Street Market.⁶⁸ The Guard of Honor was the creation of Charlotte Mulligan, granddaughter of a prominent judge and great-granddaughter of the Revolutionary War general Israel Chapin. Mulligan began her charity work with a Bible class for incorrigible boys while she was the first seminarian of the Buffalo Female Academy, class of 1863.

After the Civil War, in 1867 or 1868, Mulligan began giving lessons at the Wells Street Mission to young unemployed men to assist them in getting work. When the membership got too large for the mission, she got permission to meet in Goodell Hall at the Buffalo Seminary. Mulligan called her organization the Guard of Honor and when it

⁶⁵ *The Architectural Era* 14 (June 1890), 138.

⁶⁶ *Inland Architect and Builder* 8 (December 1885), 87; cost, \$6,000. Frank Collignon established his brass works in 1844. The Perry and Washington Street machine shop and foundry was known for training young apprentices.

⁶⁷ *Engineering Record* 35 (December 26, 1896), 87; and Smith, *History*, Biographies, 35. The \$18,000 four-story factory replaced a two-story building and shed of the Howard Iron Works.

⁶⁸ *The Sanitary Engineer* 8 (August 2, 1883), 211; *1894 Atlas*, Plate 40.

outgrew the Buffalo Seminary quarters, she bought a lot opposite the Washington Street Market and had Bethune design a boardinghouse for the young men at 620 Washington Street.⁶⁹

In June 1884, the cornerstone was laid for the first Chapter House of the Guard of Honor amid considerable publicity that the \$12,000 building was designed by a woman and paid for by selling bricks for twenty-five cents each. Mulligan declared that the building was the “first club house in the United States built by women.” The four-story brick structure was simple and unadorned with the top floor housing twenty-four rooms for paying lodgers (fifty cents per night). The third floor had offices and staff quarters, toilets and bathrooms, the kitchen and dining room, and dorms for free lodgers (who could have seven nights of lodging while seeking work). The first and second floors had reading rooms, bible class rooms, and assembly rooms.

Mulligan’s charity paid for itself through a fifty-cent charge from paying lodgers and the unsolicited donations of successful members and the public. Mulligan’s fundraising technique, not unlike Booker T. Washington’s at Tuskegee Normal and Industrial Institute, was not to ask for donations or do fairs—“no requests were ever made for assistance”—but to accept the contributions graciously. A talented businesswoman, Mulligan sold the Bethune-designed residence building to the Women Teachers Association in 1897 and built a far grander building on fashionable Delaware Avenue, which still exists. Mulligan’s true enthusiasm was for music and for twenty

⁶⁹ Kate Burr, “Charlotte Mulligan: Woman of Great Deeds,” Buffalo Local Biographies, series 3, v. 2, p. 109, Grosvenor Room Archive, Buffalo Erie County Public Library. The Guard of Honor as a private philanthropy has escaped the notice of historians of women’s achievements, possibly because the name sounds like a monument of some kind. Buffalo was the first American city to have a Charity Organization Society (COS), which Samuel Humphreys Gurteen brought from London to the United States; Mohl, *New City*, 157.

years she was the music editor of the *Buffalo Courier*. The Guard of Honor performed a free concert every Saturday night for more than fifteen years with Mulligan as the conductor.⁷⁰

After only three years of professional practice, Bethune's business was burgeoning, with at least twenty projects in progress, and the firm took on an apprentice architect, William L. ("Will") Fuchs. There has been no agreement among Bethune historians on when Fuchs came to the firm. Some say it was 1890 when Fuchs became a partner, and some have suggested 1883, when Bethune's son Charles was born. The announcement in *The Architectural Era* in September 1889 that Fuchs had "graduated" from the Bethune firm indicates the end of the traditional five-year apprenticeship, which would put the start of his apprenticeship in mid 1884.⁷¹ Apparently Fuchs apprenticed and then became a partner in the firm and is an example of one of the responsibilities of a firm to train new professionals.

In the 1880s, with the horse still the main method of urban transportation, stables were ubiquitous and expensive additions to middle and upper-class homes. Like most nineteenth-century architects, including Richard Morris Hunt, Bethune designed several stables both private and commercial. Her first, and one of her first published

⁷⁰ "Miss Mulligan Dead: One of the Foremost Women of Buffalo Passed Away Last Night at Cloverbank," *The Commercial Advertiser*, June 6, 1900; "Work Ended," *The Commercial Advertiser*, June 21, 1900; "Chapter 7—"The Guard of Honor: Its Mission the Moral Development of Men, Institution That Never Requests Aid," *The Buffalo Courier*, February 9, 1897. The second building called the Twentieth Century Club still exists at 595 Delaware Avenue.

⁷¹ *The Architectural Era*, 3 (Sept 1889), 196. The other proposed dates: 1890 are in Austin M. Fox, "Louise Blanchard Bethune: Buffalo Feminist and America's First Woman Architect," *Buffalo Spree* (Buffalo: Summer, 1986); reprinted at <http://ah.bfn.org/a/archs/beth/bethfox.html>; and 1882 in Barbasch ("AIA Accepts," 17). Neither source provides confirming evidence. It is possible Will Fuchs became a partner and then apprenticed to become an architect, but this cannot be evaluated on existing evidence. Part of an architect's responsibility to the profession was to train young architects, and the prominence of the Fuchs family in the Buffalo business community was certainly a potential asset to the firm.

commissions, was a large brick \$6,000 commercial structure on Delaware Place in the neighborhood of the Saturn Club and the Buffalo Club, the most prestigious of Buffalo's gentlemen's clubs.⁷² She also designed two others: a \$10,000 brick livery stable for the White Brothers on Thirteenth Street—to serve residents on Richmond Avenue and the Circle and a private stable at 64 to 78 Tracy Street for one of Buffalo's most prominent citizens, David S. Bennett.

Bethune's Bennett stable was a three-story frame structure covering almost an acre—twice as large as his house—on his downtown Buffalo estate. Bennett was the well-educated son of a prosperous farming family who bought the Dart grain elevator when he arrived in Buffalo in 1857 in the midst of the economic panic that bankrupted many of the city's businesses and banks. Bennett built his purchase into the largest grain complex in the city and his success made him a financial and political power in Buffalo, which he exercised to lobby for improvements in the Erie Canal system.

As a New York state senator and representative (1866-1871) Bennett was the key advocate in legislation to modernize Buffalo's public schools and police departments. In 1886, when Bethune designed his stable in downtown Buffalo, she had already designed several stables for police stations and the 74th Regiment Armory, as well as several public schools, so his choice of her as architect can be seen as a personal endorsement.⁷³

Because stables housed servants, carriages, equipment, and supplies, they were, in any case, an intriguing architectural problem that has drawn little attention.

⁷² *Sanitary Engineer* 8 (August 30, 1883), 307; *Atlas* 1894, Plate 35. The listing was "G. F.," but probably was S. J. as Samuel Fields was the only likely Fields to be able to build this structure.

⁷³ White Brothers stable, *The Inland Architect and Builder* 8 (August 1886), 11, and *The Sanitary Engineer* 14 (August 12, 1886), 256; Bennett stable, *The Inland Architect and Builder* 7 (April 1886), 48; and Smith, "Biographies," 3.

Another politician client of Bethune's, though one of more modest means, was druggist and Ninth Ward city commissioner Robert K. Smither. Smither had Bethune design a three-story wood frame multiuse building with a stable on his double lot on Niagara Street, a shopping area and trolley thoroughfare a few blocks west of Delaware Avenue.⁷⁴ This building was a ground-level store with residences above as was common in the nineteenth and early twentieth century. Six years later, Smither again engaged Bethune to design two more multiuse row buildings of brick construction on adjoining lots at 590-92 Niagara.⁷⁵ Two of these buildings still exist and are in use.

In the mid-1880s, the Bethune firm completed at least two dozen middle-class homes in the expanding north side residential area of Buffalo. Clients included owners of grocery stores, a "sample room" (saloon), a soap and starch factory, and Buffalo's largest coal and ice delivery company.⁷⁶ The professions included a real estate developer, a prominent lawyer, a veterinarian,⁷⁷ and a young doctor related to Bethune.⁷⁷ There was little obvious segregation by profession or employment. George C. Bell, an owner of the Bell and Fields engineering firm and Niagara Bridge Works, which had just finished the first cantilever bridge over the Niagara River, had a Bethune house built at 427 Prospect

⁷⁴ *The Sanitary Engineer* 7 (February 15, 1883), 254; and Smith, *History*, 132. The Ninth Ward was a western ward above downtown. Smither was appointed commissioner in 1881. This listing is unusual in that it gives the exact address; the building number is 596.

⁷⁵ *The Sanitary Engineer* 7 (February 15, 1883), 254; *Architectural Era* 4 (February 1890), 47; *1894 Atlas*, plate 30.

⁷⁶ Elizabeth Baldauf on Hodge Avenue, George N. Mitchell at 197 Prospect, Roger W. Graves at 310 West Utica Street (R. W. Graves and S. Gilbert Starch Co.), Roger W. Graves of the R. W. Graves and S. Gilbert Starch Company, *Inland Architect and Builder* 5 (June 85), 79. This listing also announced that Michael T. Riley contracted for a \$3,000 home on Prospect; however, he has not been located yet in the city directories to determine the street number.

⁷⁷ See appendix 2; and *The American Architect* 17 (February 28, 1885), 107; and Smith, "Biographies," *History*, 65. The doctor, Julius H. Potter, 177 Dearborn, was a son of prominent physician Dr. Frank Hamilton Potter, and related to Bethune on the Blanchard side. He was at Niagara University Medical College. (Julius's grandfather married the daughter of Rev. Abijah Blanchard, a prominent Episcopal minister who founded the famous medical family.)

across the street from the house Bethune designed for the owner of Webster Coal and Ice Delivery, at 430 Prospect.⁷⁸

Two other old industrial families in Buffalo who contracted for homes from the Bethune firm in 1886 were Abner Cutler and the Lautz brothers, Carl and William. Abner Cutler was held to be the oldest businessman still in business “anywhere in the country.”⁷⁹ Cutler was famous for arriving in Buffalo in 1824 and having a furniture business established by the end of the week—he and his partner crafted tables during the night to have them ready for sale the next morning. Cutler started his business in an old flour-milling building and early on developed a water-powered circular saw, jig saw, and lathe to speed the manufacturing process.⁸⁰ By the 1880s, Cutler owned one of the largest furniture manufacturing companies in the country and in 1886 commissioned from Bethune a modest \$4,000 house on Jewett Avenue.

Carl and William Lautz, sons of William Lautz, the first soap manufacturer in Buffalo, commissioned similar houses from Bethune. The Lautz plant with two hundred employees was on Hanover Street and had branches in Philadelphia, Chicago, and New York. The Lautz homes were \$4,000 each, two-story frame structures, side by side at 27 and 31 Dodge; they were comfortable, but modest considering the financial success of the

⁷⁸ Bell residence, *Inland Architect and Builder* 8 (October 1886), 42; Smith, *History*, 241; *Buffalo City Directory 1869 and 1888*. The house on the plat map is a large two-and-one-half-story brick structure on an ample lot. The figure in the announcement of \$4,000 was likely a misprint, because this is closer to a \$40,000 structure. Bell and his partner, S. J. Fields, had one of the most successful iron works with three hundred employees, which Bell had built from his father’s carriage and tire bolt firm, Bell and Plumb. The Edward H. Webster residence; *American Architect and Building News* 17 (February 28, 1885), 107; \$23,000 three-story frame house with stable.

⁷⁹ Smith, “Biographies,” *History*, 17. Cutler died in 1887.

⁸⁰ *Ibid.*, 242.

business and the Lutz family's prominence as philanthropists in Buffalo's German community.⁸¹

A look at the budgets of these commissions shows that Bethune was correct when she declared that any architect desiring to stay in business should not specialize in residential work; "the dwelling is the most pottering and worst paid work an architect ever does," she said. She was convinced residences lost money for her firm, taking too much time for the amount of the commission, which may explain why after this burst of residences in the mid-1880s the firm did few additional ones.⁸² My research confirms the variety of clients who, with a few exceptions, were not investing large amounts of income in their homes. This was not unique to Bethune's clientele, because these listings were found in the context of all the Buffalo architectural postings and Bethune's budgets were not atypical.

In 1887 and 1888, the firm was occupied with several sizable school projects and the only two churches Bethune designed. The first was the Bethlehem Evangelical Chapel, near Walden Avenue, at 84 Bowen Street, designed for the Baptist Society, and located in a newly developing middle-class neighborhood on the upper eastside.⁸³ Bethune designed her second church, a chapel at Shawnee and Marigold streets in the same Kensington neighborhood, the following year for the Reverend C. H. Smith of the Episcopalian Society. Both buildings were frame structures with \$4,000 budgets.⁸⁴

⁸¹ Abner Cutler in *The Inland Architect and Builder* 8 (December 1886), 87; Carl and William Lutz in *The Inland Architect and Builder* 8 (October 1886), 42; Smith, *History*, 255; and *Buffalo City Directory 1888*.

⁸² Bethune, "Women and Architecture," 21.

⁸³ *American Contractor* 8 (November 1887), 12.

⁸⁴ *The Architectural Era* 2 (April 1888), vi; *The Architectural Era* 2 (November 1888), 214; and *The Inland Architect and News Record* 12 (December 1888), 83.

The Bethune projects of her first years in practice represented the mixture of building types; homes, stores, and stables typical of any architectural practice. After the dozens of homes designed in the mid-1880s, the percentage of residences diminished and store, factory, and other commercial projects dominated, but Bethune never completely freed herself of residential commissions. Architecture, like medicine and law, involved a certain degree of accepting what you were asked to do, but one did not have to pursue every type of work actively.

Bethune's client base for residences, stores, and factories was the same propertied class that was influential in public services and charity organizations.⁸⁵ These pragmatic businessmen apparently responded to Bethune's standards for practical, well-built, and reasonably budgeted buildings that met the needs of the client without extravagance. Bethune exhibited the same businesslike attitude that made her clients successful in their own businesses. Bethune's early practice also involved the civic community of Buffalo, including the design of many public schools and police stations as well as a hospital wing, a penitentiary wing, the Livestock Exchange Building, and an armory for the New York State National Guard.

⁸⁵ Louise Bethune apparently was not a member of women's charities, but her husband remodeled a prestigious Niagara Square residence for the Women's Educational and Industrial Union facility in 1886, and her mentor Richard Waite designed and supervised their new building, 1892-1894. The WEIU is where Bethune gave her one public speech, in 1891. See Mrs. Frederick J. Shepard (Ellie Josephine Sumner Shepard), "The Women's Educational and Industrial Union of Buffalo," <http://historical.library.cornell.edu/cgi-bin/cul.nys/docviewer?did=nys407andseq=3andframes=0andview=50> (accessed January 20, 2006).

CHAPTER 4

ARCHITECTURE DETERMINED BY FUNCTION AND TECHNOLOGY

Architecture is seldom satisfactorily defined, perhaps never briefly and well. It is not construction in any of its various branches, nor its arrangement of interior nor exterior, nor coloring, nor carving, nor profiling of moldings; neither is it acoustics, nor fenestration, nor sanitation, nor any one of a hundred other things. It is the arranging and adjuncting, harmonizing and contrasting of all these and many other elements into a suitable and satisfactory whole.—Louise Bethune¹

When Bethune opened her practice in 1881, health and safety issues were at the forefront of public concern as disease rates climbed in the 1870s and the scientific community and the popular press debated the causes. Concern focused on the rapidly growing cities, which were periodically struck by epidemics of cholera, smallpox, typhoid, and pneumonia. Additionally these increasingly dense cities were also threatened with fires, which often spread from building to building before firefighting companies could contain them. The Chicago fire of 1871 and the Boston fire of 1876 were dramatic examples of the economic and social effects of urban conflagration.²

Life expectancy in the nineteenth century had been declining since the end of the eighteenth century in both Europe and America, reaching its nadir at about 1840 and not improving until the 1870s. There also was a decline in average heights of people beginning about 1830, referred to as the “Antebellum Paradox,” which is generally

¹ Bethune, “Women and Architecture,” 21.

² Rebecca Edwards, *New Spirits: Americans in the Gilded Age, 1865-1905* (New York: Oxford University Press, 2006), 1-3, 164-165.

thought an indicator of poorer-than-normal nutrition and standards of living. The Civil War, while killing or wounding one out of five white males and curtailing immigration—an estimated loss of about three million persons, did not affect long-term mortality as much as the rise in disease-related deaths.³

After examining the special case influences on mortality—war, immigration, and general nutrition—Herbert S. Klein, a comparative social and economic historian, confirms a decline in life expectancy and increase in mortality beginning in the early 1800s and continuing into the 1870s when the upward trend became established.⁴ Klein concludes the “single major cause” for the long-term decline in mortality was the sanitation movement that began after 1880. The breakthrough came with Dr. John Snow’s work in London linking the sites of cholera outbreaks to sources of highly contaminated drinking water from the Thames. By 1860, the sixteen largest American cities had water works, and the mortality rate began to decline for the first time in almost a century.⁵

Examining and describing the state of sanitary engineering and fire protection and their effects on buildings and city planning reveals how Bethune and the best architects of the 1880s and 1890s attempted to resolve these issues and in the process defines how

³ Herbert S. Klein, *A Population History of the United States* (New York: Cambridge University Press, 2004), 105. This drop in longevity of North Americans extended from 1835 into the last decades of the nineteenth century.

⁴ *Ibid.*, 108-109, 112-113.

⁵ Stephen J. Burian, Stephen J. Nix, Robert E. Pitt, and S. Rocky Durrans, “Urban Wastewater Management in the United States: Past, Present, and Future,” *Journal of Urban Technology* 7 (December 2000), 38; Klein, *Population*, 117, 103-104. The high infant mortality rate (in 1850 infant deaths were 216 per thousand live births for whites and about 340 for African Americans) has affected life expectancy estimates and there are no federal figures for the nineteenth century. Klein removed infant mortality and found that if an American white male lived to twenty in 1880, then he could expect another thirty eight years, a woman, another 36 years and by the end of the nineteenth century mortality rates only succeeded in reaching eighteenth-century levels,

Bethune became one of the architects of choice in Buffalo. Her success reflected the professionalization of architecture, which was driven in part by the need for a system to measure competence in the new sanitary engineering and fireproof construction technologies.

At the start of Bethune's career the dual threat of disease and fire were both personal and completely unpredictable. The public followed the medical debate on the causes of disease—the germ theory versus the zymotic theory—but, more important understood that both theories targeted dirt and human waste as the cause of disease. Americans began to perceive their homes as life-threatening and sought information and municipal action to reduce the danger. In response, the architect needed to find healthful and effective procedures to introduce plumbing equipment into buildings and had to determine if the new equipment would work, often inventing methods of installation, and supervising the plumbers doing the installation. Responding to public and professional concerns, the professional journals disseminated information in long-running series on new architectural procedures.⁶

The major challenge in the second half of the nineteenth century was how to accommodate urban population as it increased to concentrations of more than a million persons in each of the major cities of New York, Philadelphia, and Chicago. The documented mortality rate in cities rose to almost twice that of rural areas and by 1880,

⁶ Nancy Tomes, *The Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge: Harvard University Press, 1998), 25-27. The germ theory attributed disease to microbes and the zymotic theory that the source was spontaneous generation from decaying matter; Woods, *Craft*, 57.

one quarter of the population lived in urban areas.⁷ The disparity between city and country health conditions produced an outcry for action in the rapidly growing cities. In Europe, life expectancy was significantly higher (eight years) than in the United States, and steps taken in Europe demonstrated that life expectancy increased dramatically with improved municipal legislation regulating the disposal of waste and improved sources of drinking water.⁸

Financing these citywide challenges resulted in progressive municipal reforms: the restructuring of political authority, largely through the elimination of the ward system, and the institution of universal taxation. The propertied class supported these municipal improvements, because, as historian Nancy Tomes elucidated in *The Gospel of Germs*, the middle and upper classes became almost obsessed with sanitation as they sought to avoid the seemingly random death that struck wealthy and poor alike. Because of the concern that sewer gas was disease ridden, old plumbing was removed, new gadgets were tried, and the quest for reliable information made health issues in the home one of the primary subjects in newspapers and magazines.⁹

Throughout the 1880s, architects incorporated bathrooms, kitchens, and laundries in the buildings they created, in turn creating problems for the municipal infrastructure

⁷ John S. Billings, M.D., *Report on Vital and Social Statistics in the United States at the Eleventh Census, 1890* (Washington, D. C.: Government Printing Office, 1896), 43. Boston's population increased eightfold in the last quarter of the century, New York's tenfold, and Philadelphia's thirteen-fold; Burian, "Wastewater," 37.

⁸ Burian, "Wastewater," 40. Dr. Snow's study, *On the Mode of Communication of Cholera*, 1849, led to legislation by the British Parliament in 1855. Klein, *Population*, 101. A gap of eight years separated European and American norms and a similar gap separated American whites from African Americans. Michael Haines, "Fertility and Mortality in the United States," EH.Net Encyclopedia, Robert Whaples, ed., <http://eh.net/encyclopedia/article/haines.demography> (accessed on July 7, 2006). Life expectancy was 40.5 years in 1880, 46.8 in 1890, 51.8 in 1900.

⁹ Tomes, *Gospel of Germs*, 58-60; Edwards, *New Spirits*, 164-165.

from the enormous increase of water entering the existing sewer systems. Water supply systems strained under these new demands as well as those of the increasing general population. Many of Bethune's renovation projects aside from building new schools, police stations, and homes in the developing neighborhoods, involved adding sanitary systems to existing structures in the older sections of the city.

By the 1890s, municipal water and sewer systems were being extended and often completely replaced with improved distribution lines. Engineers replaced private wells with municipal reservoirs and large trunk sewer lines ended the dumping of sewage into neighborhood sloughs and creeks. Women were drawn into the concerns on sanitary issues as guardians of the household. As historian Margaret Rossiter notes, hygiene as a discipline had a brief popularity in women's colleges and coeducational universities, which hired women physicians to teach the scientific basis for procedures to avoid disease.¹⁰

Bethune and other architects also had to evaluate and develop methods of applying the new engineering technologies proposed to deter fire or, at least, to slow down the spread of the fire within a structure and from one building to another. This required the architect to develop new skills in understanding the ways fires spread and the effects of fire and heat on the various building materials, especially structural elements. Architects had to decide on the appropriateness of the various structural deterrents to fire, (for example double doors of heavy and thus relatively expensive timber), while complying with the economic restrictions on each situation. The architect stood at the

¹⁰ Rossiter, *Women Scientists*, 70.

intersection of science, engineering, construction, and business to a degree not seen since Roman times or again until the mid-twentieth century.

When Bethune opened her practice in 1881, the professional journals for architects and engineers stressed practical solutions to indoor sanitation, fire safety, proper heating, and ventilation and linked these issues to prospects for greater life expectancy. Public pressure for safe water and waste management systems required engineering expertise. Here West Point-trained engineers were particularly in demand, because detailed statistics on the causes of death from disease showed that disease-related deaths at military facilities were half those of civilian municipalities.¹¹ But to be truly effective these citywide sanitation systems had to be properly connected to plumbing fixtures inside the building and directed to safe outside sewer and water connections, which were the domain of the architect and not the sanitation engineer.

Consulting and municipal engineers tried to bring “best practices” to city water and sewer systems, but without building codes or municipal inspections the private builder mostly thwarted the benefits of the new sanitary engineering science. The dominant practice of the time was to contract with carpenters to build houses and tenement buildings that relied on individual outdoor privies or unregulated tapping into storm drainage sewers for sanitation. This practice made it imperative for architects to distinguish themselves from builders and explains why Bethune and others put considerable effort into establishing standards of practice for architects.

¹¹ *The Sanitary Engineer* 14 (August 26, 1886), 301; *The Sanitary Engineer* 14 (September 2, 1886), 319. When New York’s Mayor William Russell Grace needed to replace an ineffective Public Works Commissioner, he chose General John Newton, Chief of Engineers for the United States Army.

While the need for public financing of water was obvious and readily supported by taxes, the causal relationship among water purity, sanitary practices, and mortality rates took time to become apparent to the public. In 1882, Dr. Robert Koch isolated the tubercle bacillus, opening the door to scientific pursuit of disease and its cure and launching the long climb upward of life expectancy during the late nineteenth and early twentieth century.¹² Renewed eruptions of typhoid fever in the mid-1890s rekindled the fear of epidemic disease. In Washington, D. C., deaths reached sixty-six per 100,000, and American cities in general were five times more vulnerable to epidemic disease than London.¹³ In spite of all efforts, the failure of some early medical breakthroughs to produce immunization for tuberculosis and diphtheria and the emergence of polio as a new killer of children kept the mortality rate high until after 1900.¹⁴

The federally mandated Morrill Act revolutionized the specialized university training of engineers, making sanitary engineering and the scientific education of architects possible. John Higham suggested 1869 as the turning point in American education from the classical genteel education to the specialization of the elective curriculum—the year the American Medical Association recognized specialties as fields of practice, which acknowledged the need for practical and immediate solutions to urban health and safety.¹⁵

Even before scientific theories were complete on the effects of polluted water and how to mediate the problems, the public demanded that engineers and architects develop

¹² Tomes, *Gospel of Germs*, 93.

¹³ *The Engineering Record* 30 (July 21, 1894), 125; Tomes, *Gospel of Germs*, 38.

¹⁴ Edwards, *New Spirits*, 161, 165-166.

¹⁵ John Higham, "Matrix of Specialization," in Alexandra Oelson and John Voss, eds., *The Organization of Knowledge in Modern America: 1860-1920* (Baltimore: The Johns Hopkins University Press, 1979), 5.

practical solutions to counter the bad health effects.¹⁶ The scientific method, in the form of surveys, indicated when and where these practical responses worked and when and where they did not.¹⁷ Beginning in 1877, every issue of *The Sanitary Engineer* printed reports from cities and towns that included comparative figures from the previous year to show where improvement occurred. If comparative or current statistics were missing, editorial commentary indicated that the community was not making progress or that these figures would have been included in the report.¹⁸

Initially municipal sewer systems had low flow rates (usage) primarily to serve industry, but as domestic usage increased with the acceptance of indoor plumbing and the rapidly increasing population, waste discharges quickly overtaxed the body of water receiving them. At the time, there was no confirmed best method for such critical decisions as to where and how wastewater should be deposited.¹⁹ Reports from across the country and Canada documented the environmental failures due to the practice of dumping raw sewage into natural water systems based on the belief that natural rivers and bays could dilute waste far beyond their actual ability to do so.

¹⁶ Baldwin Latham, C. E., *Sanitary Engineering: A Guide to the Construction of Works of Sewage and House Drainage*, 2nd edition (London and New York: E. and F. N. Spon, 1878) 3. First published in 1873, the edition rapidly sold out and was republished.

¹⁷ Mansfield Merriman, *Elements of Sanitary Engineering* (New York: John Wiley and Sons, 1899), 15. These statistics were required by most states and all large cities by 1890. Census statistics were considered the most unreliable and those of hospitals and medical societies the most reliable.

¹⁸ "First Annual Report of the Board of Health of the City of Newark, N.J., for the year 1885," *The Sanitary Engineer* 14 (August 12, 1886), 254. When the Board of Health looked for the reasons for its high death rate—almost twenty-four per 100,000—it realized that sewage from Paterson, sixteen miles upstream on the Passaic River, was contaminating Newark water supply, which unleashed a long-term animosity between these cities; *The Sanitary Engineer* 14 (November 20, 1886), 587. Toronto's eight sewers ran into the bay 150 feet from shore, prompting *The Sanitary Engineer* to advise Toronto not to trust "committees of aldermen and leading citizens," but instead to hire an engineer and trained professionals under him.

¹⁹ Burian, "Wastewater," 43; C. E. Illsley, "Sewer Gas," *The Inland Architect and Builder* 8 (December 1886), 72.

Sanitary issues also set legal precedents that affected cities as well as Bethune and other architectural and engineering professionals. In 1886, a sanitary survey made under the direction of the Philadelphia Water Department of the Schuylkill River from above Reading, Pennsylvania, declared the river a “natural sewer” for a population of 350,000. The water received sewage and manufacturing wastes containing large amounts of sulfuric acid and wastes from breweries, paper mills, tanneries, glue works, packinghouses, bleaching and print works, and chemical works.

The situation had drawn public attention in 1884, when a test lawsuit against a polluter resulted in presiding Judge J. Thayer supporting the interests of the public—“The law is above every personal and private interest. All persons engaged in business are bound to conduct that business in subordination to the law, and in such manner as not to injure the public.”²⁰ The origin of pollution was difficult to prove specifically, especially when it was groundwater contamination from domestic waste. Even smaller cities found that their reliance on groundwater wells compromised health.²¹

Bethune and other architects of the 1880s had to respond knowledgeably to public health concerns while trying to find an affordable, yet safe, way to provide indoor plumbing even for the most economically restricted situations. A decade after the shift to indoor sanitation, doctors still claimed that half the contagious diseases were caused by

²⁰ “River Pollution,” *The Sanitary Engineer* 15 (December 11, 1886), 35. This ruling drew the attention of Grover Cleveland, but the 14th Amendment was the preferred reading in many rulings that privileged general economic well-being above the demonstrated pollution; see Daniel R. Ernst, “Free Labor, the Consumer Interest, and the Law of Industrial Disputes: 1885-1900,” *American Journal of Legal History* 36 (January 1992), 19-37.

²¹ Wynkoop Kiersted, “Water Supply and Its Development for Small Cities in the West,” *The Engineering Record* 23 (January 24, 1891), 126. Kiersted was the prominent engineer who designed a freshwater supply for Galveston, Texas, in 1890 by running a pipe eighteen miles under the bay from freshwater wells in the Texas aquifer.

defective plumbing and poor house drainage. But architects knew the health benefits of correctly installed indoor plumbing and lobbied their clients to invest in it.²²

A committee of Chicago architects estimated the plumbing cost of an average residence at \$250-\$500, adding approximately 10 percent to the cost of the \$2,000 to \$5,000 middle-income home. Because they felt this would seriously affect a new home buyer, architects Dankmar Adler and O. J. Pierce suggested leaving the pipes exposed to save about a hundred dollars on carpentry. This had the advantage that the plumbing defects—“intentional or unintentional”—would be more readily accessible for remedy.²³ This recommendation makes clear that a standard practice had not yet been established and that plumbing tradesmen were not well regulated by their own profession.

Codes controlling building safety also had not yet been articulated so the responsibility for safe building practices was left to the architect, if one was engaged. The architect was not only responsible for indicating safe methods, but responsible for ensuring that all the tradesmen (masons, plumbers, carpenters, and roofers) met the specified standards; otherwise there were no quality controls placed on construction. Bethune made the point in her 1891 union speech that she personally supervised construction and that women had to be on site and not simply remain at the drafting table.²⁴

During her apprenticeship, Bethune had learned to monitor the quality of construction (this responsibility represented approximately half of the architect’s

²² Victor C. Vaughan, M.D., Ph.D., “Building a Home,” *The Architectural Era* 2 (August 1888), 152; and “National Association of Master Plumbers-Cincinnati Meeting,” *The Engineering Record* 24 (July 4, 1891), 81.

²³ “Regular Meeting of the Illinois State Association,” *The Inland Architect and Builder* 8 (December 1886), 92.

²⁴ Bethune, “Women and Architecture,” 21; “Woman Architect,” *Buffalo Daily Courier* (March 7, 1891), 6.

services; the other half was the design and choice of materials and workmen). Because the new university architectural programs did not provide training for monitoring construction on site, this had to be learned outside the academic program in an apprenticeship relationship with a practicing architect.²⁵ At the same time, architects could not rely on untrained assistants to protect their projects and they varied on how they handled supervision when projects were complex or located away from their principal office.

H. H. Richardson, who prided himself on visiting all projects at least once a month, set his fee at 8 percent to cover these costs.²⁶ (His stone buildings frequently took years to complete; some like his New York State Asylum in Buffalo, commissioned in 1871, was completed after his death in 1886.) Charles McKim of McKim, Mead, and White, who did his apprenticeship with Richardson, insisted on an additional 2 ½ percent to cover the cost of sanitary engineering, and his prestigious firm had no trouble securing this fee. George B. Post, who was trained as an engineer, relinquished control of sanitation to consulting engineers, but most architects felt they alone understood the entire project well enough to control sanitation and ventilation.²⁷

Water supply was critical for sanitation purposes and for urban fire safety as population density intensified. Municipalities began reporting instances of water waste possibly to counter complaints about the expense of water system improvements.²⁸ For example, in 1886 the Chicago Department of Works complained that the “extravagant

²⁵ Woods, *Craft*, 161, 71, 78. From 1867 to 1898, 3,250 students matriculated in architecture programs, but only 650 finished their degrees possibly because there was demand for draftsmen that lured architecture students away from the full course of study.

²⁶ Van Rensselaer, *Richardson*, 119, 147.

²⁷ Woods, *Craft*, 160-161.

²⁸ “Measuring Water,” *The Sanitary Engineer* 15 (January 29, 1887) 205.

use of water” on lawn sprinklers and by running taps until the water was cool was 103 to 109 million gallons daily.²⁹ New York reported using 5.27 billion gallons annually moving through 604 miles of water mains.³⁰ Buffalo laid pipes for seven million gallons a day in 1885, bringing the system to fifty-two million gallons a day.³¹ These mid-1880s figures preceded the full effects of indoor sanitation.

Whether the public was wasting water and aggravating the supply problem or not, demands on water supply constantly outpaced delivery systems as architects, sanitation officials, and health departments pushed for universal sewer usage and explosive urban growth exceeded existing water supplies in all communities.³² In part, Jacob Riis directed his *How the Other Half Lives* toward the repercussions of urban density and the inadequacy of municipal water systems, in this case New York’s, to meet the demand. Riis called attention to the dire situation caused by overcrowding in the Tenth, Eleventh, and Thirteenth wards of Manhattan, causing water supply and sanitation problems beyond the era’s technology to solve.³³

Fire and the threat of fire also increased as urban density increased—the first Boston fire, in 1760, destroyed 400 dwellings; the second, in 1876, destroyed sixty-five acres of homes and businesses. Charles J. Woodbury, insurance underwriter and advocate of building code enforcement, used the Boston fire as an example of the catastrophic results of urban fire. He related that “when William A. Green was Chief of

²⁹ *The Sanitary Engineer* 14 (August 5, 1886), 225.

³⁰ “Report of the Department of Public Works in 1886,” *The Sanitary Engineer* 15 (January 29, 1887), 209.

³¹ *The Sanitary Engineer* 13 (January 21, 1886) 184.

³² Merriman, *Elements*, 87-88, 142. Before 1851 there were 68 water works in the United States, 233 by 1870, and by 1897 there were 3,196. While by 1898 about 4,000 towns had water works, only one-fourth of those had sewage systems, a fact Merriman attributes to the ease of selling water and the difficulty of finding ways to pay for sewage disposal.

³³ Jacob Riis, *How the Other Half Lives* (Boston: Bedford/St. Martin’s, 1890, 1996), 256.

the Boston Fire Department [1880], he received a letter from an official in Berlin asking for a description of the fireproof public buildings at Boston. He replied they had but one, the Beacon Hill Reservoir, and sometimes they did not feel quite sure of that.”³⁴

The Chicago fire of 1871, which destroyed three and one-half square miles (more than 2,000 acres), virtually the entire city, resulted in a demand from the insurance underwriters for a fire code and set Chicago architects on a determined search for improved fireproofing design technique and materials.³⁵ Insurance companies with the assistance of city architects and prominent members of the architectural profession aggressively promoted the use of fireproof materials. Insurance industry researchers Woodbury and John Freeman of Boston’s Factory Mutual Fire Insurance Company produced the first study of the feasibility of sprinkler systems. In the 1890s, Woodbury and other underwriters joined with the National Association of Building Inspectors, the National Association of Fire Engineers, and the AIA in a mutual effort to get a unified building code. The code was to include state building laws, departments of inspection, as well as specific building construction recommendations.³⁶

Traditionally, insurance associations did building inspections; in 1884, for example, underwriters carried out 11,000 inspections in Boston and 16,500 in Chicago. Insurers evaluated construction in their review of fire damage and were relied on for information; however, they came to feel that municipal authority was necessary to improve and regulate construction methods. They fought the practice of disreputable

³⁴ C. J. Woodbury, “Fire Resisting Construction,” *The Engineering Record* 23 (January 24, 1891), 122.

³⁵ John J. Pauly, “The Great Chicago Fire as a National Event,” *American Quarterly* 36 (Winter 1984), 676.

³⁶ E. M. Wheelwright, Boston City Architect, “A Model Building Ordinance,” *The Engineering Record* 23 (April 11, 1891), 308.

owners who over-insured their buildings and thus had little motivation to follow recommendations for the fire safety of their structures.³⁷

Preferring naturally fire-resistant solid-brick construction, Bethune designed only a half-dozen wood-frame structures out of more than one hundred buildings attributed to her. Architects like her mentor Waite almost always designed stone structures, but these took more than a few months to build and were not practical in most situations (beyond the issue of cost). Brick was also far more expensive than frame construction and therefore appeared in only one out of ten structures in Buffalo. Not even churches could be convinced that brick and stone were worth the investment until they had a substantial congregation with a dynamic minister or priest capable of raising adequate funds for the more expensive materials.

Architects and engineers weighed the length of time for construction and cost against the capital invested in the building's use—factory equipment, warehouses, stores. Fires in these situations meant more than the loss of the structure. Wood construction, on the other hand, lent itself to the temporary nature of most building in the rapidly changing American urban environment where businesses either became enormously successful or disappeared in a matter of months. Whole neighborhoods changed into industrial areas or from open land into residential districts with the advent of a new railroad or the removal of a major business to another city.

Bethune's clients were successful business people with reputations and capital investments to protect. Besides the schools, police stations, the Kellogg-McDaugall

³⁷ C. J. H. Woodbury, "The Relation of Building Inspection to Fire Prevention," *The Engineering Record* 23 (January 31, 1891), 139.

Linseed Oil factory, and the Cosack Lithography plant, Bethune designed the Buffalo Malleable Iron Works (later known as the Acme Iron Works), Buffalo Hammer Brick Works, the Houck Flour Mill, and the John C. Jewett Manufacturing Company—all fire-sensitive industries.³⁸ The Jewett factory with an automatic sprinkler system was probably not built in 1889 when the contract was given, but does exist on the 1894 atlas of Buffalo in the new north Buffalo industrial area. It was not a five-story building as originally listed, but one two-story and another three-story structure (possibly a transitional factory in the shift from factories of several stories to all ground-level ones), each 35 by 200 feet. Sprinkler systems were still an unusual enough architectural feature to be listed in the announcement. Early attempts at this type of fire-retardant system were unreliable, but Jewett’s company lost a \$200,000 building in a “million dollar” fire in 1889 and decided to install sprinklers.³⁹

The threat of fire did not convince Buffalo to institute a building code, and the concept of owner’s risk prevailed until the city’s liability became an issue when the Brown Building collapsed in 1896, killing several workers including the mason in charge of the renovation. The district attorney investigated and found no architect involved and the superintendent of buildings careless; the following year the city required building

³⁸ “Buffalo,” *The Architectural Era* 2 (February 1888), iii. The managers were Volker and Felthausen, but Buffalo Malleable Iron at 189 Tonawanda was a Jewett enterprise; “Buffalo,” *Inland Architect and Builder* 8 (August 1886), 11, and *The Sanitary Engineer* 14 (August 12, 1886), 256. The Buffalo Hammer Brick Works was a \$15,000 brick structure at 1548 Niagara Street; “Buffalo,” *The Architectural Era* 3 (November supplement 1889), xiv. The Houck Flour Mill at 141 Genesee Street, \$14,000; “Buffalo,” *The Architectural Era* 3 (April supplement 1889), 1. The Jewett industrial complex was at 27 Chandler, Black Rock, and described as 75-by-300-foot, seven stories, \$150,000, automatic sprinklers, “may be built.”

³⁹ *Buffalo Atlas 1894*, plate 6; Bradley, *Works*, 120. The shift in configuration of this factory can be included in the history of factories in that Jewett originally envisioned a seven-story structure and under the influence of the designer thought better of the scheme. John C. Jewett was grandson of the original Jewett industrialist, Sherman S. Jewett, considered successful and visionary for stove manufacturing plants in Chicago, Detroit, Milwaukee, and San Francisco, and his stewardship of the Olmsted city plan. Journalism of the day gave the term “million-dollar fire” to fires where entire buildings were destroyed.

permits that stipulated the responsible party.⁴⁰ Building codes contained many of the conditions underwriters found necessary to control such as designating the distance a new structure was located from other structures or requiring fire-resistant brick separation walls between structures.

For fire-fighting purposes, underwriters favored putting limits on building heights or mandating stricter than normal materials requirements on taller buildings. It was proposed that buildings more than fifty feet high have standpipes (large water-storage tanks located on the roof) available for fire-fighting and external ladders, buildings more than seventy feet high were to be of incombustible materials, and open mercantile spaces were limited to 6,000 square feet. They also recommended that the height of the building should not exceed two-and-one-half times the width of the principal street or be more than 125 feet tall in total.⁴¹

Bethune's tallest building was the seven-story, 225-room, Lafayette Hotel, which opened to the public in 1904 as "the best that science, art and experience can offer for the comfort of the traveling public." Before the Lafayette, she had built several factories and warehouses of comparable height; the Kellogg McDougall factory, O. H. P. Champlin factory, and the Niagara Storage building. But it was Chicago architects Daniel Burnham and Louis Sullivan who designed Buffalo's two "tall buildings" (ten or more stories). Because the Burnham and Sullivan buildings produced a glut of office space, it was not until after the Pan-American Exposition that another large structure—the Lafayette

⁴⁰ "Buffalo," *The Brickbuilder* 5 (August 1896), 154; Randall, *Human Values*, 40. Editorials on this incident appeared in most of the trade journals although building collapses were not uncommon. Apparently it was the possibility of city liability that drew such attention and that the surviving contractor was convicted of criminal responsibility.

⁴¹ Wheelwright, "Building Ordinance," 308.

Hotel—appeared in downtown Buffalo. All of these structures were “block” buildings in that they stood alone on their city blocks.⁴²

After the Chicago fire, fireproofing iron and steel with hollow terra cotta tile began to supplant pressed brick and stone as the premier new building technology.⁴³ *The Inland Architect and Builder* considered the Pioneer Fireproofing Company of Chicago, founded by contractor E. V. Johnson, the leader in this field, and Daniel Burnham’s Rookery in Chicago was cited as an example of the prestige and reliability associated with hollow fireclay tile and steel beam construction. The building industry was not willing to give up on iron-beam construction despite its demonstrable failure when exposed to temperatures readily reached in even small fires, let alone in fires that enveloped the entire building, and resorted to encasing metal structural elements in fireproof material, which is still a method used in steel construction today.⁴⁴

Spectacular and costly fires continued throughout the period, making “fireproof” a word of almost religious significance.⁴⁵ Fires were so common that a one-million-dollar fire at the American Glucose Company factory in Buffalo got a brief one-line mention in the back pages of *The Engineering Record*, while the 1887 Buffalo Spree Annual Calendar listed several fires per week throughout the year. When Ernst Ransom’s reinforced concrete patent was announced, architects and engineers hoped for

⁴² Torre, *Women in American Architecture*, 62; Banham, *Guide*, 15, 89; Appendix A.

⁴³ “Pressed Brick,” *The American Architect and Building News* 13 (January-June 1883), 190.

⁴⁴ “Modern Fireproofing,” *The Inland Architect and Builder* 8 (August, 1886), 11, and Wheelwright, “Building Ordinance,” 308.

⁴⁵ Smith, *History*, 518. “Fires” was a column listing major fires and economic loss in every issue of *The Engineering Record*, starting in 1892.

another fireproof application that would reduce the weight of the hollow tile method, and the journals printed the comparative tests in full detail.⁴⁶

Like the Chicago architects, Bethune understood that a unified building code could address problems relating to building materials by mandating brick or other noncombustibles, but enforcement remained the critical problem. One professional journal noted that in Buffalo it was “remarkable” that there were not more fires considering the “looseness of the building laws and the laxity in enforcing” and that it was common for a house to be completely built before the owner applied for a permit.

The journal admonished the architects to insist on good building laws and their enforcement. This was apparently easier said than done. The reality was that most buildings were not designed by architects and, even if an architect drew the plans, nothing required an architect’s supervision during building construction.⁴⁷ It appears that Bethune insisted on providing construction supervision on all buildings that they designed to ensure that they were built to the plans and specifications. This also probably helped her establish a reputation for quality buildings.

After another major fire in 1889, Boston attempted to revise the building regulations, but the investigating committee found that inspection was divided among building inspectors, the police, and health inspectors and none had the power to enforce compliance. Buffalo also was under pressure after a major conflagration the same year destroyed the Birge and Sons factory, the largest wallpaper company in the United States,

⁴⁶ J. Hollis Wells, C. E., “Tests of a Fireproof Material for Floors in a Modern Building,” *The Engineering Record* 31 (December 22, 1894), 64.

⁴⁷ “Buffalo Notes,” *The Architectural Era* 2, no. 12 (December 1888), 234; and “Buffalo,” *The Architectural Era* 2 (January 1888), 109.

killing ten people. Loss of life was a concern, but on the grounds of property loss alone the insurance companies argued the savings resulting from preventive enforcement far outweighed the costs of continuing without regulation.⁴⁸

The Insurance Commissioner of Massachusetts claimed that 90 percent of fires were practically preventable with inspection and enforcement. Critical to this was an adequate number of well-located fire stations, an adequate number and types of fire engines, and the availability of sufficient water pressure in all sections of the city. Centralized decision making and control were essential: “[T]he matter of fire prevention is one of the greatest problems of municipal government, and its solution lies in strengthening the hands of the administration . . . acting under suitable authority of the law.”⁴⁹ Professionals repeatedly exposed even more areas of concern; for example, in the early 1890s water mains were being installed in almost all communities, and the diameter of these pipes and the water pressure available for adequate water for fire control was still decided by the company contracted to install the lines without the approval of the city paying for the improvement, resulting in under-engineered systems.⁵⁰

When Bethune and other architects apprenticed and began practicing attention to these issues was a matter of ethics, even honor, but not law. Like the underwriters and city officials, they observed the results of poor practices and sought to prevent such in

⁴⁸ “Revised Building Regulations for Boston, Mass.,” *The Engineering Record* 23 (December 20, 1890), 40.

⁴⁹ “Conflagration in Cities,” *Building Record and the Sanitary Engineer* 23 (January 24, 1891), 19.

⁵⁰ “Proper Size of Mains for Fire Service,” *The Engineering Record* 25 (May 14, 1892), 401. Some of the examples used indicate the long-standing nature of demands on water supplies as in “The Perils of Water Waste in New York City,” *The Engineering Record* 24 (September 26, 1891), 259, which describes the loss of a building because the company’s water tank was empty.

their buildings.⁵¹ None of Bethune's buildings was involved in fire, and the standards set by her schools in the early 1880s probably contributed to the almost unblemished record of Buffalo's public schools. Her record for attention to fire safety may have influenced her appointment as architect of Buffalo's Niagara Falls electric transformer station and the Lafayette Hotel, Buffalo's showcase hotel and the first in the city with full electric service, telephones, and hot and cold water in every room.

Bethune faced the acute problems of health and safety in Buffalo's growing urban environment. Urban growth also meant unprecedented opportunity for architects and the variety of buildings Bethune produced demonstrates the wide range of expertise required of the nineteenth-century architect. In describing the practice of architecture, Bethune emphasized the mental process, that is, taking a part all aspects of the building, determining the best realization of each, and then reassembling the components into a coherent whole. Bethune's work demonstrated her ability to creatively rethink previous architectural solutions and incorporate in them the enormous social and technological changes of the nineteenth century.

The following chapter details Bethune's work with Superintendent of Public Education, James Crooker in arguing for proper sanitation in new public school buildings and as an important addition to all new structures and building renovations. As part of the educated elite of their communities, architects saw their advocacy for sanitary engineering as part of their civic responsibility—part of community boosterism.⁵² That

⁵¹ "Professional Ethics and Etiquette—I," *The Engineering Record* 27 (December 3, 1892), 1; Part II *The Engineering Record* 27 (December 10, 1892), 23.

⁵² Tomes, *Gospel of Germs*, 157-159. Tomes shows how progressive women worked together on a broad number of strategies from "Rainy Day Clubs" promoting hygienic shorter skirts and boots to removing

Bethune could correctly and effectively address these issues awarded her a prominent place in Buffalo's professional community as the city turned away from contractor/carpenter design projects toward trained professional expertise to address the life-threatening health-related problems and vulnerability to fire caused by the rapid increase in population density.

household curtains and upholstery or even having new more healthful homes built, also see chapter 8, on household cleanliness.

CHAPTER 5

PUBLIC BUILDINGS FOR PUBLIC IMPROVEMENT

An architect who intends that his school buildings shall be successful must constantly keep in mind the requirements of the teachers and pupils who are to use the building: he must remember that it must be so constructed as to safeguard their lives against fire or panic; that the sanitary constructions should be those which will prevent disease; and that the final cost of the building should never exceed the amount placed at the architect's disposal.—Frank Irving Cooper¹

This 1910 statement describes Louise Bethune's design work done more than a quarter century earlier with a dedicated Superintendent of Schools, James F. Crooker. In 1881, when Bethune opened her own practice, Superintendent Crooker had just been elected along with progressive Mayor Grover Cleveland, and the two began to create a new standard in school buildings that emphasized health and safety over expediency or lavish symbolism. Bethune created school buildings safeguarded against fire, with the most current sanitary engineering long before solutions to this issue had been established, and within budget. These buildings set standards followed for decades afterwards.

An early biography of Bethune characterized her as a specialist in public school buildings, and at her 1891 lecture at the Women's Educational and Industrial Union she was asked about being known as a school architect.² Bethune responded that she did not want to be thought of as a specialist to the exclusion of other types of buildings and that as a "pioneer" woman architect it was important for her to design the full range of

¹ Frank Irving Cooper, "The Planning of School Houses," in Hamlin, *Modern School Houses: Being a Series of Authoritative Articles on Planning, Sanitation, Heating, and Ventilation* (New York: The Swetland Publishing Co., 1910), 3. Cooper was architect to the Board of Education, St. Louis, Missouri.

² Willard, *Woman of the Century*, 81.

buildings possible. While her work did not focus on schools alone, schools in the 1880s probably offered her the most creative opportunities to meet the challenge of a new building form and to employ new technical equipment and adapt the technology to the situation at hand. While there was little historic precedent on how to approach the design challenge of developing effective schools, there was also little restriction to creating one's own approach.³

Bethune's design innovations were based on the scientific information being published at the time on disease, contagion, the need for air changes and circulation, and the light levels in buildings. Architects later formulated this information into design principles to follow or to correct. The schools Bethune designed, all in the overcrowded and under-funded southern Buffalo industrial area, were extremely carefully thought out to apply effectively and efficiently the newly available scientific thinking. Her solutions set standards that became routine architectural and building code procedures and are still applicable today. If she had been prone to self-promotion or entering national architectural competitions, her work most certainly would have been better known.

Bethune met the new needs of society by applying new technologies to public buildings such as schools, police stations, and factories that are now taken as standard practice. It was necessary to modify traditional buildings radically to accommodate the rapidly expanding urban environment. The now much sentimentalized rural school was a one-room or two-room structure, a modified house or small church that could not possibly meet the requirements of education in densely populated urban environments.

³ Woods, *Craft*, 161. Woods notes that by the end of the century, architects increasingly used sanitation, mechanical, and electrical engineers as consultants, because of the complexity of the issues but the lack of enough work to hire a full-time engineer.

Some of the new building challenges for schools in the 1880s were how large to make the schools—neighborhood or large consolidated; how to segregate the students—by age, sex, or abilities; in what size classrooms—their relationship to each other, their height of the space, and number of stories. Related safety issues were the number of and size of exits and windows, the fire resistance of the building materials, location of indoor plumbing, how to heat and ventilate for cost and cleanliness, and how to provide space for indoor play and for an on-site custodian. These are items still discussed, but in Bethune’s time they were new issues without any historic precedence to guide the decisions. That we would find her solutions still in the mainstream of thought shows how far-reaching and creative her designs were.

Nineteenth-century architects like Bethune evolved the original one-room schoolhouse into a series of uniform classrooms placed along wide corridors, with specialized rooms and areas as needed. Part of this transformation was the shift from the traditional European pedagogy of assembly-room instruction for a mixed group of students to class-level divisions by age; part was also simply the inadequacy of the old form for the expanded and more democratic social conditions—the demands of universal education.

Bethune’s far-sighted work on schools came about because of political, social, economic, and personal concurrences. Crooker took office with a political mandate that gained in influence with the success of Mayor Cleveland, the social climate unified by the concern for health and safety, and the German community’s insistence on the importance of education. As Buffalo expanded economically, past experience showed the wisdom of investing for future benefit (the port, the canal, the parks) and Bethune

knew well the problems of the schools as the daughter of the principal of two of Buffalo's worst school structures —P. S. No. 3 and then P. S. No. 5.⁴ While we cannot gauge personal interactions, it is completely possible that Crooker was a friend of the family and at the very least a comrade in arms against the desperate aspects of Buffalo's public schools who had seen children and teachers fall ill in unsanitary buildings. The scientific and technical advances occurring on a daily basis made a fireproof, sanitary, and comfortable environment seem within reach.

Architectural historian Mark Girouard documented the effect of the increasingly democratic society, from the late seventeenth to the early nineteenth centuries, on the architecture of the English upper-class country house, linking architectural change to societal change. Girouard showed the shift from the processional floor plan (a controlled hierarchy of spaces) to a plan of designated spaces, independently accessed through individual choice and the development of a building as a series of individual domains independent or at least off limits to some members of the collective.⁵ To some degree this can be seen in nineteenth-century western European and North American architecture in the simultaneous concern for accessibility and restriction—the well-defined entry and once inside, the clear designation of where, depending on who you were, to go.

In urban schools with large enrollments, facilities had to accommodate multiple teachers, an administrative staff with a principal. These larger, purpose-built spaces needed corridors and exits to safely disperse 1,000 or more students quickly even if

⁴ James F. Crooker, *Department of Education Report: Superintendent of Education, City of Buffalo, 1889-1890* (Buffalo: Laughlin and Co. Publishers, 1891), 96, 85. P. S. 5 was a school in the densest of the worker children districts and the Common Council constantly fought closing it for ten years. The high cost of lots in this densely developed industrial area may have been the reason.

⁵ Girouard, *English Country House*, 285.

panicked by fire, and this increased density of people also required new measures to supply adequate fresh air, heat, and light, before electric lighting made lighting spaces easier and safer. Because school education was not mandatory, the schools needed to appeal to the public as safe, attractive, and appropriate places for children compared to the factories and shops where it was also common for children to spend their days. Even though Buffalo, after 1874, had a school attendance rule, it was for only 70 days per year and was not legally enforceable.

When the truancy law was passed as part of the New York state constitution in 1894, the school year was increased to 130 days for eight to twelve-year-olds (for thirteen and fourteen-year-olds it was held to only 80 days most likely due to influence from the business community). Conceptually, these rules were a statement of a minimum; families who were able to spare their children from work utilized the full September to mid-June school year. The competition from the marketplace was strong, but an economic depression could also increase school attendance as it did in the mid-1890s. In 1894, Crooker's successor as school superintendent, Henry P. Emerson, faced an "unprecedented increase in registration and attendance" of more than 5,000, making the total school population 44,713. The economy was so paralyzed by the 1893 economic depression that none of the school bonds was sold and thus no new schools were built.⁶

School registrations were subject to economic conditions, the overall increase in population, and the available space in the schools; but until the truancy law attendance was most reliant on parental support. Superintendent Crooker felt parents would be

⁶ Henry P. Emerson, *Department of Public Instruction Annual Report, 1893-94* (Buffalo: The Wenborne-Sumner Co.), 11-12.

encouraged to commit to a child's education if the schools were places working parents could leave their children with some peace of mind. Crooker was so effective that the *1894 City of Buffalo Atlas* plat map shows schools as little oases of safe, healthy brick buildings in a sea of crowded stick-built structures, factories, and railroad yards. Certainly for many of Buffalo's children, the schools Bethune and Crooker created were their first experience of indoor plumbing and freely flowing water in a building, a standard that most likely made these amenities something sought after and even demanded by them as adults.

The reality Crooker faced in 1882 when he became school superintendent for Buffalo was that Buffalo's thirty-five school districts had fifty-five buildings, thirteen rented buildings that were "a disgrace to the city," and none acceptable for use by children and teachers. The rented spaces were in houses, stores, warehouses, and farm buildings and some were in such bad condition he felt they were offered to the city when no longer suitable for farm animals. The city-owned school buildings were only slightly better, described by Crooker as at best substandard.⁷

Many of the city-owned school buildings lacked heat and indoor plumbing and where the buildings had these facilities, fumes from coal stoves and sewer seepage made conditions completely unacceptable and unhealthy. Only twelve school buildings were

⁷ James F. Crooker, *Department of Education Report: Superintendent of Education, City of Buffalo, 1882-1883* (Buffalo: Laughlin and Co. Publishers, 1884), 18. Crooker was superintendent from 1882 to 1892 and then became head of the New York State Department of Public Instruction from 1892 to 1895 (salary \$5,000), <http://www.usnytech.org/history.asp#appxa> (accessed April 25, 2007); "A Guide for Office Seekers, The Salaries of the Heads of State Departments," *New York Times* (January 15, 1895), 6. Crooker was the force behind the 1894 New York state attendance law; http://72.14.209.104/search?q=cache:5N1_BmoMRLgJ:www.greenmtn.edu/faculty/mauhs-pugh_files/12000_Republics_NY_History_7-03.pdf+james+f.+crooker+ny+state+superintendentandhl=enandct=clnkandcd=16andgl=us (accessed April 25, 2007).

what the superintendent considered “modern” in that they were organized into grade-level classrooms, but even these, he considered to be inadequate in terms of lighting, heat, sanitation, ventilation, and fire safety. Crooker’s initial assessment of the schools found all school buildings deficient in adequate health and safety standards.

This was not an auspicious beginning to his tenure. Crooker faced the results of a legal imperative from 1852 when the city accepted the responsibility for funding free education as the key condition of incorporating the village of Black Rock. Buffalo’s politicians were eager to increase the city’s land holdings from four-and-a-half square miles to more than forty-two square miles, and free schools were part of the price. But, as Buffalo began its dramatic population expansion, the city’s politicians found it easier to rent temporary space in existing buildings than to sort out where and how many new school buildings should be built to serve the city’s education.

In his fight for better schools, Crooker clearly presented the squalid condition of the rented school buildings and shortsighted planning they represented as creating a health emergency. Crooker clearly saw health and safety as his ethical mandate and it brought him re-election five times, but at the price of constant battles with the partisan factions on the Buffalo Common Council. A decade later when sanitary standards were accepted Crooker went on to Albany as head of the State Department of Public Instruction (1892-1895) where he was pilloried in the *New York Times* as a “hustler” for Irish-Catholic interests who had the support of “less respectable party leaders on both sides.”⁸

⁸ “Crooker’s Political Record, He has Filled the Schools of Buffalo with Catholic Teachers,” *New York Times* (February 10, 1892), 1; and “Editorial,” *New York Times* (February 10, 1892), 4.

Historian Nancy Tomes documents the public concern over disease and the anxiety that was felt before there was an understanding of what was actually dangerous, how diseases spread, and how to protect against them.⁹ Crooker expressed these concerns in his annual reports, which made clear that he saw his mandate to be more than just the “packing of children in the rented rookeries which the department had to use.” He suggested that “if the losses by death, within the past five years, of children of school age could be traced to the true cause, many bereaved parents would condemn, in bitter terms, the dangerous and unwholesome premises now being used for school purposes.”¹⁰

During the decade of the Bethune and Crooker collaboration Buffalo’s school enrollment doubled and rapid growth in working-class districts made funding through the system of taxation on the individual districts extremely difficult. Crooker successfully pressured the Common Council to pass a legislative act, put into effect on September 30, 1885, that disbanded Buffalo’s thirty-six individual school districts and created a single citywide one to allow uniform taxation to spread the funding throughout the system. His argument was that workers were brought to Buffalo to be “wealth producers for their employers” and so those employers could “offer no valid objection to bearing a share of the increase in expense created by the influx of children whom they have brought here to be educated.” By 1887, the Buffalo consolidated school system had 30,000 registered

⁹ Nancy Tomes, *Gospel of Germs*, 48-49.

¹⁰ Crooker, *Report, 1882-1883*, 18-21.

children over five years old and 574 teachers.¹¹ Crooker tried to bring this funding reform to the entire state during his tenure as state head of public instruction.¹²

Crooker began with repairs on existing buildings and by adding indoor plumbing, steam heat, and fire escapes. These were complex and not very financially rewarding architectural assignments, but well suited to assisting a new architectural firm in building a reputation.¹³ It seems fair to assume that during her first year of practice, Bethune would have been involved in this work. This is supported by the contract she was given for a new school building in 1883 with the largest budget in Buffalo's school history, \$50,000 (approximately a million dollars in 2005 funds), as it would be unusual for a new and unproven firm to land such a large contract.

Crooker was not interested in simply providing boxes for the packaging of schoolchildren. "A sound mind in a sound body is the aim of the true educator," he wrote. "There are buildings used for school purposes in this city which are better calculated to generate and spread contagious and infectious diseases than to promote the mental and moral welfare of the rising generation." He used the scientific surveys from other school systems to support his emphasis on health and safety issues. In his 1886 report, he cited the Ohio State board of health survey results compiled by Professor Hough of Miami Medical College on the sanitary conditions of the Cincinnati schools to

¹¹ Crooker, *Report, 1886-1887*, 36. *Buffalo Express Yearbook, 1888*, 62. The Normal School was only graduating 50 teachers a year so the majority of teachers (454) were "licensed by local authorities." Crooker, *Report 1889-1890*, 16-17.

¹² "Schools of the State, Favorable Showing in Superintendent Crooker Report, Fair Wages for Teachers Urged, A New Plan of Apportioning Public Moneys Suggested," *New York Times* (February 11, 1895), 3.

¹³ Crooker, *Report, 1887-1888*, 40-42; in this report Crooker gives costs and renovations with a full renovation at \$6,000 and a heating and sanitary plumbing installation at approximately \$3,000. G. Morton Weed, *School Days of Yesterday: Buffalo Public School History* (Buffalo: G. Morton Weed, 2001), 9-10, 51; Crooker was principal of School 31, the school Bethune worked on in Waite's office.

explicate the danger of carbonic gas levels and quotes Dr. E. Williams of Cincinnati on the consequences of insufficient light in the classroom. Because Crooker's own program of school improvements was in its fifth year this research was apparently used to defend his expenditures and to support the building of new schools.¹⁴

Bethune was exposed to the same documentation in the architectural and engineering professional journals—international studies, municipal surveys, and professional papers printed in their entirety—on all manner of health and safety issues related to buildings and urban development. One journal, *The Sanitary Engineer*, printed weekly disease statistics by city districts correlated to water quality surveys, which revealed relationships between water quality and incidence of disease. The weekly, *The American Architect and Building News* had a column, “Sanitary Plumbing,” in every other issue. Journals had editorial discussions on the information supplied and printed extensive comments from concerned professionals. One wrote that the “great harm-worker, sewer gas, has made it a prime factor in the question of sanitation, which has become one of paramount importance in modern building construction.”¹⁵

With this increasing awareness of health and safety issues government officials were increasingly expected to make decisions to protect the public's health and welfare; architects and engineers were increasingly expected to provide those public health solutions. Buildings were suspect and the amount of time spent in them was the subject

¹⁴ John D. Jones, M.D., “Report on Schools and School Hygiene,” in Crooker, *Report, 1886-1887*, 73-81.

¹⁵ Alex Turnbull, C. E., “Sewer Ventilation: Report on Sewers of 33 Towns,” *The Sanitary Engineer* 5 (December 15, 1881), 77; “Scarlet Fever Panic in Cincinnati School,” *The Sanitary Engineer* 6 (October 26, 1882), 437; Oscar C. De Wolf, M. D., “The Relation of State Medicine to the Profession of Architecture,” *The Inland Architect and Builder* 8 (December 1886), 67-68. For a more general discussion of this topic, see Nancy Tomes, *A Generous Confidence: Thomas Story Kirkbride and the Art of Asylum-keeping, 1840-1883* (Cambridge: Cambridge University Press, 1984), 50-53; *The Inland Architect and News Record* 12 (December 1888), 83.

of individual surveys. This became a more focused battle against bacteria in the 1890s, but in the 1880s indoor plumbing and its resultant—sewer gas—was feared to be the origin of the “poison.”¹⁶ School buildings appeared to be a major problem, starting with the logistics of providing for 800 to 1,000 children per building where sanitary issues were inescapable and the prolonged occupation in enclosed spaces was unavoidable.

The Inland Architect and Builder announced that “the proper ventilation of schoolrooms ought to become one of paramount consideration in every well regulated community.”¹⁷ Rules of thumb evolved from the various tests and studies. Testing showed for example that each student needed to be allocated at least fifteen square feet of floor space in a room with twelve-foot ceilings or 200 cubic feet of space, more area was needed when the ceilings were lower, which exceeded what could realistically be provided. To meet these newly established fresh air standards without increasing the room size, mechanical ventilation systems were needed. In the absence of proper ventilation it was advised to clear the room for a few minutes every hour.¹⁸

Whether the client of a building was an individual, hundreds of children, or the members of an elegant men’s club; the plumbing had to work and fresh air was needed. Journals published plumbing and ventilation diagrams on the principle that information shared throughout the professional community would lead to the most effective

¹⁶ Tomes, *Germs*, 24. German researchers began isolating and naming the bacteria in the early 1880s, showing that the threat was actually harder to protect against than merely eliminating sewer gas.

¹⁷ Editorial, *The Inland Architect and Builder* 11 (January 1884), 153.

¹⁸ “Hygiene of Schools in America: The Public Schools of New York City,” *The Sanitary Engineer* 8 (November 1, 1883), 512; metric and footage measurements were equally used. Could this be the origin of Freud’s famous ten-minute break at the end of each “hour” session?

solutions.¹⁹ Ineffective solutions were exposed, and a consensus of proper methods to heat, plumb, and ventilate began to emerge over the course of the 1880s.

As workable sanitary engineering solutions were discovered, the emphasis became how to ensure that the engineer, architect, and builder were informed and properly trained so that their expertise could be applied to new buildings. Building codes reflected the new methods of sanitary engineering and fireproof construction and procedures to enforce accountability within the building professions were proposed, but building code enforcement unfortunately lagged far behind the building requirements. In 1889, *The Architectural Era* declared; “In these days the questions of sewers, ventilation, sanitary plumbing, etc., are deservedly attracting a great deal of attention and the public has a right to demand that those who plan and superintend the construction of their houses should understand these matters thoroughly.”²⁰

During this transitional period on issues of public safety, Chicago’s Commissioner of Health, Oscar De Wolf, made a series of speeches to architects and doctors defining the state’s role as the place where regulation and protection of the public necessarily resided. Money and expertise expended on buildings meant nothing, according to De Wolf, if the state did not perform its duty to “promote the general welfare.”²¹ Bethune’s work in organizing the architectural professional societies in western New York (first the Buffalo Society of Architects and later the Western New

¹⁹ J. J. Wade, “Improved System of Plumbing and Sewerage and Sanitary Ventilation,” *The Inland Architect and Builder* 1 (May 1883), 53.

²⁰ “Licensing Architects,” in *The Architectural Era* 3 (Nov 1889), 253.

²¹ De Wolf, “State Medicine,” 67.

York Chapter of the AIA) to be described shortly, was part of this need to establish recognizable professional standards and accountability.

Crooker's position, like that of many responsible public officials, was to convince the politicians who controlled city budgets that health and safety expenditures were necessary, politically wise, and ultimately less costly than temporary solutions. At the forefront of this health and safety movement, Bethune's schools were the first in Buffalo to formulate what Crooker felt were responsible standards for public school buildings—buildings that would serve the city for decades. The physical space was designed to provide maximum natural light (this was before inexpensive electricity) from the correct direction; rooms were arranged to moderate noise levels; halls and stairways were designed to provide efficient unobstructed exit in case of fire or panic.

Bethune-designed schools demonstrated, in addition to the meticulous attention to space, lighting, noise control, and fire safety, the most innovative mechanical solutions to sanitary engineering, steam heating, and ventilation known at the time. Along with this radical technological approach, Bethune followed the most stringent traditionally proven building guidelines for structural stability and durability—well-drained stone foundations and machine-compressed brick, the latest material for cleanliness and durability. Made of denser clay, cut more precisely, and fired at higher temperatures, the new bricks were stronger but over twice as expensive as regular bricks.²²

In Crooker's estimation, Bethune's schools were the best in the country and he used them to set standards for the rest of the schools built during his tenure. Bethune adapted the most current scientific information on oxygen and light levels required per

²² Randall, *Human Values*, 40. Common brick was \$6 per thousand, pressed brick was \$15-20.

person in confined spaces and research on the most effective indoor sanitation. Most of the scientific research was based on German and British experiments published in American architectural journals, but it was more than a decade after Bethune's schools when a body of design guidelines emerged to form a consensus.

In 1897, Boston architect and architectural theorist Edmund M. Wheelwright's articles were the first to present cohesively the European and American design responses to the health issues of schools, which Bethune and Crooker had worked through fifteen years before.²³ By 1910, *Modern School Houses: Being a Series of Authoritative Articles on Planning, Sanitation, Heating and Ventilation* presented most of these specifics as they were being used throughout the country. Professor Alfred Dwight Foster Hamlin of Columbia University stated that the young architect had all the information he or she needed to design a school properly. All remaining complex technical issues, Hamlin suggested, should be referred to an engineer with the caveat of buyer beware, because engineers were often promoters of specific equipment and materials.²⁴ Building codes and university education programs guaranteed that the air and light ratios, hall widths, number of windows and access stairways, even the number of students allowed to use the school at one time would meet fairly uniform standards.

²³ Edmund M. Wheelwright, "The American Schoolhouse," *The Brickbuilder* 6 (November 1897), 244. Wheelwright was a Boston architect (almost exact contemporary of Bethune), who designed the Boston Museum of Fine Art, Cleveland Art Museum, the first bridge over the Charles River, and was Boston City Architect. He used several of his own schools to illustrate the articles. Wheelwright noted conceptual differences between American and German schools—the auditoriums in German schools had an elaborate formality, but the main concept of grade-level classrooms was used by both. Wheelwright noted the American cloakroom as a sanitary amenity in the "first class" schools, but that German school design gave more attention to proper natural lighting than American schools did.

²⁴ Hamlin, *Modern School Houses*, 3-4.

Bethune was working a generation earlier before consensus was achieved and the rules to follow seemed just plain common sense. She had the benefit of her family's experience in the school system and a superintendent who was not a political hack but especially thoughtful about the issues faced by students and teachers. The strength of Crooker's arguments on health issues was based in the moral responsibility of the city. His economic argument (such as buying land for schools before development in the area made the land expensive) was based in the fiscal responsibility of the city. Bethune was able to supply design solutions that met both arguments and made her buildings appear as though there was no other way to configure them—the hallmark of good architecture.

Bethune's first school was commissioned in 1883, P. S. 8 at Utica and Masten streets.²⁵ This \$50,000 three-story structure (about a million in today's dollars) was the pride of Superintendent Crooker's vision for the children of Buffalo. When completed in 1884, the building drew the attention of the *Buffalo Courier* and Crooker reprinted the article in his report. This "splendid" building was 180 feet long by 64 feet wide with two wings making it 80 feet wide in the center section—a cruciform format building designed to accommodate 1,000 students.²⁶

All twenty classrooms were of equal size (twenty-two by thirty-four feet) with fifteen-foot high ceilings on the ground floor and fourteen feet high ceilings on the

²⁵ *The Sanitary Engineer* 8 (30 August 1883), 307. This listing used No. 16 for school No. 8, the reference to No. 16 refers to the district, a year later it was renumbered as No. 8 when District 8 and 10 were consolidated; see Crooker, *Report: 1883-1884*, 27. The previous journal listing was corrected in "Building News," *The American Architect and Building News* 17 (28 February 1885): 107. This shift in numbering led Barbasch and others to credit Bethune with P. S. 16, because of the 1883 listing and, therefore, Bethune has been credited with two schools where only one is appropriate. This renumbering of schools plagues early attributions.

²⁶ James F. Crooker, *Department of Education Report: Superintendent of Education, City of Buffalo, 1883-1884* (Buffalo: Laughlin and Co. Publishers, 1885), 32.

second and third floors. The school was organized to keep the different age groups separate from each other as much as possible. The ground floor was for the youngest children, the second floor for intermediate grades, and the third floor, which included the library, was for the most advanced students. Considered an innovation at the time were the separate classrooms for each teacher, teacher lavatories on each floor, and student coat rooms adjacent to each classroom.

Crooker and Bethune put considerable thought into how to keep the younger children separated and protected from bullying and other maltreatment by the older ones to the extent that all the first-floor classrooms had their own exits to the outside so that teachers could keep the youngest students entirely separate from the general school population. Additionally, the playgrounds were divided into separate equal-sized areas for boys and girls, although the instructional classrooms were coeducational.²⁷ As commonplace as this arrangement became, it was innovative at the time.

Bethune's plan responded to the shift from the English and French assembly school plan of all grades meeting together to the German system of individual grade-level classrooms. Superintendent Crooker, like most educators in the normal school system, felt that learning was enhanced by smaller groups of students who were all on the same learning level and that the teachers benefited by having their own domain. Eliminating the assembly spaces allowed more efficient use of space for individual classrooms that were in continuous use, but the real efficiency came from ability-focused curricula.²⁸

²⁷ By 1886, Crooker believed the schools should be further separated into primary and grammar buildings; Crooker, *Report, 1886-1887*, 40.

²⁸ Crooker, *Report, 1886-1887*, 48.

The research on the physical environment in German schools emphasized those things that could be scientifically measured—carbon dioxide levels, intensity of light throughout the room, and the optimum numbers of students per teacher for each grade level. The results of this research were published with recommendations for the volume of air needed to circulate, the maximum distance from windows (twenty-six feet), the optimal direction of the light falling over the student’s shoulder (from the left), and the most favorable placement of the teacher’s platform.²⁹ Bethune’s designs show that she studied these scientific surveys, because her room proportions and window spacing were consistent with them.

Scientific improvement also meant attention to safety in the school plan and construction. To minimize the danger of fire spreading throughout the building, the flooring was a double thickness of hardwood with two inches of mortar between the layers. Bethune addressed the critical issue of ingress and egress by having two exits from each classroom at opposite ends of the room, giving two different ways to leave the room in case one exit was blocked. The two paths to exit a room that Bethune used has become the modern fire code standard; today even bedrooms require two exit paths. Included in the fire safety features were two six-foot-wide straight stairways with no turns at each end of the building and with double doors that opened outwards and provided twelve-foot-wide openings to the ground on the main floor. The third floor had a separate staircase that allowed third-floor students to exit without using the main staircase. These design features supported the superintendent’s institution of the fire

²⁹ Wheelwright, “Schoolhouse,” 244.

drill, which allowed 800 to 1,000 students to clear out a building in less than two minutes.³⁰

Iron columns and bracing were *not* used in Bethune schools. Instead they used heavy timber construction, because the vulnerability of iron construction to even moderate heat was proved in the remains of the iron-supported buildings in Chicago after the 1871 fire. Fireproofing was a critical safety concern for school buildings, but also a financial concern.³¹ In 1886, the National Insurance Board reported the national loss due to fires as \$115 million. While \$115 million in one year does not sound like a large sum today, it would be close to two billion in today's dollars and this was only insured losses.³²

The description of P. S. 8 published in the newspaper included specific statistical references in the areas of ventilation, heating and lighting. For example, all classrooms had windows providing natural light equal to at least 25 percent of the floor area; recommendations were 10 percent at the time.³³ The detail used to describe the placement of the heating and fresh air registers and their volumes indicate that specifications for steam heating still needed long explanation and were of interest to the general public as part of the debate, still alive today, on the balance between heated air and fresh air.

³⁰ Ibid., 50.

³¹ "Buffalo," *The Brickbuilder* 6 (July 1897), 155, 157. By 1897 fireproofing was required and advocates of differing fireproof systems complained about the written requirements, which could easily favor one company over another. This was the year Chicago's codes passed into state law. In 1887, *The Buffalo Express* printed special picture editions of fires of the week.

³² *The American Architect and Building News* 21 (January 1887), 13. The recommended multiplier is twenty; however, in translating a 1885 teacher's salary of \$500 to \$800 to an equivalent \$30,000 to \$40,000 salary today the multiplier would be three times greater.

³³ "Guide for Sanitary Construction," *The Inland Architect and Builder* 8 (December 1886), 92.

Throughout the 1880s, the architectural journals constantly reported on the issues of steam heating, ventilation, and products attempting to provide solutions to sewer gas problems as indoor plumbing came into more general use. Comparative experiments using the various new mechanical plumbing devices were run with scientific test results to the highest possible accuracy to find equipment that would not allow gas to back up into the building.³⁴

Bethune, following new research, attached steam heating coils to the sewer ducts to help expel foul air and draw in fresh air. Her husband Robert was responsible for research into this issue, which was perceived as a serious one, because it was not known if these gases were a source of disease. The heat helped the gas to vent outside instead of into the building. It took more than a decade to determine that the simple water trap we use today could replace this expensive ventilation technique.³⁵

P. S. 8 was in Crooker's view as perfect as possible: "Competent judges say that the arrangement of the interior is as perfect as ingenuity and the practical application of hygienic science can make it."³⁶ The extensive attention to the technological and structural detail in this building description is noteworthy because it indicates the importance of technical information to the architect, the client, the newspaper, and most of all the public.

The list of technological innovations and the architectural organization of space closed with the statement that "the exterior will represent no particular school of

³⁴ *The American Architect and Building News* had a column called "Sanitary Plumbing" on biweekly basis. In the May 17, 1884 issue, for example, they ran the results of an experiment using various water traps, but did not yet believe this alone could solve the problem, 231.

³⁵ *The American Architect and Builder* 14 (July 1883), 315; and Wheelwright, "Schoolhouse," 94.

³⁶ Crooker, *Report, 1883-1884*, 27.

architecture, although the front and clock gable might suggest a remembrance of Queen Anne structures. . . . It is said by those who have seen the plans, that besides being the finest arranged school building in the State, it will probably take the lead over most of those in the country....”³⁷ The value and modernity of the building was attached to how the building functioned and how it met the needs of the emerging modernized school system. Clearly, the Bethune design was seen as forging a new standard for school buildings.

In spite of the disclaimer concerning style—“no particular school of architecture”—it is apparent that Bethune was concerned with aesthetics. The building had the symmetry of a long hall down the center from front to back, but the design worked to counter the predictability of this configuration. The stairways to floors above and below were part of the hallway, and the identically-sized classrooms were alternated parallel and perpendicular to the hall to give visual variety to the interior spaces. Each of the grade rooms was separated from the other by two wardrobes, a stairway, or a teacher’s lavatory to minimize the noise of one class interfering with another class. Once the room proportions were established, they were adhered to in following schools, although the ventilation probably had to be adjusted as it remains to this day the most difficult technical problem in public spaces. No Bethune classroom had less than 25 percent natural light ratio to the square footage.

From the outside, the building appeared to be a complex arrangement of rectangular sections with a prominent entrance extending out from the front elevation. Bethune placed entrances on both sides of the building with one of the side wings capped

³⁷ Ibid., 33.

by a steeplelike roof. This arrangement gave the building a cruciform footprint reminiscent of cathedrals, with a steeple underscoring the medieval reference. Bethune gave the school a prominent front door, which left no doubt about where one should enter, opening outward to a full width of twelve feet to make a safe exit in case of fire or other panic situation. The building was simply understated with historical accents like the small pediment at the front on top of the “town clock” over three Romanesque windows and three tiers of churchlike fenestration on all sides of the building.

This was an expensive school relative to the past expenditures, but it was also in a predominantly German district, known to support education. Until 1885, individual districts paid for the public schools constructed in the district, so this may have been a particularly receptive district in which to use a design influenced by German scientific research. The design was necessarily experimental, but the German community constantly pressured for educational improvements, mounted a well-organized campaign against the Common Council in the 1873 election that established German language instruction in some of the public schools, and was generally receptive to the additional expense.³⁸

It seems unlikely that a new architectural firm, started at the end of 1881, would have received such a prestigious commission as P. S. 8—a short eighteen months after opening the firm—without a proven track record. While Bethune’s professional association probably began while working on P. S. 31 in Waite’s architectural office,

³⁸ *History of the Germans*, 81; and Weed, *School Days*, 38. In 1885-1886, American students in the Buffalo public schools were half the number of German students; this school was subjected to arson in anti-German demonstrations in 1918. Also see, Gerber, “Our Celebrations.”

(Crooker was still P. S. 31's principal)³⁹ a professional relationship most certainly included some preliminary work, possibly P. S. 14 at 364 Franklin Street, although this cannot be proven. Superintendent Crooker lauded P. S. 14 as a safe, comfortable, productive school environment in terms similar to those he used to praise P. S. 8. This renovation, which stripped the school down to its 1866 exterior shell and included the installation of steam heat—the first in the Buffalo school system—marked the beginning of Crooker's agenda to provide all schools with proper heat, light, and sanitary facilities.⁴⁰ Because the original architectural shell of the building remained even though the entire interior was changed including the floors, architecturally this building would not have been listed by Bethune as an original structure in any architectural journal.

Bethune followed her success with P. S. 8 with two more important school commissions, both also meant to serve as models for the school system—a new building for District 24 at 487 High Street—named P. S. 39—and a new building, P. S. 38, in District 18, at 350 Vermont Street.⁴¹ These schools were on newly purchased lots and followed Crooker's criteria on building size and physical location out of the congestion of heavy industrial areas. Both schools were two-story brick buildings, had classrooms of equal size (twenty-two by thirty-four feet) throughout the building as provided in P. S. 8, and had a new feature, a full basement level to provide play areas for children during bad weather. These Bethune-designed schools opened in the fall of 1885 and were

³⁹ Weed, *School Days*, 51.

⁴⁰ Crooker, *Report, 1883-1884*, 34; Weed, *School Days*, 41. This facility served the district until 1935.

⁴¹ *The American Architect and Building News* 17 (February 28, 1885), 107; *The Inland Architect and Builder* 5 (June 1886), 79; *The Inland Architect and Builder* 8 (October 1886), 42.

“carefully purposed to furnish the best light and ventilation that scientific experience can secure.”⁴²

P. S. 38, the Vermont Street school, was planned for 600 students and had an L-shaped arrangement, which Bethune said resulted from trying to find room for a playground on the small lot, 150 x 156 feet. The suburban nature of the neighborhood allowed two sides of the building to face the street so a playground could be accommodated, and the L-shape plan also allowed more windows in the classrooms. *The American Architect and Building News* published a French design for a similar L-shaped school building after Bethune’s school was built, suggesting that the Bethune solution—the non-traditional L-shape—resulted from the experimental environment of the period.

Natural lighting was an architectural issue almost as critical as the challenges of the new indoor plumbing and the concerns for fire safety.⁴³ Economical electric lighting was still a decade away and even then probably not thought of as a total solution to the problem. In the 1880s, gas lighting posed fire safety and ventilation problems that made effective use of natural light critical, especially in schools in northern latitudes.

The description of the interior of P. S. 38 and P. S. 39 provides a rare look at what was considered optimum interior design. Each school had sixteen classrooms with cherry-wood desks, white walls, maple floors, and oak staircases for a “wholesome and substantial appearance.” The desks were arranged to allow natural light to fall from the left through stained-glass window-heads and clear lower windows, while the lavatories

⁴² James F. Crooker, *Department of Education: Report, Superintendent of Education, City of Buffalo: 1885-1886* (Buffalo: Laughlin and Co. Publishers, 1887), 37-44. Wheelwright mentioned the basement playroom facility over a decade later, but this basement function probably evolved from stop-gap measures taken by teachers in earlier schools.

⁴³ Weed, *School Days*, 97. Weed states that there were no major fires at Buffalo schools until Masten Park High School burned down in 1912.

were in their own wing of the main floor for girls and the basement for boys. That the lavatory “annex” was connected to the main buildings by “well ventilated” corridors indicates that sewer fumes remained a problem the architects were still unsure how to solve.⁴⁴

During the first year P. S. 38 and P. S. 39 were open, registration exceeded capacity at both schools by more than two hundred students, and Crooker did not hide his frustration in the following year’s report that these two schools, designed to be ideal learning environments, were immediately overcrowded and that he was forced to continue to rent space in substandard buildings. With his “model” schools—P. S. 8, P. S. 38 and P. S. 39—in place, the school system was still short of adequate classrooms, causing Crooker to blame the business community, which he saw as enticing workers into Buffalo, for not responding responsibly to the education needs they had created.⁴⁵

Schools, said Superintendent Crooker, still operated in buildings “crowded far beyond the limits of preserving health or of safety, while the pressure in others has banished comfort and convenience to the pupils and teachers alike, and retarded progress in school work.” In 1886-1887, registration of the public school system exceeded capacity in city-owned buildings by 3,000 students, and that was with 12,000 to 15,000 children in private and parochial schools.⁴⁶

The new unified taxation system, while remedying some of the inequalities of rich and poor districts in the city, did not solve the problem of inadequate school funding and

⁴⁴ Crooker, *Report: 1885-1886*, 41-42; and Hamlin, *School Houses*, 10. It is clear from Hamlin’s treatment of school buildings in 1910 that sewer gas still presented a problem.

⁴⁵ Crooker, *Report: 1885-1886*, 36.

⁴⁶ Crooker, *Report, 1886-1887*, 37.

the necessary long-range planning from the Common Council to allow the schools to keep pace with the growing population demands. The corporations were now paying a share of the cost imposed on the school system by industrial worker families, but industry's effect on the demography of Buffalo complicated the efforts to meet constantly increasing enrollment.

Crooker felt “progressive” forces had created an environment positive to business and that these businesses, largely manufacturing and railroad interests, had radically altered the physical makeup of the municipality. “The centers of population have been shiftedThe incoming of vast railroad corporations has caused the occupation of great tracts of territory whose population has been compelled to seek new homeswhole blocks—in some instances whole streets—have been appropriated by the railroads.”⁴⁷

One of the schools built to remedy this problem was P. S. 40, at 245 Oneida Street, in District 31, on Buffalo's East Side.⁴⁸ This Bethune commission was for a ten-classroom \$30,000 school for 450 pupils, built specifically to accommodate neighborhoods cut off by expansion of the East Side railroad terminal. The school served residents in a triangular area isolated from the city by train tracks on all sides.⁴⁹

Despite Crooker's repeated advice that the city buy lots for future schools while the price of land was low in areas not yet developed, the city ignored this forward planning and built additions to existing schools in overcrowded, older districts where land was expensive or unavailable. The addition to P. S. 4 at 325 Elk Street was such a

⁴⁷ Crooker, *Report, 1884-1885*, 28-29.

⁴⁸ *Inland Architect and Builder* 8 (December 1886), 87. The listing called it P. S. 31, but it is P. S. 40 in District 31—Oneida Street had only one school according to the 1894 *Atlas*, Plate 46.

⁴⁹ Crooker, *Report, 1886-1887*, 46; and Crooker, *Report, 1887-1888*, 38.

situation. In 1887, Bethune completed the work on the three-story brick structure facing Elk Street (a T-shaped building, 170-by-150-foot deep) and listed the \$45,000 building on her application to membership in the AIA, obviously feeling it was a fine representation of her design ability. But Crooker was less enthusiastic and clearly distressed by the overcrowding of the lot by the new building and by not being able to move forward with new schools on proper sites, calling the school a “fine and commodious addition to relieve the district from using rented rooms.”⁵⁰

Crooker was also strongly opposed to large school complexes, which P. S. 4 inadvertently became with this addition, because of the difficulties in controlling large school populations. The annexes to Carleton Street school (1,400 students) and to P. S. 31 (2,000 students) caused these schools to become “unmanageable.” After the expansion of Carleton school, P. S. 4, and P. S. 31, all constructed against Crooker’s wishes, the Common Council returned to Crooker’s policy of smaller, two-story buildings of fewer than 1,000 students possibly because of his argument that large populations and buildings over two stories took too long to evacuate in case of fire.⁵¹

The relentless population increase undermined Crooker’s campaign to provide all of Buffalo’s schools with the best facilities possible. Just providing schools with good quality sanitary facilities, cleaner and safer steam heat, fire escapes, and ventilation fans was almost impossible. In 1886, he began to stress other improvements in addition to construction of new buildings—calisthenics, new textbooks, and an increased emphasis

⁵⁰ *Inland Architect and Building News* 8 (December 86), 87; Louise Bethune, Buffalo, New York, to A. J. Bloor [New York City] ALS, 6 April 1888, Office files; Ser 1.1, Box 2L, Folder 2, p. 31, American Institute of Architects Archives, Washington, D. C.; and Crooker, *Report, 1886-1887*, 40-41, 44, 63.

⁵¹ Crooker, *Report, 1883-1884*, 36-37; Crooker, *Report, 1884-1885*, 33; Crooker, *Report, 1886-1887*, 50; Crooker, *Report, 1887-1888*, 37-38.

on teacher professionalism. Crooker encouraged teachers with normal school training to work for the Buffalo system, by paying them on a monthly rather than term basis and giving immediate notice on rehire status. Achieving these additional goals competed with his need for building funds, and his preference for teachers with normal school training, rather than high school training, caused him further problems once he became education superintendent for the state.⁵²

In 1888, Bethune announced that her firm had received a contract for a twelve-classroom school in District 26, 101 Milton Street, and an addition to P. S. 33, 751-755 Elk Street. The Milton Street school, a \$45,000 building, was located at the far eastern end of the industrial area and was built with the expectation of eliminating the cluster of old P. S. 26 buildings at Dole and Perry streets, between Elk and Seneca. Apparently school attendance growth did not allow the closing, and the old complex remained in use.⁵³ The schools on Elk Street, P. S. 4 and P. S. 33, Milton Street's P. S. 26, and P. S. 40 on Oneida Street were part of an attempt to bring schools in the poorer industrial area of southern Buffalo up to acceptable standards. All were paid for, because the new consolidated general education fund that allowed rate payers' money to be used in any district.⁵⁴ The South Buffalo industrial area was the most severely affected by the influx of workers. Factories, railyards, stockyards, and tenement buildings dominated the area, and living conditions were so appalling that Buffalo's Charity Organization Society

⁵² Editorial, "Appointments, a Superintendent of Public Instruction," *New York Times* (February 8, 1892); Editorial, "Record as Superintendent of Public Instruction Attacked," *New York Times* (May 31, 1894).

⁵³ *Architectural Era* 2 (Aug 1888), 149; Crooker, *Report 1887-88*, 41; Crooker, *Report 1890-1891*, 70. Repairs to the old P. S. 26 building are listed in Crooker, *Report 1886-1887*, 45; see *Atlas* plate 55.

⁵⁴ *Architectural Era* 2 (August 1888), 149; Crooker, *Report, 1890-1891*, 70; P. S. 33 was misprinted as being on "Elm" Street rather than the correct location of "Elk" Street and this caused one of the misattributions of Bethune's schools (checked against the 1894 *Atlas*).

formed the Committee on Sanitary Conditions in the Homes of the Poor. A cholera epidemic in 1892 hastened the passage of a new housing ordinance.⁵⁵

Crooker's annual reports were initially hopeful after the creation of a general fund for the schools in 1885, but the needs of the school system continued to outstrip the funds available. The Common Council moved slowly where bond issues were needed for buildings, such as the "bitter fight" between Crooker and the Common Council over closing the condemned P. S. 5, where Bethune's father was principal and which the Common Council repeatedly "un-condemned." Some buildings Crooker tried to eliminate were in fact private residences, and one was "rookery" farm building that in bad weather was not reachable due to flooding from Lake Erie.⁵⁶

After the 1890-1891 school year, Crooker took the post of head of the Department of Public Education for New York state. After a short-term interim political appointee, the principal of Buffalo Central High School, Henry P. Emerson, followed Crooker as superintendent for the next eighteen years. The struggle to provide classroom space for students did not abate. By 1897, with only two new schools built in the previous three years and more than 5,000 new enrollees, Superintendent Emerson had 7,000 students in rented structures and desperately recommended that larger schools be built.⁵⁷

In the 1890s, Buffalo attempted to find the least expensive way to meet its ever-expanding public school needs. The high standards and limits on building size that Crooker had established during his tenure in the 1880s were expensive to sustain.

⁵⁵ Lubove, *Progressives and the Slums*, 141. The Buffalo Charity Organization Societies (COS) helped Veiller thwart the attempt to repeal the building codes in New York in 1898-1900.

⁵⁶ Crooker, *Report, 1889-1890*, 85, 87, 91-92.

⁵⁷ Henry P. Emerson, *Department of Public Instruction, Annual Report, 1896-1897* (Buffalo: The Wenbourne-Sumner Co. Printers, 1897), 15-17.

Architects like Bethune had chosen the builder, the building materials supplier, and had supervised construction in order to prevent shoddy workmanship or the substitution of substandard materials. Cost-cutting on construction and authorizing larger buildings seemed the only way to assure the city's economic responsibility. Buffalo, like other cities at this time, dispensed with the architect's 5 percent fee in favor of relying on the contractor to supervise his own project. The danger of this arrangement usually became apparent if not sooner then later, especially when it was combined with awarding contracts to the lowest bidder.⁵⁸

The nationwide depression of 1893 simply accelerated the trend toward economy that was already in motion. Both *Architectural Era* and *The Brickbuilder* cited the possibility of seven school building commissions as the full extent of construction in Buffalo, and even these school commissions did not move forward until 1895. The pressure on the public schools was real; enrollment was at 45,000 students and increasing at a rate of approximately 5,000 per year with basements, hallways, and even bathrooms used for classes. The inadequacy of facilities to meet the demand could not be ignored. Emerson became convinced that larger school buildings were the only way to handle the growth in enrollees in Buffalo.⁵⁹

Buffalo's approach to school building shifted from a policy of structures incorporating the latest technologies to constructing the largest and least expensive

⁵⁸ Woods, *Craft*, 155; "Buffalo," *The Brickbuilder* 7 (March 1898), 67. Two schools were halted mid-construction by the default of the contractor whose lowest bid was selected in spite of having liens against earlier work—the city was left with the liability.

⁵⁹ Emerson, "Increased Attendance," *Report, 1893-1894*, 11-12; "Buffalo," *The Brickbuilder* 8 (January 1899), 18. The council continued to postpone purchasing four sites for "much needed" schools, but did pass a rule that all schools would be "fireproof" and much larger in the future—this led to a fireproofing scam a few years later.

buildings possible. The ever-increasing population and the passage of a compulsory education law that took effect on January 1, 1895, were only part of the demand for space in the schools. The economic depression added to school enrollments—fewer children working and possibly more parents determined that their children receive educational preparation.⁶⁰ Economic reality could not keep pace with the demands created by the democratic commitment to public education.

The Common Council made lower-grade-level school commissions into an award to the lowest bidder and held open competitions for the prestigious high school buildings. Because of Bethune's ethical stand against rewarding work through competitions, she never received the opportunity to build a Buffalo high school building. She did, however, receive commissions to build the Hamburg and the Lockport high schools—in towns about twenty miles from Buffalo—in 1898. The initial budget of the Lockport High School was \$57,000 and climbed to \$90,000 before the school was finished.⁶¹ Hamburg High School was designed, but may not have been built.

To summarize, Bethune completed seven new school buildings for the Buffalo public school system: Nos. 4, 8, 38, 39, 40, 26, and 33, and a high school for Lockport. See Appendix 3.

Bethune's school commissions were an example of how architecture is supposed to work. A client, in this case Superintendent Crooker, who had strong convictions about the quality of the buildings and the needs they had to meet, engaged the architect's strong commitment to meet those needs while implementing the latest technologies; together

⁶⁰ Henry P. Emerson, "Work of Special Teachers," *Superintendent's Annual Report, 1894-1895* (Buffalo: The Wenbourne-Sumner Co., 1896), 14.

⁶¹ *Architectural Era*, 3 (August 1889), 179.

they created structures that established the direction for an evolving building type. The buildings should be assessed qualitatively—highly crafted and designed to include everything that was necessary while excluding expensive luxuries. Bethune’s buildings were well crafted, the result of carefully choosing the contractor and supervising the construction, done on time to meet the school system’s schedule, and visually aesthetic landmarks. Crooker summed up the Bethune schools:

The new school houses that have been constructed are of superior order. While of tasteful design and construction they are devoid of needless ornamentation. They have been built after the best modern plans, which I have had under careful study for years, in order to secure the best conditions of lighting, heating, ventilation, and sanitary purposes . . . They are as perfect in sanitary conditions as the present knowledge and skill in the science and art of plumbing and other arrangements can make them.⁶²

These schools designed with Bethune’s architectural sensitivity and familiarity with the issues as the daughter of a school principal in Buffalo’s most overcrowded district, earned Crooker public support for a decade. It was a fortuitous combination for Buffalo. Crooker used the rhetoric of health and safety to justify each new school, and Bethune used the many-layered problem to create what became the building code standard for schools in the country. The process of looking for schools designed by Bethune in contemporary professional journals revealed just how much fire safety, ventilation, and sanitary engineering were the burning issues of the day and that consensus had not been reached in the architectural profession on how to apply the new scientific discoveries to their solution. A quarter century later, schools would be

⁶² Crooker, *Report, 1887-1888*, 39.

routinely seen as a gauge of the enlightenment of the community, made possible by the professional skills of many talented and dedicated people like Crooker and Bethune.⁶³

At the end of 1885, after the completion of public schools 8, 38, and 39, the Cosack and Koerner Lithography building, as well as the public approbation of these structures, Bethune received a New York state commission to design an armory building for the 74th Regiment of the National Guard. This building provided a large open drill hall for maneuvers and a section of offices, classrooms, and eating facilities. The 120-by-285-foot three-story brick structure had Union Bridge Company iron trusses providing a support-free drill arena. The original budget of \$40,000 was increased to \$54,000 during construction.⁶⁴

The decision to build the armory came in the midst of publicity surrounding the opening of the elite armory the 7th Regiment built on Park Avenue in New York in 1879. President Rutherford B. Hayes was in attendance at the opening of the almost \$600,000 building, which was publicized as meeting the need to protect the citizenry from riot and destructive assaults from the worker class. According to historian Robert M. Fogelson, the armory and all subsequent armory projects were easily funded on the wave of middle and upper-class fears of worker riot and property destruction. While the rash of armories built at the end of the nineteenth century seems to support the common characterization of the period as one of industrial violence and social turmoil, Fogelson demonstrated that the armory locations were not militarily strategically important. They were built in

⁶³ Crooker, *Report, 1883-1884*, 34; Hamlin, *School Houses*, 4. “The schoolhouses of any community are gauges of its enlightenment.”

⁶⁴ *The Inland Architect and Builder* 5 (June 1885), 79; *Atlas*, Plate 33; *The Inland Architect and Builder* 6 (January 1886), 118.

middle and upper-class neighborhoods for the convenience and comfort of the residents who served. The armories were a new building type, functioning as a “military clubhouse” or “military schoolhouse,” serving to recruit support for the volunteer army.⁶⁵

After 1865, the casualties of the Civil War and the accompanying distaste for war made the volunteer army unpopular, little more than a refuge of the superfluous and self-important. Recruitment was dismal and units were disbanding.⁶⁶ Some impetus was needed to reengage the propertied class that made up the volunteer army and motivate their lobbying efforts and personal donations. The railroad workers’ strike of 1877 supplied the rhetoric for fundraising, and Philadelphia architect Frank Furness supplied the aesthetic.⁶⁷

Furness’s Philadelphia Troop One armory was one of the first post-Civil War armories, built during the 1873 depression, when Furness had to let the soon-to-be famous architect Sullivan go to Chicago because of lack of work in Philadelphia. His small fortresslike \$30,000 structure, reminiscent of fourteenth-century Italy, suggested an aesthetic that led to gigantic structures costing hundreds of thousands of dollars over the next four decades until “armory fund” became synonymous with pork barrel in the early twentieth century.⁶⁸

⁶⁵ Robert M. Fogelson, *America’s Armories: Architecture, Society, and Public Order* (Cambridge: Harvard University Press, 1989), 23, 54, 79, 96-97. The same middle and upper-class New Yorkers who served in the National Guard were members of the Public Parks Protective Association. Their nineteenth-century fight against the use of either Washington Square Park or Central Park for armory sites has prevented incursions on those areas since. The 7th Regiment Armory cost \$589,000.

⁶⁶ *Ibid.*, 18.

⁶⁷ Carl Smith, *Urban Disorder and the Shape of Belief: The Chicago Fire, the Haymarket Bomb, and the Model Town of Pullman* (Chicago: The University of Chicago Press, 1995), 238-246. Smith addresses the intense rhetoric used by the press, based on the Haymarket bombing more than the current incidents and the effect of that heated reporting on the events of the Pullman strike.

⁶⁸ *Ibid.*, 15-16, 66.

Bethune's design for the 74th Regiment National Guard Armory was large, but holding to her modernistic sense of appropriate style did not indulge in the elaborate stonework or expense of Furness's Philadelphia armory or that of the state funded armory that replaced hers in 1900. The replacement armory for the 74th and the new 65th Regiment armory, costing \$1.4 million, typified the height of the armory craze. Bethune's building met a more modest goal of supplying comfortable offices, adequate drill space, and eliminating the rental costs of dilapidated dangerous structures.⁶⁹

The completed building had an attic space under a pitched roof and a full basement with a cut stone foundation. The second floor had markedly Romanesque-style windows in groupings of three, while the first and third-floor windows, also set in groups of three, had a gentle curve to them. A stepped cornice reminiscent of Dutch row houses marked the main entry; the portico probably was added when the building became Buffalo's music hall. The southwest corner projected slightly from the building in a tower reference, but the structure had none of the forbidding castlelike appearance of the old New York State Arsenal built in 1858.

This was not a formidable structure or one intended to be "defensible" in the military sense. The 65-by-120-foot office, library, and dining portion of the building resembled Bethune's school buildings, while the drill hall to the back was 120 by 220 feet. Multiple carriage doors separated by pairs of small Romanesque windows extended the length of the drill hall. Like New York's 7th Regiment Armory, which was in an

⁶⁹ Ibid., 55, 67, 14, 221. Both of the expensive armories built at the turn-of-the-century burned down; the 65th fire in 1931 was one of the worst in Buffalo history.

exclusive neighborhood, the 74th was located within the upper-class residential neighborhood of Delaware Avenue.

Most armories were used for occasional public events (like the 1913 Armory Show in New York that introduced modern art to America), so when the 74th Regiment outgrew their Bethune-designed facility at the turn of the century, the building became a full-time public event space, unfortunately it was not designed to accommodate concerts. The Elmwood Music Hall, as it was renamed, received a great deal of criticism over the decades, the most stinging from Yehudi Menuhin and most ominous from Edward and Mary Kleinhans. Menuhin threatened not to perform unless the Elmwood streetcars were stopped during his concert; the trolleys ran on and Menuhin played. But the Kleinhans' designation of funds for a proper concert hall, in 1934, doomed the music hall, and it was replaced by a state-of-the-art concert hall by Eero and Eliel Saarinen, which is still in use.⁷⁰ It was probably fitting that such an important nineteenth-century landmark would be replaced by the work of a world-renowned architectural team.

The construction of armories is generally portrayed as one of the signs of a society faced with the “frightening specters of political and social disintegration.” George Cotkin is only one of the many historians who declared that “political corruption and major convulsions of labor protest had dominated the 1870s.”⁷¹ The problem is that this thesis may overstate the situation. Armories were built throughout the nineteenth

⁷⁰ George Kunz, “Elmwood Music Hall,” *Buffalo Memories: Gone But Not Forgotten* (Canisius College Press, 2002), http://wnyheritagepress.org/photosofweek/elmwood_music_hall.htm (accessed June 28, 2006); David M. Rote, “Kleinhans Music Hall,” City of Buffalo, http://www.ci.buffalo.ny.us/Home/OurCity/Buffalo_My_City/Buffalo_My_City_Watercolors/41A_Kleinhans_Music_Hall, (accessed June 28, 2006). The Kleinhans donation was matched by WPA money.

⁷¹ George Cotkin, *Reluctant Modernism: American Thought and Culture 1880-1900* (New York: Twayne Publishers, 1992), 101; Fogelson, *Armories*, 167. In not one of the riots after 1877 did rioters lay siege or attack armories in any way.

century and represented above all the successful lobbying of a political group of “patriotic volunteers” for facilities they felt made it worth while for them to support the volunteer army.

Historian Daniel R. Ernst points out that most late nineteenth-century worker confrontations were boycotts of individual employers. Of the 1,339 labor boycotts between 1885 and 1892, in New York state over three-fourths were local conflicts in the construction trades, baking and brewing establishments, garment and cigar making shops, and printers, waiters, and butchers.⁷² These were the disputes employers took to the court system for resolution; there were numerous incidents, but they were focused disputes in individual work places. This is not to ignore the use of the national guard to put down large strikes and demonstrations such as the 1877 railroad strike. In reality the new armories, like new city halls, were self-serving signs of city pride.

This was certainly the case in Buffalo, a city constantly comparing itself to New York City. When New York built the 7th Regiment Armory, it was acclaimed as the “finest armory in the world”; the long-standing discussion about the adequacy of the pre-Civil War State Arsenal was revived. But the structure designed by Bethune was nothing like the pseudo-fortress of the old 1858 building, and while the railroad strike of 1877 and later the Haymarket explosion of 1886 supplied dramatic examples of the public disorder possible, it was the doubling of population in the nation’s cities in a time span of less than a decade that probably did more to promote police reorganization and raise concerns about eliminating national guard units.

⁷² Daniel R. Ernst, “Free Labor, the Consumer Interest, and the Law of Industrial Disputes, 1885-1900,” *The American Journal of Legal History* 36 (January 1992), 23.

In 1885, Bethune began executing commissions for designing new police stations for Buffalo and renovating existing ones. The population expansion into new areas of Buffalo caused the Buffalo Police Commission to reorganize in the early 1880s and build a new main headquarters building with all the amenities, which meant indoor plumbing. In 1883, the reorganized police department had 220 patrolmen, four captains, six lieutenants, and eight detectives. Three years later, this had expanded to 334 policemen. The ten precincts were growing as fast as the population, which was in the process of doubling and pushing outward in all directions.⁷³

Between 1885 and 1888, Bethune designed four new police headquarters buildings and stables in previously unprotected districts and did major renovations on three others—possibly including upgrades of kitchen and sanitation facilities.⁷⁴ Like the school projects, these police stations were highly defined functional buildings built on a tight budget that would serve the city for decades. From the photograph of Station 8, which cost \$16,000, one sees the dignified public service outpost, solid and unassuming, and, at the time, the only really permanent structure in the neighborhood.

In response to population pressures and the need to enlarge hospitals, Bethune designed an \$8,000 wing for the Homeopathic Hospital at the corner of Twelfth and Maryland streets on Buffalo's west side.⁷⁵ The hospital began as a free dispensary in 1867, and in spite of a political confrontation with the traditional medical community its

⁷³ Smith, *History*, 520; Elstner, *Industries of Buffalo*, 19; <http://historical.library.cornell.edu/cgi-bin/cul.nys/docviewer?did=nys200andseq=7andframes=0andview=50> (accessed March 4, 2006).

⁷⁴ *The Inland Architect and Builder* 8 (August 1886), 11; *The Sanitary Engineer* 14 (July 8, 1886), 140. Later that year there was a \$3,000 addition to Police Station No. 5 on Niagara Street between Clinton and Bird. *The Inland Architect and Builder* 8 (October 1886), 42. See Appendix A.

⁷⁵ *The Inland Architect and Builder* 7 (April 1886), 48. This Maryland Street neighborhood was where the Orphan Asylum, Widows and Infants Asylum, and the Asylum for the Deaf were also located.

homeopathic approach was respected and widely used. Demand for homeopathic treatment continued to increase with the advocacy of Dr. Sarah Morris, who arrived in Buffalo with her husband in 1881, delivered papers and lectures as a member of the Western New York Homeopathic Medical Society and the Erie County Medical Society. Morris was also active in the temperance movement, but considered alcoholism a medical and not a moral problem.⁷⁶

By 1886, enlargement of the Free Dispensary could not be delayed. The dispensary was the primary function of nineteenth-century hospitals, which usually had one resident physician and a druggist-apothecary and as charity institutions struggled to keep pace with the expanding population. The Homeopathic Hospital trustees negotiated for the large lot left after the Pierce Palace Hotel fire of 1881, but apparently had to settle for an extension to their original building.⁷⁷ Bethune was engaged to design and supervise the expansion, which included facilities for the newly instituted specialty divisions of surgery, general medical, children, skin, nervous system, eye, ear, nose and throat, genitorurinary, and women's conditions.⁷⁸

Louise Bethune's public clients from 1883 to 1888 were similar in that they operated in a community committed to public improvement, but were necessarily concerned about costs. This research suggests that Bethune became known for her

⁷⁶ Brenda K. Shelton, *Reformers in Search of Yesterday: Buffalo in the 1890s* (Albany: State University of New York Press, 1976), 22, 34. Morris was born in Maine in 1832 and received her education at the New England Female College. She was active in the Women's Educational and Industrial Union and created a home for the rehabilitation of alcoholics. "While prohibitionist activities made good newspaper copy, they attracted little real support in Buffalo; somehow they never became quite respectable."

⁷⁷ Smith, *History*, 45-47.

⁷⁸ Charles E. Rosenberg, "Social Class and Medical Care in 19th-Century America: The Rise and Fall of the Dispensary," in Judith Walzer Leavitt and Ronald L. Numbers, eds., *Sickness and Health in America: Readings in the History of Medicine and Public Health* (Madison: The University of Wisconsin Press, 1985), 273-275.

architectural process—the careful application of the most current applicable technological improvements, a tight adherence to budget, and her consideration for human users—rather than for any of the historicist architectural styles.

Bethune produced buildings many architects longed for in theory, but the simple traditionalism of their external appearance drew little attention from her contemporaries. Isaac Hodgson, known for his work in the French Classical and Gothic traditions, read a paper calling for an “American” architecture at the WAA Annual Convention in Chicago in 1886. He wanted an architecture that followed the laws of mechanics, the scientific rules that would produce buildings of “simplicity and breadth of design,” buildings that would “practice economy by using quantity and strength of materials warranted and justified by accepted authorities.”⁷⁹ Many architects desired the emergence of an American architecture of practical simplicity, but this was countered by their own need to design idiosyncratic work that would call attention to the building and its architect. Bethune’s approach and her buildings put into practice what others merely talked about.

Most of Bethune’s residential architecture was for Buffalo’s merchant and industrial classes, many of them were the same people who funded public services as civilian board members and many had wives and daughters who served on the charity committees that petitioned the city politicians, more or less unmercifully. But in her school and police station work, she became the architect of Buffalo’s south side industrial area. Bethune’s style conformed to the budget, incorporating as many aesthetics as possible, but not allowing them to drive the budget as was often the case. Her priority

⁷⁹ “Western Association of Architects, Annual Convention in Chicago, November 17, 1886,” *Sanitary Engineer and Construction Record* 14 (November 27, 1886), 615-616. Hodgson was from St. Paul and one of the most important architects in the West.

was good materials and workmanship. Municipal leaders called upon Bethune at least twice to design and supervise city projects that had become difficult politically and/or economically and needed unimpeded completion—the Niagara Power Station and the Lafayette Hotel.

But what concerned the architects' professional organizations was that there was nothing to prevent a builder not committed to those goals from declaring membership in the profession and endangering the public as well as the reputation of the profession. As late as 1889, *The Architectural Era* pointed to the success of doctors and engineers in professionalizing their areas of expertise while architects still fretted that “any man may hang out his shingle and be an architect.”⁸⁰ Bethune's and her profession's response to this problem illustrate the pattern of professionalization in architecture in the late nineteenth century.

⁸⁰ “Licensing Architects,” *The Architectural Era* 3 (November 1889), 253.

CHAPTER 6

BUILDING PROFESSIONALISM

She has done the work by herself, and been very successful.
—Charles E. Illsley, 1885¹

In 1888, Bethune applied for membership in the AIA, American architecture's most prestigious association. She submitted drawings and technical specifications from seven buildings: Hoffman's Millinery House, Police Station No. 2, Public School No. 4, and residences for a steam locomotive industrialist, a grain elevator and linseed oil magnate, an Erie Canal entrepreneur, and the family of a Civil War hero. These were substantial commissions, as one would expect in an application for the nation's premier architectural society, chosen to demonstrate the versatility of her work. This elite organization expected quality, broad expertise, and support from substantial clients. The AIA also required three years as principal in a firm to enter as a fellow; Bethune had seven.²

The expanded economic opportunities for architects and builders in Buffalo and most American industrial cities in this period brought attention to the loose definition of architect and the lack of professional differentiation from builders. Historian Sam B.

¹ "The Convention," *The Inland Architect and Builder* 6 (November 1885), 69.

² A. J. Bloor, New York City, to Louise Bethune [Buffalo, New York], ALS, 6 April 1888, Office Files, Ser. 1.1, Box 2L, Folder 2, 13, American Institute of Architects Archives, Washington, D. C. The residences were for Horatio Brooks of Dunkirk, Spenser Kellogg of Buffalo and George Waterman of Albion, and the estate of A. J. Meyer.

Warner, Jr., notes that in the thirty years between 1870 and 1900, 22,500 houses were built in Roxbury, West Roxbury, and Dorchester, Massachusetts, by 9,000 individual builders. “No legislation save the law of nuisance and a few primitive safety codes prevented these 9,000 landowners from doing anything they wanted with their property.”³ In order to protect the public, architects needed to assert the authority of their expertise to meet the municipal expansions of urban areas. Conditions that should have led to a Golden Age for architects actually precipitated a crisis in the profession.

Competence in the new sanitary engineering and fireproof construction technologies, well understood by Bethune, drove the professionalization of architecture. Bethune also played a role in recruiting qualified architects who would lobby for licensing legislation for professional practice. As a member of the WAA, she was on the Committee on Formation of State Associations in 1886, the Standing Committee to Collect Legal Decisions Relating to Building Interests for New York state in 1888, and second-vice-president. She was on the nominating committee of the Western New York State Architects Association, second vice-president of the Buffalo Society of Architects and later treasurer.⁴

In the nineteenth century, architecture was a self-regulated profession; however, issues of health and public safety challenged professional expertise and led to membership requirements and regulations for professional education and conduct. These

³ Warner, *Streetcar*, 37.

⁴ “The Convention: Official Report of the Second Annual Convention of the Western Association of Architects, held at St. Louis, November 18, 19, 20, 1885,” *The Inland Architect and Builder* 6 (November 1885), 78; “Third Annual Convention of the Western Association of Architects. Held at Chicago, November 17, 18, 19, 1886.” *The Inland Architect and Builder* 8 (December 1886), 79; “Western Association Meeting at Chicago,” “Buffalo’s Society of Architects,” *The Inland Architect and Builder* 7 (April 1886), 46; Woods, *Craft*, 39. Bethune entered under the new guidelines that stipulated architecture as the “sole occupation.”

concerns demanded changes in building practices that amounted to a revolution in the profession. In fact, health and public safety were so closely bound to the actions and liability of architect, contractor, and engineer as to define the roles of each during the last quarter of the nineteenth century, and this definition continues today.

At the second annual WAA convention in 1885, after Bethune's induction, Louis Sullivan led a debate over what was to be the official definition of an architect in the organization's constitution. The first part of Sullivan's definition, which stated that an architect "is a professional man whose sole ostensible occupation consists in supplying all data preliminary to the material, construction, and completion of buildings," met objections as to what was meant by "sole ostensible occupation." The first objection was to the word "sole" and a member posed a hypothetical example—what if Mr. Sullivan made his living as a banker and designed buildings—laughter erupted and Sullivan agreed to withdraw the word "sole" if the hypothetical example was withdrawn.

The debate continued to include concern for the architect's role as supervisor of contractors, materials acquisition, incidental laborers, and arbiter of contracts between contractor and proprietor. Each of these areas presented the possibility of contention between architect, contractor, and client and was critical to the successful completion of a building. The supervisory role of architect in each area of responsibility became part of the new constitution in an effort to address professional authority over tradesmen and reinforce among clients that this control was necessary and in their best interests. Sullivan and others saw licensing, successfully exercised by engineers and doctors, as key to improving their effectiveness. Engineers, in demand for their expertise in

infrastructure issues, posed no threat to the domain of the architect, but they did present a successful model for the authority architects sought to have as professionals.

Responding to the second objection to Sullivan's definition, the membership voted to change "man" to "person" since Bethune had just been inducted and decided that Sullivan's "sole" should remain.⁵ The official definition became; "a professional person whose sole occupation is to supply all data preliminary to the material, construction and competition of a building and to exercise administrative control over contractors supplying material and labor . . . and [over] the arbitration of contracts stipulating terms of obligation and fulfillment between proprietor and contractor." There was nothing in this definition that would have prevented a woman from doing the job even if she did not care to climb ladders on a construction site. Because of Bethune the WAA became the first professional association in the United States to use a gender-neutral term in its definition of a member.⁶

Though it took just one afternoon for the WAA to define "architect," the distinction they drew between themselves and builders, contractors, and real estate developers was not so clear to the public. Using the precedent of the medical profession, licensing was seen as the standard needed to give the public a way to distinguish a properly trained architect from "any man" with the inclination to list himself in the city directory as an architect. Licensing would also help enforce ethical compliance within the profession and force practicing architects to conform to a code of ethical and business practice. Bethune, experiencing no discrimination because of her sex, saw the profession

⁵ "The Convention," 71.

⁶ Woods, *Craft*, 39.

open to any *qualified* person and put her energy into soliciting everyone doing architecture in western New York to join the WAA.

Bethune and fellow architects saw that architecture's distinction needed to come from standards established through education, practical training, and professional oversight. Bethune expressed concern in her 1891 Union lecture that young women were stopping short of acquiring the practical training and professional oversight.⁷ In the 1880s, these new standards were difficult to establish and codify, because for most architects entry into the profession was still through a variety of paths—elite education, family connections, or working in one of the trades and apprenticeship in the business of an older architect. The apprenticeship was almost the only commonality they had.⁸

Rapid technological change was the impetus for establishing university architecture programs that enhanced professionalism and addressed concerns about new building structures and business organization. Sanitary engineering for architecture was a prime consideration in the creation of the first university architectural program at MIT in 1866, headed by William R. Ware. One of its goals was to make its graduates as knowledgeable about the field as engineers. This and the need for more engineers specializing in sanitation prompted Columbia University to offer architectural courses in its engineering program at the School of Mines in 1881.

MIT's Ware was hired to establish the Columbia program, which had no architecture in the first year—all classes were with the engineering and chemistry students. Other early university architecture programs at the University of Illinois

⁷ Bethune, "Women and Architecture," 21; Woods, *Craft*, 99. The 1870 census listed one woman architect, 1890 listed twenty-two, 1900 listed one hundred or 1.9 percent of all architects, designers, and "draftsmen."

⁸ Woods, *Craft*, 168.

(Nathan Clifford Ricker) and at Cornell (Charles Babcock) also sought to make the architecture student current in sanitary engineering, heating, and ventilation.⁹ These programs were the most closely watched and regulated part of the profession, but the inclusion of higher math, science, and advanced French did not make them necessarily an overwhelming first choice of potential architects.¹⁰ Architectural offices in need of draftsmen created far more potential architects through apprenticeship than the new university programs.

The limitations of the apprenticeship path into the profession became apparent and were regularly commented on at AIA annual meetings to the point that John Root amused the membership with a satire on the Dickensian relationship between principal architects and their “Bob Cratchit” draftsmen-apprentices.¹¹ Apprentices were to learn from a master—not learn to steal their architectural designs—and the master architect was supposed to train the apprentice, not bury an aspiring architect in drafting assignments. The profession exerted considerable control over university programs, but it was unsuccessful in regulating how apprenticeships were run in individual architect’s offices.

The WAA and AIA sought licensing for internal professional regulation, objectifying the qualification process by having an independent board administer an exam. It was only in the late 1970s that the AIA began to control what apprentices were

⁹ A. D. F. Hamlin, “The School of Architecture,” in *A History of Columbia University, 1754-1904* (New York: The Macmillan Company, 1904), 381.

¹⁰ Myron Church, “Course of Study for Junior Members,” *The Inland Architect and Builder* 7 (February 1886), 4-5.

¹¹ John W. Root, “A. I. A. Annual Meeting,” *The Architectural Era* 3, suppl. (December 1889), 264. “It is the architect’s duty to suitably impress his client. He must therefore tell what he has done, and if within five years of the time he has been employed as draughtsman for another architect, he should claim as his own all the best work of his late employer.”

to learn during their apprenticeships, which they did through making a list of minimum times required for each set of critical skills needed to become licensed. As of now most, but not all states have included these in their licensing requirements.

The WAA started working toward the goal of professional architecture licenses, drawing up a proposed bill for licensing and presenting it to the full membership at its first convention in 1885 along with proposals for a federal Office of Commissioner of Architecture and a Board of Public Buildings.¹² The specific duties of the architect might not be apparent to the public, but licensing was a concept the public recognized.

Historian Mary Woods notes that the definition did not refer to the creative aspect of the profession that was so prominent in the definition stated by Thomas U. Walter at the founding of the AIA in 1857. The WAA stressed the business aspects of architecture, which Woods attributes to the involvement of its authors with large companies as clients.¹³

Licensing efforts were the first priority for architectural societies in the 1880s. Self-regulation—licensing through peer review—was much of the motivation for the formation of the WAA in 1884.¹⁴ The professional journals applauded the formation of the WAA as an expansion of architectural professionalism, which opened membership in a national society to all architects, and while it was left unsaid directly, the journals implied that this openness was something lacking in the AIA. This perception that the AIA was “conservative, and somewhat exclusive” compared to the Western Association,

¹² “The Convention,” 72-73.

¹³ Woods, *Craft*, 39-40.

¹⁴ D. H. Burnham, F. A. I. A., “Suggestions toward Harmonizing Architectural Associations,” *The Inland Architect and News Record* 10 (October 1887), 42-43; “AIA and WAA Proceedings at Cincinnati, Ohio,” *The Architectural Era* 3 (November 1889), 256. Of the WAA architects, 246 of 346 members voted to combine with the AIA.

“a young vigorous and enthusiastic society,” was so common that *The Architectural Era* reminded its readers when the two institutions merged in November 1888 that the AIA had done much in the past to pave the way for the legal protection of the profession that appeared imminent.¹⁵

The staid, elitist reputation of the AIA may be why Bethune did not join a professional society until the WAA was created. She applied to the new society as soon as it formed, but since she could not be confirmed until the vote of the full body at the St. Louis annual meeting in November 1885, she did not attend the meeting.¹⁶ At the opening of the convention, Burnham, chairman of the board of directors, separated Bethune’s membership from the bulk of new memberships to be voted on. When a member suggested her acceptance would set the precedent, Burnham replied that he indeed wished a specific vote on the inclusion of women so that a specific decision could become part of the constitution they would be voting on later in the convention. The association then voted on the hundred and ten applicants and Bethune’s application was placed as first on the agenda after lunch when her membership came up as a “bit of unfinished business.”

President Charles E. Illsley asked the committee members if they were prepared to “recommend the party in all respects except the fact that she is a lady?” It appears that Illsley wanted the membership to face the issue of Bethune’s qualifications first and her gender second, thus calling attention to those qualifications. Louis Sullivan answered

¹⁵ Editorial, *The Architectural Era* 2 (December 1888), 226.

¹⁶ Louise Bethune, Buffalo, New York, to Henry Lord Gay [Chicago], ALS, 12 November 1885, box 2, folder 1, RG 800, Western Association of Architects, American Institute of Architects Archives, Washington, D. C..

yes, and Burnham confirmed the candidate's worthiness, but requested that the convention vote on whether it "desires to admit women to the associationWe would like the By-Laws interpreted." A member requested the opinion of the board of directors (Chairman Burnham, William L. Plack, Sidney Smith, Samuel Atwater Treat, and Sullivan), and Burnham replied, "We are all agreed; we are very much in favor of it."

The vote on admitting women passed. Illsley then called for a vote on Bethune saying, "Mrs. Louis[e] Bethune is the applicant. Her husband was an applicant, but withdrew. She has done the work by herself, and been very successful." A member said, "If the lady is practicing architecture, and is in good standing, there is no reason why she should not be one of us." Bethune was then voted into membership, and Illsley announced, "She is unanimously elected a member."¹⁷ "Mrs. Bethune" was the proper address for Bethune, but Illsley countered any implied lower status by noting that her husband had withdrawn his application in order to put her application before the WAA completely on the merits of her own work. He underscored this by stating that the work was hers alone.

Understanding that her induction was not a routine one, Bethune wrote a note of appreciation to John W. Root, the secretary, in response to her notification of acceptance. She commended the "delicacy and adroitness with which the nomination and election were handled." She went on to say, "I am particularly sensible of the kindness the association has rendered me, and the honor it has done itself in preserving my admission

¹⁷ "The Convention," 69.

from any taint of ridicule or notoriety. If the society's new member is no great acquisition, its new measure's certainly creditable and progressive."¹⁸

Bethune's admission to the WAA made any thought of the AIA not adopting a similar policy moot when the two organizations united three years later. It is also interesting, in light of the reputation of Burnham and Sullivan in the scholarly literature for egoism and misogyny, that they, as members of the board of directors, declared strongly in favor of Bethune in particular and women members in general, as was recorded in the official report of the convention printed in *The Inland Architect and Builder*.¹⁹

It appears from the minutes of this convention that the general mood toward their first woman member was positive. On the second day, the committee on the organization of state associations submitted its list of state representatives. Edson Homer Taylor of Cedar Rapids, Iowa, moved that the state of New York be added to those forming membership committees now that there was a representative from that state, even though New York was not a western state. The motion was accepted with applause, and Bethune, the representative from the "western city" of Buffalo, was named New York's

¹⁸ Louise Bethune, Buffalo, New York, to John W. Root, [Chicago], ALS, 7 December 1885, box 2, folder 1, RG 800, Western Association of Architects, American Institute of Architects Archives, Washington, D. C. (hereafter cited as AIA Archive.)

¹⁹ "The Convention," 69; the AIA validation of women as architects was not as enthusiastic when Bethune was inducted into the AIA in 1888. AIA Secretary A. J. Bloor who handled (or mishandled) her AIA induction and was a guest of the WAA convention that accepted her in 1885 went on record after that convention with his opinion on accepting Bethune, "In private, I was asked my views on the question of her admittance, and, as an individual, I expressed myself in favor of it. It appeared her husband is an architectural practitioner, which suggests facilities that might not otherwise exist in the matter of supervision of buildings in the process of erection"; in "The Proceedings of the Twentieth Annual Convention of the American Institute of Architects, held in New York, December 1st and 2nd, 1886," material pertaining to the Western Association of Architects, RG 509, 41, AIA Archives.

committee representative.²⁰ The applause and its mention in the minutes denoted a deliberate gesture on the part of the members present to embrace Bethune's membership.

It seems clear from the minutes that the board of directors and Root as secretary realized with the reception of Bethune's application that a critical issue would be addressed in the voting. It was customary for the board to review applications sent to the secretary and to vote on their recommendations before the full membership meeting. When the vote came to the full body it was understood that the applicants had been fully vetted and that by a simple voice vote was all that was needed unless particular applications were held aside for separate discussion. When Bethune wrote to Root that she would not attend the St. Louis convention, she had been informed that she had been accepted by the board but that it would not be official until the full body voted and that the outcome of this vote was not predictable.

Historian Margaret Rossiter has shown that the admittance of women into professional societies in the last quarter of the nineteenth century was a history of opportunity for women curtailed. For example, the American Association for the Advancement of Science reacted to the influx of qualified women applicants in the 1870s by constructing a higher level of membership called "fellows." This allowed women to be nominal members without voting rights or the right to be denied or rewarded for contributing "professionally" to science. While the number of women members continued to increase (forty-seven joined in Boston in 1880 and fifty-one joined in Philadelphia in 1884), only five became fellows in this five-year period. Rossiter found

²⁰ "The Convention," 78.

that the all-male category of fellows allowed the word *professional* to become a “synonym for an all-masculine and so high-status organization.”²¹

The AIA had never entertained even this limited membership for women. It was an exclusive artistic “gentlemen’s club”; it had no public lectures or exhibitions, the library, and the drawings, and models were only accessible to members. The AIA elitism was evident in its membership numbers. In 1870, there were 2,000 architects in the United States of whom only 140 were AIA members. To be a full member or fellow (after 1858), the architect had to be a principal in an architectural firm for three consecutive years. A student with three years of office experience was an “associate,” a distinction that still exists. The AIA also was geographically elitist with most members from New York City and two-thirds were from New York, Boston, and Philadelphia.²²

When the Chicago architects formed the WAA in 1884, according to Woods, it was in the populist and egalitarian spirit of the earlier antebellum architectural science. Dankmar Adler, Daniel Burnham, William LeBaron Jenney, John Root, and Louis Sullivan were all members of the AIA, but were denied leadership roles. In forming the WAA, they decided to overwhelm with numbers by admitting all AIA members, all members of state associations, and by allowing any currently practicing architect to apply. All members were “fellows”; there were no levels of membership, although the second convention did formalize the definition of architect to provide a guideline for defining membership, which did not exclude women.²³

²¹ Rossiter, *Women Scientists*, 76-77.

²² Woods, *Craft*, 35-36.

²³ *Ibid.*, 39.

After being admitted and appointed to the Committee on Formation of State Associations in 1885, Bethune immediately and effectively began her work, organizing the Buffalo architects by February and those of western New York by the next March. At the 1886 convention in Chicago, she announced the formation of the Buffalo Society of Architects, with fourteen members who were “working harmoniously,” and said she was turning her attention to other cities in the state. *The Sanitary Engineer* commented that “Mrs. Bethune, the one lady member of the convention bears the distinction with great dignity,”²⁴ which meant she commanded respect with no special considerations because of her gender. The speed and effectiveness in bringing together the Buffalo and western New York architects is a good demonstration of Bethune’s organizational skills, which indicates how her small firm could handle the volume of work it did.

In 1887, Bethune’s efforts led to the formation of the Western New York Association of Architects, a chapter of the WAA, with thirty-one initial members responding to Bethune’s letters of interest; she served on the steering committee in its first year and then on the nomination committee. In the Buffalo Society of Architects, the Buffalo chapter of the WAA, Bethune served on its steering committee the first year; then as second vice-president in 1887 and first vice-president in 1888, and later as treasurer from 1895 to 1896. The Buffalo society became the larger and more active chapter in part because difficult travel conditions in the state constantly hampered attendance at the Western New York Association chapter meetings, held in Rochester,

²⁴ Editorial, *The Sanitary Engineer and Construction Record* 14 (November 27, 1886), 614.

Syracuse, Elmira, and Utica.²⁵ Her work done in organizing most of the state outside New York City and Albany, Bethune went on in 1887 to serve as New York representative on the WAA Standing Committee to Collect Legal Decisions Relating to Building Interests, and was, in 1890, elected the WAA second-vice-president.²⁶

The WAA Committee to Collect Legal Decisions Relating to Building Interests assembled various contracts between architects and clients and between architects and their contractors as part of the preparation for the bill on licensing architects. Bethune first mentioned her interest in licensing to Root in early 1886.²⁷ A unified building code was also always central to the work of WAA, and it became clear that the architects in each state would have to submit proposed code drafts to their own legislature even if the bills were all essentially the same. It was also necessary to devise standard contracts that made explicit the architect's duties as separate from those of the builder or contractor. (Engineers, if needed on a building, were normally subcontracted.)²⁸

While the societies were strict in their investigation of members and custom had set most of the ethics and responsibilities, there still were no external controls over who

²⁵ [W. W. Carlin] "Formal Notification," Secretary's Office, Western New York State Association, Buffalo, New York, to J. F. Alexander, Secretary, Western Association of Architects, Lafayette, Ind., TL, November 1887, 1, box 5, folder 24, RG 800, AIA Archives; "Western New York Association of Architects," *The Inland Architect and News Record* 10 (December 1887), 83; "Western New York Association of Architects," *Inland Architect and News Record* 10 (November 1887), 70; "The Buffalo Society of Architects," *ibid.* Bethune also motioned that Robert C. McLean, editor of the *Inland Architect*, be made an honorary member, and he was unanimously elected to the Western New York Association of Architects.

²⁶ "Buffalo," *The Architectural Era* 3, suppl., (December 1889), 268. "Our lady architect, Louise Bethune, is second Vice-President of the Western Association."

²⁷ Louise Bethune, Buffalo, New York, to John Root [Chicago], ALS, 5 January 1886, box 2, folder 6, RG 800, AIA Archives; "Association Notes: Western Association of Architects," *The Inland Architect and Builder* 8 (January 1887), 106; "The Western Association of Architects," *The Inland Architect and News Record* 10 (December 1887), 85.

²⁸ Woods, *Craft*, 159.

could declare himself or herself an architect.²⁹ In 1887, Sullivan had chaired a WAA committee to draft a code of ethics, but the members could not agree on standards of practice. In 1888, the WAA began requiring that applicants submit letters of recommendation from clients that attested to the architect's proficiency and character.³⁰

Until now, it was believed Bethune "automatically" became a member of the AIA when the two institutions merged in late 1888, but this was not the case. Bethune applied to "fellowship" in the AIA in early 1888 after being principal in her own firm for seven years. When she did, AIA Secretary A. J. Bloor advised her to apply as an associate and to send examples of her architectural work—"as long as the *design* is your own." Bethune resubmitted her application, this time for associate, and sent representative drawings and plans from eight projects including a school, a police station, a large store, and five residences. It should be noted that her letter of recommendation from Root requested that she be accepted into "fellowship."³¹

Bethune was accepted, "after some discussion," as an associate. In contrast William Carlin, also of Buffalo and applying at the same time with only four years of his own practice, was accepted as a fellow, and did not submit drawings for the honor.³² John Root had recommended both architects, but Bloor, clearly considering himself the

²⁹ Jean Ames 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), 134.

³⁰ Woods, *Craft*, 40-41.

³¹ A. J. Bloor, New York City, to Louise Bethune, [Buffalo, New York], ALS, 22 March 1888, office files, series 1.1, box 2L, folder 2, RG801, American Institute of Architects Archives, Washington, D. C.; A. J. Bloor, New York, minutes of AIA meeting, ADS, 7 March 1888, and 4 April 1888, American Institute of Architects Archives, photocopies; and A. J. Bloor, New York City, to Louise Bethune, [Buffalo, New York], TL, 6 April, 1888, office files, series 1.1, box 2L, folder 2, 13, American Institute of Architects Archives, Washington D. C..

³² Bloor, Minutes, 7 March 1888 and 4 April 1888.

guardian of an earlier AIA definition of professionalism, did exactly what the American Association for the Advancement of Science was doing with most female members by putting Bethune in the associate category. When the two organizations merged (which as it turned out was a few months later), all WAA members entered as fellows, making Bethune the first female fellow, an honor never shared with another woman in her lifetime.

The AIA and WAA merger was finalized in 1889 after two years of discussion. The AIA brought its elitist reputation and the WAA brought two hundred member architects in Midwest and Western states. The WAA also brought its definition of qualifications for future members, including that women could be admitted. The AIA insisted on the two categories of members, but the WAA countered that all their members come in as fellows; thus Root and Sullivan overcame Bloor's objection to Bethune's being a fellow and his insistence that she be first admitted an associate. This contradicts the commonly held opinion that Root and Sullivan were against women in the profession.

The leadership of both organizations, architects in Chicago and New York City, wanted federal government buildings to be open to private architects using regulated competitions and felt they would have more influence lobbying as one organization. This goal was achieved in 1893 (on the strength of the success of the Chicago World Exposition), but the Tarsney Act proved unenforceable when the treasury secretary refused to relinquish his power. According to historian Woods, the act did not go into effect until Lyman Gage, former director of the Chicago fair, became treasury secretary.³³

³³ Woods, *Craft*, 42.

Also of importance to the two organizations was enforcement of the architect's supervisory role, financial responsibilities, and liabilities, which varied from what worked in practice to what was desirable. Most discussions came down to how to make design expertise quantifiable and valued. The fee for levels of responsibility was the first act of the WAA in concert with the AIA in 1884, but enforcing client and contractor compliance seemed impossible when confronted with adversarial situations.³⁴

My research found no concern about the relationship of architecture to engineering among the architects; in fact, many architects, such as Burnham and Sullivan, worked in architect-engineer partnerships and clearly understood the importance of engineering to architecture in certain situations. Many of the practicing architects were comfortable in both disciplines and like Bethune had solved engineering issues themselves and prided themselves on close supervision of the entire building process.³⁵

Along with a uniform schedule of fees and areas of responsibility accompanying each percentage, members discussed structuring a "Board of Examiners" modeled on the medical profession for architects entering the profession. These efforts intensified in the late 1880s as the new technologies of sanitation, household gas, private electric

³⁴ "American Institute of Architects: Schedule of Minimum Charges and Professional Practice of Architects, as Usual and Proper," *The Architectural Era* 4 (February 1890), 47. The definition of rates was repeated in 1890; full services (including supervision) 5 percent. Charges for partial service as follows: preliminary studies, 1 percent; preliminary studies, general drawings, and specifications, 2 ½ percent; preliminary studies, general drawings, and specifications and details, 3 ½ percent. There is detail on additional services and what constitutes a completed project, which indicates many of the ways used to deny full payment.

³⁵ Bethune, "Women and Architecture," 21; Woods, *Craft*, 160. In 1870, engineers were 13 percent of AIA members and in 1891, 11 percent—"engineers did not necessarily compete with architects; they became architects."

generators, and fire safety demanded more expertise from architects who needed to keep pace with the rapid changes instituted by engineering in the field.

While pushing for support in the state and federal legislature, Burnham, Bloor, and Adler lobbied in Washington. A related issue was to establish the definition of a diploma of “recognized value,” because architects came into the profession from such varied circumstances that agreement on the essential requirements for admission was difficult. Both the AIA and WAA still used the time-honored method of personal recommendation as the most reliable means of determining admission to the profession.³⁶

In 1888, *The Architectural Era* applauded the fact that the state associations were looking into enacting a law to “place architecture on an equal footing with the medical, legal, and other professions, and afford it the same recognition and protection accorded to almost all other professions by the law.” The observation was that architects, by suing for unpaid fees, typically put themselves in the position of losing the suit and having to pay all the court fees, because of “our unprotected condition in the law.”³⁷

Bethune was on the Western New York State Association of Architects licensing committee that in 1889 proposed the specifics of the legislation to go to the state legislature. The bill was presented at the association’s annual meeting, it read that the legislation was “not so much designed to protect the practicing architect as to protect the public from the unprincipled and incompetent . . . the idea of the whole thing is to secure efficiency—to get good work and safe work. . . .” The association put forward the

³⁶ “Convention of the AIA,” *The American Architect and Building News* 21 (January 1887), 25; and lobbying, 76; bill prepared by both AIA and WAA, 87.

³⁷ Editorial, *The Architectural Era* 2 (December 1888), 226.

legislation to “protect the public against bad architects as legislation protects the public against bad physicians and bad lawyers.”

Bethune’s committee of the Western New York State Association of Architects and the New York chapter of the AIA suggested creating a board of examiners to consist of one Columbia professor, one Cornell professor, two members of the Western New York State Association of Architects, two from the New York chapter of the AIA, and one from the legal profession. This board was to be appointed by the governor or the chief architectural societies of the state and was to appoint the replacement of members.

Bethune’s committee set the licensing fee, the fine for practicing without a license, and the conditions for revoking a license. Cases of “gross negligence, recklessness, or dishonest practices” required a hearing following general court procedures and required a unanimous vote of the board. It was critical for professionalization that the public was protected from the untrained practitioner and the profession was protected from malpractice of its members. “In these days, the question of sewers, ventilation, sanitary plumbing, etc., are deservedly attracting a great deal of attention and the public has a right to demand that those who plan and superintend the construction of their houses should understand these matters thoroughly.”³⁸

But in 1889, the New York state legislature changed the bill, causing it to be withdrawn and discussed a year later in Buffalo at the Western New York State Association meeting. The bill’s committee reported that the legislature believed that the New York city chapter of the AIA was a “very close corporation” and they would not support the bill if it was involved in choosing the Board of Examiners. The second item

³⁸ “Licensing Architects,” *The Architectural Era* 3 (November 1889), 253.

that was changed and that was probably even more objectionable for the architects was that an individual could hire someone who was not an architect to design a building, as long as the employer understood that the person was not a licensed architect. The objection from architect Cyrus K. Porter was that this left them with the current problem of builders supplying plans, but the legislature was more concerned that the state's architects would establish a "monopoly" on all designs in the state.³⁹

The architects found themselves confronting an irresolvable problem. On one hand they wanted to monitor the profession and maintain architects as the expert authorities in charge of building design and construction, and on the other they risked making the profession an elite service to be simply avoided by the individual builder and seen as preventing someone from planning his or her own house.⁴⁰

As architects struggled for legal acknowledgment of their expertise, they encountered a prejudice against the profession. Newspapers and magazines showcased expensive mansions, aligning all architects with lavish consumption even though such projects constituted the practices of only a small number of architects:

He who looks beneath the surface may detect, if he will, an element of danger in this intense devotion to the home which threatens the future well being and prosperity of the country at large. The evil which thus menaces our peace is to be found in the selfishness of the individual who devotes all his energies, all his labors, all his wealth to the building, embellishment, and maintenance of his home to the utter exclusion of all interest in the public welfare.⁴¹

³⁹ "Annual Meeting of the Western New York State Association of Architects at Buffalo, N. Y., Beginning November 18th, A. D. 1890 Meeting Held in Parlor 'H' of the Iroquois Hotel," *The Architectural Era* 4 (December 1890), 270-272.

⁴⁰ "Licensing," 253.

⁴¹ Editorial, *The Architectural Era* 2 (August 1888), 142.

American architects were caught in a snare comparable to the one developing for American artists. Their profession was built on the economic realities of American capitalism. Mary Woods's history of the profession shows that architecture in the United States was built on making a livelihood in the marketplace. The successful architect was an entrepreneur, and the American architectural profession developed out of and alongside the entrepreneurship of the building trade. Like the medical and legal profession, architecture created a hierarchy related to the wealth of the patrons. Woods gives the example of a client who was warned by his contractor that prominent architect Stanford White would "just put a lot of embellishment into it that will cost much more money," but the client nevertheless chose to celebrate his wealth with a McKim, Mead and White building.⁴² There were architects of the middle-class house, the ubiquitous store, and the humble church, just as there were architects of the large-scale public or private commission, and at the end of the nineteenth century, the boundary between these two worlds was still porous and Bethune was one who worked in both arenas.⁴³

In spite of the common belief among architects that licensing would go through in the 1889 and then the 1890 legislative session, it did not. In 1896, New York and Illinois architects once again predicted passage and both had representatives lobbying in their state capitals.⁴⁴ The bill in New York passed the legislature, but was not signed by the governor. Illinois was first to get its licensing bill passed, in 1897, and New York did not

⁴² Woods, Craft, 165, 167-168. The client was pulp fiction publishing millionaire and financier of Theodore Roosevelt's 1912 presidential campaign, Frank Munsey; George Britt, "Forty Years-Forty Millions," *Mississippi Valley Historical Review* 23 (June 1936), 115-116. Munsey left his fortune to the Metropolitan Museum of Art.

⁴³ *Ibid.*, 167-168.

⁴⁴ Louise Bethune, Buffalo, New York, to William Lansing, [Buffalo, New York], ADS, May 1896, Buffalo Chapter of AIA archive, Buffalo, New York; note from Bethune stating that they did not have to funds to pay the member who lobbied in Albany.

succeed until 1906. The conflicting goals (protection of property rights versus public safety) then moved to the arena of lobbying for a unified building code and zoning laws. New York city passed the first comprehensive zoning laws in 1916, so this issue would take even longer to resolve. Fifty years passed before all the states to passed licensing laws for architects.⁴⁵

Bethune entered the profession when there was comradeship between architects and cooperation among professionals. After Bethune completed her first public school projects, she easily could have become architect for the entire school system. In countries with established public positions and state appointments for architects that might have happened. But American egalitarianism, which made her pursuit of architecture possible, also dictated that these commissions be distributed without the appearance of favoritism, and the press of the period was particularly attuned to signs of political favoritism and corruption.

Competitions for commissions held this same contradiction. Originally devised in the spirit of openness to forestall the appearance of favoritism, a competition was often a ruse to present the appearance of openness for a decision already made. Young architects saw competitions as an opportunity to make their presence known, as Richard Waite did when he arrived in Buffalo. Citizens' committees saw them as a solution to having multiple approaches to a building presented at one time to save the time-consuming

⁴⁵ Woods, *Craft*, 45; Frederick Koeper, *American Architecture, vol 2, 1860-1976* (Cambridge: The MIT Press, 2001), 267; "Proposed Building Code for New York," *American Architect* [and] *the Architectural Review* 101 (May 8, 1912), 219-220; "New Building Code Almost Completed, Analysis of the Code to be in Full Force by March 15, 1916," *New York Times* (December 26, 1915) 90; "The Man Who Made City's New Building Code, Thirteen Drafts Were Submitted in Six Years Without Result," *New York Times*, (January 16, 1916) SM9; Leo Stein, *The Triangle Fire* (New York: Carroll and Graf/Quicksilver Book, 1962), 23. The man was Rudolf P. Miller, building inspector at the time of the Triangle fire and made director of the New York city building department in 1911.

process of approaching a series of architects until they found one agreeable to the whole committee. In the marketplace of available services, competitions were exceptionally efficient.

Bethune put all her organizing skills and her ideals for a professional life into the defining stage of the architecture profession, but she apparently felt as did many architects that the competition was not the egalitarian tool it presented itself to be. In the year Bethune made her Union speech and was asked why she did not compete for the design of the Woman's Building at the WCE, the Western New York chapter of the AIA published a survey of members who cited competitions and nonpayment of fees as the most difficult problems they faced.⁴⁶ Bethune was fiercely opposed to competitions, because she commented to President James G. Cutler at a dual meeting of the AIA and WAA shortly before the union of the two institutions that "I never vote or have anything to say on competition."⁴⁷ While the AIA had successfully used competitions for the benefit of its members, the newly formed Western Association of Architects did not view competitions positively, considering them damaging to architect and client alike. At the second annual meeting of the WAA, association president Illsley of St. Louis opened the convention with an agenda that identified competitions and legislation as the overriding issues to be addressed by "the largest convention of architects ever seen in this country."⁴⁸

⁴⁶ "Western New York Chapter," *The Architectural Era* 5 (December 1891), 207, 216. In 1891, Buffalo had twenty-six member architects, 216.

⁴⁷ "Minutes of Meeting," *The Architectural Era* 2 (November 1888), 210; members had characterized competitions as an "evil," but disagreed on whether it was a "necessary evil" or one that could be ignored.

⁴⁸ "The Convention," 67.

The competition committee report was the first order of business after the historic vote admitting Bethune and any other qualified woman as a member. Chaired by Burnham, the committee included president Illsley, Root, William Holabird, and George Wirth. Only Illsley demurred from the sentiment that “competition has always existed, and is ineradicable,” but the problem was “that now scarcely a notable building comes into professional hands, the architects of which are not chosen in this way.” They asserted that only a united effort of all professionals could influence the way competitions were run by demanding they conform to reasonable procedural rules and the use of architecturally knowledgeable judges.

Municipalities increasingly favored competitions, because large commissions were politically charged and often deadlocked between opposing factions. Competitions were also a way for officials to limit the budget of a project whether the limit was realistic or not. But in spite of the political and financial dangers, such projects brought publicity and professional opportunity. As the committee presented the pros and cons of the competition process its members could not get around the conclusion that “this premise [competition] has the deepest significance for our fortunes and fame, because it means that the largest and costliest buildings, especially those of a public character, which are ornamental in a greater degree than others, are most sure to be thus portioned out among the architects.”

The committee report included a list of thirty-five of the most common complaints made by architects who had participated in competitions—everything from not being paid the full fee to not being paid *and* having their design or parts of it appropriated by a local favorite competitor. Competitions pushed architecture in two

incompatible directions by both emphasizing the aesthetic possibilities of the building and requiring unrealistic least-cost budgets. Neither approach was in keeping with the goal of producing the best design for light, air, space, circulation, comfort, and convenience and both approaches compromised the architect's traditionally most important function as mediator between these conflicted requirements. While the committee concluded "there is no one of us who does not hope as much for honorable fame in his profession as for the emolument arising from its practice, and in these large buildings lie the opportunities," most architects disagreed, including Illsley and Bethune.

Bethune put her emphasis on being a responsible architect who used her engineering expertise and her ability to design appropriately for use, budget, and aesthetics. The vast majority of architects, such as Bethune, who produced socially responsible architecture, addressing the health, well-being, and safety needs of the people, often were not the well-promoted winners of the architecture competitions who became, as the competition committee predicted, the nationally known practitioners of the "largest and costliest" buildings.

Bethune's response, to her 1891 Women's Educational and Industrial Union audience's question about her refusal to enter the competition to do the Woman's Building at the Chicago WCE focused on the inequality of payment and supervisory conditions between the woman architect and the invited male architects. The winning fee of \$1,000 would have seemed an enormous amount to the lay audience not informed of the usual professional compensation and in itself a complex point to explain.

Agreeing with fellow WAA and AIA members that such competitions were "evil," Bethune carefully explained the problems with the Woman's Building. She

viewed the architectural component of the fair as a whole in that all the buildings were done by invited architects who received equal payment for their designs and noted that Burnham was the director of architecture functioning as supervisor of construction.⁴⁹ The Woman's Building commission was offered instead as a competition, which obviously meant that women architects were asked to prepare drawings for no payment unless they placed first, second, or third and that the drawing stage of the design was a financial loss to a firm even when the architect received the normal fee. The winning fee of \$1,000 was not generous compared to the male architects who were paid \$10,000, plus traveling expenses.⁵⁰

It was not until the supervisory phase that a successful office began to realize any profit on the project. So while the architects of the rest of the fair buildings could rightly consider that their participation was not done for financial profit, it was also not done at a loss. The winning woman architect was also expected to remain on the Chicago site until the building was completed. This was something a professional running an office could not conceivably do, and Sophia Hayden did complain that this required her to leave her teaching job. In fact, John Root's death from pneumonia in early 1891 could be attributed to overwork from serving as supervising architect for the fairgrounds in addition to running the Burnham and Root firm while Burnham supervised the construction of the fair buildings.

Bethune kept her argument to simple business terms—the compensation and conditions were unequal. She then said that this was not a precedent to be supported “at

⁴⁹ Editorial, *The Inland Architect and Builder* 6 (October 1885), 37.

⁵⁰ Weimann, *Fair Women*, 147. See footnote 33, on the schedule of fees.

this time,” referring to the AIA lobbying in the state legislature for legislation that made fees uniform and responsibilities clear in the architect-client-contractor contract. But it is also possible that the disparity between what women and men were being paid for the same job was also on her mind, believing as she did that the profession would soon embrace many women and that a practice such as unequal pay for women was not something that should be encouraged in the new profession.⁵¹

The topic of competitions was strenuously debated at the WAA conventions, and Bethune was firm in her resolve that architects should not participate in them. But the WAA set guidelines for major commissions attempting to maintain the association’s mission to work in “fellowship” to “produce artistic, scientific, and practical efficiency in the profession,” while minimizing the three main “evils” of the competition process—the theft of designs, the nonpayment of promised fees, and the use of the competition to give the appearance of fairness to the selection of a predetermined architect. While some architects and journals suggested ignoring competitions altogether, this was difficult to maintain because the most prestigious projects for cities, states, and the federal government were handled this way.⁵²

The WAA committee found that selection committees often did not know what could be built for a given budget and were attracted to the artistry of the presentation more than the actual building represented. The attempt to promote fair rules of the game

⁵¹ Angel Kwolek-Folland, *Incorporating Women: A History of Women and Business in the United States* (New York: Palgrave, 1998), 93; Penina Migdal Glazer and Miriam Slater, *Unequal Colleagues: The Entrance of Women into the Professions, 1890-1940* (New Brunswick: Rutgers University Press, 1987), 33; Adams, *Women Professional Workers*, 58-61.

⁵² “American Institute of Architects,” *The American Architect and Building News* 21 (February 19, 1887), 88; “Reports Adopted by the Western Association of Architects,” *The American Architect and Building News* 18 (December 5, 1885), 271-273..

included making submissions conform to the competition guidelines or be eliminated, disallowing framing and hand coloring unless allowed to all competitors, paying the winning architects a fee commensurate to normal fees for preliminary drawings, providing an expert panel of architects who were not from the city where construction would take place, returning all drawings, and, not using any portion of a rejected design—apparently a common complaint.⁵³

Two years later, Thomas Walsh of St. Louis made news by winning a lawsuit against the St. Louis Exposition and Music Hall Association for nonpayment of his architect's fee, which was the advertised award for being the winning entrant. Walsh claimed that the St. Louis Exposition had accepted his design, but then paid another architect to execute the drawings and yet another architect to supervise construction. While Walsh won his three-year legal fight, the courts agreeing that the exposition corporation had violated his contract, the actions of the other architects involved were not punishable.⁵⁴

In the opinion of *The Inland Architect and Builder*, the cities and organizations advertising the competitions were largely guilty of trying to get work for less than market value and were often as disappointed in the results as the architects who competed. Equally distressing was the behavior of the competing architects who seemed capable of endless trickery themselves. "Competitions seem to possess a fascination for architects,

⁵³ "Reports Adopted," 271-273.

⁵⁴ "Architect Thomas Walsh," *The Inland Architect and Builder* 9 (March 1887), 20.

particularly in this country, which is hard to reconcile with their otherwise sound judgment, or to explain on rational grounds.”⁵⁵

The 1885 competition for the Chamber of Commerce Building in Kansas City stood out as a successful example of a competition run under the new WAA guidelines drawn from an outline originally developed by Professor Ware of Columbia University for the AIA. There was a detailed program of requirements for the building, and the competition had one expert judge, Professor Ware. The only fault was that it was felt that three judges would better ensure against possible favoritism in the future. Peabody and Stearns, one of the most prestigious firms in Boston, won this competition, which meant it had a “successful” outcome.⁵⁶

The new guidelines did not convince Bethune to change her opposition to competitions. In Buffalo, the competition for the million-dollar Erie County Savings Bank drew national attention in 1890. Ware was the advisor to the bank officials, and architect Richard M. Hunt was the judge. The list of entrants included most of Buffalo’s most prominent architects (except Green and Wicks and Bethune, although Bethune’s new partner, Will Fuchs, did enter). Other entrants from outside Buffalo included Peabody and Stearns, George B. Post of New York, and McKim, Mead and White of New York.

An article describing the competition mentioned that the “outside” firms would receive \$500 whether accepted or not—a fraction of the 1 percent architects received for preliminary designs at that time, but a courtesy not extended to the Buffalo and Rochester

⁵⁵ “Competitions,” *The Inland Architect and Builder* 5 (May 1885) 61-62.

⁵⁶ Editorial, *The Inland Architect and Builder* 8 (August 1886), 1.

architects. The article stated: “The plum will without doubt go to an outside firm, as it is hardly possible a city architect will be selected.”⁵⁷ Post won the competition with a Richardson-inspired design, which just as easily could have been done by Buffalo’s Waite, who obviously fell into the “local” category in spite of his international practice.⁵⁸

The Erie County Savings Bank competition, in hindsight, can be seen as a shift in the culture of competition from an amateur-run lottery to a carefully structured contest between the most politically connected architects in the country. In the mid-1890s, Buffalo businessmen contracted Chicago architects for two of the most important buildings of the period—the Ellicott Office Complex by Daniel Burnham and the Guaranty Building by Louis Sullivan, both completed in 1896. Most considered these ventures reactions to the anticipated business boom expected from the first transmission of electricity from Niagara Falls.⁵⁹

In 1897, competition invitations for the new Buffalo Savings Bank went out to architects Cyrus W. Eidlitz (who had just completed the Buffalo Public Library building, also the result of a competition), Robert William Gibson of New York (who had won the competition for St. Paul’s Episcopal Church), and from Buffalo Cyrus K. Porter (who superintended Gibson’s church), Green and Wicks, Essenwein Lansing and Beierl, George Cary, Edward Austin Kent, Beebe and Son, and Bethune and Fuchs. A fee of \$250 was offered to all competitors, possibly because of reaction to the blatant favoring

⁵⁷ “Buffalo,” *The Architectural Era* 4 (March 1890), 64.

⁵⁸ “Canada,” *The Inland Architect and Builder* 4 (October 1884), 36. Waite, as mentioned earlier, gained prominence with the Canada Life Insurance Building at Hamilton, which was followed by the Toronto Parliament Building in 1886 and is alleged to have done buildings in England and Scotland, but this cannot be confirmed.

⁵⁹ “Buffalo,” *The Brickbuilder* 4 (July 1895), 158.

of outside architects in the Erie County Savings selection. This time Edward B. Green and William Sydney Wicks got the commission.⁶⁰

It should be noted that Robert Bethune and Will Fuchs accepted the invitation, but Louise Bethune was not involved. The attribution of “Bethune and Fuchs” has led some chroniclers of Louise Bethune to assume she had retired from the firm by that time; but in 1897 architects started signing for building permits in Buffalo, and the city record shows that she was actively involved in the firm until 1905—just not in this competition.

When Bethune made her often-quoted speech at the Women’s Educational and Industrial Union in March 1891, she explained that the architects of the Chicago WCE buildings received standard payment for services, while the woman architect would receive three-tenths of the standard fee; the budget of the building was advertised as “under \$200, 000,” at 1 ½ percent this would have been \$3,000.⁶¹ To this she added, “It is an unfortunate precedent to establish just now and it may take many years to live down its effects.”⁶² We cannot know what her reference to “just now” meant. Possibly she may have been thinking that this incident occurred at the height of efforts to set standards, or possibly that the resistance she met from AIA secretary Bloor meant progress for women in architecture might be more difficult than she had thought, or that any violation of proper architect fees was detrimental to all.⁶³

⁶⁰ “Buffalo,” *The Brickbuilder* 6 (July 1897), 156; “Buffalo Doings,” *The Architectural Era* 2 (November 1888), 214; “Green and Wicks,” <http://preserve.bfn.org/bam/bflobest/buffalo/buffalo.html> (accessed March 13, 2006). Green and Wicks’s firm opened in Buffalo in 1883 and was similarly successful to Bethune’s.

⁶¹ Weimann, *Fair Women*, 147, 180. The Board of Lady Managers did acknowledge that Hayden was underpaid and upon completion she received an additional \$450 fee and \$527.60 in expenses.

⁶² Bethune, “Women and Architecture,” 21.

⁶³ “Buffalo,” *The Brickbuilder* 4 (August 1895), 180; “Buffalo,” *The Brickbuilder* 4 (November 1895), 244. The Board of Education was shifting into lowest-bid-competitions for school construction and by 1895 this was standard practice.

During Bethune's professional life, architecture became an increasingly regulated profession driven by the desire of architects to respond responsibly to the enormous social and economic changes of the period. As most members of the medical profession strove to improve the lives of their patients, most architects felt they could improve the quality of life for their clients and communities. But as competitions for the large-budget projects drew the attention of ambitious architects, architectural aesthetics moved toward lavish, memorable buildings that would ignite the competition committee's imagination.

While scientific engineering expertise created new possibilities for the inventor and manufacturer in the late nineteenth century, the architect became responsible for understanding new products and materials and their installation, hardly a compelling role. Health issues had made the architect an agent of change, but as protection of air and water became a political issue of who would pay and how much, architects needed a new entrepreneurial tool.⁶⁴ Because of this shift in the perceived role of the architect, architectural programs also shifted from the emphasis on engineering training to a renewed commitment to artistic expression. It was a move not universally applauded:

Architecture died in the land of the free and the home of the brave, in a land declaring its fervid democracy, its inventiveness, its resourcefulness, its unique daring, enterprise and progress. Thus did the virus of a culture, snobbish and alien to the land, perform its work of disintegration. . . . The damage wrought by the World's Fair will last for half a century from its date, if not longer. It has penetrated deep into the constitution of the American mind, effecting there lesions significant of dementia.⁶⁵

Louis Sullivan's tirade against the adoption of Beaux Arts classicism at the turn of the century was a response to an aesthetic associated with European architectural

⁶⁴ Editorial, *The Architectural Era* 2 (August 1888), 142. Public officials and the wealthy community were under attack for their reluctance to invest in clean water and proper sewerage; this editorial is one example. "Our Tall Buildings," *The Sanitary Engineer* 15 (January 8, 1887), 131.

⁶⁵ Louis Sullivan, *Autobiography of an Idea* (1924; reprint, New York: Dover Publications, 1956), 321-325.

history, which American architects increasingly turned to because it was what the wealthy elite wanted. It was also driven by the attention newspapers and magazines gave to the latest million-dollar competition or million-dollar mansion. For Sullivan the wealth that had allowed Chicago architects to evolve a new American architecture of the “tall building” was abandoned in favor of marble cornices.

The advantages of American egalitarianism and engineering expertise supported by Morrill Act universities, created guidelines for proper construction what by the turn of the century freed architects for self-expression. But Sullivan saw the profession surrendering these advantages to a worn-out model of “art.” Changes in university education for architects came to define professionalism, but unlike other professions—medicine, law, and engineering—architecture retreated from narrow specialization. The AIA membership realized scientific specialization had not made the distinction they desired and their fight was far more political than they had first realized.

By the end of the 1890s, university architecture programs had forced out the engineering science on which they were initially founded in favor of intensive design and drawing instruction.⁶⁶ Rather than fighting charges of elitism, architects embraced it. The rigorous engineering and mathematics in university training had given way to “artistry,” which academic architects like Cornell’s Francis Osborne thought was the one essential expression that distinguished the architect from the builder and the engineer.⁶⁷

⁶⁶ Hamlin, *Columbia*, 391. In 1897, the school of architecture was released from “the tyranny of mathematics.”

⁶⁷ C. Francis Osborne, “The Training of an Architect,” *The Inland Architect and News Record* 11 (May 1888), 60-62.

The nineteenth-century architects like Bethune created a new architecture as each new technology and each new social challenge demanded new architectural forms. The ingenuity of the nineteenth-century contributions went far beyond the tall building and massive office block of the Chicago architects. All over the country architects applied ingenuity to the school, bank, hospital, apartment building, and factory—creating the forms for the next century. In 1924, when Sullivan railed against the aesthetic of the “White City” he blamed his fellow architects for surrendering art for artifice, but the quiet innovations of architects like Bethune continued to evolve even though it seemed the overdone ersatz- European architecture was in ascendance.

CHAPTER 7

CULMINATION OF CAREER

A painter or a sculptor may usually do the kind of work he pleases and in the way he pleases, hampered only by limitations in himself. But an architect is always bound—and often hopelessly thwarted and coerced—by the practical requirements of his problem, and by the tastes, the fancies or the follies of his patron [client]. Not often does he really get a chance to show all the strength that may be in him.

—Mariana Van Rensselaer¹

The decade of the 1890s was not what Buffalo or the rest of the country expected. Boosters of Buffalo described the city as poised “midway between the teeming East and the productive West,” with its strategic location between the iron, coal, oil, and gas from western Pennsylvania and the grain from Ontario that went through the city to the Atlantic market. The port of Buffalo’s business in flour, grain, and coal alone equaled 10 percent of the entire foreign trade of the United States.² Future prosperity seemed assured and the business community focused on improving its own facilities and those of the city, only to have the depression of 1893 intervene stalling business, technological, and architectural progress.

In Chicago, the culmination of century-long developments in building materials and techniques materialized in the steel girder/curtain wall “tall building.” The speed of

¹ Mariana Van Rensselaer, *Accents as Well as Broad Effects: Writings on Architecture, Landscape, and the Environment, 1876-1925* (Berkeley: University of California Press, 1996), 134-135; first published in *The Century Magazine* 27 (May 1884). Van Rensselaer was five years older than Bethune and died in 1934.

² Frederick J. Shepard, “The City of Buffalo,” *New England Magazine* 14 (April 1893), 246-248. In the year before the 1893 depression, Buffalo’s port at eight million tons annually exceeded Chicago and the cities of the Great Lakes. Duluth, Superior, Chicago, Milwaukee, and Toledo sent the bulk of their flour and grain to Buffalo by ship and from there by rail to New York.

this construction captured the public imagination briefly then attention turned to the canvas and plaster razzle-dazzle of the 1893 world's fair. By the time the country emerged from the 1893 depression, Beaux-Arts historicism had eclipsed the efficient pragmatism of the Chicago style.³ In America, the aesthetic and the functional began their century-long separation under the influence of economic efficiency, also known as rationalization. Historian of technology Lindy Biggs has treated the dichotomy between aesthetics and functionality in relation to factories, but other architecture and building construction also reflect this separation.⁴

At the end of the 1880s, thirty-three-year-old Bethune had accomplished more than most architects could hope to accomplish in their careers. She was an AIA Fellow, vice-president of the Buffalo Society of Architects, and second vice-president of the WAA. She had designed more than seventy-five buildings that can be documented (half of her life's work), including seven pace-setting public schools, four police stations, the most modern lithography factory in the country, three other factories, several stores, an armory, a major addition to a hospital, and dozens of homes from wood-frame middle-class houses to Dunkirk's centerpiece mansion. She was also the mother of a six-year-old.

³ Carl W. Condit, *American Building Art: The Nineteenth Century* (New York: Oxford University Press, 1960), 265. The speed of this construction returned to public attention during the race between the crews of the Chrysler building and the Empire State building in 1930.

⁴ Lindy Biggs, *The Rational Factory: Architecture, Technology, and Work in America's Age of Mass Production* (Baltimore: The Johns Hopkins University Press, 1996). Today we have the extremes of "box-stores" low-cost generic structures that house the majority of retail transactions (profit factories) and elaborate hundred-million-dollar museum and stadium structures that generate minimal profit but are icons of progress; homes are efficiently constructed replicas of a single architectural plan or are unique hand-built designer homes; where issues of form and function need architectural solution such as low-income housing remain virtually unsolved.

Bethune's architectural style was a precursor of the modern architectural style as building function was the genesis of the design and was her first concern for the new use-specific buildings she introduced. Like Louis Sullivan, who was her exact contemporary, Bethune created orderly buildings that were coherent wholes expressing a uniform aesthetic and functional whole. These buildings were successful because they functioned well for the purposes they were created to serve. Working in a wealthier and more flamboyant metropolis, Sullivan was renowned for incorporating decorative themes into his buildings. Buffalo, a city built by businessmen committed to planned practical improvement, was slow to appreciate ornament as a positive aspect of architecture, so Bethune's buildings matched her clients' needs and their taste for the unadorned dignity of a carefully-crafted though austere aesthetic style.⁵

Buffalo was a city proud of the austere Richardson asylum, and its limited venture into ornament was the atypical decorative iron front of Waite's German Insurance building. Buffalo's architects did not move into heavily ornamented styles, although there were a few ornamented buildings built towards the end of the century designed by New York and Chicago architects. In 1893, contemporary historian Frederick J. Shepard characterized Buffalo as enjoying "the advantages of both Boston and Chicago, and the disadvantages of neither." Buffalo was, he wrote,

A western city in her physical aspects, in her rapid growth, and in a certain frankness and ease of social intercourse; while her distance of less than nine hours by rail from New York, the conservatism of her businesses methods, the New England origin or ancestry of most of her people who are not of foreign

⁵ Randall, *Human Values*, 38-40. AIA architect Randall's 1976 attempt to document Buffalo's downtown architecture over a century found the city had (in total) in 1887: 74 iron buildings, 101 stone, 7,943 brick, and 27,004 wood. Randall also found a period count of riverfront businesses—76 second hand clothing stores, 19 free theater saloons, 108 saloons, and 75 houses of "ill-fame."

extraction, and her aspirations in letters and art equally entitle her to a place among eastern towns.⁶

Buffalo was a rapidly changing but conservative city and well suited to Bethune's carefully-crafted aesthetic style. Her approach to building design can be interpreted as a precursor to the modern architecture of the next century. The engineering aspect of buildings—the logic of the well-thought-out solution—was what American industrial architectural historian Betsy Hunter Bradley describes as engineer architecture and what Bethune seemed to enjoy the most. In Bradley's words, the “engineering-derived aesthetic engendered a dynamic approach to design that incorporated new materials, building techniques, and forms that could meet the functional demands of engineered factory buildings.” Bradley's point is true of Bethune's work and probably of many other nineteenth-century architects who have not as yet received closer study.

As Bradley contends, the architecture of factories, warehouses, and other utilitarian structures has been overlooked by architectural commentators because they lack the style or appearance of other building types that historians and critics have designated as architecture.⁷ This remains largely true in spite of Reyner Banham's seminal work two decades ago on the admiration Bauhaus architect Walter Gropius and Le Corbusier had for Buffalo's grain elevators.⁸ Banham documents the intellectual attraction these innovative European architects had to American utilitarian structures that contributed to the development of their modernist aesthetic. It is difficult to point to the specifics of this evolution partly because the documentation that does exist is scattered

⁶ Shepard, “Buffalo,” 237.

⁷ Bradley, *Works*, 201.

⁸ Reyner Banham, *A Concrete Atlantis: U.S. Industrial Building and European Modern Architecture, 1900-1925* (Cambridge: MIT Press, 1986).

throughout so many diverse publications and partly because the broad consensus required for such an aesthetic shift takes time and repetition—this development was not linear.

Complex functionality was the challenge of the factories, warehouses, blocks of commercial space, and apartments that occupied Bethune throughout the second half of her career. None of these buildings was documented as was the Cosack lithography plant, so we do not have the development of her thinking on the partitioning of space for optimum comfort and safety of the workers that we do in that 1885 structure. Notably Bethune also took on several unusual building challenges that were modestly budgeted in spite of their complexity and implications for safety and reliability: the Elk Street open market stalls, a baseball grandstand, and the first electric power plant in Buffalo for the country's first alternating current electrical system that brought electricity from Niagara Falls to Buffalo. Even though Bethune considered designing homes frustrating and financially unrewarding, residential design constituted about half her practice.

On residential architecture, she expressed her opinion at some length in her speech at the Women's Educational and Industrial Union in 1891;

The future of woman in the architectural profession is what she herself sees fit to make it. It is often proposed that she become exclusively a dwelling house architect. Pity her, and withdraw the suggestion. A specialist should become so from intrinsic fitness, not extrinsic influence. Furthermore, the dwelling is the most pottering and worst-paid work an architect ever does. He always dreads it, not, as someone may have told you, because he must usually deal with a woman, but because he must strive to gratify the conflicting desires of an entire household, who dig up every hatchet for his benefit, and hold powwows in his anteroom, and because he knows he loses money nearly every time. Dwelling house architecture, as a special branch for women, should be, at the present rate of remuneration, quite out of the question.⁹

⁹ Bethune, "Women and Architecture," 21.

Bethune's comments indicate that she was aware of cultural pressures to limit the domain of women architects. As she did in her explanation of her objections to the competition for the Woman's Building at the Chicago fair, she argued against women's "natural" affinity for designing homes, on the grounds of unprofitability and cost. She used the economics of business for the strength of her argument possibly, because this was an irrefutable point. What seems just as clear as the unviable economics of "dwelling architecture" is that Bethune reacted strongly to the "conflicting desires" that naturally arise in designing a house. While some architects might take pride in appeasing the diverse demands of family members (a culturally perceived natural domain for women), Bethune obviously found the process repellent and not economically rewarding. But as a businesswoman, it is unlikely that she turned down work on such emotional grounds.

As the 1890s began Bethune's practice reflected Buffalo's expansive commercial economy. At the time, she was completing the Newell commercial block on Main Street next to the Merchants Exchange building at the center of the business community and additional stores on Niagara Street for one of her first clients, city commissioner Robert Smither. Niagara Street was a thriving commercial district with new sewer and water main lines and a trolley that ran the north-south length of Buffalo, forming the transportation artery to the new industrial district on the northern edge of the city. Two of the Smither store-below-flats-above buildings are still in use, although Niagara Street now is far too busy a thoroughfare for the fashionable combination of residences and businesses it was a century ago.

Prosperity encouraged the business community to upgrade their own business establishments and municipal authorities to improve or augment their buildings and other facilities. In 1890, Bethune designed new facilities for the Elk Street market, a two-block-long series of continuous stalls with porticos where produce and wares were sold in the open air. Bethune's design provided an organized structure for the dozens of independent sellers who served the immigrant community at this east side Buffalo location.

Bethune also designed a new grandstand for the Buffalo Baseball Club as enthusiasm for the sport exploded with the addition of the Buffalo Bisons to the major leagues.¹⁰ Barbasch believes this grandstand was the Offerman stadium, but most references indicate that the Offerman was not built until 1924 (although one source credits Bethune with the Offerman design in spite of the 1924 date). Bethune's structure was probably related to the new Buffalo Bisons franchise that failed after the 1890 season, but in any case the grandstand was at Olympic Park. The Buffalo city parks had become well-used destinations for residents, and the city responded by upgrading the facilities; Bethune designed a second baseball grandstand for the eastern immigrant neighborhood of Ferry Street in 1898.¹¹

One of Bethune's more photographed buildings was the Livestock Exchange Building designed for the New York Central and Hudson River Railroad offices. The building, bordering the New York Central railyards on the east side of Buffalo at William

¹⁰ Newell block, Randall, *Human Values*, 97; Smither stores and flats, *Architectural Era* 4 (February 1890), 47; Elk Street Market and Baseball Club stadium, *Architectural Era* 3 (November 1889), xiv.

¹¹ "Buffalo," *The Architectural Era* 3 (November 1889), xvi, \$20,000; Barbasch, "AIA Accepts," 18; Michael Benson, *Ballparks of North America: A Comprehensive Historical Reference to Baseball Grounds, Yards, and Stadiums, 1845-present* (Jefferson, North Carolina: McFarland, 1989), 70; *Buffalo City Records, 1898*. The addition was for Queen City Baseball and Amusement, \$5,000.

and Depot streets, was a \$60,000 facility for managing the one million cattle per year shipped by rail through Buffalo. It included both railroad offices and an exchange for the buying and selling of cattle kept in the William Street stockyards. The three-story brick structure was remarkably “modern” in style, looking like a 1920s building except for the cupola, which denoted its true period. This building demonstrated that Bethune’s design approach was part of the modern principle of form following function and that decoration was not needed if the building was well designed.¹²

The overall arrangement of the building is asymmetric in window placement and the off-center placement of the entrance and tower. The windows are a mixture of arched and rectangular openings similar to the design variation used in the 74th Regiment Armory building. Bethune designed an irregular rhythm of arched and rectangular window openings on the first and third floors and used only rectangular openings on the second floor, creating a complex pattern using only two shapes. Bethune also made the roof line slightly lower on the right with a cornice far less obtrusive than it is in the drawing. The variety was subtle, but established the hand of an architect shaping the entire structure and giving unpredictable relationships to all sections of the building.

Low-relief brick bands united the building horizontally to the ledge at the height of the front entrance portico. The top of the portico is also an exterior landing that connects to a footbridge across the street and the railroad tracks. Conceptually the building struck a modern chord in the vertical sections extending about a foot out from the building and running from the foundation to the roof’s cornice, one section to each grouping of windows. These slight changes in the depth of the surface divided the

¹² *Buffalo Real Estate News* (November 1890), 8; Randall, *Human Values*, 91.

building into five vertical sections, but because the entire building was made from the same brick it was restrained and drew the eye up to the elegant tower.

The building preceded Wright's five-story Larkin Building in Buffalo by fifteen years, but there was the same calm and solid appearance relying on the variety of surfaces but not acting as a distraction. Van Rensselaer called this "rational art," meaning that the building should "satisfy and not startle." The fact that a building is 'striking' often held that it is fine. But the best buildings are those which, whether striking or not,—oftener not, perhaps, at least in modern work—will seem better and better as the days go by: will not grow oppressive or aggressive or impertinent, or tame, flat, and uninteresting, in proportion as they grow familiar."¹³

In 1890, Bethune also designed a new warehouse for Mease and Snyder (renamed Niagara Storage in 1905), three times the size of its original building, which also used the variation in roof line to avoid the appearance of an oversized box. Van Rensselaer discussed this difficult design problem at length and understood that it was the hundreds of modest projects that defined urban livability rather than the few large-budget buildings that attracted publicity. This warehouse building was a 45-by-185-foot structure added to an existing two and three-story building. Bethune subsequently designed a three-part addition with a five-story then six-story and then five-story roof line attached to the three-story high original warehouse. In 1904, Green and Wicks rebuilt the old portion of the building, causing it to be credited to their firm and not to Bethune.¹⁴

¹³ Van Rensselaer, *Accents*, 134.

¹⁴ "Buffalo," *The Architectural Era* 4 (June 1890), 138; Van Rensselaer, *Accents*, 168. The entire chapter on commercial structures deals with appropriateness in architecture. "Surviving Buildings by E. B. Green and Associates," <http://freenet.buffalo.edu/bah/a/archs/ebg/bldgsList.html> (accessed December 16, 2006).

A better sense of Bethune's subtle attention to exterior façade design comes from the Iroquois Door and Sash building designed for Walter J. Wilson on the southwest corner of Exchange Street and Larkin, which is still in use. This structure was twenty years later than Bethune's factory for Cosack and Company, "the largest and most complete press room in the United States" and was a continued expression of Bethune's concern for natural lighting, although inexpensive electric power was now available throughout Buffalo. The rhythm of window apertures and the low relief reference to the structural reality of the building, like the Livestock Exchange, created subtle interest that is both rational and intelligent.¹⁵ While historian Biggs suggests that natural light became an amenity to attract workers and appease reform groups, Bradley finds as we do in these buildings that increasing natural light was a major architectural concern regardless of the availability of electricity.¹⁶

The Iroquois door factory had vertical-pier low-relief detailing framing the window openings. This detail is structural; a controlled expression of the depth of the pier, but the difference in the height of the detail on the end wall of the building compared to the side wall indicates its importance as a design element. The building was straightforward for its elegant functionality—well-lit open space—and unlike Sullivan's Walker Warehouse, 1888-1889, it has no historicist pretensions. The building is an elegantly defined "box" with modest accents at the upper corners to underline its

¹⁵ Building permit, *Buffalo City Records*, 1904; Van Rensselaer uses "rational" and "intelligent" to describe the unity of form and function; for example, the Duane Street warehouse by Babb, Cox, and Willard in New York, 1883-1884, in *Accents*, 166. Bethune's Cosack plant, the 74th Regiment Armory, and the public schools are all excellent examples of maximized natural light in masonry structures.

¹⁶ Biggs, *Rational Factory*, 96-97; Bradley, *Works*, 4, 22, figure 1.10. The Manhattan Rubber Manufacturing Co. plant in Passaic is a classic example of the ubiquitous industrial building of the twentieth century, but is only dated as pre-1918.

structural functionality, but the façade expresses architectural astuteness by incorporating into the design the elevator housing on top of the building. Bethune's solution meets Van Rensselaer's definition of an original building "entirely based on practical necessities, which are turned (not forced) into artistic opportunities."¹⁷

Reyner Banham's search for modernist precedents notes Bethune's Iroquois Door and Sash factory with two excellent photographs by Patricia Layman Bazelon. Banham remarks that Bethune practiced the Buffalo construction tradition of local capstone foundation with angle irons and cast-iron "spats" protecting the building from damage from truck and cart wheels. While Banham points out that these factories and warehouses preceding modernism were done by trained architects and engineers, he also emphasizes the power of tradition on building practices. His summation of the building is that it is "a model of puritanically stern, rectangular discipline, achieved by using concealed metal angles for the spans and plain stone sills under the windows."¹⁸

The exterior of the Iroquois Door and Sash factory and the Livestock Exchange buildings are impressive precursors of twentieth-century design; they also stand as proof of a stream of American architectural thought that extends continuously from the nineteenth into the twentieth century. A counter to this assertion is that Bethune's well crafted structures were built on conservative budgets that did not allow extraneous decoration or architectural complexity. But the design of the Livestock Exchange and the

¹⁷ Van Rensselaer, *Accents*, 170.

¹⁸ Banham, *Concrete*, 49-50, 45. The term "concealed" obviously eliminates the building from consideration as a true modernist precursor, but it was located across the street from the site of Wright's Larkin Building begun after Bethune's building. Banham describes the use of a one-brick-width "carefully modulated" pier in the Riedpath and Son's Larkin warehouse block L and M, built at the same time as the Iroquois factory, without mentioning the far greater sophistication of Bethune's use, preferring to attribute it to the precedent of late Diocletian construction of the third century.

Iroquois factory is the result of decorous aesthetic planning and intelligent restraint on Bethune's part, even though such a talented critic as Banham prefers to describe her with the term "puritanically stern."

These were not expedient buildings stripped of thought to serve a budget, nor were they historically referenced designs as were some of the other similarly budgeted buildings of the day. Many of the buildings that have escaped demolition have the charming historicist details that frame our concept of the period. Banham and Hitchcock's guide to Buffalo's historic buildings features some of these: Lafayette High School (1903); Firehouse No. 12 (1913); and Firehouse No. 26 (1894).¹⁹ Bethune's discretion in design was in the spirit of a modern time that rejected the European traditional solutions that continued to dominate elite houses and public buildings.

Bethune's work also contributes to the history of factory design, pioneered by the work of Biggs and Bradley. The use of concrete and steel construction is associated with large-scale factory architecture and the specialization of architectural firms in factory construction, but concrete and steel construction was available long before it was in regular use because factory owners had to justify the additional expense. Both Bradley and Van Rensselaer (who said, "a commercial building is primarily a financial investment, and the architect's art should help, not hinder, a financial success") remind us that factories were part of the economics of production and had to be justifiable expenses. The complexities of these economic decisions mean that factories have almost as many influences as the individual circumstances of the manufacturers.²⁰

¹⁹ Banham, *Guide*, 165, 182, 185.

²⁰ Bradley, *Works*, 145; Van Rensselaer, *Accents*, 168.

Detroit architect Albert Kahn's 1910 Highland Park Ford plant marks a new era in factory history,²¹ but Bethune's Buffalo structures are a part of the development preceding this historic achievement. The division of work areas by function essential to the Kahn and Ford factories had an immediate precedent in Kahn's Pierce-Arrow factory in 1908, but in the interior of the 1885 Cosack plant, the printing process defined Bethune's arrangement of machinery and work areas. The company was heralded as one of the largest printing firms in the country and the scale of production certainly influenced Bethune's decision to set machinery in physical areas of function. Also, her arrangement of drive motors in a single line was an early example of the single drive train, a characteristic of the modern factory.²²

George Kingsley Birge was responsible for bringing Kahn to Buffalo to design the Pierce-Arrow automobile factory as he had brought Scottish engineer David Ferguson in 1899 to design the automobile's engine. A manufacturing innovator who had made his father's wallpaper business (Martin H. Birge and Sons) the largest company of its kind in the country, Birge was a capitalist quick to understand the advantages of marketing specialization, achieving remarkable success by focusing his father's business on wallpapers alone. He applied the same logic to George Pierce's business when he became the firm's largest investor in 1891.²³ Birge shifted from steam to gasoline, and his *Motorette* was in production by 1900 and ready for unveiling at the Buffalo Pan-American Exposition. The *Motorette* was a successful small production vehicle, and

²¹ Biggs, *Rational Factory*, 101. Biggs provides a detailed development of Ford's Highland Park and River Rouge plants and says Ford began researching a new concept for his factory in 1909 and hired Albert Kahn, the architect he felt had the most experience in factory construction.

²² Bradley, *Works*, 95.

²³ Elstner, *Industries*, 199. Pierce was noted for keeping his factory running year-round, producing 100,000 birdcages and 7,000 refrigerators per year in 1886.

Birge planned a major expansion that began with a new administration building (1906-1907) designed by his son-in-law George Cary.²⁴

When Birge hired Kahn, Bethune had already retired from her practice, but he had used her to design his store renovation in 1896, and he thought enough of Bethune's innovative open plan to use the concept for the new Pierce-Arrow plant, even though he used Kahn to execute the fifteen-acre complex of seven (organized by function) buildings.²⁵ Kahn's design was part of the shift to concrete construction that followed construction of Ernst Ransome's Pacific Coast Borax factory in Bayonne, New Jersey, and the United Shoe Machinery Company plant in Beverly, Massachusetts (1903-1904),²⁶ but the organization by function of Bethune's 1885 Cosack plant was a conceptual breakthrough that proved the efficiency of large unobstructed spaces and carefully planned machine placement.

Industrialization changed architecture, introduced production to accommodate national-scale markets, and showed the power of the number of stock shares as votes in corporate decisions.²⁷ Along with the changes in industry that affected the expertise architects needed there was a change in the perception of permanence for schools, charity

²⁴ Cary (married to Allithea Birge) was Buffalo's society architect, head of architecture for the 1901 Pan-American Exposition, and Birge was the exposition's executive director..

²⁵ "Buffalo," *The Engineering Record* 34 (June 27, 1896), xiii; Randall, *Human Values*, 63, 100.

²⁶ Bradley, *Works*, 156-157, 160. The Albert Kahn factory was done 1906-1907 (Lockwood, Greene, engineers), Kahn is best known as Henry Ford's architect, Highland Park (1909-1910) and River Rouge (1917). In 1885, Bethune did a factory for Kellogg and McDaugall and one for Buffalo Hammer Co. No specific written descriptions have been found by this research, but it would be interesting to know if these were equally as innovative as the Cosack plant.

²⁷ Pierce disagreed with the enormous capital investment Birge was putting into the automobile and resigned from his own company in 1908, which made Birge the Pierce-Arrow president. The Pierce-Arrow had a viable competitor in the Edwin Ross Thomas Motor Company (the Thomas Flyer) in Buffalo. Excellent photographs of the Thomas Company plant and the Pierce-Arrow plant can be viewed on the *Western New York Heritage* magazine website highlighting how radical Kahn's plant was; Shepard, "Buffalo," 249-250.

and women's welfare institutions, banks, office buildings, even warehouses. While national competitions greatly hindered the chances of local architects obtaining prestigious projects in Buffalo and in the next few years Chicagoans Daniel Burnham and Louis Sullivan would win two of Buffalo's most coveted commissions, Bethune received several capstone commissions.²⁸

The year 1890 brought a full slate of projects to Bethune's firm, among them the East Aurora Bank, the Niagara Storage warehouse, blocks of stores and residences, and her last school building—the Lockport Union High School.²⁹ Bethune's commission to design the new Union High School in Lockport is possibly the clearest indication of her stature in the region as an architect and the best example of her professional character. The city of Lockport, located at the last western lock of the Erie Canal and purported to be the first community in the country to form a union school, engaged Bethune to design its new high school in 1889.³⁰

Lockport's citizens selected Bethune presumably based on her reputation as an outstanding school architect who would provide a modern, appropriate building that would serve the community well. Bethune had worked with an extremely tight budget in Buffalo, and at this time Buffalo was shifting to a procedure of awarding contracts on the basis of the lowest bid. But the New York legislature appropriated \$725,000 for the Lockport school, so the budget was essentially unlimited. Journals in 1889-1890 listed the budget rising from \$57,000 (an amount somewhat over her usual budgets) to \$90,000.

²⁸ Woods, *Craft*, 165. Woods notes the proselytizing of Sullivan and others equating good design with personal prestige for clients, but it was the national competition that facilitated this shift at the end of the nineteenth century.

²⁹ *The Architectural Era* 4 (June 1890), 38.

³⁰ Welland Hendrick, *Brief History of the Empire State for Schools and Families* (Syracuse: C. W. Bardeen, Publisher, 1894).

At completion the school cost \$100,000, which indicates that she had twice the usual amount to work with but did not use the entire state appropriation to produce a more elaborate building, a temptation many architects would not have resisted.³¹

Instead Bethune designed and built the appropriate building “of plain but substantial character, while its interior arrangement includes all the appurtenances and conveniences required by modern educational methods. There are assembly rooms for each department with adequate recitation rooms, a fully equipped laboratory, commercial department, Board of Education rooms, superintendents [sic] office, and an ample library room.” According to the town history, there were impressive ceremonies conducted by the Grand Lodge of Free and Accepted Masons of the state at the cornerstone laying on July 10, 1890. The structure was completed and dedicated on August 30, 1891, and the following year the school hired Professor Edward Hayward, Ph.D., as principal so that a normal school teacher’s training department could be established for grade school appointments.³²

The Union School is substantially larger and more formal than Bethune’s other school buildings. The window heights indicate high ceilings on both floors of classrooms and at least one wall of natural light for every classroom. It is noteworthy that this height made the building impressive while keeping to the guideline (developed with Superintendent Crooker) of two-story buildings as safest for schools. The entrances are

³¹ It was common practice for architects to design to the level of the budget, which is to say with government funded projects until the budget ceased to be reapproved. The most glaring examples of this were the Tammany Hall projects in New York City and the New York state capitol building in Albany.

³² *Architectural Era* 3 (August 1889), 179; two-story stone and brick building, \$57,000 is later listed in *Architectural Era* 4 (June 1890), 138; \$90,000 with W. J. Blackley, contractor, and final cost \$100,000 in William Pool, ed., *Landmarks of Niagara County, New York* (Syracuse: D. Mason and Co., Publishers, 1897), <http://history.rays-place.com/ny/lockport-ny-3.htm> (accessed July 9, 2006).

prominent Romanesque arches, which with the tower and the portion of the windows evoke the Richardson state asylum building in Buffalo, which had recently been completed after the architect's death. While it is possible Bethune wanted to do a tribute to Richardson, she had never done so previously, so it is more probable that this is the look the Lockport trustees and the state assembly desired. (This could be one illustration of her self-definition of businesswoman; "her strength lies in adaptability, not in reform, and her desire is to conciliate [sic] rather than antagonize.")³³

In the same year, Bethune also designed a substantial expansion of the Erie County Penitentiary with the addition of a 100-by-50 foot women's wing.³⁴ This commission resulted from the advocacy of the Women's Educational and Industrial Union (WEIU), which was vocal in calling for reform in the treatment of women.³⁵ The WEIU provided vocational training and classes in nutrition and hygiene for women, thus fitting the profile of an Americanizing organization, but it also provided childcare for working mothers and defended them from mistreatment in employment. In the first years of operation the WEIU collected \$35,000 in unjustly denied wages for servants and seamstresses and its reputation for the defense of women curtailed the practice.³⁶

³³ Bethune, "Architecture," 21.

³⁴ *Buffalo Real Estate News* (June 16, 1890), 2; a \$60,000 brick structure.

³⁵ Shepard, "Union," 155; Brenda K. Shelton, *Reformers in Search of Yesterday: Buffalo in the 1890s* (Albany: State University of New York Press, 1976), 21-22. The WEIU, founded in 1884 by Mrs. George Townsend, Mrs. Lily Lord Tiffit and sixty of Buffalo's most prominent women, was created to further the "material, moral and intellectual welfare of the women of our city." The institution took up the earlier mission of the Working Women's Protective Union, see Nancy A. Hewitt, *Women's Activism and Social Change: Rochester, New York, 1822-1872* (Ithaca: Cornell University Press, 1984), 136, 237. For the Union's role in labor reform see Priscilla Murolo, *The Common Ground of Womanhood: Class, Gender, and Working Girls' Clubs, 1884-1928* (Urbana: University of Illinois Press, 1997); for a close look at the WEIU see Sharon E. Stone, *The Freedom of the Streets: Work, Citizenship, and Sexuality in a Gilded Age City* (Chapel Hill: The University of North Carolina Press, 2005).

³⁶ Shepard, "Union," 149, 181, 177.

The WEIU helped working-class women improve their own lives while also pressuring such municipal organizations as the Buffalo police department to acquire its first woman matron in 1886 and two more in 1890. Due to WEIU efforts, the jail hired a matron in 1892 and the jail's janitresses became members of the police force so they would be eligible for pensions. In the 1887, the WEIU successfully petitioned for two women to be on the Board of Managers of the State Insane Asylum and three years later pressured the state into appointing two women physicians to every state institution where women were housed.³⁷

Certainly Bethune worked closely with the WEIU in designing the wing, which included a washroom as part of the \$60,000 improvements and an independent water supply and ventilation system. The Erie County Penitentiary was evolving out of its workhouse origins and responding to new attitudes that regarded work as productive rehabilitation rather than as punishment.³⁸ The complex involved more than dormitories or the secured areas we think of today; it was a vocational training facility with a laundry, bakery, shoemaking and tailoring shops, and elementary education classes.³⁹

Bethune's relationship to the WEIU was a close one because of the involvement of two important men in her life. Opened to the public October 30, 1886, the first WEIU building was located in the Babcock mansion on Niagara Square (bought for \$12,000 in 1886), which Robert Bethune volunteered his services to renovate. The WEIU was

³⁷ Ibid., 155-161.

³⁸ Gerber, *American Pluralism*, 85, 87. Gerber contends civic improvements were a response to middle-class self-image as well as good business. Also see, Estelle B. Freedman, *Their Sisters' Keepers: Women's Prison Reform in America, 1830-1930* (Ann Arbor: University of Michigan Press, 1981).

³⁹ New York State Teacher's Association, *Buffalo Past and Present: A Manual of Buffalo and the Niagara Frontier* (Buffalo: Reinecke and Zesch Press, 1912), 38; <http://historical.library.cornell.edu/cgi-bin/cul.nys/docviewer?did=nys557andseq=5andframes=0andview=100> (accessed July 10, 2006).

particularly pleased with the way he turned the stable into a “scientifically equipped, well ventilated, and sunny gymnasium” with rental studios on the second floor, but lack of space for their expanding programs meant a new building was needed in a few years. In 1892, the Babcock building was torn down and a new building completed that was designed by Bethune’s mentor, Richard Waite, who undertook the project as a donation to the organization.⁴⁰ Presumably it was part of Bethune’s concept of operating the practice as a business not to make such donations of her own professional services.

Amid such large and challenging projects, several residential commissions in this period were clearly related to Bethune’s larger public and industrial work. One such commission was a retirement home on Delaware Avenue for James D. Tillinghast, president in charge of New York Central operations for directors Cornelius Vanderbilt, J. P. Morgan, and Buffalo industrialist Sherman Jewett. Tillinghast was also vice-president and partner in the Niagara Bridge Company, which built the Niagara cantilever bridge and had employed Robert Bethune as a draftsman in 1880.⁴¹

Concurrent with the Lockport High School, Lockport manufacturer Francis N. Trevor had Bethune design a \$10,000 home on Willow Avenue. Trevor and his brother had expanded their father’s shingle and stave business, founded in 1858, into the Trevor Manufacturing Company, which in 1890 was the manufacturer of pulp processing machinery. Another leading Lockport businessman who became a Bethune client at this

⁴⁰ Shepard, “Union,” 149, 173, 181. The gymnasium classes were led by a trained supervisor, Alice B. Foster. When the building was given to the University of Buffalo in 1917 it was named Bethune Hall to honor Robert Bethune, but the building was actually a Richard Waite structure. Louis Kirkover, a Bethune client, gave \$1,000 of pressed brick to the new building. The organization had male “associate” members, but neither Robert Bethune nor Waite appears on the membership list, nor was Louise a member.

⁴¹ “Buffalo,” *The Architectural Era* 4 (June 1890), 138; Elstner, *Industries*, 34; *City Directory*, Buffalo, address of 685 Delaware.

time was Charles Whitmore, who engaged her to design four stores on the town's main street and a residence. Whitmore had built his quarry business during the development of the Erie Canal locks at Lockport and had become a major contractor and building supplies vendor. His prominence in the community included being elected a city supervisor in 1872.⁴²

In the early 1890s, many in the Buffalo business community upgraded or replaced their stores and many sons of Buffalo's most prominent businessmen moved into a new era of comfort and influence. Charles Lee Abell was the son of William Hawks Abell, who had worked his way from freight clerk of the Buffalo and Attica Railroad to the president of the Western Elevating Company, which controlled all the grain elevators in Buffalo. The elder Abell had seen the importance of storage to railroad freight and had moved into the storage business in the 1840s. By 1866, Abell had also founded the Western Savings Bank and was a prominent member of the 74th Regiment. Bethune designed a house for the son, Charles, on Lexington Avenue and one next door for George W. Comstock, proprietor of the oldest hat and furrier establishment in Buffalo and an influential financier.⁴³

Bethune designed stores for Elizabeth Baldauf, a successful Main Street grocer for decades, Fred Jehle, one of Buffalo's largest food retailers, Robert Smither, a Niagara Street druggist and city councilman, Edward Smith, a Seneca Street merchant and real estate developer, August Beck, a past president of the Erie Fire Insurance Company and a

⁴² *Real Estate and Building News* 2 (March 1891), 2; *City Directory*, Lockport, 1894; Trevor, 453 Willow Ave; Whitmore stores 28-34 Market and residence at 252 Hawley, *City Directory*, Lockport, 1892; History of Lockport, <http://history.rays-place.com/ny/lockport-ny-3.htm> (accessed July 1, 2006).

⁴³ "Buffalo," *The Architectural Era* 4 (June 1890), 138; Smith, *History*, 25; *Buffalo City Directory*, 1892.

meat packing magnate, Charles Berrick, a contractor and sometime architect, Morris Guske, a plumber and plumbing equipment agent, and Louis Kirkover, owner of Buffalo's largest brickworks.⁴⁴

Berrick is often listed in architectural journals as a contractor and sometimes as an architect. He was a contractor Bethune often used, and it is interesting that when he was building his six-story store and warehouse on Exchange Street near the New York Central line he engaged Bethune as his architect. The building is now known as the Artcraft building and is still in use. Berrick expanded his enterprises to brick manufacturing about 1895, about the same time Kirkover retired from business, but there may be no connection. The city records describe Kirkover's building as a two-story brick store and dwelling, a retirement investment perhaps.

In 1891, Bethune made an investment of her own and bought five adjacent downtown buildings, 45-51 Huron, as her own home, office space, and rental property.⁴⁵ This investment helped the firm survive the three bad economic years of the 1893 depression. The depression struck suddenly at the nation's economic optimism of the 1880s. In 1892, construction activity slowed down nationwide and all but ceased in 1893. In Buffalo, school buildings were delayed, and many planned projects were suspended. The disparity between classes, made apparent by the 1890 census, revealed

⁴⁴ See Appendix A.

⁴⁵ Randall, *Human Values*, 62; *Real Estate and Building News* 2 (March 1891) 2; *Real Estate and Building News* 2 (April 1891), 7. This announcement says Bethune was renovating the buildings, which were the family residence in the 1890 census; Lendol Calder, *Financing the American Dream: A Cultural History of Consumer Credit* (Princeton: Princeton University Press, 1999), 107. The uncertainty of paper money gave real estate a consistent clientele for even small investors; Woods, *Craft*, 169. Woods says it was more common for architects to invest in real estate than was publicly acknowledged and that "Stanford White, Daniel Burnham, William Holabird, and Martin Roche quietly acquired real estate and took equity positions in buildings they designed," in spite of the conflict of interest implications.

that 71 percent of the nation's wealth was held by 9 percent of the population, although as historian Rebecca Edwards points out, this concentration of wealth had existed from the colonial era and gradually became more noticeable during the second half of the nineteenth century.⁴⁶ The population of Buffalo had more than doubled between the depression of 1873 and 1893, but wealth still resided in a small elite.

Philanthropy deeply-rooted in daily social life for the privileged class of Buffalo tempered the depression, kept workers in the region, and made recovery quicker. When radical feminist and Greenwich Village bohemian Mabel Dodge Luhan (1879-1962) looked back on her early life as a daughter of one of Buffalo's wealthiest bankers, she recalled that involvement in cultural and charitable organizations was just one of the daily duties along with shopping and entertaining that was expected of the female elite.⁴⁷

At the beginning of the 1890s, Buffalo's charities were well organized and financed, but not prepared for the scale of need that occurred during the depression of 1893. Thousands of requests for aid so pressured charities that the Charity Organization Societies (COS) was determined to investigate before dispensing funds. During the first winter of the 1893 depression, fifty charitable organizations put their funds through the COS clearinghouse in hopes of ensuring only the "deserving poor" would receive what clearly was not enough money for the extent of the need.⁴⁸ But Buffalo's population was

⁴⁶ Edwards, *New Spirits*, 99. Business tycoons such as John D. Rockefeller and Andrew Carnegie reacted by taking a portion of their enormous profits and prominently promoting their philanthropies as "best calculated to produce the most beneficial results for the community." It is a strong argument considering that Carnegie built 1,681 free libraries in the United States and 826 abroad.

⁴⁷ Shelton, *Reformers*, 17, 143; Mohl, *New City*, 157.

⁴⁸ Shelton, *Reformers*, 127-129, 141. The COS stressed its ability to save money on taxes, which meant that it had the support of the business community, but the disparity of economic status between Buffalo's society women on their visits to the needy drew increasing criticism even within the organization and there were calls for professionally trained staff to conduct the visitations; Flanagan, *Chicago Women*, 15.

100,000 more than it was during the depression of 1873 and by the second winter of the depression, conditions were even worse, and fear of the rioting occurring in other cities heightened efforts to dispense funds efficiently. Riots did not materialize, although there were several peaceful marches by Buffalo's Polish workers, many of whom owned homes that they were in danger of losing. The press was generally complimentary to Buffalo's workers, commending them for the same "conservative instincts" as the business community.⁴⁹

Because of her economic caution, Bethune was one of the business persons who survived the crisis. Her investment properties kept her office open and some income available while the complete lack of building in Buffalo for almost four years brought hardship to most residents. By 1895 the city was beginning to recover some economic vitality, and people were cautiously optimistic. Seven to eight school houses and three police stations still awaited approval of funding based on lowest-priced bids (Bethune was not a bidder on these projects).⁵⁰ Bethune's partner Will Fuchs seemed ready to start an expensive theater building with the financing of his family (an important philanthropic

Visitation was fundamental to relief organizations to give only to the "deserving poor" who were completely destitute; Joan Waugh, "Give This Man Work," *Social Science History* 25 (Summer 2001).

⁴⁹ Shelton, *Reformers*, 145, 162, 150-151. In 1894, 6,277 men were paid seventy cents per day, but thousands of men were turned away, and the philanthropic community saw that the problem was beyond the scope of the \$200,000 to \$300,000 in charity raised each year of the five-year depression. Editorials in the Buffalo papers called for state and even national action to halt immigration, and in the winter of 1896 the COS and the United Trades and Labor Council joined together to urge the state to legislate an eight-hour day to spread what municipal work there was among more workers; Elstner, *Industries*, 33. Buffalo's two largest railroad companies, the New York Central and the Hudson River Railroad, had more than 20,000 employees and generated \$10.5 million in salaries, so the Pullman strike of 1894 did not find support in Buffalo; Calder, *Financing*, 42. The president of the carpenters union reported that "in 72 cases out of a 100 our members are not able to earn enough pay for actual necessities of life"; Shelton, *Reformers*, 121. Fifteen charitable societies met in Buffalo in 1909 to form the National Federation of Remedial Loan Associations (NFRLA).

⁵⁰ In the last year of Superintendent Crooker's administration, Buffalo began requiring that school projects go to the lowest bidder. His *Board of Education Report, 1890-1891*, 85, suggests he was not entirely pleased with what by 1895 became routine procedure; "Buffalo," *The Brickbuilder* 4 August 1895), 180.

family in Buffalo's German-American community), but changed the project to an office building.⁵¹

The ten-story Real Estate Exchange building (Green and Wicks) was the first locally funded project to proceed. Outside capital financed the thirteen-story Guaranty building (Adler and Sullivan) and the "magnificent" Ellicott Square ten-story office building (Burnham), and both were close to completion and two-thirds rented—600 of the 900 offices—in early 1896. It was anticipated that many old downtown buildings would be torn down and replaced with buildings more "in accord with modern ideas and conveniences." (The new electric elevator used in these buildings was immediately judged easier to use, safer, and smoother in motion making suddenly obsolete the hydraulic elevator, which ten years earlier had been described as "one of the wonders of the nineteenth century.")⁵²

Buffalo got the Guaranty, the last building designed by Adler and Sullivan, and Burnham's Ellicott Square masterpiece, but overinvestment in office space soon calmed the enthusiasm for "tall" buildings.⁵³ These new office buildings utilized the latest technology and the country's most prominent architects in a strategy to revitalize Buffalo's economic progress by presenting the city as an advantageous place for capital

⁵¹ "Buffalo," *The Brickbuilder* 4 (November 1895), 79; *The Engineering Record* 31 (February 2, 1895), 179; Randall, *Human Values*, 76.

⁵² "Buffalo," *The Brickbuilder* 4 (November 1895), 243-244; "Buffalo," *The Brickbuilder* 5 (March 1896), 52; "Buffalo," *The Brickbuilder* 4 (August 1895), 180. Burnham's Ellicott Square was a \$2,500,000 building, steel frame with terra cotta cladding, the latest in "fireproofing"; "Elevators," *The Inland Architect and Builder* 5 (July 1885), 2. For a detailed description of the steam-powered sixteen-elevator plant of Ellicott Square, Otis Bros. and Co. and Snow Steam Pump Company, Buffalo, with diagrams; "A High-Duty Pump for Elevator Service in Buffalo, N. Y.," *The Engineering Record* 34 (November 7, 1896), 429-430.

⁵³ Condit, *Building Art*, 63, 265. Ellicott Square preceded Burnham's involvement in his "City Beautiful" plan, which he authored in 1909, from the basic outline in his 1905 plan for San Francisco; Lubove, *Urban Community*, 59-72, and Woods, *Craft*, 42-43.

investment. It was a common strategy that nineteenth-century cities throughout the country used to attract workers, new industries, and investment by promoting the city's amenities and economic opportunities.⁵⁴

Historian Brenda Shelton suggests that the business community's support of various reform and charitable organizations was in part motivated by the desire to improve Buffalo's livability and thus its economy. The 1893 depression brought the realization that Buffalo needed a more organized method to confront poverty and more manufacturing to occupy the increasing urban population. People began to question the assumption that the widespread unemployment could simply be the result of personal character defects in the workers.⁵⁵

To guarantee Buffalo's economic future the business community's vision turned from Erie Canal revitalization endeavors to support for utilizing the power of Niagara Falls. The dream of generating power from Niagara Falls went back to 1853 with the digging of a canal that was supposed to deliver water power to Buffalo. For three decades, thousands of unskilled laborers dug and four ownerships went into bankruptcy trying to excavate a canal to Buffalo. In 1881, successful leather goods merchant Jacob Schoellkopf stopped trying to get the water to Buffalo and instead brought power to the city by building the first hydroelectric generating station that supplied power for twelve arc-light lamps (for \$5,000 per year) street lighting.

⁵⁴ Lubove, *Urban Community*, 6-7; Walter C. Leedy, Jr., "Cleveland's Struggle for Self-Identity: Aesthetics, Economics, and Politics," in Richard Guy Wilson and Sidney K. Robinson, eds., *Modern Architecture in America: Visions and Revisions* (Ames: Iowa State University Press, 1991), 77; Shelton, *Reformers*, 197; Mohl, *New City*, 61-62; and any of the period histories such as Shepard, "Buffalo," 250, Elstner, *Industries*, 15-16, and Smith, *History*, 145-150.

⁵⁵ Shelton, *Reformers*, 61, 197-200, 64-65. In Buffalo the reform community turned to "extra-political organizations" that drew up laws and regulations while trying to improve enforcement; Waugh, "Give," 240-241. The COS changed its mission and organization to respond to this new understanding.

Within months prominent Cleveland engineer and inventor of the arc-light generator Charles Brush (Brush Electric Light Company), and Thomas A. Edison's critic and competitor bought the system.⁵⁶ Brush Electric used Westinghouse generators when the company expanded its service in 1884, preferring not to use Edison's more expensive system.⁵⁷ Edison's Pearl Street station actually did not turn profitable until 1889 and was not the system used in Buffalo where a fierce political and economic struggle with the gas companies made cost-effectiveness a critical issue.⁵⁸

Meanwhile, the dream of harnessing Niagara's unlimited power was beginning to be fulfilled.⁵⁹ *The Brickbuilder* noted that, "there have been remarkable changes in the architectural history of Buffalo in the past year; not in the quantity of buildings erected, but the quality and vastness of the structures. The daily papers have spread the impression of great activity here in building; this is quite erroneous, being principally real estate puffs and schemes, looking well upon the drawing-board, but not architectural

⁵⁶ Elstner, *Industries*, 187; Charles Bazerman, *The Languages of Edison's Light* (Cambridge: The MIT Press, 1999), 190, 229. Early users of electricity were flour mills, hotels, steamships, and newspapers, which had a need for a twenty-four-hour energy source.

⁵⁷ Elstner, *Industries*, 188.

⁵⁸ Bazerman, *Edison's Light*, 139, 230. The limitations of Edison's system were well known in spite of his marketing and publicity; the *Commercial Advertiser* New York plant was one of Edison's Pearl Street station customers.

⁵⁹ John Aiken and Richard Aiken, "Power: The Gift of Niagara," Buffalo and Erie County Historical Society, pamphlet series, vol. 10, 1960, 8; Randall, *Human Values*, 36, puts the date at 1879 and notes that Buffalo as the first city with electric street lighting. The falls resulted in many schemes, among them William T. Love's attempt to dig a shipping canal around the falls, which failed during the 1893 depression and almost a century later (1978) the canal rose to national prominence as the first federal man-made disaster area in the country; <http://ublib.buffalo.edu/libraries/projects/lovecanal/> (accessed January 2, 2007). Thomas C. Love, William's father was one of the first lawyers in Buffalo and his sister was a vocal advocate of public education; Smith, *History*, 453; Shelton, *Reformers*, 94.

realities. The chief cause for the large buildings which are or have been erected is no doubt due to the expectations developed by the electric power at Niagara Falls.”⁶⁰

By November 1895, Niagara Falls power negotiations with the city were still “in embryo” so there was no news to encourage investors.⁶¹ This pause was not because of any feasibility problems with electricity, for electric power stations existed in many cities including Buffalo, but in the distance for transmission that necessitated shifting from direct current to alternating current.⁶² Electricity was limited to local generation for street lights and spectacular displays for world’s fairs, but its promise of unlimited power was still largely fuel for individual imagination and industrial ambition. King Camp Gillette, the inventor of the disposable razor blade, envisioned in a utopian novel in 1894 that the entire American population would live in a giant metropolis powered by Niagara Falls.⁶³

A new phase of Niagara Falls development began with Erie Canal engineer Thomas Evershed and financier Charles Gaskill (the Cataract Construction Company), who realized that the economics of supplying each company with its own generator directly using water power would only produce another in a long line of bankruptcies. They shifted their plan to a central generating station atop the American Rapids.⁶⁴

⁶⁰ “Buffalo,” *The Brickbuilder* 4 (July 1895), 158. This editor attributed the funding of new large projects to “Eastern capitalists.”

⁶¹ “Buffalo,” *The Brickbuilder* 4 (November 1895), 243; “little new to be said of the reality market from the investment standpoint.”

⁶² Carroll W. Pursell, Jr., *Technology in America: A History of Individuals and Ideas* (Cambridge: The MIT Press, 1982), 125.

⁶³ Edwards, *New Spirits*, 167. Gillette’s book was *The Human Drift*. For the development of the electrical system see Thomas P. Hughes, *Networks of Power: Electrification in Western Society, 1880-1930* (Baltimore: The Johns Hopkins University Press, 1983) and David E. Nye, *American Technological Sublime* (Cambridge: The MIT Press, 1994).

⁶⁴ Aiken, *Power*, 10;

Evershed and Gaskill formed the International Niagara Commission, which met in London in 1890 to compare and evaluate the plans for a centralized electricity source. This meeting resolved the famous battle between Edison's direct current method and Westinghouse's (Nikola Tesla's patent) alternating current with the Cataract Construction Company committing to alternating current because that company needed to supply power both near the plant and the ability to send it more than twenty miles to Buffalo.⁶⁵

A national competition for an architect for the Niagara Falls power station chose New York City's McKim, Mead and White who were also designing the power house for the Metropolitan Traction Company at Houston and Broadway.⁶⁶ In 1898, Bethune submitted for a building permit for the Cataract Construction Company's Buffalo power station (designed in conjunction with Westinghouse and Tesla), which stepped down the power transmission from Niagara Falls for local use after the initial transmission proved that the alternating current system worked. The Buffalo power station was a large brick structure at 2280-2286 Niagara Street.⁶⁷

The recovery from the 1893 depression proceeded with the optimism over Buffalo's new energy source, which almost immediately was oversubscribed and needed to be expanded beyond the original projections. The first transmission line went to the

⁶⁵ David E. Nye, *Electrifying America: Social Meanings of a New Technology, 1880-1940* (Cambridge: The MIT Press, 2001), 196, 220. This new lower-cost electrically powered expansion of manufacturing made high-volume production of aluminum and previously scarce chemicals possible. Westinghouse designed and built the first plant to manufacture Cyanamid (nitrogen fertilizer) and by 1900, Union Carbide, the Pittsburgh Reduction Company (aluminum), International Acheson Graphite, and the Carborundum Company had major factories in the Niagara-Buffalo area.

⁶⁶ "Buffalo," *The Brickbuilder* 4 (July 1895), 158. The station, which was designed by Tesla's friend Stanford White, was a Richardson Romanesque-style building demolished in 1961; Constance Grief, *Lost America: from the Atlantic to the Mississippi* (Princeton: Pyne Press, 1972), plate 167. Grief places demolition at 1965.

⁶⁷ *City Records*, 1898. In 1897 Buffalo city records began including the name of the architect or builder.

Pittsburgh Reduction Company's aluminum plant near Niagara, and the first transmission line to Buffalo electrified the trolley system, effectively ending the horse-drawn and local steam-powered electrical trolley systems.⁶⁸ These successful uses of Niagara power spurred optimism in Buffalo's electric future, manifested in the city's determination to host the next world's fair scheduled for 1899. Delayed by the Spanish-American War and then facing competition with the 1900 Paris Exposition Universelle, which added Olympic games to the fair offerings, Buffalo put off its world's fair until 1901.

Buffalo was confident that its position as a giant of the new electrical age and its railroad system that put 40 million people within a day's journey would make the event enormously successful. Buffalo also responded to the request for a Pan-American theme by representatives of Central and South America after the Cotton States Exposition held in Atlanta in 1895, and made Spanish Renaissance the style of all fair buildings. But the Spanish-American War had cooled relationships by 1900, and only seven countries built pavilions.⁶⁹

The 350-acre site included Olmsted's Delaware Park and Lake and incorporated color into the buildings rather than following the "White City" theme of the Chicago fair. According to historian Robert Rydell, these colors were arranged from the darkest to the lightest, from periphery to center, with the focal point the pure white, 375-foot Electric

⁶⁸ Aiken, "Power," 11-12; Nye, *Electrifying*, 220; Shepard, "Buffalo," 253. The steam system, powered by water pumped from the swiftest part of the Niagara River, allowed a five-cent fare for any destination on the 112-mile system or a ride completely around the city. Unlike historian Sam Bass Warner's characterization of trolley rails determining the grid development of Boston, Buffalo's trolleys followed the circular grid established by Olmsted.

⁶⁹ Robert W. Rydell, John E. Findling, and Kimberly D. Pelle, *Fair America: World's Fairs in the United States* (Washington, D. C.: Smithsonian Institution Press, 2000), 48; Erik Mattie, *World's Fairs* (New York: Princeton Architectural Press, 1998), 101. The Paris Exposition Universelle had an attendance of 48 million. Isabel Vaughan James, "The Pan American Exposition," Buffalo and Erie County Historical Society, pamphlet series, vol- 6, 1961, 1.

Tower building at the center of the grand court. The darkest colors housed the lower levels of civilization's peoples and accomplishments and the white Electric Tower representing the height of civilization.⁷⁰ The tower's 200,000 incandescent bulbs provided a softer lighting effect than the arc-lighting at the Chicago fair.⁷¹ Contemporary historian Isabel Vaughan James described the effect: "nearly every color imaginable was used with special emphasis on all shades of grey and yellow as well as blue, green, red, violet, orange, gold, and ivory. The color scheme was carefully worked out in advance with models."⁷²

The fair's architects were chosen by competition so it is assumed Bethune did not compete. Published accounts of this fair are minimal, probably because it was not successful in terms of attendance figures and was the site of a national tragedy.⁷³

Architect George Cary was the fair buildings director of construction and represented the

⁷⁰ Rydell, et al., *Fair America*, 49; also see Lillian Serece Williams, *Strangers in the Land of Paradise: The Creation of an African American Community, Buffalo, New York, 1900-1940* (Bloomington: Indiana University Press, 1999), 2, 128-130. Before 1900, Buffalo had less than a thousand African Americans and has been rightly criticized of the depiction for this racial group during the fair, although in general relations between the black community and the white establishment were positive and led in 1925 to the creation of the Buffalo branch of the National Urban League, which the COS strongly supported. See Gail Bederman, *Manliness and Civilization: A Cultural History of Gender and Race in the United States, 1880-1917* (Chicago: The University of Chicago Press, 1995), 26.

⁷¹ Nye, *Technological Sublime*, 149.

⁷² James, "Pan-American," 3. The white marble New York State Building by George Cary is still used by the Buffalo and Erie County Historical Society.

⁷³ Randall, *Human Values*, 152. Buffalo architects were George Cary (New York State Building and Ethnology Building), August Essenwein (Temple of Music), and E. B. Green of Green and Wicks (Machinery and Transportation Building, Electricity Building, Art Gallery). Architects from the country at large included John Galen Howard (Electric Tower) who was California's rising star architect of the University of California, Berkeley, campus; Robert Swain Peabody of Boston's Peabody and Stearns and architect of the 1893 Chicago fair Hall of Machinery (Horticulture, Mines, and Graphic Arts complex); George F. Shepley of Shepley, Rutan, and Coolidge, Boston, inherited H. H. Richardson's practice and designed the Chicago Public Library and Art Institute (Manufacturer's and Liberal Arts Building and Agriculture Building); Walter Cook of Babb, Cook, and Willard, New York, had designed Andrew Carnegie's mansion at 91st Street and Fifth Avenue (Stadium and Propylaea); and J. Knox Taylor was Superintendent Architect of the United States Treasury (Government Building). The Chairman of the Board of Architects was John M. Carrere of Carrere and Hastings, New York, who had just won the competition to design the New York Public Library.

most prominent of the new generation of Buffalo architects.⁷⁴ He was grandson of a state senator, his father a doctor, and his aunt the activist Maria Love who founded the Fitch Crèche, probably the first daycare center in the country.⁷⁵ Cary apprenticed with McKim, Mead, and White and attended the Ecole des Beaux Arts to polish his impeccable credentials and became architect of many Delaware Avenue mansions as well as several buildings of the University of Buffalo and the Union Station. Competitions had turned into opportunities for prominent and politically connected architects to execute generous budgeted projects. This was a long way from the competitions of the 1870s when at least occasionally an unknown architect like Richard Waite or H. H. Richardson (although also through connections to the jury) had been able to establish their competence.⁷⁶

One of the most popular and imaginative of the fair's Midway amusements was the "Trip to the Moon" inspired by the Jules Verne novel where a green-and-white cigar-shaped ship simulated a space voyage for 250 passengers. The ride, which included a welcome from the Man in the Moon, a tour of his castle, shops and palaces, and a view of earth in the distance, indicated the emergence of space flight in the American imagination. But, in spite of the popular accolades for the colorful fair city, the proximity to Niagara Falls, and a city-wide demonstration of electric power, the Pan-American

⁷⁴ Cary's father-in-law and industrialist, George Birge, was the executive director of the fair.

⁷⁵ The Fitch Crèche was founded in 1879 as a daycare center for the children of women working as domestics. It was philanthropically funded and received publicity in magazines such as *Harper's* thus spreading the idea across the country; <http://freenet.buffalo.edu/preserve/bpr/june96/creche.html> (accessed August 22, 2006); see Sonya Michel, *Children's Interests/Mother's Rights: The Shaping of America's Child Care Policy* (New Haven: Yale University Press, 1999); and Elizabeth Rose, *A Mother's Job: The History of Day Care, 1890-1960* (New York: Oxford University Press, 1999).

⁷⁶ Randall, *Human Values*, 152; and <http://freenet.buffalo.edu/bah/a/archs/cary/index.html> (accessed August 22, 2006).

Exposition was an economic and historic failure. The fair needed eight million visitors to break even and it closed with only 5,306,859 (the Chicago WCE had between 27 and 28 million visitors).⁷⁷

The failure of the fair is usually attributed to the assassination of President William McKinley on September 6, 1901, but the fair was already woefully behind in its estimated attendance and did remain open until November 2 as planned. The lures of spectacular electrical exhibits and anthropological tableaux continued in successive American fairs, but the local enthusiasm for the fifty-thousand-horsepower Niagara station—the largest in the world—no longer amazed visitors as much as the electric-powered Midway rides.⁷⁸

The fair also featured one of the first automobile exhibitions in the Western Hemisphere with Buffalo's Pierce-Arrow "Motorette" as the star attraction. The Pierce-Arrow became an international export, and Buffalo manufacturing in general flourished after the fair.⁷⁹ But much of the tourist development expected by the Pan-American Committee did not materialize. Like the tall buildings ignored in downtown Chicago during the WCE in 1893, the powerful industrial development of the metals and chemical industry in Buffalo—directly resulting from the cheap Niagara power—went largely unnoticed at the time.

Although she did not contribute to the fair architecture, Bethune achieved her most long-lasting legacy in the immediate aftermath of the fair. A luxury hotel on

⁷⁷ James, "Pan-American," 5, 13.

⁷⁸ Nye, *Electrifying*, 41-43. Nye describes the complexity of Luther Stieringer's (Edison's engineer in charge of demonstrations in the 1880s and 1890s) colored incandescent lighting for the Pan-American fair.

⁷⁹ James, "Pan-American," 9, 14.

elegant Niagara Square, the most expensive real estate in Buffalo and the transportation hub of the city and the fair, was planned as the jewel of the fair experience. A prestigious Chicago architect, Henry Ives Cobb, was chosen to create a building of the caliber of the best accommodations in New York and Chicago. Cobb, who had designed Potter Palmer's estate on Lake Shore Drive and the Fisheries Building at the Chicago fair, was engaged to design a ten-story hotel, and construction began only to have the project halted when the hotel went into receivership.⁸⁰

Early in 1902, businessman Walter B. Duffy took over the venture and hired Bethune (she was just completing a six-story building for O. H. P. Champlin, druggist and drug manufacturer on nearby Ellicott Street), to design the luxury facility even though the fair was over.⁸¹ Bethune's seven-story, 255-room hotel had an extravagance unusual for her, and when completed in 1904 was considered one of the fifteen finest hotels in the country.⁸²

The hotel is in the French Renaissance style, the only building in this style Bethune is known to have designed but appropriate to the building's namesake and American Revolutionary War hero, General Lafayette. The use of French Renaissance architectural style may have been Bethune's concept or Duffy's, but the style relates architecturally to Burnham's Ellicott Square Building in the next block and is architecturally compatible with Milton Beebe and Son's Brisbane Building (1896) next to it. The Lafayette is brick with terra cotta tile accents over Buffalo Structural Steel

⁸⁰ Randall, *Human Values*, 90.

⁸¹ *Buffalo City Records*, 1902. Constructed of brick, steel, and terra cotta tile, Walter B. Duffy owner, Lafayette Hotel, 391 Washington Street at Niagara Square, \$425,000; *Buffalo City Records*, 1900; six-story brick structure, 34-46 Carroll Street, \$50,000.

⁸² Torre, *Women in American Architecture*, 62; Banham, *Guide*, 89.

Company framing, and when opened to the public in 1904 it had elevators, hot and cold water, and a telephone in every room.⁸³

Designed to provide old-world elegance and twentieth-century comfort and efficiency, the hotel had leaded-glass skylights, marble columns, mahogany coatrooms, luxurious oak-paneling in the gentlemen's smoking rooms, and a prominent mural of General Lafayette in the lobby. The hotel received several United States presidents as the only truly cosmopolitan accommodation in Buffalo during three generations of the Duffy family's ownership.⁸⁴ The Lafayette Hotel was created as the pinnacle of modern technology and for the first half of the twentieth century. Unfortunately, the hotel described in tourist literature as "the best that science, art, and experience can offer" is presently a "residence hotel," which usually is the last step before demolition, but its place on the National Register makes it likely it will be eventually restored.⁸⁵

The Iroquois factory and the Lafayette Hotel reflect the versatility of Bethune's practice and the success of her careful business approach kept the firm together through the worst depression the country had experienced. In 1890, she had fifteen projects totaling \$250,000; in 1891, she had eight projects of approximately \$150,000; only one in 1892; and none in 1893 and 1894.⁸⁶ A similar drop in Buffalo construction occurred. Randall's list of downtown buildings shows only six major projects in the first half of the decade (two of those were funded from outside the city—the Burnham and the Sullivan buildings) and the new Women's Educational and Industrial Union building, which was

⁸³ Randall, *Human Values*, 90. In 1904, Wright's Larkin Building was under construction several blocks east of downtown.

⁸⁴ "Buffalo as an Architectural Museum," <http://freenet.buffalo.edu/bah/a/washngtn/391/index.html#Like> (accessed August 20, 2006).

⁸⁵ See *Buffalo Preservation* network.

⁸⁶ See Appendix A.

paid for before construction began and was able to supply some construction jobs during the worst two years of the depression.⁸⁷

As the economy recovered, Bethune had four projects in 1895, totaling over \$200,000. The most substantial was a \$150,000 commercial complex for partner Will Fuchs's family, although the large building scheduled for Charles Berrick was delayed until 1897.⁸⁸ Among the mixture of stores and residences in the late 1890s was a textile factory for Sarah Howard, the only textile factory in Buffalo, another grandstand structure built in industrial area east of downtown on Ferry Street, and the remodeling of the Buffalo Electric Company's offices after the power station was completed.⁸⁹

Buffalo benefited from the investments of financial syndicates from outside the Buffalo area such as the Ellicott Square and Guaranty buildings, and in 1897, there was another competition for an expensive bank project. Bethune's firm was invited to participate, but she maintained her boycott of competitions and continued to garner commissions from Buffalo's business establishment. This time a Buffalo firm, Green and Wicks, got the commission for the Buffalo Savings Bank.⁹⁰

Many of Bethune's buildings exhibited ingenuity that further research will demonstrate. After 1905, Bethune ceased to sign for Buffalo city building permits, and the firm signature became "R. A. Bethune and W. Fuchs," indicating that with the graduation of her son from medical school and the enormous accomplishments of the

⁸⁷ Randall, *Human Values*, 41, 63, 100.

⁸⁸ "Buffalo," *The Engineering Record* 31 (February 2, 1895) 179; *The Brickbuilder* 4 (November 1895), 79; Randall, *Human Values*, 76, 61.

⁸⁹ In each of the years 1896 through 1899 the firm handled at least \$50,000 of buildings, see appendix A.

⁹⁰ "Buffalo," *The Brickbuilder* 6 (July 1897), 156; Randall, *Human Values*, 66.

previous two years behind her she found 1905 an appropriate point to retire from her practice.

On December 18, 1913, Bethune died at the age of fifty-seven, and her husband died two years later in the Sisters of Mercy Hospital after an illness of several weeks.⁹¹ Madeline Stern contends that Bethune suffered from kidney disease throughout her life. This assertion, (no authority is referred to in her work), is supported only by the fact that her son Charles became a physician specializing in urology, serving as head of urology at Sisters of Mercy Hospital for thirty-five years.⁹² But early deaths, often from pneumonia, were common at the time.

Bethune conducted her practice as a business woman and a professional. She believed that sound business practice required conciliation not agitation, as she said in her speech at the Woman's Educational and Industrial Union in 1891. It is apparent that her approach found particular favor in the Buffalo business community, which repeatedly turned to her for her services. She produced well-crafted buildings for the budgeted amount and on schedule and in some cases where proper photographic documentation is available, buildings of great originality. She appears to have kept clear of the fluctuations of municipal politics and as a result built under almost every mayoral administration and for clients of varied ethnic backgrounds. Her clients spanned generational shifts, and her projects ranged from \$1,000 renovations to prestigious \$425,000 buildings.

⁹¹ *Almanac of Famous People*, 6th ed. Gale Research, 1998; "Obituary," *American Institute of Architects Journal*, 401; "Funeral of R. A. Bethune, Architect, This Afternoon," *Buffalo Daily Courier* (July 20, 1915), 7. Robert Bethune died on July 17, 1915.

⁹² "Dr. Charles Bethune," *Buffalo Evening News* (October 2, 1952), 55; Willard, *Woman of the Century*, 81; Barbasch, "AIA Accepts," 21.

Her accomplishments can also be measured as personal economic success. Research on nineteenth-century cost of living indicates that whereas \$1,000 to \$2,000 a year was required for a reasonable middle-class existence, Bethune appears to have maintained a \$4,500 per year income over most of her professional life.⁹³ Her lifetime income figure of known building budgets is \$2,173,700 or \$90,000, a year and the firm's fee would have been 5 percent of that figure. The list of buildings compiled does not constitute all the buildings she did so this represents a conservative estimate, but good a approximation.

Bethune was as cautious as her clients, and comfortable as a successful businesswoman in a successful business community. Bethune did what she set out to do; she lived a life of her own choosing, lived comfortably as a recognized professional and with her husband as a partner in both her private and professional life lived to see their son established as a physician committed to improving the lives of others.

⁹³ Edwards, *New Spirits*, 66; Schlereth, *Victorian America*, 80-81.

CONCLUSIONS

A LIFE FULFILLED

“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.”

—Lois Lilley Howe, 1920¹

Bethune’s journey, like that of many of her generation, was one of amazing changes. From a childhood in a small industrious town on the Erie Canal—the economic and technological marvel of the antebellum period—to adulthood in a rapidly industrializing major American city, Bethune followed the path of many Americans from a pastoral world to an urban one. Unlike most women but like many men of her generation, Bethune seized the promise of the growing nation to pursue life, liberty, and happiness in the guise of an occupation of her own choice and succeeded. This work documents her career and explains how it relates to and contributed to the growth of urban America and to the field of architecture. It also attempts to explain why she was so different from most women of her generation.

Bethune began her practice at a time of economic expansion and in an environment of personal relationships where her father’s job as a school principal gave her access to the superintendent of education and thus the opportunity to design city schools. Her success at these first commissions heralded a positive relationship with the city and its business community. Her businesslike personality and avoidance of politics allowed her to move easily within the German-American community, the Irish-Democrat community, and the old New England community to which her family belonged. By the

¹ Filene, *Careers*, 47.

time of the devastating 1893 depression, her practice was well-established enough to survive, without much discomfort. After the economic recovery, she was well positioned to do the projects that were of interest to her, although city building permit records show that she accepted small remodeling commissions along with such major structures as the Lafayette Hotel.

The first objective of this study is to establish what exactly Bethune's professional accomplishment was and over what years, because this record of accomplishment has not before been documented. More than a hundred buildings have been attributed to her, and, with the exception of the years of the 1893 depression, her firm was consistently profitable. The buildings included all manner of structures from an outdoor market and a grandstand to technologically complex factories and civic structures, residential single-family homes and flats of apartments, commercial stores, warehouses, and the first electric power station in Buffalo. Her clients included the wealthiest of Buffalo's elite, middle-class tradesmen, bureaucrats, professionals, and entrepreneurs who came from all of the city's religious and ethnic cultural groups, as well as considerable contacts from the city and state.

What did Bethune's practice offer this wide body of clients? From contemporary accounts and personal observation of existing buildings, one can see that she offered highly crafted, conceptually thoughtful, aesthetically well-composed buildings that were better suited to their intended function than was typical at the time. Bethune did not engage in excessive ornamentation, which was a popular aspect of architect designed buildings of the day. Nor did she design buildings that were a historicist statement, that is, a church that looked like a temple or an armory that looked like a castle. What she did

was aesthetically combine visual architectural idioms with well crafted and thoughtfully designed spaces.

Bethune was reliable and punctual; her buildings did not go over budget or get delayed in the construction phase. She believed, as she mentioned in her Women's Educational and Industrial Union speech that operating on sound business rules and producing a well-crafted building would yield success and her career proved this to be correct. Her buildings were like her life: well-composed, honest to their function, practical, and understated.

What can we say about how Bethune became the first successful woman professional architect in nineteenth-century America? Probably not much more than we can say about how Charles F. Bingham, a blacksmith in 1849, became supplier of iron castings for most American railway systems in 1885, or how millhand John T. Noyes built a small hand mill into one of the largest firms of milling equipment in the country, or how lithographer Herman Cosack turned a routine likeness of President Lincoln into a premier printing empire.

How was it that Charlotte Mulligan turned teaching a bible class for "incorrigible" boys during the Civil War into a mainstay charitable institution and personal estate on Lake Erie or Elizabeth Baldauf quadrupled her grocery business on North Main Street in one decade? How did Sarah Howard have the temerity to build Buffalo's first textile factory?² A woman had the freedom--assuming she was a white, middleclass, educated

² Shepard, *Buffalo*, 250. Shepard states that the textile factory was so new that most Buffaloes did not know of its existence.

woman—to make one’s own opportunities and to suffer one’s own failures, to use knowledge, experience, and vision to make one’s own opportunity.

The timing of birth appears to have been a critical element in Bethune’s success. The generation born at mid-century was one of the most productive in American history. Intellectual historian Daniel Walker Howe describes the nineteenth-century concept of self-construction, popularly known by the end of the century as the cult of the “self-made man,” which attributed success to an act of will and self-control that Bethune refers to as “determination.” As Howe describes it, “a combination of weak institutional constraints and market revolution, which multiplied occupational and consumer options, provided favorable conditions for such widespread personal autonomy.”³

Endeavors such as entering a profession did require the mentoring of an established professional and required inspiring the confidence of others. Men like Richard Waite, Louis Sullivan, and Frank Lloyd Wright entered apprenticeships in the offices of the best architects of their day and secured the chance to learn from the best of their time.⁴ Bethune had this ability, as did Elizabeth Blackwell, Edith Hamilton, and Myra Bradwell. It was also the world of the one chance, which had to be seized with proof of competence established quickly. All had in common in addition the confidence

³ David Walker Howe, *Making the American Self: Jonathan Edwards to Abraham Lincoln* (Cambridge: Harvard University Press, 1997), 4-5, 15, 107; Bethune, “Architecture and Women,” 21.

⁴ David A. Hanks, *The Decorative Designs of Frank Lloyd Wright* (New York: E. P. Dutton, 1979), 5, 9. Wright lost his position with Sullivan when Sullivan discovered Wright had designed a house for one of the firm’s clients, which was being built two blocks from Sullivan’s own home (the Harlan house, July 1891). Dr. Harlan was the prominent Chicagoan who first envisioned Chicago as the site of the 1893 fair. Sullivan worked with Frank Furness until the depression of 1873, and Richard Waite with John Kellum in New York City. African-American males also benefited from late 19th century inclusiveness--Robert Taylor and Julian F. Abele, as well as several architects hired to design charity organization buildings in African-American communities. This complex issue has been explored by Richard Dozier, but clearly needs further research.

that they were prepared to do the job that they took on themselves and to do it well, to accept the rapidly changing technology and needs of the time, and to accept the risks of failure.

Even H. H. Richardson realized the role of opportunity and described to his biographer, Mariana van Rensselaer, the moment when he seized his chance in November 1866. Richardson had returned to America after completing his course at the Ecole des Beaux Arts and for a year had not found work. A former classmate (J. A. Rumrill) arranged for his drawings to be submitted into a competition with those of the invited architects for the Springfield, Massachusetts, Unitarian church. He met objections from a committee member who felt it was risky to give the commission to a man with no independent practice and no experience in church design, so that when his design was accepted he was overwhelmed; “When it was told him he burst into tears and exclaimed, ‘That is all I wanted—a *chance*.’”⁵

For a chance to be taken a chance has to be given and this research shows that there was openness of opportunity for Bethune, but the chronological window was brief. Women who tried to follow her into architecture had a difficult time even though there was no specific proscription preventing women from entering. Howe contends that if we include “nonpolitical activities, we find that working-class people, women, minority groups, even slaves were able to participate to a degree in certain kinds of voluntary self-definition . . . and if we look at antebellum social criticism, we find that denials of

⁵ Van Rensselaer, *Richardson*, 18.

opportunity for self-development were increasingly protested as deviations from the norm.”⁶

Howe contends that the right of self-definition went beyond “personal freedom” or any twentieth-century concept of self-gratification; that it was conscious self-reconstruction and has not been adequately documented beyond the work of women in medicine, religion, and philanthropy.⁷ Historian Angel Kwolek-Folland’s *Incorporating Women: A History of Women and Business in the United States*, points to manifestations of cultural support for women’s individuality in New England’s practice of absolute divorce, the pressure for laws respecting separate estates (by 1880 separate estate laws existed in 90 percent of the states), and the decline from 7 children per family in 1800 to 4.24 in 1880. She contends that before 1890, women’s rights advocates were more concerned with women’s economic opportunities than with the right to vote.⁸

Bethune had the advantage of beginning her career in Buffalo when the city aspired to urban sophistication and amenities (the Olmsted park system and several elegant civic buildings) and the economy promised long-term prosperity. Civic responsibility and entrepreneurship were co-habitants in this famous keystone of the Erie Canal. She also grew up in a region known for anti-slavery and women’s rights organizations, a host of evangelical sects, and was more open to women in business than previous thought. In upstate New York and into the Midwest between 1840 and 1885,

⁶ Howe, *American Self*, 110.

⁷ *Ibid.*, 122, 11; see Rossiter on women scientists; Solomon on women in higher education; Glazer and Slater on women in professional medicine, psychiatric work, and scholarship; Hewitt on activist women; Kerber on responses to women intellectuals throughout the 19th century; Ginzberg, on antislavery women; and Catherine E. Kelly, *In the New England Fashion: Reshaping Women’s Lives in the Nineteenth Century* (Ithaca: Cornell University Press, 1999).

⁸ Kwolek-Folland, *Incorporating*, 49-54.

hundreds of women of all marital status owned and managed bookstores, small manufactories, dry goods stores, shoe stores, and grocery stores. In 1870 in the Midwest over 10 percent of the employed women (31,000) owned shops, boardinghouses, or sold professional services.⁹

The country's rapidly growing cities were fluid socially and expansive in their aspirations. Buffalo was built on the chance seized, beginning with the struggle to be the Erie port of the Erie Canal. Buffalo was where the first "fireproof" grain elevator was built in 1869, where one of the first concrete houses was built at Black Rock in 1865, where one of the country's first telephone systems was installed in 1878, and where the first experimental electric streetcar ran in 1889.¹⁰ Buffalo also gave the country two presidents—one started as a school teacher and one started as a sheriff—Millard Fillmore and Grover Cleveland. It also gave us the first economically successful woman architect, whose timing was impeccable for success and who achieved a career to some degree not replicated until the late twentieth century.

In Buffalo, no one cultural group held all political power and Bethune was adept at moving among them. Her young apprentice turned partner in 1890, Will Fuchs was part of the German community that was first to apply its energy to cultural institutions establishing a legacy of choral groups, drama institutions, and financial institutions to serve the worker class that shaped the nineteenth-century city.¹¹ Buffalo had a particularly high ownership of individual homes because the German community created

⁹ See Susan Ingalls Lewis, "Women in the Marketplace: Female entrepreneurship, business patterns, and working families in mid-nineteenth-century Albany, New York, 1830-1885" (Ph.D. diss., State University of New York at Binghamton, 2002).

¹⁰ Randall, *Human Values*, 36-38, 166. The electric trolley service continued until 1950; also during the 1890s the Buffalo Engineering Co. was a C. M. and Samuel Morse company; Condit, *Building Art*, 333.

¹¹ Gerber, "Germans," 40-41, 51.

“savings and aid” associations beginning in 1866. By 1883, there were about sixty of these savings associations helping the “poorer class” to buy their own homes. Bethune also worked closely with the Irish-American superintendent of education, James Crooker, who was essential to school development (with the aid of a forward-thinking woman architect) until he went on to become the New York State Superintendent of Education in 1891.¹²

Many influences affected Bethune’s Buffalo, from elite connections to New England (primarily Boston), to the elite’s trans-Atlantic travel, to the concerns of Irish and Polish manual laborers and German small businessmen. Secure in her heritage as a member of several prominent founding families, Bethune easily crossed all cultural and religious lines in her practice. Her clients included New England pioneers to this western frontier (David Bennett, Charles Bingham, Richard Noye, Spenser Kellogg, William Mitchell, Charles Whitmore, and George Bell), prominent German businessmen (Carl and William Lautz, Philip Houck, Herman Cosack, Jacob Dold, James Tillinghast, and E. G. and William Fuchs), rising Irish businessmen (Walter Duffy, William Connors of Courier publishing, and superintendent Crooker), Catholic Charlotte Mulligan and various city commissioners over the course of a quarter century. Bethune apparently moved quietly and confidently among the various buffalo communities.

Buffalo did not have an easy environment (in the 1850s it was said Buffalo had nine months of winter and three of late fall), and it took vision and commitment to turn a Lake Erie port into an indispensable part of the national transportation network.¹³ This

¹² Smith, *History*, 237; Gerber, *Pluralism*, 333.

¹³ Shepard, “Buffalo,” 252.

adversity may be why historians Shelton and Gerber find Buffalo a conservative city in the nineteenth century, slow to free itself from municipal control by a small group of business leaders. But for architects whether the commissions came from decisions of municipal boards or small groups of businessmen was secondary to how many projects were available, which in the end depended on general economic conditions.

Bethune opened her practice when the economic conditions were expansive and the number of professional architects was relatively low. In 1883, sixteen architects shared the available work in Buffalo; in 1902, fifty-four firms existed, and in 1908 (after passage of the licensing law, 1906) there were fifty-nine firms, so a number in the fifties for the first decade of the twentieth century is probably correct.¹⁴ It is also probable a number of the listed “architects” were actually contractors, but this disparity did not change the reality that there was considerably more competition for available work for architects beginning practice in the generation after Bethune. While the number of architects in Buffalo tripled, the submitted projects to professional journals only doubled.

By the turn of the century the building listings in journals had diminished in importance and in many cases were dropped or relegated to supplemental issues, as cities more uniformly kept records themselves. Some journals raised requirements for listing projects to those with more than \$7,000 budgets thus eliminating most private homes. Listings for Bethune’s work in journals diminishes, but city records after 1897 show a continuing variety of projects along with the building of the Lafayette Hotel from 1902 to 1904.

¹⁴ Randall, *Human Values*, 151.

Bethune was economically secure by the time competition from outside architects and large-scale industries with their own architects and engineers seriously affected Buffalo's architectural marketplace. Others like her mentor Richard Waite did not fare so well. In Waite's case, his brother squandered the firm's assets while Waite worked in Canada. When Waite returned to Buffalo in 1906, he found it impossible to rebuild the firm and left Buffalo to work for others in New York City.¹⁵

Bethune's success arose from her willingness and her ability to take on the technological challenges that faced architects and builders in the early 1880s. At the time the profession debated the relative dangers of coal-gas, sewer-gas, and "water-gas" (gas from gaslights), clearly confused about the dangers or how to control them.¹⁶ Bethune addressed all these concerns, not waiting for scientific proof, and designed buildings that guarded against these dangers. She also addressed the amount of natural light, noise levels, traffic patterns, the scale of rooms, and their relationship to each other for function and aesthetics. In an era of concern for enough classroom space she designed wide hallways to ensure students could rapidly exit the building in an emergency.

Bethune also addressed fireproofing using heavy timbers, layered hard woods, and brick construction. In the buildings I examined, Bethune used pressed brick, laid as tight as possible using the minimum of mortar and creating precisely crafted buildings. All the buildings had stone foundations, superior to cement or brick, and considered the premier level of construction of the period. The tight precision of the construction is

¹⁵ Wachadlo, "Waite," 16.

¹⁶ Editorial, *The Inland Architect and Builder* 2 (September 1883), 104; the piece appeared with news of an article in *Popular Science Monthly* by William Ward introducing the idea of fireproofing iron with a coating of cement.

apparent in the context of the surrounding structures of the period. Many of her buildings are still in use, although many have been mangled by attempts to “update” their facades.

Another innovation seen in Bethune’s school buildings was the design of two fire exits from all parts of the building, now a code requirement for all buildings. This feature was added to the Berlin building code for floors above the second level in 1883 as was the regulation that basement rooms had to be two-thirds above ground and workshops and carpenter’s facilities be in separate structures.¹⁷ (In the nineteenth century the basement was often a workshop and storage area for fuel oils, coal, and where lamps were filled and repaired.) Logic could have brought one to these conclusions about fire safety, but they appeared in Bethune’s work long before they were required by the city. Bethune’s own definition of the job of the architect required attention to all aspects of the building including physical safety, the damaging effects of light and sound, and protection from unhealthy air and pollutants.

Like Mariana Van Rensselaer with whom she corresponded, Bethune was not engaged in the suffrage movement, which she considered divisive. Whether she favored the vote for women or simply did not approve of the methods of those advocating it we do not know. Van Rensselaer, however, did publish an essay on the subject and apparently gave the issue a great deal of thought.

It is the duty of every man and woman in our country to help the world grow better. But it is not the duty, still less the right, of every one to help it by actually assisting to protect individual, family, and social life. Even if it could be proved that American women in the mass are more intelligent than American men in the mass, still we ought not to ask for the ballot unless we are sure that if any measure of our energy is given to political life, the loss in other directions will not be greater than the gain in this direction. . . .To my mind nothing more dangerous

¹⁷ “Berlin’s New Building Law,” *The Inland Architect and Builder* 2 (September 1883), 108.

could be said to American women to-day than that they need, as women, specially [sic] to care for the interests of women. These cannot be separated, except in certain points, from the interests of men.¹⁸

Bethune made a choice to use her energy as an architect and clearly assumed other women would follow her into the profession, but toward the end of the century, the very requirements devised to assure competence in architecture as well as other professions would marginalize women. When Bethune applied to the WAA in 1885, the member architects were reluctant to define the requirements of licensing, because so many of them had come into the profession by so many different circumstances. Each had defined for himself the training and experience that made him confident to declare himself an architect. There were no impediments to Bethune that would not have handicapped many of the male architects.

The 1893 depression may have tempered the next generation's optimism as did the challenge of an increasingly well-educated field of competitors for the available work. The optimistic camaraderie of the 1880s was over. As a successful member of the profession Bethune may have continued to feel as she had during her 1891 speech that it was the lack of determination that prevented young women from entering architecture and not that the openness of her own time was evaporating and not expanding as she believed.

It is interesting, in looking at the period and Bethune's work, that Bethune's name has been prominent on the AIA membership rolls for one and a quarter centuries but did not raise anyone's curiosity until women historians started to look for "firsts," and even then it was assumed Bethune's practice must have been mundane and even amateur to

¹⁸ Mariana Van Rensselaer, *Should We Ask for the Suffrage* (New York: self published, 1894), 17, 21.

some degree—how could a woman have been a *real professional* architect running a successful practice, let alone a technologically innovative practice producing more than a hundred buildings meeting the most rigorous standards of her profession?

By the twentieth century it was understood that the capital investment, the domain of men, involved major commitment from clients and proven expertise, not generally a domain of women. But the nineteenth century was more fluid, and the most successful architects of the period entered the profession through personal effort more than formal educational training. Daniel Burnham had no higher education, Frank Lloyd Wright never graduated high school although he did some courses in drafting and civil engineering at the University of Wisconsin, and Louis Sullivan left MIT and Ecole des Beaux-Arts without completing either program. But these architects affected their environments by building when everything was individually thought out and hand built, unlike our age in which buildings can go up everywhere with hardly a hand touching or a mind being involved in the process.

Bethune not only designed schools, she thought them through from scratch, inventing what they should be. Twenty years later the design essentials she developed without the benefit of a model to follow became themselves the recommended model for young architects to follow so they need to waste time inventing new solutions. Her factories arrived at an open plan that isolated all machine noise and dirt from the product and the workers. When she had the opportunity to build an armory she built such a successful multipurpose space that it was used for decades after it ceased to be an armory. Bethune was also chosen to design Buffalo's first electric power plant. Any of these innovations should have made her of interest to historians.

Bethune did not involve herself in the self-promotion of the post-1893 shift to competitions as the means of choosing architects for major commissions. Bethune did not enter competitions, we assume, because of the prevailing opinion in the profession that they were not the proper basis for the selection of an architect and brought out dissension in the profession. We know, in the case of the Woman's Building, that she objected to the unfairness of the selection and payment. Like most of her colleagues, she felt the building "spoke for itself," but it still seems curious that it has been assumed that there would not be something of inherent interest in this woman's work. The innovations found in her work suggest that there is much more to her career that requires additional research.

That successful people like Bethune can be ignored is a problem for the profession of historians. How many other important Americans have historians overlooked or ignored because they do not fit existing categories or concepts of historic importance? Bethune has not interested those architectural historians who thought that "modern style" was most important; she was not interested in the suffrage movement and so has been of comparatively little interest to women's historians; her engineering and technology did not lead to the creation of a major international corporation so drew no interest from technology historians.

Bethune was "first," but appears not to have wanted to be known for being first. She expected many to follow her. She became a WAA and AIA member because that was what true professionals did, and not with the intention of making it (as it happened) possible for other women to be architects. As an informed modern intellect of her day, Bethune helped move architecture toward modernity by emphasizing practical

improvement over style. She wanted to create buildings that were the best that could be created for the given circumstances. She was as sophisticated in her designs as she was in doing something no other woman of the time did, creating a body of architecture that this research has found to be truly innovative. She also succeeded in her true goal to build a useful and rewarding life doing what she chose to do; a century would intervene before this would again seem to be nothing unusual.

BIBLIOGRAPHY

Abbreviations used:

AABN	<i>American Architect and Building News</i>
AIA	<i>American Institute of Architects</i>
AE	<i>The Architectural Era</i>
BECHS	Buffalo and Erie County Historical Society
DAR	Daughters of the American Revolution
ER	<i>Engineering Record</i>
IABN	<i>Inland Architect and Building News</i>
SE	<i>The Sanitary Engineer and Building News</i>
WAA	Western Association of Architects

Archives consulted:

Buffalo, New York

Buffalo and Erie County Library, Grosvenor Collection
Buffalo and Erie County Historical Society
Buffalo City Records
AIA Buffalo Chapter
DAR Buffalo Chapter

Cambridge, Massachusetts

Harvard University
Open Collections Program: Women Working, 1800-1930
Making of America, Andrew Mellon Foundation

Ithaca, New York

Cornell University Archives
Cornell Library New York State Historical Literature

New York, New York

Avery Library, Columbia University

Waterloo, New York

Waterloo Historical Society

Washington, D. C.
AIA Archives
AIA Office Files
WAA Office Files

Primary Source (Books):

1894 City of Buffalo Atlas. New York: American Atlas Company, 1894.
http://www.erie.gov/atlas/buff_94/vol_1/html/city_atlas_1_t.html on June 20, 2007.

A History of Seneca County, New York. Philadelphia: Everts, Ensign & Everts, 1876.

Association for the Advancement of Women. *Historical Account of the Association for the Advancement of Women, 1873-1893: Twenty-first Women's Congress, World's Columbian Exposition, Chicago, 1893*. Denham, Massachusetts: Transcript Steam Job Print, 1893.

Barry, John F. and Robert W. Elmes. *Buffalo's Text Book*. Buffalo: Robert W. Elmes, 1924.

Billings, John S., M.D. *Report on Vital and Social Statistics in the United States at the Eleventh Census, 1890*. Washington, D. C.: Government Printing Office, 1896.

Blackwell, Elizabeth. *Address on the Medical Education of Women: Read before a Meeting Held at New York Infirmary, December 19th, 1863*. New York: Baptist & Taylor, 1865.

Buffalo: America's Gateway To and From the Great North West: 1920 Year Book of Industrial, Commercial, Financial, Educational, Civic Buffalo. Buffalo: J. W. Clement Company, 1920.

Burnham, Daniel H. *The Final Official Report of the Director of Works of the World's Columbian Exposition* (Chicago: World's Columbian Exposition, 1893; reprint, Joan E. Draper, ed., New York: Garland Publishing, 1987)

Clarke, Edward H. M. D. *Building of a Brain*. Boston: James R. Osgood & Company, 1874.

Coles, William, ed. *Architecture and Society: Selected Essays of Henry Van Brunt*. Cambridge: The Bellnap Press of Harvard University Press, 1969.

- Cook, Frederick, Secretary of State. *Journals of the Military Expedition of Major General John Sullivan Against the Six Nations of Indians in 1779 with Records of Centennial Celebrations*. Auburn, New York: Knapp, Peck, & Thompson Printers, 1887.
- Crooker, James F. *Department of Education Report: Superintendent of Education, City of Buffalo, 1882-1883*. Buffalo: Laughlin & Co. Publishers, 1884.
- *Department of Education: Report, Superintendent of Education, City of Buffalo: 1883-1884*. Buffalo: Laughlin & Co. Publishers, 1885.
- *Department of Education: Report, Superintendent of Education, City of Buffalo: 1885-1886*. Buffalo: Laughlin & Co. Publishers, 1887.
- *Department of Education: Report, Superintendent of Education, City of Buffalo 1886-1887*. Buffalo: Laughlin & Co. Publishers, 1888.
- Elstner Publishing. *The Industries of Buffalo: A Resume of the Mercantile and Manufacturing Progress of the Queen City of the Lakes*. Buffalo: The Elstner Publishing Company, 1887).
- Emerson, Henry P. *Department of Public Instruction Annual Report, 1893-94*. Buffalo: The Wenbourne-Sumner Co., 1895.
- *Department of Public Instruction Annual Report: 1894-1895*. Buffalo: The Wenbourne-Sumner Co. 1896.
- *Department of Public Instruction Annual Report: 1896-1897*. Buffalo: The Wenbourne-Sumner Co. Printers, 1897.
- Filene, Catherine, ed. *Careers for Women*. Boston: Houghton Mifflin Co., 1920.
- Hamilton, Gail. *A New Atmosphere*. Boston: Estes and Lauriat, 1877.
- Hamlin, A. D. F. *A Text-Book of the History of Architecture*. New York: Longmans, Green, and Co., 1904.
- *Modern School Houses: Being a Series of Authoritative Articles on Planning, Sanitation, Heating, and Ventilation*. New York: The Swetland Publishing Co., 1910.
- *History of Columbia University, 1754-1904*. New York: The Columbia University Press, 1904.

- Harkness, John C. *The Normal Principles of Education: An Address*. Trenton: Charles Scott, 1869.
<http://pds.harvard.edu:8080/pdx/servlet/pds?id=3791421andn=4ands=4> on April 4, 2006.
- Hendrick, Welland. *Brief History of the Empire State for Schools and Families*. Syracuse: C. W. Bardeen, Publisher, 1894.
- Hunt, Jonathan. *History of the Blanchard Family from 1636 to the Present Time*. Attica, Ohio: Journal Press, 1900.
- Latham, Baldwin. C. E. *Sanitary Engineering: A Guide to the Construction of Works of Sewerage and House Drainage*. London and New York: E. & F. N. Spon, 1878.
- Merriman, Mansfield. *Elements of Sanitary Engineering*. New York: John Wiley & Sons, 1899.
- National Cyclopedia of American Biography*. New York: James T. White, 1904.
- Newcomb, Harvey. *Anecdotes for Girls: Entertaining Narratives and Anecdotes, Illustrative of Principles and Character*. Boston: Gould, Kendall and Lincoln, 1849.
- Parton, James. *Daughters of Genius: a Series of Sketches of Authors, Artists, Reformers, and Heroines, Queens, Princesses, and Women of Society, Women Eccentric and Peculiar, from the most recent and authentic sources*. Philadelphia: Hubbard Brothers, 1888. Open Collections Program at Harvard, Preservation microfilm: 00700. <http://pds.lib.harvard.edu/pds/view/3370002>, on April 15, 2006.
- Pierce, Henry M. *Address to the Second Graduating Class of Rutgers Female College: Delivered in the West Presbyterian Church, on Sabbath Evening, May 31st, 1868*. New York: Agathyian Press, 1868. <http://pds.lib.harvard.edu/pds/view/2690992> on April 15, 2006.
- Pool, William, ed. *Landmarks of Niagara County, New York*. Syracuse: D. Mason & Co., Publishers, 1897, <http://history.rays-place.com/ny/lockport-ny-3.htm>.
- Severance, Frank H. ed. *Publications of the Buffalo Historical Society, volume V*. Buffalo: Buffalo Historical Society, 1902.
- . *Publications of the Buffalo Historical Society, volume XXII*. Buffalo: Buffalo Historical Society, 1906.
- . *Studies of the Niagara Frontier*. Buffalo: Buffalo Historical Society, 1911.

- Smith, H. Perry. ed. *History of the City of Buffalo and Erie County; with Illustrations and Biographical Sketches of some of its Prominent Men and Pioneers*. Syracuse: D. Mason & Co. Publishers) 1884.
- Sullivan, James, ed. *The History of New York State*. New York: Lewis Historical Publishing Inc., 1927.
- Tappan, Henry P., D. D. *University Education*. New York: George P. Putnam, 1851.
- Taylor, James Monroe. *Before Vassar Opened: A Contribution to the History of Higher Education of Women in America*. Boston: Houghton Mifflin, 1914.
- The History of the Germans in Buffalo and Erie County, N. Y. with Biographies and Illustrations of the Aforementioned German-Americans who have Influenced the Development of the City of Buffalo*. Buffalo: Reinecke & Zesch, 1898.
- Van Rensselaer, Mariana Griswold and David Gebhard, ed. *Accents As Well As Broad Effects: Writings on Architecture, Landscape, and the Environment, 1876-1925*. Berkeley: University of California Press, 1996.
- *Henry Hobson Richardson and His Works*. New York: Dover Publications, Inc., 1888, 1969).
- *Should We Ask for the Suffrage*. New York: self published, 1894.
- Whitford, Noble E. *History of the Barge Canal of New York State*. Albany: J. B. Lyon Company, Printers, 1922.
- *History of the Canal System of the State of New York: Together with Brief Histories of Canals of the United States and Canada*. Albany: Brandow Printing Company, 1906,
<http://www.history.rochester.edu/canal/bib/whitford/1906/Front.html> on July 15, 2005.
- Willard, Frances E. 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*. Buffalo: Charles Wells Moulton, 1893.
- Wilson, James Grant and John Fiske, eds., *Appleton's Cyclopaedia of American Biography*. New York: Appleton & Co., 1887-1889.

Primary Source (Articles):

“A Guide for Office Seekers, The Salaries of the Heads of State Departments,” *New York Times* (January 15, 1895).

“A High-Duty Pump for Elevator Service in Buffalo. N. Y.” *The Engineering Record* 34 (November 7, 1896).

“AIA and WAA Proceedings at Cincinnati, Ohio.” *The Architectural Era* 3 (November 1889).

“American Institute of Architects.” *The American Architect and Building News* 21 (February 19, 1887).

“American Institute of Architects: Schedule of Minimum Charges and Professional Practice of Architects, as Usual and Proper.” *The Architectural Era* 4 (February 1890).

“Annual Meeting of the Western New York State Association of Architects at Buffalo, N.Y., Beginning November 18th, A. D. 1890 Meeting Held in Parlor ‘H’ of the Iroquois Hotel.” *The Architectural Era* 4 (December 1890).

“Appointments, a Superintendent of Public Instruction.” *New York Times* (February 8, 1892).

“Architect Thomas Walsh.” *The Inland Architect and Builder* 9 (March 1887).

Beem, Lulu Stoughton. “Women in Architecture.” *Inland Architect and Builder* 4 (October 1884).

“Berlin’s New Building Law.” *The Inland Architect and Builder* 2 (September 1883).

Bethune, Louise. “Women and Architecture.” *Inland Architect and News Record* 17 (March 1891).

Blanchet/Blanchard (Blanchard-L at Roots Web, 1998), TG3-789-4.
<http://homepages.rootsweb.com/~blanch-l/GeoB/ff93035.html#PTG3789> on March 31, 2006.

Britt, George. “Forty Years-Forty Millions.” *Mississippi Valley Historical Review* 23 (June 1936).

“Buffalo.” *The Architectural Era* 3, suppl., (December 1889).

- “Buffalo.” *The Architectural Era* 4 (March 1890).
- “Buffalo.” *The Brickbuilder* 4 (July 1895).
- “Buffalo.” *The Brickbuilder* 4 (August 1895).
- “Buffalo.” *The Brickbuilder* 4 (November 1895).
- “Buffalo.” *The Brickbuilder* 5 (March 1896).
- “Buffalo.” *The Brickbuilder* 6 (July 1897).
- “Buffalo Doings.” *The Architectural Era* 2 (November 1888).
- Buffalo Real Estate News* (November 1890).
- Burnham, D. H., F. A. I. A. “Suggestions toward Harmonizing Architectural Associations.” *The Inland Architect and News Record* 10 (October 1887).
- Burr, Kate. “Charlotte Mulligan: Woman of Great Deeds.” Buffalo Local Biographies.
- “Canada.” *The Inland Architect and Builder* 4 (October 1884).
- “Centennial of the Ontario Legislative Building, 1993.” Buffalo: Special Collections, Buffalo and Erie County Library.
- “Chapter 7—“The Guard of Honor: Its Mission the Moral Development of Men, Institution That Never Requests Aid.” *The Buffalo Courier* (February 9, 1897).
- Church, Myron. “Course of Study for Junior Members.” *The Inland Architect and Builder* 7 (February, 1886).
- “Competitions.” *The Inland Architect and Builder* 5 (May 1885).
- “Convention of the AIA,” *The American Architect and Building News* 21 (January 1887).
- “Crooker’s Political Record, He has Filled the Schools of Buffalo with Catholic Teachers,” *New York Times* (February 10, 1892).
- Department of the Interior. *Report on Population of the United States at the Eleventh Census: 1890*, www.census.gov/prod2/decennial/documents/1890a v1-01. on March 31, 2006.

De Wolf, Oscar C., M. D. "The Relation of State Medicine to the Profession of Architecture." *The Inland Architect and Builder* 8 (December 1886).

"Dr. Charles Bethune, County Examiner for Child Labor, Dies at 69." *Buffalo Evening News* (October 2, 1952).

"Editorial," *New York Times* (February 10, 1892)

Editorial. "Record as Superintendent of Public Instruction Attacked." *The New York Times* (May 31, 1894).

Editorial. *The American Architect and Building News* 17 (28 Feb 1885).

Editorial. *The Architectural Era* 2 (August 1888).

Editorial. *The Architectural Era* 2 (December 1888).

Editorial. *The Architectural Era* 3, supplement (April 1889).

Editorial. *The Engineering Record* 23 (April 11, 1891).

Editorial. *The Engineering Record* 24 (July 4, 1891).

Editorial. *The Inland Architect and Builder* 2 (September 1883).

Editorial. *The Inland Architect and Builder* 6 (October 1885).

Editorial. *The Inland Architect and Builder* 8 (August 1886).

Editorial. *The Sanitary Engineer and Construction Record* 14 (August 5, 1886).

Editorial. *The Sanitary Engineer and Construction Record* 14 (November 27, 1886).

"Elevators." *The Inland Architect and Builder* 5 (July 1885).

"Feminism and Architecture." *The Western Architect: A National Journal of Architecture and Allied Arts* 20 (April 1914).

"First Annual Report of the Board of Health of the City of Newark, N.J., for the year 1885." *The Sanitary Engineer* 14 (August 12, 1886).

Fletcher Blanchard, George Blanchard & Descendants [son of Thomas & Elizabeth] Onondaga Historical Association. <http://homepages.rootsweb.com/~blanch-l/GeoB/ff93001.html>. on March 31, 2006.

- “Green and Wicks.” <http://preserve.bfn.org/>. on April 1, 2006.
- “Guide for Sanitary Construction.” *The Inland Architect and Builder* 8 (December 1886).
- “Howe, Manning & Almy, 1913-1937; Papers, 1883-1972.” Manuscript Collection-MC 9. Cambridge: MIT Institute Archives & Special Collections. <http://libraries.mit.edu/archives/collections-mc/mc9.html> on July 13, 2006.
- “Hygiene of Schools in America: The Public Schools of New York City.” *The Sanitary Engineer* 8 (November 1, 1883).
- Illsley, C. E. “Sewer Gas.” *The Inland Architect and Builder* 8 (December 1886).
- Kiersted. Wynkoop. “Water Supply and Its Development for Small Cities in the West.” *The Engineering Record* 23 (January 24. 1891).
- Lane, M. A. “The Chicago Fair.” *Harper’s Weekly* (July 2, 1892).
- “Licensing Architects.” *The Architectural Era* 3 (November 1889).
- “Licensing Bill.” *The Architectural Era* 3 (November 1889).
- “M. Carey Thomas Papers.” Bryn Mawr College Library Special Collections, <http://www.brynmawr.edu/library/speccoll/guides/thomaspersonal.shtml> on April 13, 2006
- “Measuring Water.” *The Sanitary Engineer* 15 (January 29, 1887).
- “Minutes of Meeting.” *The Architectural Era* 2 (November 1888).
- “Miss Mulligan Dead: One of the Foremost Women of Buffalo Passed Away Last Night at Cloverbank.” *The Commercial Advertiser* (June 6, 1900).
- “Modern Fireproofing.” *The Inland Architect and Builder* 8 (August. 1886).
- “National Association of Master Plumbers-Cincinnati Meeting.” *The Engineering Record* 24 (July 4, 1891).
- “New Building Code Almost Completed, Analysis of the Code to be in Full Force by March 15, 1916,” *New York Times* (December 26, 1915)
- New England Historic Genealogical Society. *Ebenezer Williams OM*. www.newenglandancestors.org on March 31, 2006.

New York State Teacher's Association. *Buffalo Past and Present: A Manual of Buffalo and the Niagara Frontier*. Buffalo: Reinecke & Zesch Press, 1912.
<http://historical.library.cornell.edu/>. on April 1, 2006.

"Our Tall Buildings." *The Sanitary Engineer* 15 (January 8, 1887).

Palmer, Bertha Honore. "Addresses and Reports of Mrs. Potter Palmer, President of the Board of Lady Managers, World's Columbian Commission;" Report to J. W. Candler, Chairman World's Fair Committee, Washington, 12 December 1890.

"Pressed Brick." *The American Architect and Building News* 13 (Jan-June 1883).

"Professional Ethics and Etiquette—I." *The Engineering Record* 27 (December 3, 1892).

"Professional Ethics and Etiquette—II." *The Engineering Record* 27 (December 10, 1892).

"Proper Size of Mains for Fire Service." *The Engineering Record* 25 (May 14, 1892).

"Proposed Building Code for New York," *American Architect* [and] *the Architectural Review* 101 (May 8, 1912).

"Record as Superintendent of Public Instruction Attacked," *New York Times* (May 31, 1894).

"Regular Meeting of the Illinois State Association." *The Inland Architect and Builder* 8 (December 1886).

"Report of the Department of Public Works in 1886." *The Sanitary Engineer* 15 (January 29, 1887).

"Reports Adopted by the Western Association of Architects," *The American Architect and Building News* 18 (December 5, 1885).

"Revised Building Regulations for Boston, Mass." *The Engineering Record* 23 (December 20, 1890).

"River Pollution." *The Sanitary Engineer* 15 (December 11, 1886).

Root, John W. "A. I. A. Annual Meeting." *The Architectural Era* 3, suppl. (December 1889).

"Scarlet Fever Panic in Cincinnati School." *The Sanitary Engineer* 6 (October 26, 1882).

“Schools of the State, Favorable Showing in Superintendent Crooker Report, Fair Wages for Teachers Urged, A New Plan of Apportioning Public Moneys Suggested,” *New York Times* (February 11, 1895).

Shepard, Ellie Josephine Sumner (Mrs. Frederick J.). “The Women’s Educational and Industrial Union of Buffalo.” <http://historical.library.cornell.edu/> on January 20, 2006.

Shepard, Frederick J. “The City of Buffalo.” *New England Magazine* 14 (April 1893).

Spenser Kellogg & Sons, Inc., Observes 100th Anniversary.” *The Buffalo Times* (June 26, 1924). <http://freenet.buffalo.edu/>.

“Some Distinguished Women in Buffalo,” *American Women’s Illustrated* 29 (October 7, 1893) SPC Scrapbook, Ser. 29.

“The Convention.” *The Inland Architect and Builder* 6 (November 1885).

“The Convention: Official Report of the Second Annual Convention of the Western Association of Architects, held at St. Louis, November 18, 19, 20, 1885.” *The Inland Architect and Builder* 6 (November 1885).

“The Man Who Made City’s New Building Code, Thirteen Drafts Were Submitted in Six Years Without Result,” *New York Times* (January 16, 1916).

“The Perils of Water Waste in New York City.” *The Engineering Record* 24 (September 26, 1891).

“The Western Association of Architects.” *The Inland Architect and News Record* 10 (December 1887).

“Third Annual Convention of the Western Association of Architects. Held at Chicago. November 17, 18, 19, 1886.” *The Inland Architect and Builder* 8 (December 1886).

Turnbull, Alex C. E. “Sewer Ventilation: Report on Sewers of 33 Towns.” *The Sanitary Engineer* 5 (December 15, 1881).

Vaughan, Victor C. M.D. “Building a Home.” *The Architectural Era* 2 (August 1888).

Wade, J. J. “Improved System of Plumbing and Sewerage & Sanitary Ventilation” *The Inland Architect and Builder* 1 (May 1883).

Wells, J. Hollis, C. E. "Tests of a Fireproof Material for Floors in a Modern Building." *The Engineering Record* 31 (December 22, 1894).

Van Rensselaer, M. G. "American Country Dwellings. I." *The Century Magazine* 32 (May 1886).

"Western Association of Architects, Annual Convention in Chicago, November 17, 1886." *Sanitary Engineer and Construction Record* 14 (November 27, 1886).

"Western Association Meeting at Chicago." "Buffalo's Society of Architects," *The Inland Architect and Builder* 7 (April 1886).

"Western New York Association of Architects." *Inland Architect and News Record* 10 (November 1887).

"Western New York Association of Architects." *The Inland Architect and News Record* 10 (December 1887).

"Western New York Chapter." *The Architectural Era* 5 (December 1891).

Wheelwright, Edmund M. "The American Schoolhouse." *The Brickbuilder* 6 (Nov 1897).

Woodbury, C. J. "Fire Resisting Construction." *The Engineering Record* 23 (January 24, 1891).

"Work Ended." *The Commercial Advertiser* (June 21, 1900).

Secondary Sources (Books):

Abbott, Andrew. *The System of Professions: An Essay on the Division of Labor*. Chicago: The University of Chicago Press, 1988.

Abbott, Edith. *Women in Industry: A Study in American Economic History*. New York: Arno & The New York Times, 1969.

Adams, Edward Dean. *Niagara Power: History of the Niagara Falls Power Company, 1886-1918, Evolution of its Central Power Station and Alternating Current System*. New York: Bartlett Orr Press, 1927.

Adams, Elizabeth Kemper, Ph.D. *Women Professional Workers: A Study Made for the Women's Educational and Industrial Union*. Chautauqua: The Chautauqua Press, 1921.

- Aiken, John and Richard. *Power, the Gift of Niagara*. Buffalo: Buffalo and Erie County Historical Society, 1962.
- Banham, Reyner. *A Concrete Atlantis: U.S. Industrial Building and European Modern Architecture, 1900-1925*. Cambridge: MIT Press, 1986.
- and Charles Beveridge, Henry-Russell Hitchcock. *Buffalo Architecture: a Guide*. Cambridge: The MIT Press, 1981.
- Basch, Norma. *In the Eyes of the Law: Women, Marriage, and Property in Nineteenth-Century New York*. Ithaca: Cornell University Press, 1982.
- Baxandall, Rosalyn. *America's Working Women*. New York: Random House, 1976.
- Bazerman, Charles. *The Languages of Edison's Light*. Cambridge: The MIT Press, 1999.
- Bender, Thomas. *Intellect and Public Life: Essays on the Social History of Academic Intellectuals in the United States*. Baltimore: The Johns Hopkins University Press, 1993.
- Towards an Urban Vision: Ideas and Institutions in Nineteenth Century America*. Baltimore: The Johns Hopkins University Press, 1975.
- Berkeley, Ellen Perry, ed. *Architecture: A Place for Women*. Washington: Smithsonian Institution Press, 1989.
- Biggs, Lindy. *The Rational Factory: Architecture, Technology, and Work in America's Age of Mass Production*. Baltimore: The Johns Hopkins University Press, 1996.
- Blair, Karen J. *The Torchbearers: Women and their Amateur Arts Associations in America, 1890-1930*. Bloomington: Indiana University Press, 1994.
- Blau, Judith R., Mark E. La Gory and John S. Pipkin. *Professionals and Urban Form*. Albany: State University of New York Press, 1983.
- Bledstein, Burton J. *The Culture of Professionalism: The Middle Class and the Development of Higher Education in America*. New York: W. W. Norton & Company, Inc., 1976.
- Bradley, Betsy Hunter. *The Works: The Industrial Architecture of the United States*. New York: Oxford University Press, 1999.
- Brown, Richard C. and Bob Watson, *Buffalo: Lake City in Niagara Land, an Illustrated History*. Buffalo: Windsor Publications, Inc., 1982.

- Bryson, Valerie. *Feminist Political Theory, An Introduction*. New York: Paragon House, 1992.
- Calder, Lendol. *Financing the American Dream: A Cultural History of Consumer Credit*. Princeton: Princeton University Press, 1999.
- Chandler, Alfred D. Jr. *The Visible Hand: The Managerial Revolution in American Business*. Cambridge: Harvard University Press, 1977.
- Coles, William A., ed., *Architecture and Society: Selected Essays of Henry Van Brunt*. Cambridge: The Bellnap Press of Harvard University Press, 1969.
- Collins, Peter. *Changing Ideals in Modern Architecture: 1750-1950*. Montreal: McGill University Press, 1967.
- Condit, Carl W. *American Building Art: the Nineteenth Century*. New York: Oxford University Press, 1960.
- Cooper, Gail. *Air-conditioning America: Engineers and the Controlled Environment, 1900-1960*. Baltimore: The Johns Hopkins University Press, 1998.
- Cotkin, George. *Reluctant Modernism: American Thought and Culture 1880-1900*. New York: Twayne Publishers, 1992.
- Crocker, Ruth Hutchinson. *Mrs. Russell Sage: Women's Activism and Philanthropy in Gilded Age and Progressive Era America* (Bloomington: Indiana University Press, 2006
- .Social Work and Social Order: The Settlement Movement in Two Industrial Cities, 1889-1930*. Urbana: University of Illinois Press, 1992.
- Cross, Whitney R. *The Burned-over District: The Social and intellectual History of Enthusiastic Religion in Western New York, 1800-1850*. New York: Harper & Row Publishers, 1950.
- Edwards, Rebecca. *New Spirits: Americans in the Gilded Age, 1865-1905*. New York: Oxford University Press, 2006.
- Edwards, Richard. ed. *New York's Great Industries*. New York: Arno Press, 1884, 1973.
- Flanagan, Margaret A. *Seeing with their Hearts: Chicago Women and the Vision of the Good City, 1871-1933*. Princeton: Princeton University Press, 2002.

- Fogelson, Robert M. *America's Armories: Architecture, Society, and Public Order*. Cambridge: Harvard University Press, 1989.
- Freedman, Estelle B. *Their Sisters' Keepers: Women's Prison Reform in America, 1830-1930*. Ann Arbor: University of Michigan Press, 1981.
- Gamber, Wendy, Michael Grossberg, and Hendrik Hartog, eds., *American Public Life and the Historical Imagination*. Notre Dame: University of Notre Dame Press, 2003.
- Gerber, David A. *The Making of an American Pluralism: Buffalo, New York, 1825-60*. Urbana: University of Illinois Press, 1989.
- Ginzberg, Lori D. *Women and the Work of Benevolence: Morality, Politics, and Class in Nineteenth-century America*. New Haven: Yale University Press, 1990.
- .Untidy Origins: A Story of Women's Rights in Antebellum New York*. Chapel Hill: The University of North Carolina Press, 2005.
- Girouard, Mark. *Life in the English Country House: A Social and Architectural History*. New Haven: Yale University Press, 1978.
- .Sweetness and Light: the 'Queen Anne' Movement 1860-1900*. Oxford: Clarendon Press, 1977.
- Glazer, Penina Migdal and Miriam Slater. *Unequal Colleagues: The Entrance of Women into the Professions, 1890-1940*. New Brunswick: Rutgers University Press, 1987.
- Goldman, Mark. *High Hopes: the Rise and Decline of Buffalo, New York*. Albany: State University of New York Press, 1983.
- Graham, Lloyd and Frank Severance. *The First Hundred Years of the Buffalo Chamber of Commerce*. Buffalo: Foster and Stewart Pub., 1945.
- Grier, Katherine C. *Leisure in America, 1840-1940*. Amherst: The University of Massachusetts Press, 1992.
- Griffith, Elisabeth. *In Her Own Right: The Life of Elizabeth Cady Stanton*. New York: Oxford University Press, 1984.
- Hanks, David A. *The Decorative Designs of Frank Lloyd Wright*. New York: E. P. Dutton, 1979.
- Handlin, David P. *American Architecture*. London: Thames and Hudson, 1985.

- Haskell, Thomas L. *The Authority of Experts: Studies in History and Theory*. Bloomington: Indiana University Press, 1984.
- Hewitt, Nancy A. *Women's Activism and Social Change: Rochester, New York, 1822-1872*. Ithaca: Cornell University Press, 1984.
- Holder, Robert. *The Beginnings of Buffalo Industry*. Buffalo: Buffalo and Erie County Historical Society, 1960.
- Howe, Daniel Walker. *Making the American Self: Jonathan Edwards to Abraham Lincoln*. Cambridge: Harvard University Press, 1997.
- Hughes, Thomas P. *Networks of Power: Electrification in Western Society, 1880-1930*. Baltimore: The Johns Hopkins University Press, 1983.
- James, Isabel Vaughan. *The Pan American Exposition*. Buffalo: Buffalo and Erie County Historical Society, 1961.
- Jeffers, H. Paul. *An Honest President: The Life and Presidencies of Grover Cleveland*. New York: William Morrow, 2000.
- Jordy, William H. and Ralph Coe, eds. *American Architecture and Other Writings, by Montgomery Schuyler*. Cambridge: The Belknap Press of Harvard University Press, 1961.
- Kelly, Catherine E. *In the New England Fashion: Reshaping Women's Lives in the Nineteenth Century*. Ithaca: Cornell University Press, 1999.
- Kerber, Linda K. *Toward an Intellectual History of Women*. Chapel Hill: The University of North Carolina Press, 1997.
- Kessler-Harris, Alice. *In Pursuit of Equity: Women, Men, and the Quest for Economic Citizenship in 20th-Century America*. Oxford: Oxford University Press, 2001.
- Klein, Herbert S. *A Population History of the United States*. New York: Cambridge University Press, 2004.
- Klein, Milton M. *The Empire State: A History of New York*. Ithaca: Cornell University Press, 2001.
- Frederick Koeper, *American Architecture, vol 2, 1860-1976*. Cambridge: The MIT Press, 2001.

- Kostof, Spiro. Ed. *The Architect: Chapters in the History of the Profession*. New York: Oxford University Press, 1977.
- Kruty, Paul. *Frank Lloyd Wright and Midway Gardens*. Urbana: University of Illinois Press, 1998.
- Kwolek-Folland, Angel. *Incorporating Women: A History of Women and Business in the United States*. New York: Palgrave, 1998.
- Leavitt, Judith Walzer and Ronald L. Numbers, eds. *Sickness and Health in America: Readings in the History of Medicine and Public Health*. Madison: The University of Wisconsin Press, 1985.
- Lincoln, Samuel B. *Lockwood Greene: The History of an Engineering Business, 1832-1958*. Brattleboro, Vermont: The Stephen Greene Press, 1960.
- Lubove, Roy. *The Progressives and the Slums: Tenement House Reform in New York*. Pittsburgh: University of Pittsburgh Press, 1962.
- The Urban Community: Housing and Planning in the Progressive Era*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967.
- Mattie, Eric. *World's Fairs*. New York: Princeton Architectural Press, 1998.
- McCarthy, Kathleen D. *Women's Culture: American Philanthropy and Art, 1830-1930*. Chicago: University of Chicago Press, 1991.
- American Creed: Philanthropy and the Rise of Civil Society, 1700-1865*. Chicago: University of Chicago Press, 2003.
- McCullough, Joseph B. and Janice McIntire-Strasburg, eds. *Mark Twain at the Buffalo Express: Articles and Sketches by America's Favorite Humorist*. DeKalb: Northern Illinois University Press, 1999.
- Michel, Sonya. *Children's Interests/Mother's Rights: The Shaping of America's Child Care Policy*. New Haven: Yale University Press, 1999.
- Miller, Page Putnam. ed. *Reclaiming the Past: Landmarks of Women's History*. Bloomington: Indiana University Press, 1992.
- Mohl, Raymond A. *The New City: Urban America in the Industrial Age, 1860-1920*. Arlington Heights, Illinois: Harlan Davidson Inc., 1985.
- Nye, David E. *American Technological Sublime*. Cambridge: The MIT Press, 1994.

- . *Electrifying America: Social Meanings of a New Technology, 1880-1940*. Cambridge: The MIT Press, 2001.
- O'Connor, Alice. *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century U.S. History*. Princeton: Princeton University Press, 2001.
- Oelson, Alexandra and John Voss, eds. *The Organization of Knowledge in Modern America: 1860-1920*. Baltimore: The Johns Hopkins University Press, 1979.
- Ogren, Christine A. *The American State Normal School: "An Instrument of Great Good."* New York: Palgrave Macmillan, 2005.
- Oliver, Richard. ed. *The Making of an Architect: 1881-1981, Columbia University in the City of New York*. New York: Rizzoli, 1981.
- Pursell, Carroll W. Jr. *Technology in America: A History of Individuals and Ideas*. Cambridge: The MIT Press, 1982.
- Randall, John D. A.I.A. *Buffalo and Western New York, Architecture and Human Values*. Buffalo: Artcraft-Burow, 1976.
- Riis, Jacob. *How the Other Half Lives*. Boston: Bedford/St. Martin's, 1890, 1996.
- Rose, Elizabeth. *A Mother's Job: The History of Day Care, 1890-1960*. New York: Oxford University Press, 1999.
- Rossiter, Margaret. *Women Scientists in America: Struggles and Strategies to 1940*. Baltimore: Johns Hopkins University Press, 1995.
- Rydell, Robert W., John E. Findling, and Kimberly D. Pelle. *Fair America: World's Fairs in the United States*. Washington, D. C.: Smithsonian Institution Press, 2000.
- Schlereth, Thomas J. *Victorian America: Transformations in Everyday Life, 1876-1915*. New York: HarperCollins Publishers, Inc., 1991.
- Sernett, Milton C. *North Star Country: Upstate New York and the Crusade for African American Freedom*. Syracuse: Syracuse University Press, 2002.
- Shelton, Brenda K. *Reformers in Search of Yesterday: Buffalo in the 1890s*. Albany: State University of New York Press, 1976.

- Shumsky, Neil Larry, ed. *The Physical City: Public Space and the Infrastructure*. New York: Garland Publishing, Inc., 1996.
- Sklar, Kathryn Kish. *Women's Rights Emerges within the Antislavery Movement, 1830-1870: A Brief History with Documents*. Boston: Bedford/St. Martin's, 2000.
- Slaton, Amy E. *Reinforced Concrete and the Modernization of American Building: 1900-1930*. Baltimore: Johns Hopkins University Press, 2001.
- Smith, Carl. *Urban Disorder and the Shape of Belief: The Chicago Fire, the Haymarket Bomb, and the Model Town of Pullman*. Chicago: The University of Chicago Press, 1995.
- Solomon, Barbara. *In the Company of Educated Women: A History of Women and Higher Education in America*. New Haven: Yale University Press, 1985.
- Stein, Leo. *The Triangle Fire*. New York: Carroll & Graf/Quicksilver Book, 1962.
- Stern, Madeleine B. *We the Women: Career Firsts of Nineteenth-Century America*. Lincoln: University of Nebraska Press, 1962.
- Sullivan, James, ed. *The History of New York State*. New York: Lewis Historical Publishing Inc. 1927.
- Tehrani, Katherine Kia. *Modernity, Space, and Power: The American City in Discourse and Practice*. Cresskill, New Jersey: Hampton Press, Inc., 1995.
- Tindall, George B. and David E. Shi. *America: A Narrative History*. New York: W. W. Norton & Company, 1989.
- Tomes, Nancy. *The Gospel of Germs: Men, Women, and the Microbe in American Life*. Cambridge: Harvard University Press, 1998.
- Torre, Susana. ed. *Women in American Architecture: A Historic and Contemporary Perspective*. New York: Watson-Guption Publications, 1977.
- Walter, Francis J. *Grover Cleveland and Buffalo*. Buffalo: Buffalo and Erie County Historical Society, 1963.
- Warner, Sam Bass, Jr. *Streetcar Suburbs: The Process of Growth in Boston, 1870-1900*. Cambridge: Harvard University Press and the MIT Press, 1962.
- Weed, G. Morton. *School Days of Yesterday: Buffalo Public School History*. Buffalo: self-published, 2001.

Welch, Richard E. *The Presidencies of Grover Cleveland*. Lawrence: University of Kansas Press, 1988.

Weimann, Jeanne Madeleine. *The Fair Women: The Story of the Woman's Building, World's Columbian Exposition, Chicago 1893*. Chicago: Academy Chicago, 1981.

Wellman, Judith. *Grass Roots Reform in the Burned-over District of Upstate New York: Religion, Abolitionism, and Democracy*. New York: Garland Publishing, Inc., 2000.

-----*The Road to Seneca Falls: Elizabeth Cady Stanton and the First Woman's Rights Convention*. Urbana: University of Illinois Press, 2004.

Williams, Lillian Serece. *Strangers in the Land of Paradise: The Creation of an African American Community, Buffalo, New York, 1900-1940*. Bloomington: Indiana University Press, 1999.

Wilson, Richard Guy and Sidney K. Robinson, eds. *Modern Architecture in America: Visions and Revisions*. Ames: Iowa State University Press, 1991.

Wilson, William H. *The City Beautiful Movement*. Baltimore: The Johns Hopkins University Press, 1989.

Woods, Mary N. *From Craft to Profession: The Practice of Architecture in Nineteenth-Century America*. Berkeley: University of California Press, 1999.

Yans-McLaughlin, Virginia. *Family and Community: Italian Immigrants in Buffalo, 1880-1930*. Urbana: University of Illinois, 1982.

Secondary Source (Articles):

Barbasch, Adriana. "The Buffalo/Western New York Chapter of the American Institute of Architects: Celebrates 100 Years of Architecture, 1886-1986." Buffalo: AIA, 1986.

-----."A Tribute to the First Professional Woman Architect Admitted to the American Institute of Architecture: 1856-1913." Buffalo: The American Institute of Architects, 2001.

Burian, Steven J., Stephen J. Nix, Robert E. Pitt, and S. Rocky Durrans. "Urban Wastewater Management in the United States: Past, Present, and Future." *Journal of Urban Technology* 7 (December 2000).

- “Old County Hall,” *Buffalo as an Architectural Museum*,
<http://freenet.buffalo.edu/bah/a/franklin/92/index.html> on June 19, 2007.
- Corcoran, Bernie. *The Central New York New Military Tract*, Cayuga County NY.
 GenWeb Project, www.rootsweb.com on March 19, 2006.
- Ernst, Daniel R. “Free Labor, the Consumer Interest, and the Law of Industrial Disputes:
 1885-1900.” *American Journal of Legal History* 36 (January 1992).
- Fox, Austin. “Louise Blanchard Bethune: Buffalo Feminist and America’s first Woman
 Architect.” *Buffalo Spree*, 1986, reprinted in *Buffalo as an Architectural Museum*,
<http://freenet.buffalo.edu/bah/a/archs/beth/bethfox.html>, on December 28, 2004.
- Freedman, Estelle. “Separatism as Strategy: Female Institution Building and American
 Feminism, 1870-1930.” *Feminist Studies* 5 (Fall 1979).
- “Goulds Manufacturing Seneca Falls, Seneca Co., N. Y.,”
<http://www.senecafalls.com/history/goulds-manufacturing.php>, (accessed on
 January 10, 2005).
- Haines, Michael. “Fertility and Marriage in a Nineteenth-Century Industrial City:
 Philadelphia, 1850-1880. *Journal of Economic History* 40 (March 1980.)
- “Fertility and Mortality in the United States.” EH.Net Encyclopedia, Robert
 Whaples, ed., <http://eh.net/encyclopedia/article/haines.demography>.
- Hays, Johanna. “The Invisible Triumph,” *ACSA International Conference* (Mexico City,
 2005).
- “H. H. Richardson Complex,” *Buffalo as an Architectural Museum*,
<http://freenet.buffalo.edu/bah/a/forest/400/index.html> on June 19, 2007
- Hirsch, Dick. “The Emperor of Elixir: Buffalo’s Most Famous Doctor.” *The Heritage
 Magazine* 6 (Summer 2004).
- Kowsky, Francis R. “Municipal Parks and City Planning: Frederick Law Olmsted’s
 Buffalo Park and Parkway System.” *Journal of the Society of Architectural
 Historians* 46 (March 1987).
- Kunz, George. “Elmwood Music Hall,” in *Buffalo Memories: Gone But Not Forgotten*.
 Buffalo: Canisius College Press, 2002.
http://wnyheritagepress.org/photosofweek/elmwood_music_hall.htm. on June 28,
 2006.

“Myra Bradwell.” Committee of the Historical Records of the New York County Clerk Inc. and the Arthur W. Diamond Law Library, Columbia Law School; http://library.law.columbia.edu/rise_of_women/practice/myra_bradwell.html on April 1, 2006.

Pauly, John J. “The Great Chicago Fire as a National Event.” *American Quarterly* 36 (Winter 1984).

Pettengill, George E. “How AIA Acquired Its First Woman Member.” *AIA Journal* (March 1975).

Rote, David M. “Kleinhans Music Hall” City of Buffalo. http://www.ci.buffalo.ny.us/Home/OurCity/Buffalo_My_City/Buffalo_My_City/Watercolors/41A_Kleinhans_Music_Hall, on June 28, 2006.

Slavin, Sarah. “Stephen Grover Cleveland, Trustee: The Board of Managers of the State Normal School at Buffalo, NY, 1870.” Buffalo: Buffalo State College, March 18, 1996.

Stern, Madeleine B. “America’s First Woman Architect?” *Journal of the Society of Architectural Historians* 18 (May 1959).

“The Architecture of Gordon W. Lloyd,” <http://www.geocities.com/SoHo/Workshop/1885/lloyd/> on February 4, 2006.

Wachadlo, Martin and Christopher Brown. “Richard A. Waite: A Forgotten Master.” *Western New York Heritage* 6 (Winter 2004).

-----, Wachadlo, Martin. “Richard A. Waite (1848-1911), Architect, Buffalo, NY.” Special Collections, Buffalo and Erie County Public Library, 1996.

Dissertations consulted:

Alexander-Shilland, Kimberly. “Ware and Van Brunt: Architectural Practice and Professionalization (1863-1881).” Ph.D. diss., Boston University, 1999.

Carson, Scott A. “Frederick Law Olmsted and the Buffalo park and parkway systems: A study of the planning and design responses to 19th century urban growth, and changing needs and values of the 20th century.” M.L.A. thesis, State University of New York, Syracuse, 1993).

- Follett-Thompson, Jean. "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.
- Gardner, Deborah S. "The Architecture of Commercial Capitalism: John Kellum and the Development of New York, 1840-1875." Ph. D. diss., Columbia University, 1979.
- Holliday, Kathryn Elizabeth. "Leopold Eidlitz and the architecture of nineteenth-century America." Ph.D. diss., The University of Texas at Austin, 2003.
- Lewis, Susan Ingalls. "Women in the Marketplace: Female entrepreneurship, business patterns, and working families in mid-nineteenth-century Albany, New York, 1830-1885." Ph.D. diss., State University of New York at Binghamton, 2002.
- Masten, April Frances. "The work of art: American women artists and market democracy, 1820-1880." Ph. D. diss. Rutgers the State University of New Jersey, 1999.
- Prestiano, Robert Vincent. "*The Inland Architect: A Study of the Contents, Influence, and Significance of Chicago's Major Late Nineteenth Century Architectural Periodical.*" Ph. D. diss. Northwestern University, 1973.
- Vattay, Sharon. "Defining 'Architect' in Nineteenth-Century Toronto: The Practice of John George Howard and Thomas Young." Ph. D. diss. University of Toronto, 2001.

APPENDIXES

Appendix A

Client Building Address Budget Year Table

Bingham, Charles F.	7th St. (employee/invest.)	7,000	1883	not home or bus.	SE8(Aug 30 83)307/AP30
Fields, G.F. (S.J.)	Delaware Pl 20.22	6,000	83	Stable	SE 8 (Aug 30 83) 307/AP35
Guardoff-honor	Washington 620	12,000	83	40x101 brick	SE8(Aug2 83)211/AP40
Noye, Mrs. EH.	Richmond Ave 31-35	15,000	83	Mrs. EH-86cd	SE8(Aug30/83)307/AP26
PS16:really #8	Utica&Masten	50,000	83	[PS16 at Hodge St.]	SE8(Aug 30 83)307/AP24
Smither, Robt, druggist	Niagara 596	7,000	83	3-sty frame-flats&store	SE7(Feb15/83)254/AP30
Tyler, Wm. W.	Richmond Ave.39	8,000	83	listed 86cd	SE7(Feb15,83)254/AP26
PS24:really #39	High St.487 Pl.25	40,000	84	IA&B5(June 1885)79	IA&B8(Oct86)42/AP25
Baldauf, E.	Hodge Ave.	4,500	85	NITV	AA&BN17(28Feb85),107
Brooks, Horatio G.	Dunkirk	35,000	85	AIA app.	IA&B5(Jun85)79
Cosack & Co.Lith	LakeView 92-100	20,000	85	factory,3story,(60x264)	IA&B5(June85)79/AP30
Davidson	Ashland Ave.354	2,500	85	BECHS	AA&BN17(28Feb85)107/AP17
Druar, John	288 Franklin	5,000	85	frame/really2sty brick	IA&B5(June85)79/AP35
Graves, Roger W.	UticaSt.W310	4,500	85	2-1/2 frame	IA&B5(June85)79AP26
Hickman, A.W.Hon.	Main St. 1268	5,000	85	p.487Smith	AA&BN17(28Feb85)107/AP26
Kellogg, Spenser	SummerSt.211-15	15,000	85	AIA* extant(BrHugeLot)	AA&B17(28F85)107;IA&B5(Jun85)79/ap26
Kellogg/McDaugall	Ganson/north of Mich	15,000	85	fact.5styBr40x150	IA&B5(June85) 79
Koerner, H. T.	LakeViewAv92-100	22,000	85	3sty-bk-factory(100x300)	AA&BN17(28Feb85)107/AP30
Mitchell,G.William	ProspectAv 197	3,500	85	2story frame AIA letter	AA&BN17(28Feb85)107/AP32
Pierce, Mrs. John	Hodge Ave.	3,500	85	NITV	AA&BN17(28Feb85)107
Police #11	Bdwy&Williamsville	15,000	85	2styBrick40x85	AA&BN17(28Feb85)107;IA&B(June85)79
Police #9 Addition	Seneca1191&Babcock	10,000	85		ER 34(Oct 3, 96) x
Potter, Julius H.Dr.	177 Dearborn St.	4,000	85	2 1/2 frame	AA&BN17(28Feb85)107/AP16
PS18:really #38	Vermont St.350 Pl.28	35,000	85	IA&B5(June 1885)79	SE14(26Au86)304;IA&B8(Oct86)42
Reynolds, Miss		5,000	85		IA&B5(June85) 79
Riley, Michael		3,000	85		IA&B5(June85) 79
Thorn, Geo. L.	Bidwell 40	3,500	85	Thorn&AngellRealEstate	AA&BN17(28Feb85)107/AP17
Webster, E.	Prospect St.430 (stable)	5,000	85	1story frame	AA&BN17(28Feb85)107
Webster,Edward H.	Prospect 430	18,000	85	3story frame	AA&BN17(28Feb85)107/AP29

Client Building Address Budget Year Table

74thArmory/MusicHall	Elmwood 285&Virginia		86	3stybrick54,000-120x285	IA&B6(Jan86)118;IA&B5(Jun85)79/AP33
Beemer, M. B.	SenecaSt. 145-149	25,000	86	4styBrStore60x165/Dem	IA&B17(May86)68
Bell, George C.	Prospect 427	4,000	86	2-1/2brk	IA&B8(Oct86)42/AP42
Bennett, David S.	Tracy 64-78	4,000	86	3styFrameStable/notBrick	IA&Bvol7no5(Ap86)48
BuffaloHammerCo	NiagaraSt 1548	15,000	86	brick shops	IA&B8(Aug86)1;SE14(Ag12,86)256/ap16
Collignon,MrsFrank	271 Oak[263-273]	6,000	86	acrossPS13	IA&B8(Dec85)87/AP40
Cutler, Abner	Jewett Ave(Plate14)	4,000	86	(furniture/90-96Pearl)	IA&B8(Dec86)87/AP14
Guenther, Wm.	NorthSt East 174	10,000	86	3storyBrickStore	SE14(26Au86)304;IA&B8(Oct86)42/AP26
Hoffman, P.	GeneseeSt. 197-201	10,000	86	A/A application	military store (east of Elm/btwnMich)
HomeopathicHosp	12thSt&Maryland	8000	86	one-sty,brick	IA&B7(Apri86)48/AP32
Lautz,Carl&Wm	DodgeSt.31	4,000	86	IA&B 8(Dec86)87	IA&B 8(Oct 86) 42/AP26
Police #5 (alter)	Niagara St (at Clinton&Bird)	3,000	86		IA&B8(Oct86)42
Police #8 & stable	William 482-86Watson	16,000	86	3styBrick	IA&B8(Aug86)11/AP46
PS40:	Oneida St.(245)	30,000	86		IA&B8(Dec86)87/AP46
Waterman, Geo.	Albion/169S.Main(h) 48MainSt.(b)	10,000	86	frame	IA&B5(June85)79;B(NS)5July31/86,3
White Bros.	13th &Porter	10,000	86	BrLiveryStables/Dem	SE14(12Aug86)256;IA&B8(Ag86)11/AP29
BethEvanChapel	Bowen 84WoltzWalden		87	AC8(Nov19,1887)12	BethlehemEvangChapNfGenesee.(Atlas)
Meyer,AJ	on app.A/A		87	A/A application	
Mitchell, William			87	A/A application	
Police #2	Seneca401;east of lou- isianna		87	A/A application	AP41
PS 4	Elk 325		87	A/A application	AP44
ChpEpiscopalSoc	Shawnee&Marigold	4000	88	AE 2(Nove88) 214	IA&NR12(Dc88),83/NWcor"M.E.Ch"AP
PS26:MiltonSt.	101 Milton (not Miller) Pl. 55	45,000	88	12 room [CityHall.ppt]	AE2(Au88)149--misprint on Miller
PS33	Elk 757 (not Elm)	45,000	88	AP56	AE2(Au88)149--misprint on Elk
Volker&Felthausen	189 Tonawanda (Jewett)		88	60x500&40x80	AE2(Feb88)iii;AC9(Jan7,88)7/AP16
Bard, C. R.	AlleganyPA?	5,500	89	frame	AE3 (Nov89) xiv
Benedict,NathanG.	14th St.319-321	7,000	89	3styFrameApartments	AE3 (Nov89) xivExistsUlrica&Mass

Client Building Address Budget Year Table

Boehme, Charles J.	41 Fargo Ave.(cd1890)	8,000	89	(cd1890)21/2styframe	AE3 (Nov89) xiv
Byrne, M. J.	Connecticut St.??		89	394Fargo-ab/comm.	AE3(Nov89)xiv(Byrne&BannisterContractors)
Connors, W. J.		5,000	89	hotel-NITV	AE3 (Nov89) xiv
Crocker, L. B.	LakeView&PennNE	6,000	89	house across JohnTNoye-Man.	AE3 (Nov89) xiv
Elk Street Market		12,000	89	alt.&addition	AE3 (Nov89) xiv
Grandsland&fence		20,000	89	BufBaseballClub	AE3 (Nov89) xiv/AP
HamburgHighSch	stone	10,000	89	AE3 (Aug89)179	designed-not built?
Houck, Philip	Genesee141	14,000	89	cd:1892/AP40	AE3(Nov89)xiv
Jewett, John C.	Chandler 27 (sprinklers)	150,000	89	7styBrk75x300(chg2bldg)	AE3(supApril89),i/AP6-photo
Lockport High Sch	2story/brick&stone, 125x225	90,000	89	1889/57,000 then 90000	AEJune90, 138(\$90,000)
Martin, Miss	Lafayette Av		89	NITV	AE3 (Nov89) xiv
NewellStoreBlock	184 Main(nextExchngBldg)		89	*BuffaloMedinaStone	AE3(Nov89)xiv-Randall says Bethune;97
Nisell, Miss	Porter Ave. 329	3,500	89	alterations/dem	AE3(Nov89)xiv
O'Brien, T.	Genesee St. 570 (atJefferson)	3,500	89		AE3 (Nov89) xiv(westofJeff./northside)
Robinson, John	15th St.171-190	15,000	89	6houses/2stry frame	AE3(Nov 89)xivE&ER20(Oct26,89)311
Smither, Robert K.	Niagara 588-90-92	Jersey St.	89	*flats/str/Tim Nails*brick	AE4(Feb90)47,AE4(Mar90)64
SomervilleWm.Jr.	FranklinSt.59-61	1,500	89	Brick stables	AE3 (Nov89) xiv
Abell,CharlesLee(son)	LexingtonAv43-45(3houses together)		90		AE4(jun90)138/AP18
Baldauf, Elizabeth	MainSt.1057nrNorth		90	stores&flats	AE4(jun90)138/AP34
Comstock, GeoW.	LexingtonAve45	6,700	90	&M.F.Warren41Lex	AE3 AE4(Jun90)138/AP18
Connors, N. J.	Hudson &7th Sts.		90	5 houses/2 stories	E&BR 22(June21, 1890)xi
EastAuroraBankNY	Root St	10,000	90	2stybrick/stone30x64	AE4(Jun90)138
ErieCounty Penitentiary	house	60,000	90	single story	BREN(16Jun90)2;(Nov90)8/30
Hall, John	William 1167&Depot	60,000	90	superv/Archs	AE14(June 90)138
LivestockExchange	Niagara220-24NrGeorgia	20,000	90	5-6styBr(\$20,000)	BREN(Nov90)8/AP52
Niagara Storage	Seneca 955/Exchange	10,000	90	BECHS	AE4(Jun90)138/AP36(Mease&Snyder)
Smith, Ed	685 Delaware Ave	5,000	90	ret.NYCR/R/Supt/NiagBridge	AE 4(June 90) 138/AP56-Store&Res
Tillinghast,JamesD.			90		AE4(June90)138

Client Building Address Budget Year Table

Warren, M. F.	LexingtonAve. 41	6,500	90*	41-45also-Abell	AE4Jun90, 138
Beck			91	50x40Brick3styStore	Trustee:BuffaloLoan(Smith236)
Beck, August	Genesee186(atElm)	12,000	91	5sty/Br&Stn (50x40)	RE&BN2(Mar91)2;ER23(Ap11,91)xviii/AP40
Bethune5Houses	Huron45-51/Franklin&Pearl		91	Demolished	RE&BN 2 (April 91) 7
Leonard, Joseph	Elm St.now 33	7,000	91	stable,3StyBrk33x100	RE&BN2(March91)2;ER23,18(Ap4,91)303
Stockton, Dr.	Franklin St. 436	14,000	91	aboveNiagaraSQ	RE&BN2(March91)2&AA&BN14(April90)95
Sutherland, Sisters	High St. 3103		91	Dora;1894	RE&BN2 (March91) 2
Trevor, FrancisN.	Willow 453, Lockport	10,000	91		RE&BN2 (March91) 2
Whitmore, Charles	Gooding228(28-34Market) Lockport		91	4Stores&Res:38Spaulding	RE&BN2 (March91)2&Lockport cd.1892
Berrick,Charles	Ellicott 86/SwanSWcor	(Artcraft)	95	4styBrStore-6sty/1897	ER31(May25/95)ix/Randall61-62
Fuchs Building.	Washington 505-515	150,000	95	Theater/W. of Ellicott	BB4(Nov95)79;ER31(Feb2,95)179/Randall,76
Fuchs, EG & WL	Wash 505-515	30,000	95	4story/hydraulic/brick	ER 32(July 95)63 "FuchsBldg"BB4(Nov95)244
Messersmith, H.	SummerSt 392wrong	10,000	95	3storybrickHouse	IA&NR24 (July 95)63
Wetmore,SamW.	Woodlawn 30atOtisPl	7,000	95	2styFrameDem	ER30(Nov24,94)443;AA&BN46(8Dec94)xvi
Birge, M. H.	Main 225 (ntSeneca)	12,000	96	rennovation AP41	ER 34 (June 27, 96)xiii Randall,63&100
Burke, J. T.	FranklinSt.	20,000	96	4 story brick flats	ER 34 (Nov 7, 96)xiii
Coalsworth, E. C.	Franklin (with Burke)		96		ER 34 (Nov 7, 96)xiii
Guske, Morris	Seneca 192-98 Pl.41	14,000	96	2styBr/plumbstore	ER33(8Feb96)x;CityRecords97/AP41
Eckert, Louis	Wash/Mohawk	15,000	97	4styHotel/NITV	ER 35 (Feb 13, 97) 242
Howard, Sarah	Terrace 208-212	18,000	97	4styFactory	ER35(Dec26,96)87/replaced2sty&shed
Cataract Power	Niagara 2280-2286		98	transformer house	City Records/AP16
Franklin,James	FerrySt.E/OlympicPark		98	grandstand	Crec/CDir:FranklinFoundry
Kirkover,Louis	Clinton/Baitz, SW	5,000	98	2styBr/store/dwell	City Records
Oaks, J.A.	Grote NW/CntrlSwitch	5,000	98	2styFrameFactory	City Records.atCentralSwitch
Oaks, J.A.	Parkside Ave.281	10,000	98	2styFrameHse	City Records--gas station1927
Baker, Wm H.	Franklin 213	9,000	99	2styBrickStore&flats	City Records
BaldMeatMarket	MainSt. 1762	6,500	99	2styBrick	City Records/AP19
Becker, John A.	555-557Washington	1,000	99	rennovation	City Records

Client Building Address Budget Year Table

Buffalo Electric	Court 38-40	2,000	99	off-remodel	City Records
Jehle, Fred Grocery	Bryant 309-311		99	store&house	City Records/corner of Ashland
Champlin, O. H. P.	Carroll 36-46.at Ellicott	50,000	1900	6story Manufactory	City Records/AP40
Elliot, Mrs Belle E.	Michigan St. 454	3,000	1900	Rest.add	City Records
Loomis Estate	Franklin St. 115	1,200	1900	remodel	City Records
Prospect Building	People's Bank 1889	1900-08	1900	Pearl St. 316	picture Refs. Randall, 100 NITV
Reiman, Mary A.	Ashland Ave. 186 (at Hodge)	7,000	1900	2sty Frame Hse/Hodge	City Records
Willman Estates	Wash 586-90NW/Chippewa	34,000	1900	4sty Br. Stores	City Records
Dold, Jacob	Swan E 145	20,000	1901	3sty Br Warehouse	City Records/AP41
Duffy, Walter B.	Lafayette Hotel	425,000	1902	SE cor Wash & Clinton	fireproof (17 sheets, 8 specs)
Granger, Wm H	Delaware 210	5,500	1902	Br Dewell Remod	City Records (house not store)
Lafayette Hotel	Wash & Clinton	425,000	1902	Exists	City Records (Walter Duffy)
Rendell, Elias D.	Louisiana/SE at Seneca	9,800	1902	2sty Br Store/Dwell	City Records
Buffalo Weaving Co	Chandler 234		1903	2sty Brick/drawings	City Records
Schmitz, John H.	Military 65-67	1,500	1903	stable/chrch 04	City Records
Iroquois Door C.	Exchange 659 & Larkin		1904	3sty (Wilson, Walter J)	City Records
	Buildings in Bold Exist				Buildings in Bold exist
Not Bethune Schools:					
PS 12	competition-fireproofing			BBvol 5, no 8 Aug 96, 157	
PS 15	H.H. Little			SE 9, no 12, 293	
PS 16	CR Percival			AE 2, no 8 (Aug 88) 149	
PS 23	F.W. Caulkins	45,000		BBvol 5 no 3 (March 1896) 52	
PS 58	Eisenwein	45,000		BBvol 4 no 11 (Nov 1895) 244	
Johnson & Archer	8rm & 4 rm schools	19000 & 7000		AE 4 no 6 June 90, 138	
Hickory St, Louisiana, & Dist 30				AE 3 No 2 (Feb 89) 33	
PS 7 & 11 joined	CD Swan		90	AE 4 no 6 June 90, 138	

Client Building Address Budget Year Table

BaileySt(PS7&PS9)	CD Swan		38839,000	AE3Dec89,268	
Addit.toSchool on Utica	CD Swan			AE2no8(Aug88), 144	
District 30	CD Swan			AE3no8(Aug1889),179	
PS 26	George F Metzger	7,000		SE8 (Aug 30, 1883), 307	
PS 13	George F Metzger	7,000		SE8 (Aug 30, 1883), 307	
Dist5 & 9	to get schools			AE3no8(Aug1889),179	
1898,2 schools have liens on them			-1897	BB 7no.3 (March 98),67	

Appendix B

LIST OF ILLUSTRATIONS

1. Noye residence, 1883, 35 Richmond Avenue.....	292
2. Tyler Residence, 1883, 39 Richmond Avenue	293
3. The Guard of Honor, 1883, “men’s club” interior.....	294
4. P. S. 8, 1884, Utica & Masten Sts.	295
5. P. S. 8, second view	296
6. P. S. 8, photograph.....	297
7. P. S. 8, 2nd and 3rd floor plans.....	298
8. P. S. 39, 1885, 487 High Street.....	299
9. P. S. 39, 1st floor plan.....	300
10. P. S. 39, 2 nd floor plan.....	301
11. Horatio Brooks residence, 1885, Dunkirk, N.Y.....	302
12. Cosack & Koerner Lithography, 1885, 92-100 Lakeview Street	303
13. P. S. 38, 1885, 350 Vermont Street.....	304
14. P. S. 38, 1 st floor plan.....	305
15. P. S. 38, 2 nd floor plan.....	306
16. Spenser Kellogg residence, 1885, 211 Summer Street.....	307
17. Thorn residence, 1885, 40 Bidwell Street.....	308
18. P. S. 40, 1886, 245 Oneida Street	309
19. Police Station No. 8. 1886, 482-486 William Street.....	310
20. 74 th Regimental Armory, 1886, Elmwood at Virginia.....	311

21. 74 th Regimental Armory, W. H. Brandel photograph.....	312
22. P. S. 4, Elk Street, 1887	313
23. P. S. 4	314
24. Jewett Refrigerator Factory, 1889, 27 Chandler Street.....	315
25. Houck Flour Mill. 1889, 141 Genesee Street	316
26. Miss Nisell residence, 1889, 329 Porter Avenue.....	317
27. Lockport Union High School, 1890, Lockport, N. Y.	318
28. Elk Street Market, 1889-1890.....	319
29. Elk Street Market, map	320
30. East Buffalo Livestock Exchange, 1890, William at Depot Street.....	321
31. East Buffalo Livestock Exchange, 1901 photograph.....	322
32. Electric Power Station, 1898, 2280-2286 Niagara Street	323
33. Iroquois Door Manufacture, 1904, Exchange and Larkin Street	324
34. Lafayette Hotel, 1904, Washington and Clinton Street	325
35. Lafayette Hotel.....	326

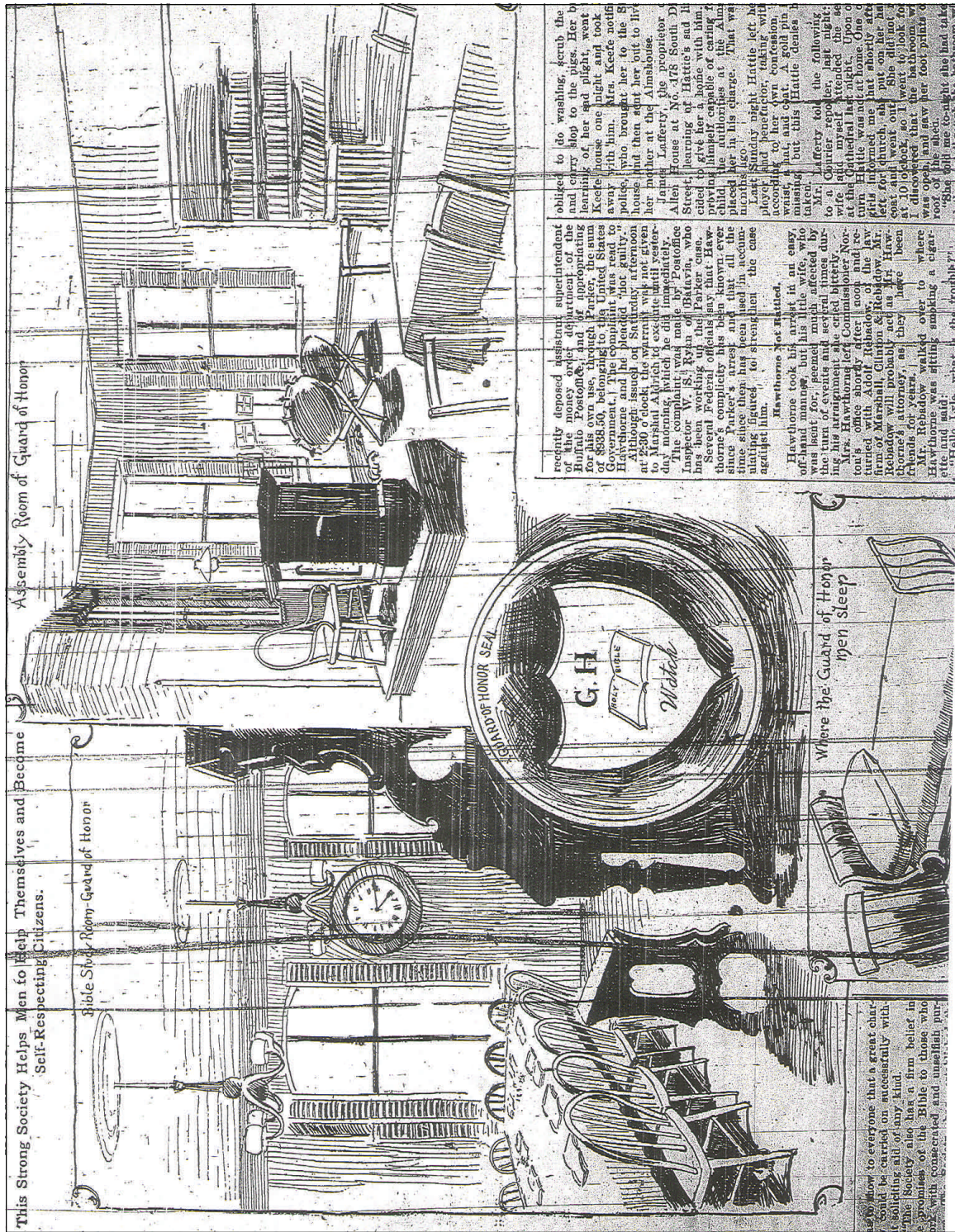
Appendix C



Plate 1: Noye residence, 1883, 35 Richmond Ave, Buffalo, NY, Buffalo and Erie County Historical Society (BECHS)



Plate 2: Tyler residence, 1883, 39 Richmond Ave, Buffalo, NY, BECHS



Assembly Room of Guard of Honor

This Strong Society Helps Men to Help Themselves and Become Self-Respecting Citizens.

Bible Study Room - Guard of Honor

Where the Guard of Honor often Sleep

recently deposited assistant superintendent of the Buffalo Postoffice, and of appropriating for his own use, through Parker, the sum of \$500. The complaint was read to the Government. The complaint was read to Hawthorne and he pleaded "not guilty." Although issued on Saturday afternoon at 2:30 o'clock the warrant was not given to Marshal Albrecht to execute until after 10 o'clock. The complaint was made by Postoffice Inspector W. S. Ryan of Batavia, who has been working up the Parker case. Several Federal officials say that Hawthorne's guilty plea and that all the time since then has been used in accumulating figures to strengthen the case against him.

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

obliged to do washing, scrub the and carry soap to the night. Her b learning of her sad plight, went Keele's house one night and took away with him. Mrs. Keele notified police, who brought her to the S house and then sent her out to her mother at the Almshouse.

James Lafferty, the proprietor of the Allen House at No. 478 South D Street, hearing of Hattie's sad plight, called to give her a home with him, proving himself capable of caring for child, the authorities at the Almshouse, his charges. That was the end of her troubles.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Hawthorne took his arrest in an easy, unbothered manner, but his little wife, who was present, for, seemed much distressed. Mrs. Hawthorne left Commissioner Norton's office shortly after noon and returned with Adolf Rebadow of the New York City Police Department. Mr. Rebadow will probably act as Mr. Hawthorne's attorney, as they have been friends for years, as they have been.

Mr. Rebadow walked over to where Hawthorne was sitting smoking a cigarette. He said, "What the trouble?"

Plate 3: The Guard of Honor, 1883, Buffalo, NY, These newspaper drawings show the "men's club" interior, *Buffalo Courier* (February, 1897)

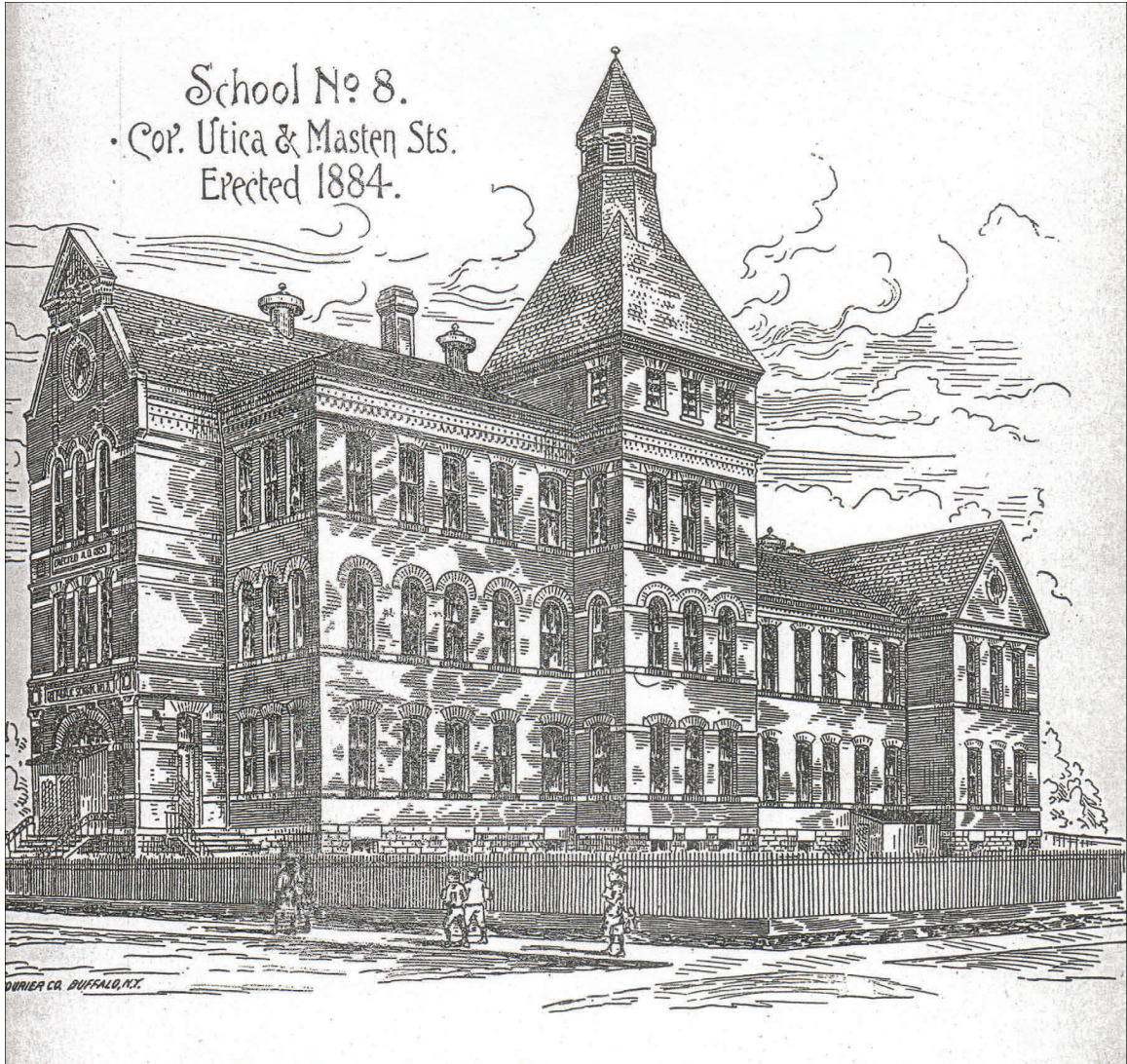


Plate 4: P. S. 8, 1884, *Superintendent's Annual Report 1883-1884*



Plate 5: P. S. 8 (Second view)

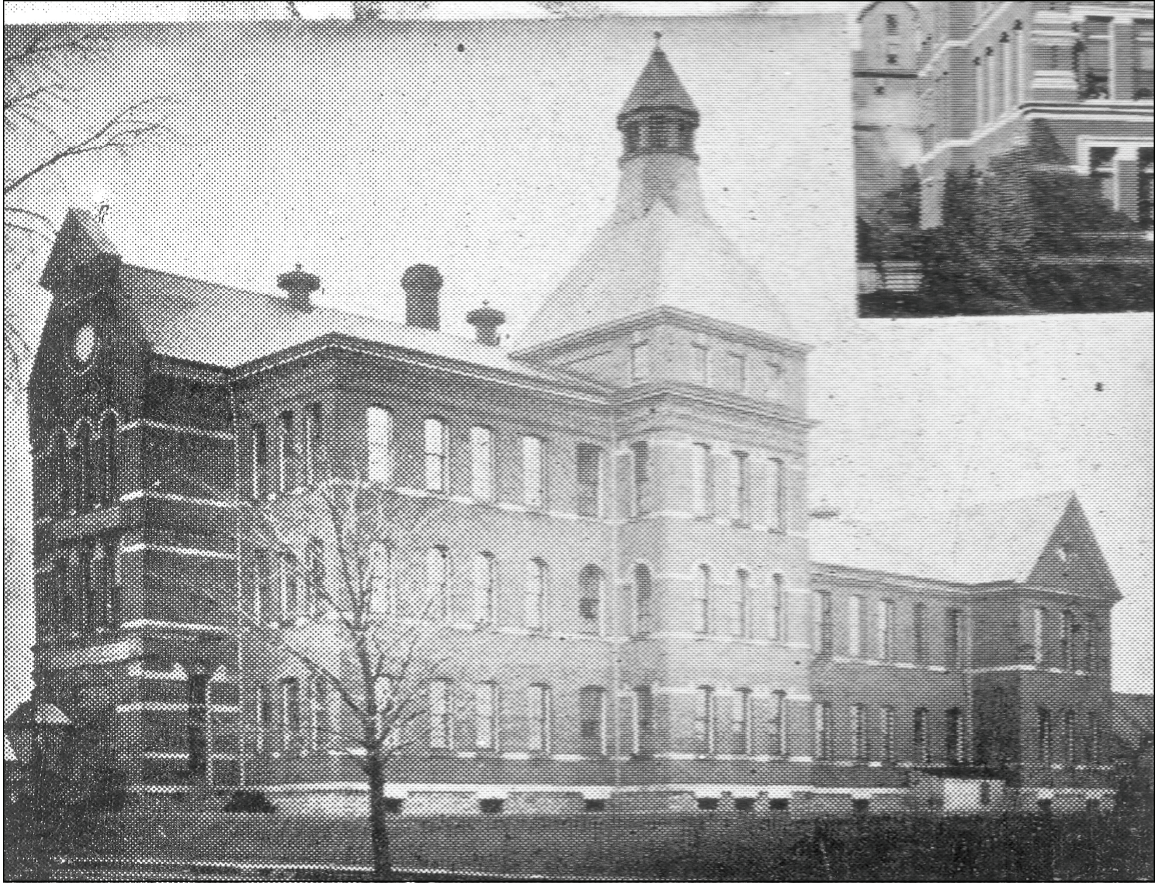


Plate 6: P. S. 8, *Schools of Buffalo*

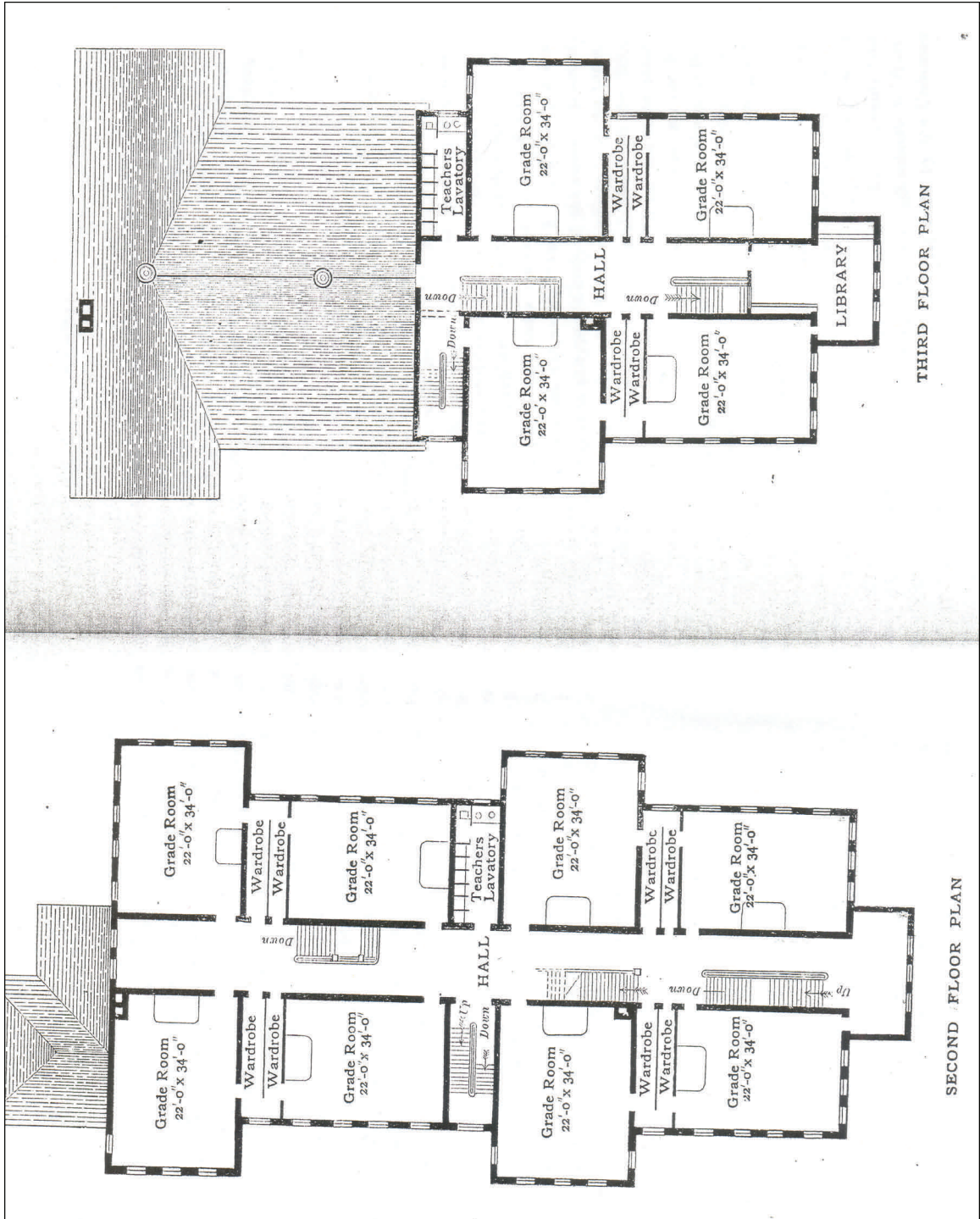
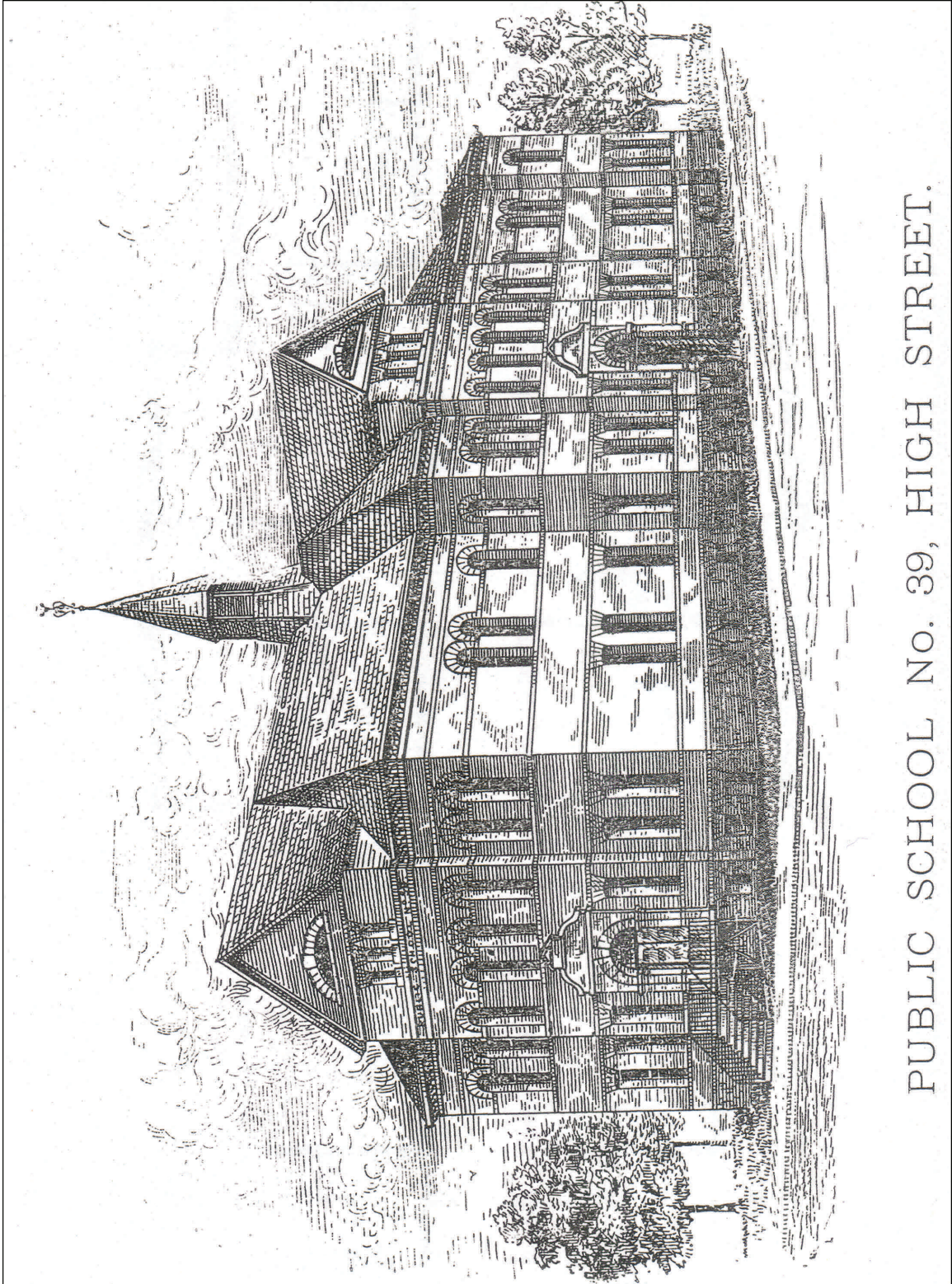


Plate 7: P. S. 8, Second and third floor plans, *Superintendent's Annual Report 1885-1886*



PUBLIC SCHOOL No. 39, HIGH STREET.

Plate 8: P. S. 39, *Superintendent's Annual Report 1885-1886*

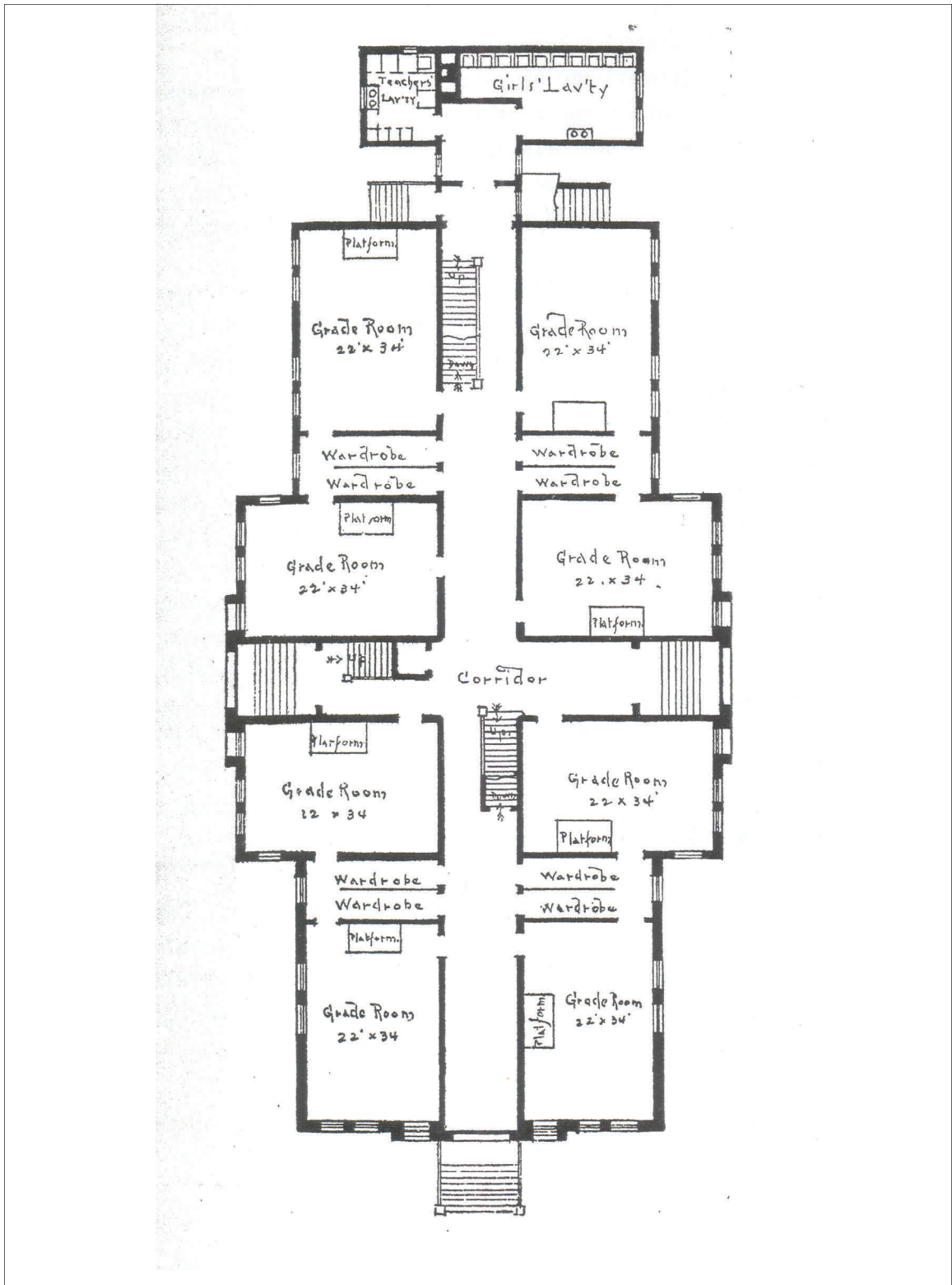


Plate 9: P. S. 39, First Floor Plan, *Superintendent's Annual Report 1885-1886*

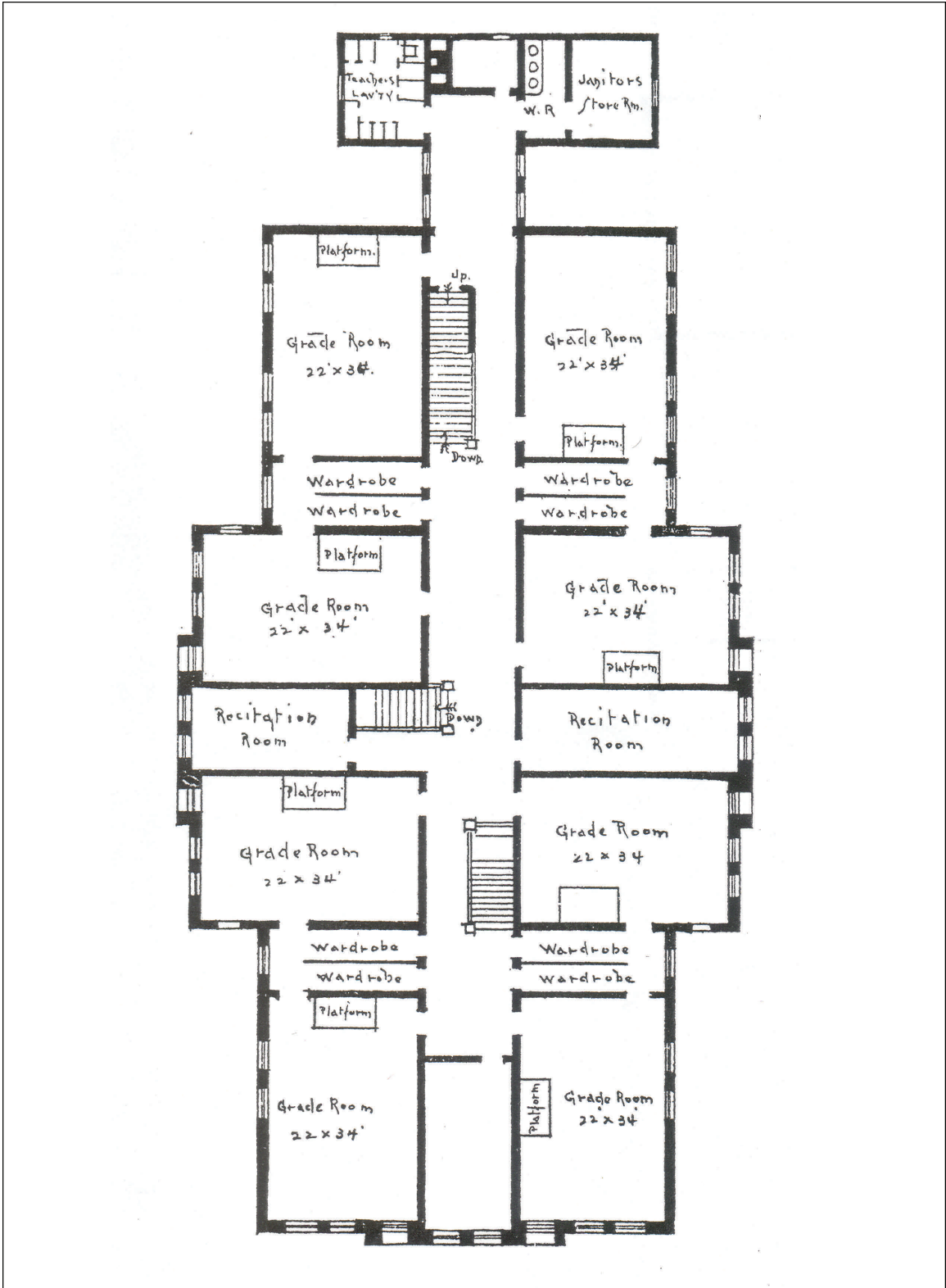


Plate 10: P. S. 39, Second Floor Plan, *Superintendent's Annual Report 1885-1886*



Plate 11: Horatio Brooks residence, 1885, from a postcard marking his death

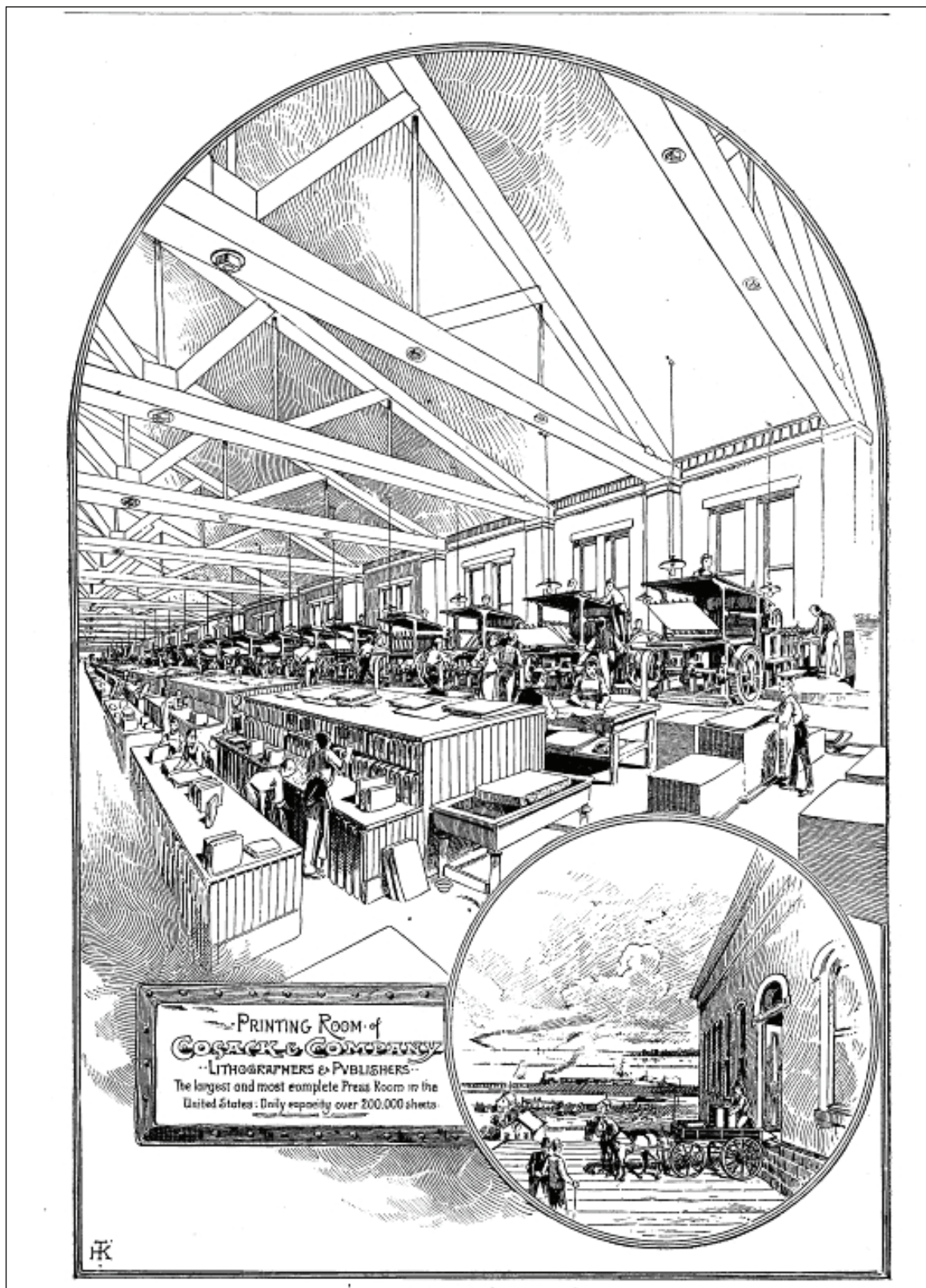


Plate 12: Cosack & Koerner Lithography, 1885, *Industries of Buffalo*

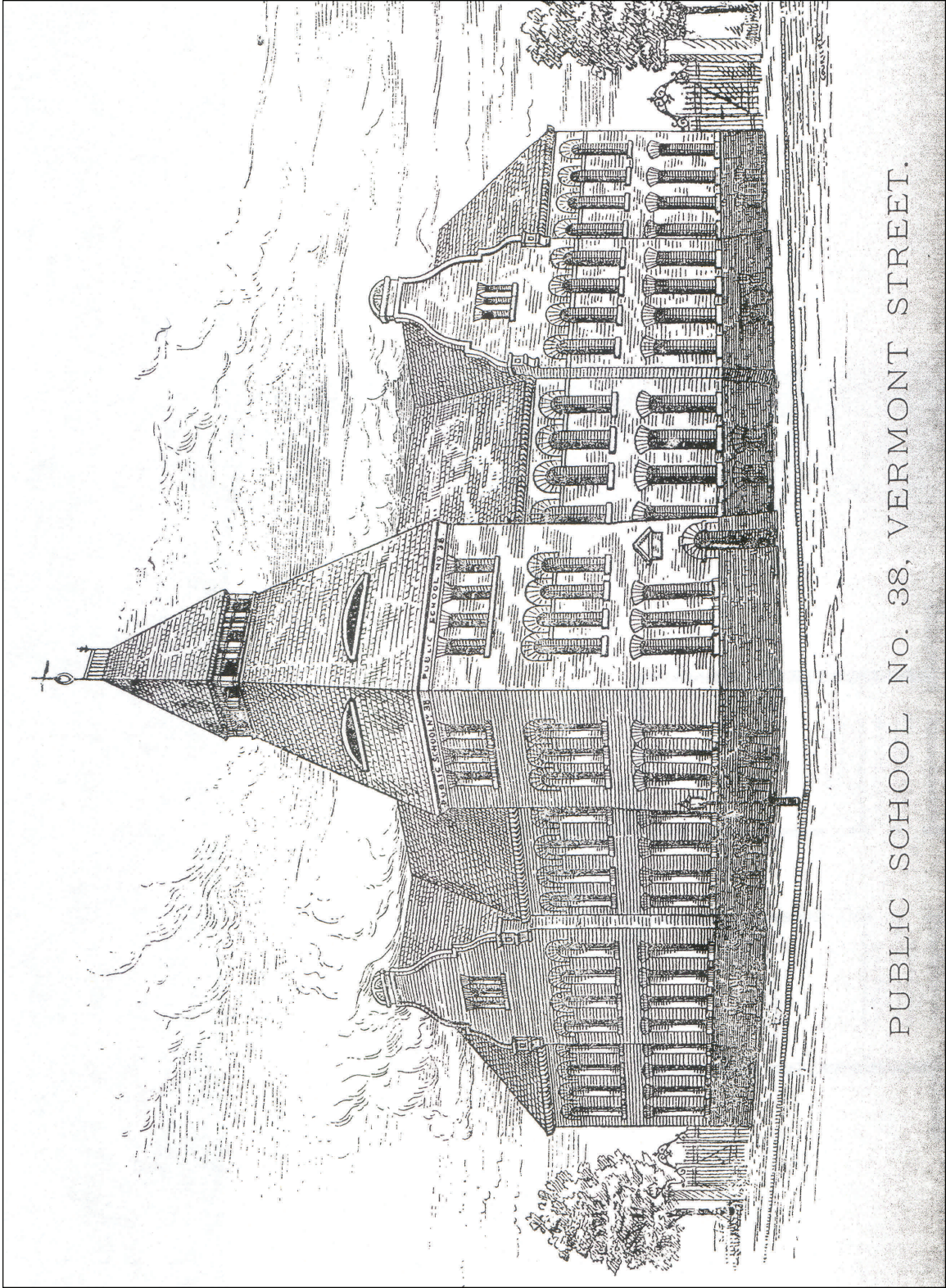


Plate 13: P. S. 38, *Superintendent's Annual Report 1885-1886*

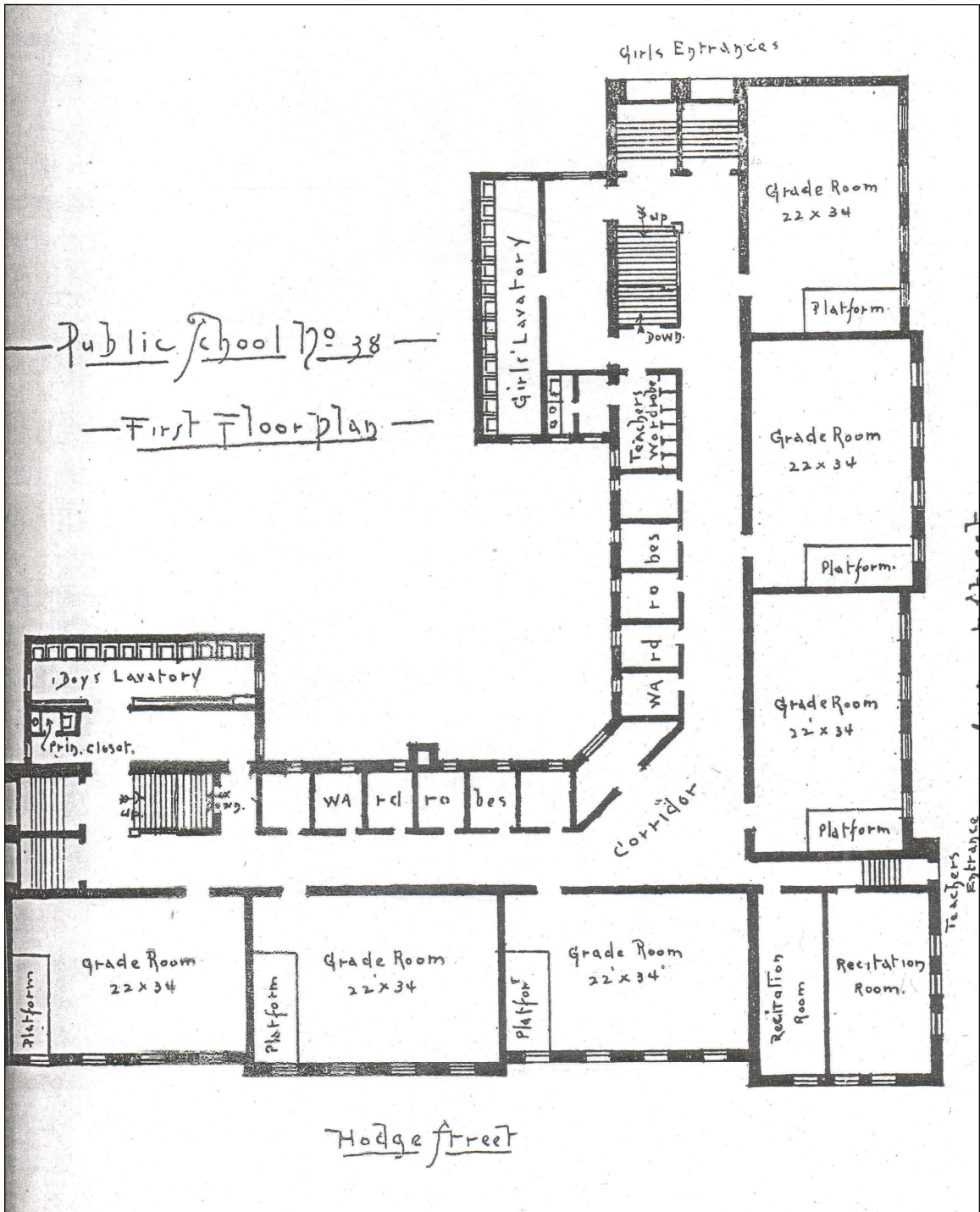


Plate 14: P. S. 38, First floor plan, *Superintendent's Annual Report 1885-1886*

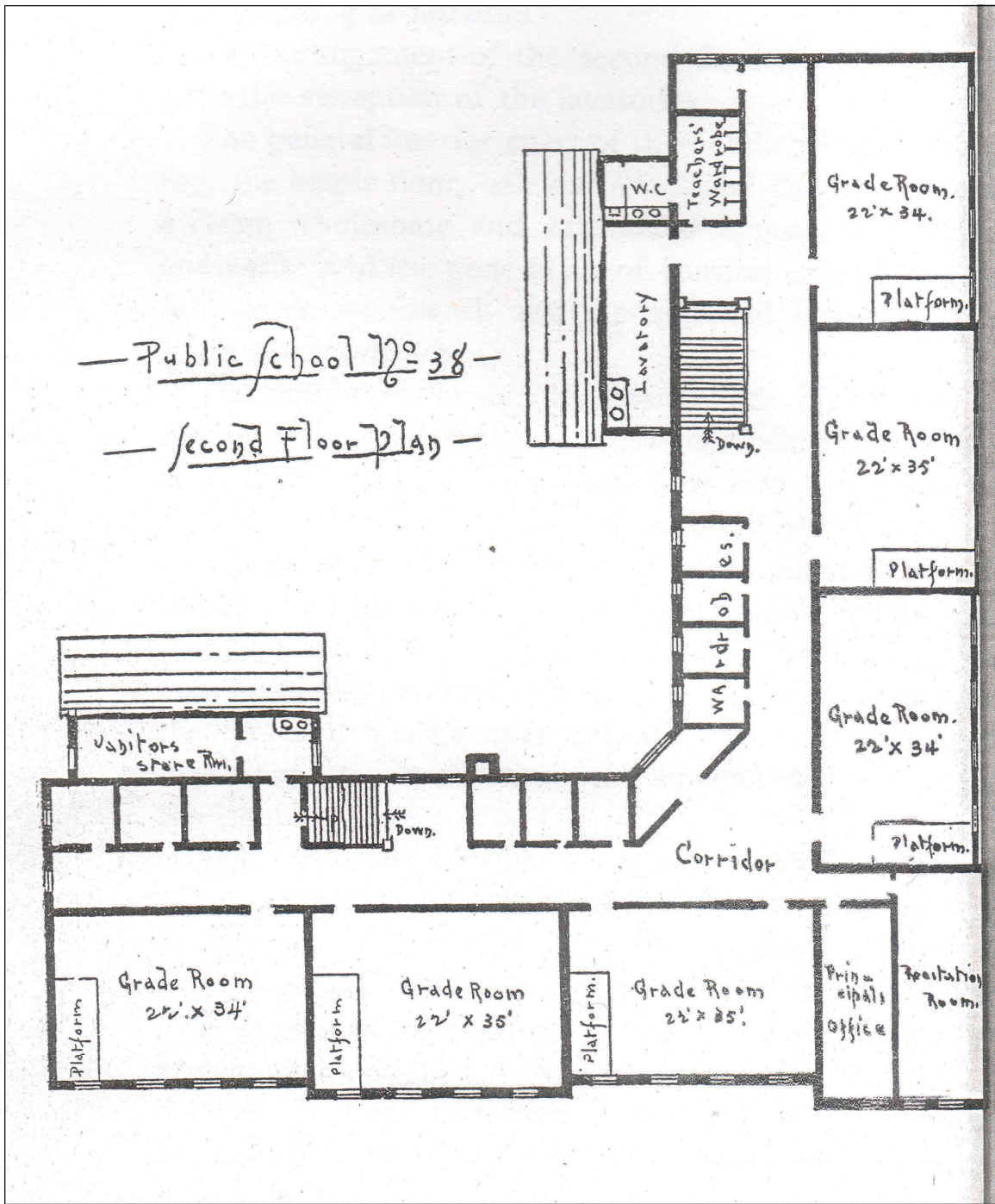


Plate 15: P. S. 38, Second floor plan, *Superintendent's Annual Report 1885-1886*



Plate 16: Spenser Kellogg residence, 211 Summer, Buffalo, NY, 1885, BECHS



Plate 17: Thorn residence, 40 Bidwell, Buffalo, NY, 1885, BECHS



Plate 18: P.S.40 1886, BECHS



Plate 19: Police Station No 8, Buffalo, NY, 1886, *History of Buffalo*

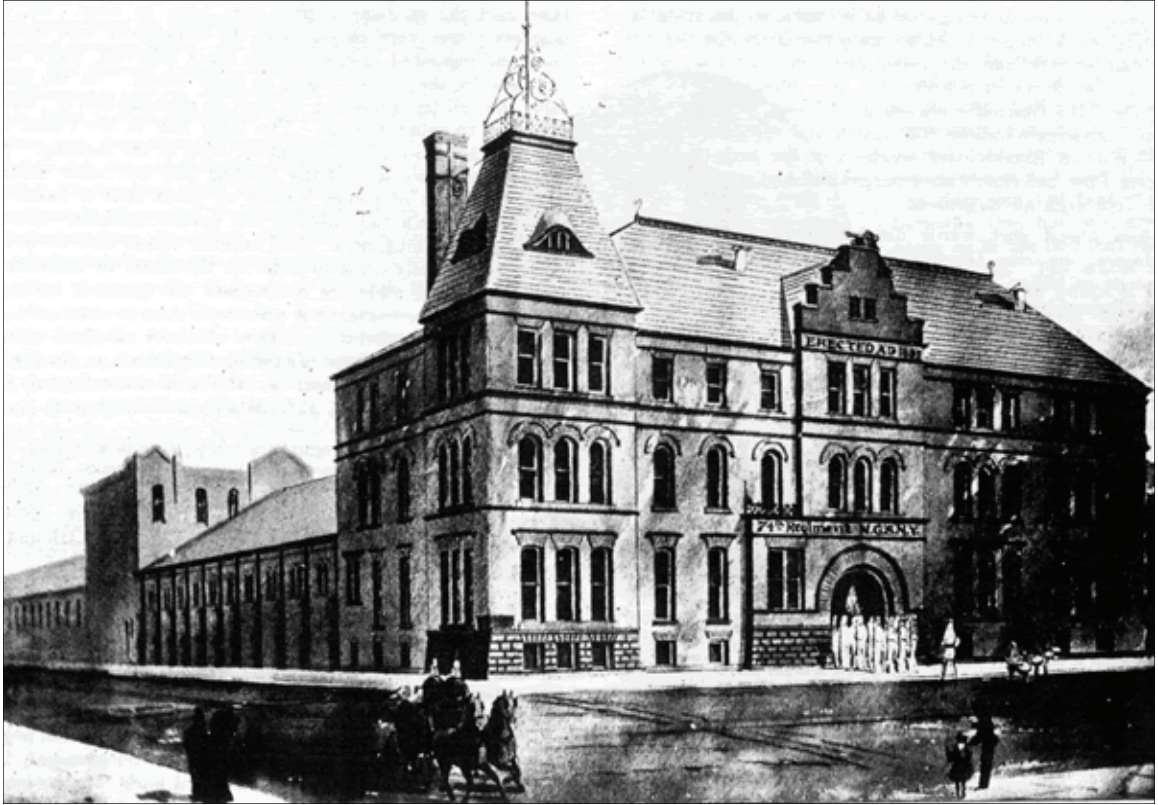


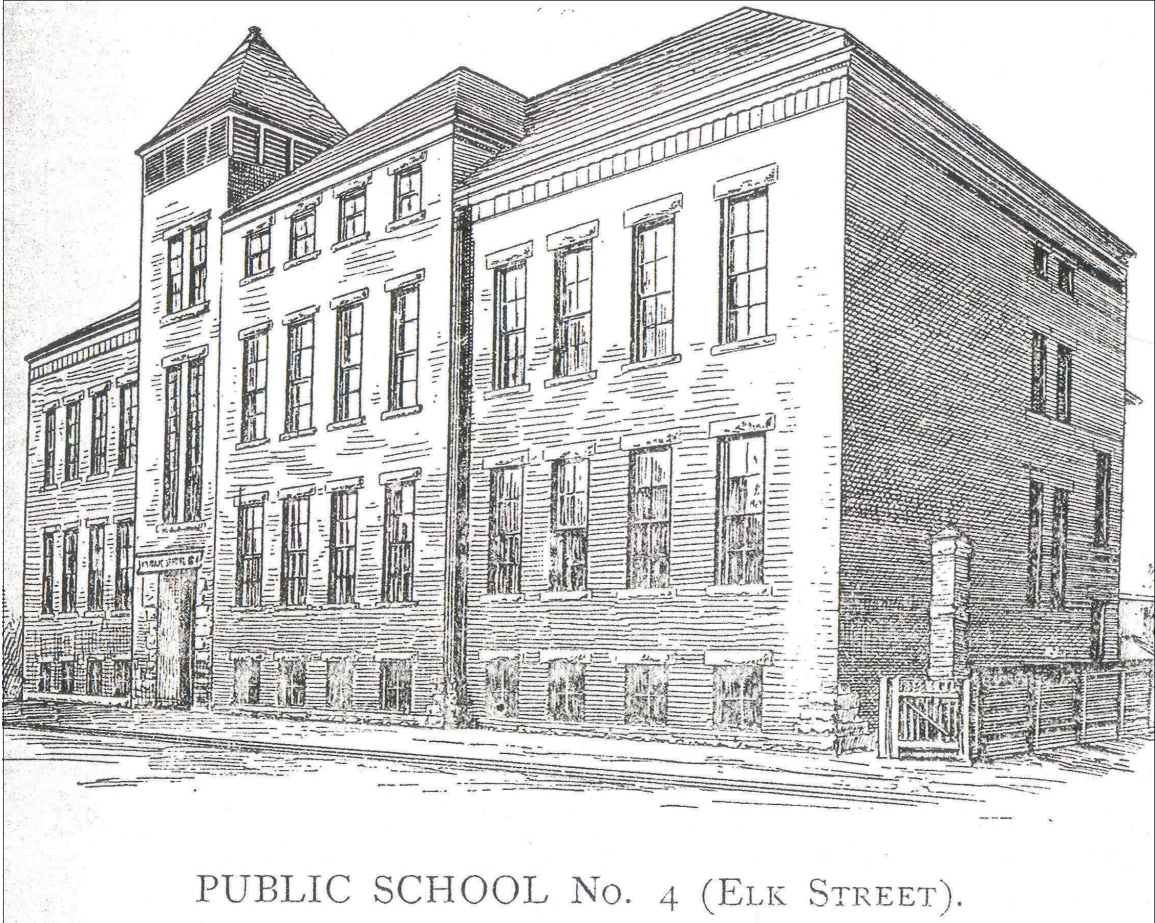
Plate 20: 74th Regimental Armory, 1886, Elmwood and Virginia, Buffnet.org



Plate 20: 74th Regimental Armory, Buffalo, NY, BECHS



Plate 22: P .S. 4 1887, *Schools of Buffalo*



PUBLIC SCHOOL No. 4 (ELK STREET).

Plate 23: P. S. 4 1887, 1887, *Superintendent's Annual Report 1887-1888*

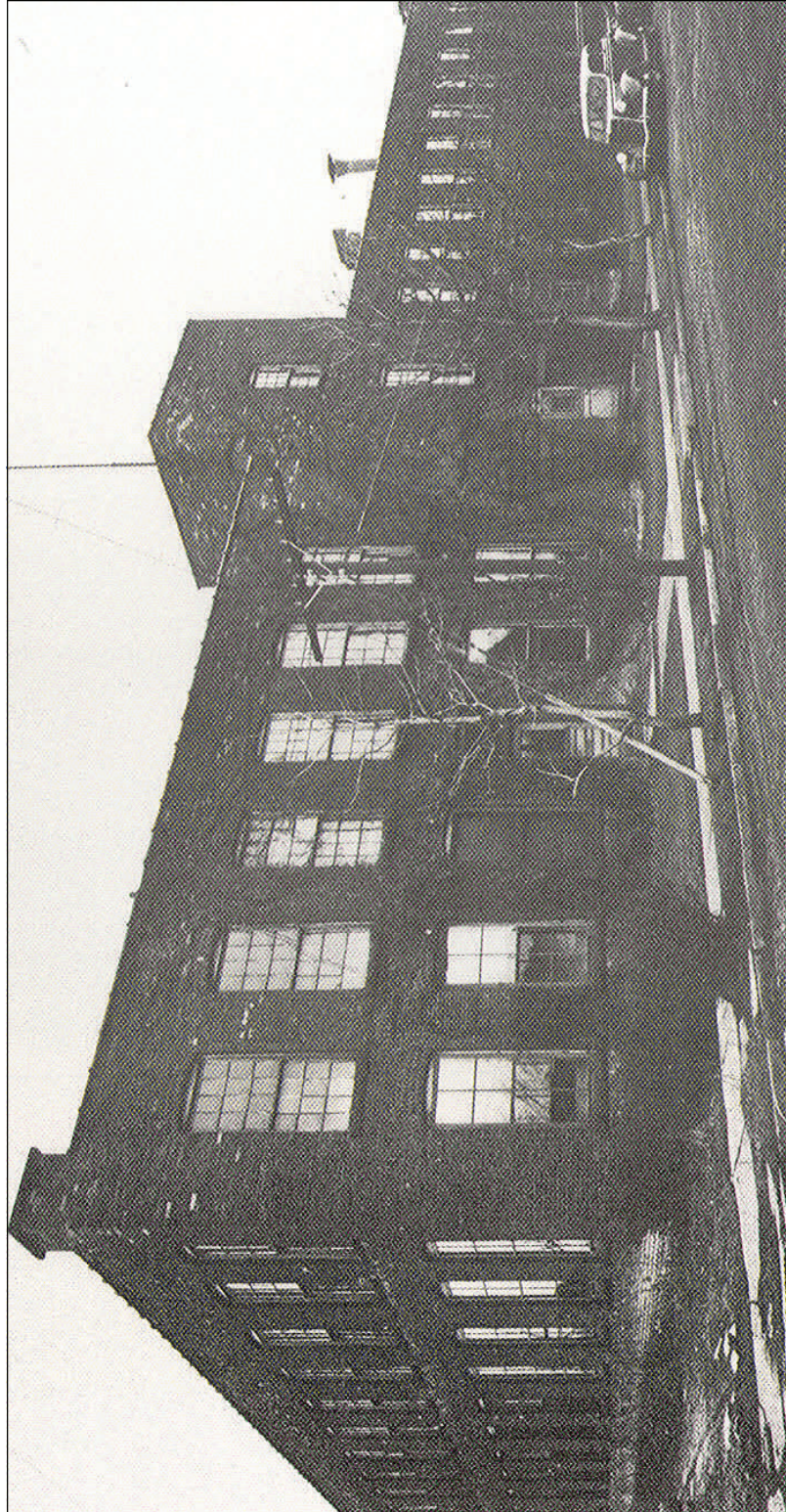


Plate 24: Jewett Refrigerator Factory, 1889, Partial view taken in the 1930s



Plate 25: Houck Flour Mill, 1889, *Western New York Heritage Institute*



Plate 26: Miss Nisell Residence, 1889, BECHS

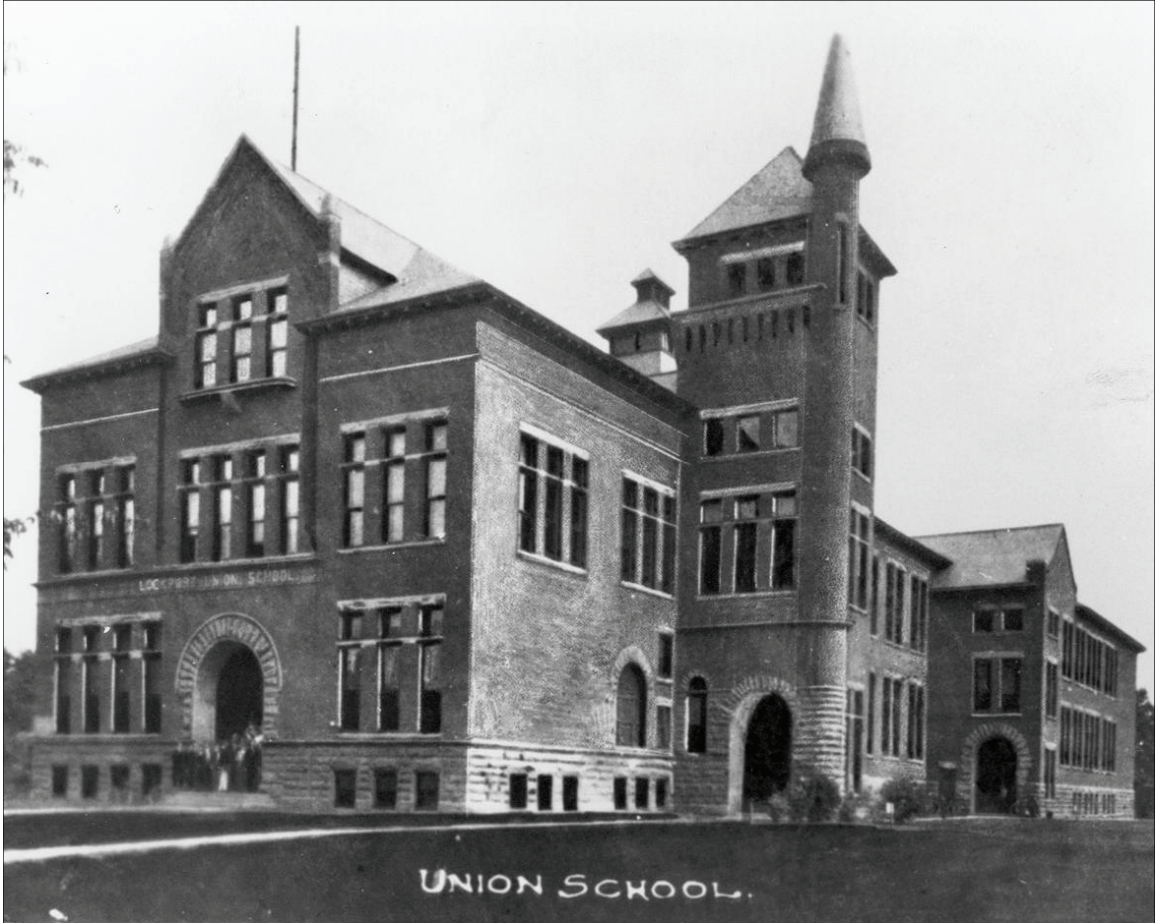


Plate 27: Lockport Union High School, 1890, BECHS

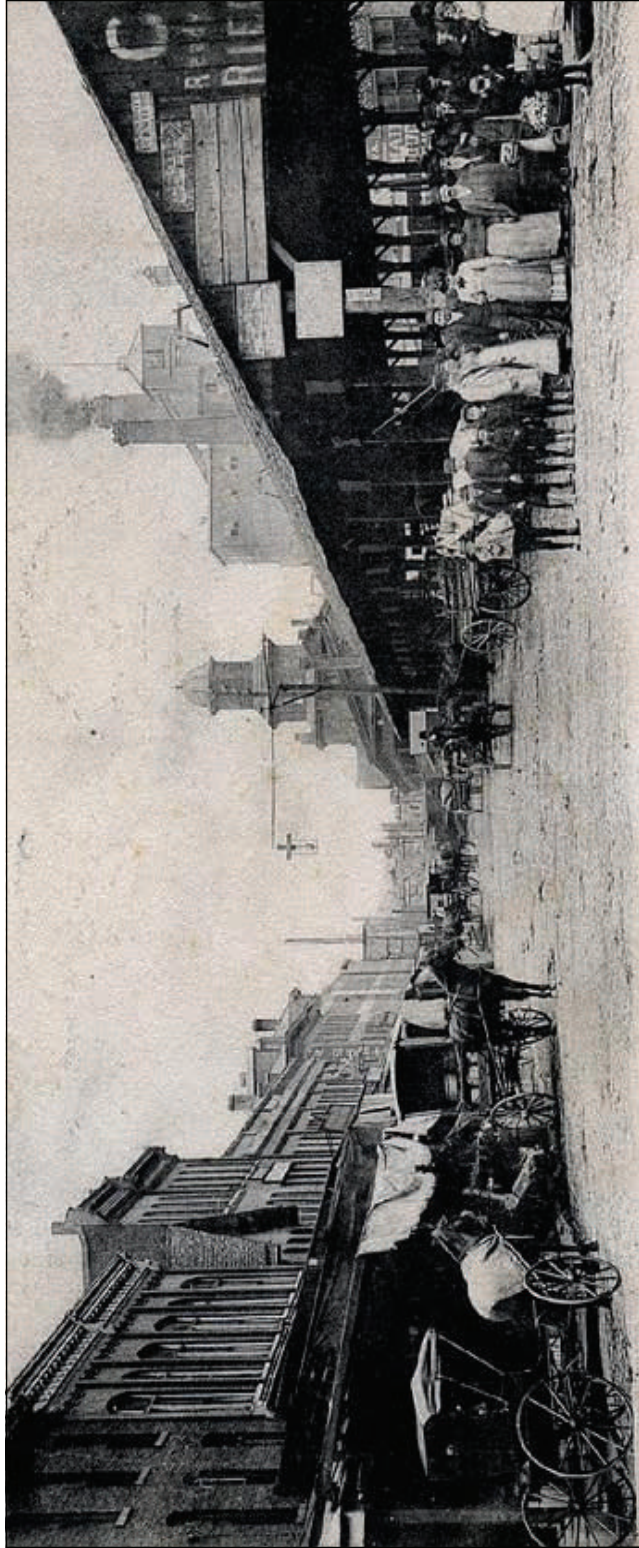


Plate 28: Elk Street Market, 1889-1890, Photo 1904

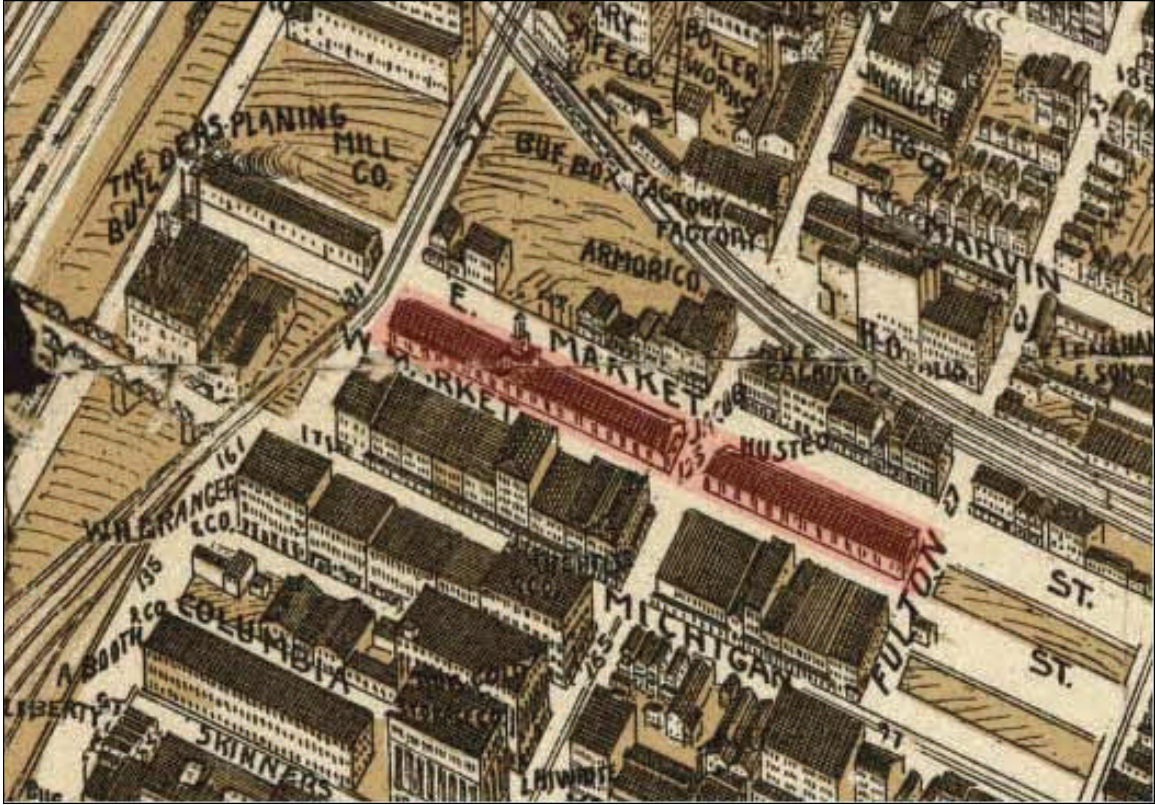


Plate 29: Elk Market



THE EAST BUFFALO LIVE-STOCK EXCHANGE.

Plate 30: East Buffalo Livestock Exchange, 1890, BECHS



Plate 31: East Buffalo Livestock Exchange, 1890, As it appeared in 1901, BECHS



Plate 32: Electrical Power Station, 1898, *History of the Germans in Buffalo and Erie County, NY*



Plate 33: Iroquois Door Manufactures, 1904, BECHS



Plate 34: Lafayette Hotel, 1904, BECHS

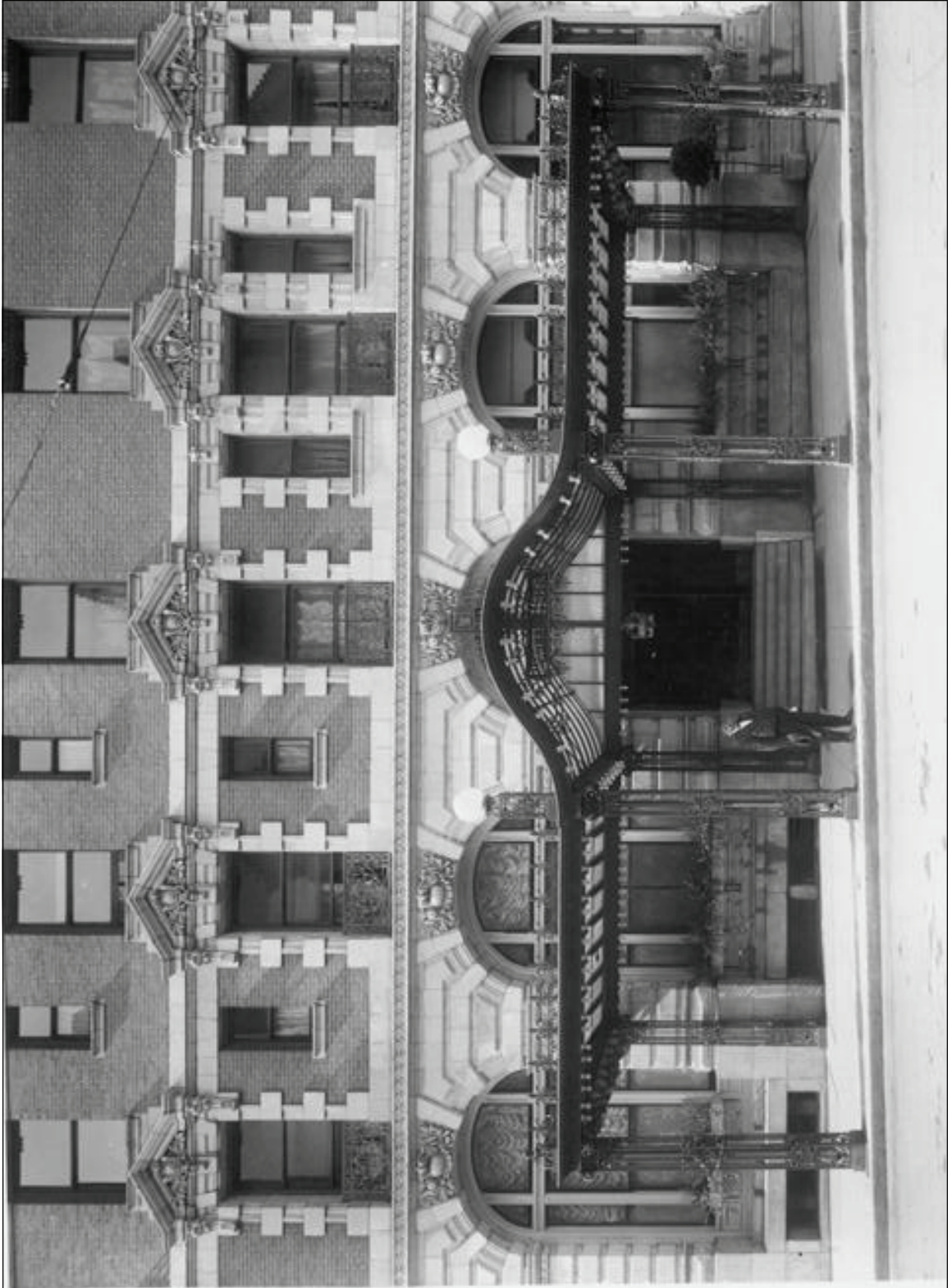


Plate 35: Lafayette Hotel, Details, 1904, BECHS

Appendix D

The renumbering of the schools has produced a great deal of misinformation for anyone interested in Bethune or any of the many others who contributed to school architecture in Buffalo. Barbasch's most recent publication listed, in addition to P. S. 4 in Bethune's application to the AIA; ¹ P. S. 9, 23, 30, 39, 44, 48, and 52 as Bethune schools.² P. S. 9 at 2060 Bailey Avenue was designed by Charles D. Swan (and P. S. 11, also on Bailey Avenue);³ Franklin W. Caulkins was announced as winner of the competition to build P. S. 23, a \$45,000 commission;⁴ Charles D. Swan also did P. S. 30;⁵ and Bethune designed P. S. 39 as previously shown.

P. S. 44 was apparently previously attributed to Bethune, because Madeleine B. Stern, working in the late 1950s, used an *Architectural Era* announcement that stated Bethune would be building a twelve-classroom school in District No. 26 on "Miller Street" and a large addition to No. 33.⁶ The "Miller" Street attribution is a typographical error for Milton. The school at Miller and Broadway that Barbasch and Stern referenced did not get a major structure until 1895. This research has not found any reason to include P. S. 48 or P. S. 52 and Barbasch's reason for doing so is not referenced.

¹ Bloor, Louise Bethune AIA membership letter, Police Station No. 2; Police Station No. 8, *Inland Architect & Builder* 8 (Aug 1886), 11, and *Sanitary Engineer* 14 (July 8, 1886), 140; Police Station No. 9, *Engineering Record* 34 (Oct 3, 1896) x, and Annual Message Mayor Becker, 2 Jan 1887; Police Station No. 11, *American Architect & Building News* 17 (Feb. 28, 1885), 107, and *Inland Architect & Builder* 5 (June 1885), 79.

² Adriana Barbasch, "A Tribute to the First Professional Woman Architect Admitted to the American Institute of Architecture" (Buffalo: AIA, Western New York Chapter, 2002), np.

³ Charles D. Swan, P. S. 9 and P. S. 7 both on Bailey Avenue in *Architectural Era* (December 1889), 268.

⁴ Franklin W. Caulkins, P. S. 23, *The Brickbuilder* 5 (March 1896), 52.

⁵ Charles D. Swan, P. S. 30, *Architectural Era* 3 (August 1889), 179.

⁶ Madeleine B. Stern, *We the Women: Career Firsts of Nineteenth-Century America* (Lincoln: University of Nebraska, 1962), 64. This attribution is repeated in Adriana Barbasch, "Louise Blanchard Bethune: The AIA Accepts Its First Woman Member," in Ellen Perry Berkeley, ed., *Architecture: A Place for Women* (Washington: Smithsonian Institution Press, 1989), 18; and Barbasch, "Tribute," np.

Bethune's AIA application letter gave no explanatory information on P. S. 4, such as an address, which probably why Adriana Barbasch incorrectly listed this school as at Elk Street and Abbott Road.⁷ The 1894 plat map shows P. S. 4 at 325 Elk, near Louisiana Street, although school historian Weed does not acknowledge this 1886 addition to the original pre-Civil War building. In *The Architectural Era*, of August 1888, architect C. R. Percival is credited with the Abbott Road school referred to by Barbasch.⁸

These listings can also be confusing to the researcher, because in part their purpose was to promote the development of a city, and listings were often repeated, sometimes with the architects named and sometimes as anonymous verification of building activity. An example of this practice was the "Synopsis of Building News" in *The Inland Architect and Builder* of October 1888, which repeated the attribution of schools P. S. 18 and P. S. 24 long after their numbers had been changed. The apparent disparity between sources of information has resulted in recent historians simply giving Bethune a general credit, that is, "eighteen public schools in Buffalo and its suburbs."⁹

The practice of using district numbers initially when a new school was added to the district and later renumbering the school, as older buildings were closed, while confusing, would be a complete morass if Weed had not spent the last two decades sorting out the problem and reissuing his results periodically. Barbasch used his 1984

⁷ Barbasch, "Louise Blanchard Bethune:" in Ellen Perry Berkeley, ed., *Architecture: A Place for Women*, (Washington: Smithsonian Institution Press, 1989), 18; Adriana Barbasch, "Louise Bethune, FAIA (1856-1913)," (Buffalo: Buffalo/Western New York Chapter AIA, 1986), np.

⁸ *The Architectural Era* 2 (August 1888), 144.

⁹ Barbara J. Howe, "Women and Architecture," in Page Putnam Miller, ed., *Reclaiming the Past: Landmarks of Women's History* (Bloomington: Indiana Press, 1992), 47; and Judith Paine "Pioneer Women Architects," in *Women in American Architecture: A Historic and Contemporary Perspective*, ed. Page Putnam Miller (Watson-Guption Publications, 1977). 61.

edition, which may vary with the 2001 edition used here. Here the superintendent's annual reports and announcements in professional journals have been used as the primary source with reference to Weed for backup and/or additional confirmation. The 1894 plat atlas has been invaluable for identification and clarification.

Along with the problem of the school district number being used temporarily, Crooker apparently attempted to keep district numbers and have primary and grammar schools share the district number with the idea of instituting a separation of the primary level from the grammar-school level, thus grammar school and primary school would have the same number. In his 1886-1887 report, he made clear his recommendation that new grammar/primary schools should be built with the long-range plan of turning them into exclusively primary schools as the city continued to grow.¹⁰

¹⁰ Crooker, *Report, 1886-1887*, 40.

Appendix E

Women and Architecture.*

BY LOUISE BETHUNE.

MESDAMES—Chairman and Ladies of the Educational Committee: You have requested me to speak upon "Women in Architecture." The subject might, from a masculine standpoint, at least, be disposed of with the brevity which characterized the famous chapter upon the "Snakes of Ireland." In fact, in order to have any topic at all, we must talk of women *and* architecture, assuming a connection which it is hardly safe to assert.

When Cain built Eros, architecture began; but its authentic history dates from the two great river courses of ancient civilization, where Menes laid the foundations for Memphis and the architect King Urukh, fell heir to the throne of Nimrod. Its earliest records are Egyptian hieroglyphics and brick inscription tablets built into the foundations of Ur, the home of Abraham. In the thousands of years since then, what influence women have exerted over this most ancient and most lasting of all the arts, it is now impossible to estimate. The power of the woman of antiquity was seldom that of pure intellect, but of intellect combined with wealth, position and ambition. Given this accidental combination, and some palace, tomb or temple is usually its enduring witness.

* * * * *

Queen Hetasu's obelisk is the highest in all Egypt: of her inscriptions, defaced and often obliterated by her brothers and successors, enough remain to prove that she completed the temple of Amun-ra, begun during the lifetime of her grandmother, the famous Ethiopian Nefruari. This temple is near Thebes and forms the nucleus of the celebrated El Karnak group. A full dozen dynasties earlier, Queen Nitocris built the yet unidentified pyramid "Of the Soul," believed by some to be identical with the third pyramid of Gizel.

Queen Artemisia built the first mausoleum, and Marc Antony met his death in another erected by his faithless queen. Voyaging up the Nile, you see the well-preserved and unincumbered temple of Athor, the Egyptian Venus, at Denderah. This and one smaller and more picturesque, near Thebes and the famous baths, were also built by Cleopatra. Even Zenobia found time to build a town on the river Euphrates.

From then to now the list might include every historic name, besides all those of the sainted women of Catholic Europe, who built and governed monasteries as well as nunneries, and who founded and endowed charities and schools.

* * * * *

During the reign of Queen Elizabeth the great architectural activity has given us a delightfully picturesque domestic style, transitional between the latest phase of English Gothic and the earliest of the classic revival.

A still later phase of English architecture is to be seen in the churches of Queen Anne, one of which (St. Dunstan's in the East) is thought to have been the design of the gifted and short-lived Jane Wren. The "real Queen Anne house" of the speculative builder is a serious practical joke about on a par with those perpetrated in the name of the much maligned Sir Charles Eastlake.

* * * * *

Architecture is seldom satisfactorily defined, perhaps never briefly and well. It is not construction in any of its various branches, nor is it arrangement of interior nor exterior, nor coloring, nor carving, nor profiling of moldings; neither is it acoustics, nor fenestration, nor sanitation, nor any one of a hundred other things. It is

* Portions of a talk before the Women's Educational and Industrial Union, Buffalo, March 6, 1891.

the arranging and adjuncting, harmonizing and contrasting of all these and many other elements into a suitable and satisfactory whole.

When wants were simpler and before construction became a science, when every building was the natural sequence of its predecessors, the architect was often an amateur, frequently of the highest ability. Musicians, poets, painters, sculptors, emperors and kings expended wealth and talent on towers and domes, bridges and aqueducts that have outlived the memory even of their other achievements. To specify the causes of their success, as contrasted with the many pitiable failures of the modern amateur, would lead too far from our subject and necessitate a lengthy treatise on the antiquity of the model as a means of architectural representation or vehicle of design; its great value in the centuries before linear perspective was understood, and its final almost total disuse upon the adoption of the more intricate varieties of mechanical drawing. In fact, the abandonment of the model may be said to mark the line of separation between the amateur and the professional architect. Its use today would spare the blushing novice much confusion, particularly in that shibboleth of all amateurs, the staircase.

* * * * *

The professions of medicine and law were far advanced before the much needed and highly appreciated woman physician and lawyer appeared. Women have entered the architectural profession at a much earlier stage of its existence even before it has received legislative recognition. They meet no serious opposition from the profession, nor the public. Neither are they warmly welcomed. They minister to no special needs of women, and receive no special favors from them.

* * * * *

The great architectural societies of the country, the American Institute and its state and city Chapters are all open to them upon proof of qualification. Thank, with me, the noble hearted men whose far-seeing polity and kindly nature has laid this stepping-stone.

With few exceptions the educational facilities are the same for men and women. The architectural department of the Columbia College School of Mines is however open to men only, though in the Metropolitan Art Schools women have access to classes, lectures and the Willard collection, considered first in America. Three or four young women have availed themselves of this opportunity, and one, at least,

makes practical use of her training. The advantages of a large city with its libraries, museums and opportunities for studying general structural work can hardly be overestimated.

Among foreign schools that most affected by Americans is the École des Beaux Arts in Paris. There is a prospect that this school may be open to women before long, and French papers are now canvassing the subject in a manner that would be quite impossible elsewhere.

In Boston the School of Technology Architectural Course, partially modeled upon the Paris school, offers special advantages to pupils who have received previous office training. Two young ladies have been graduated from four and two years courses respectively, but none are now entered.

Cornell graduated the first university educated young woman in 1880, and since then four have completed the course that four more are now pursuing. Two of the graduates have since died.

Miss Parker, of Philadelphia, has sent me such information and many circulars concerning local art schools, none of which, however, seem to present the requisite facilities for a thorough technical education. The School of Design for Women is noticeable in this connection because it was founded in 1847 by Mrs. Sarah Peter, to whose endeavors the Cincinnati Academy of Fine Arts is also traceable.

One Philadelphia instructor writes that he is willing to receive women, but has never done so because he has been unable to give them separate lecture rooms, etc., but women cannot pursue architectural studies to advantage in a private apartment. Co-education is a privilege as well as a necessity.

I must not forget to tell you that Philadelphia published what was probably the first architectural book written in this country by a woman. From Mrs. Tuthill in 1848 to Mrs. Van Rensselaer in 1891, is a greater stride than progress usually makes in one half-century.

The Illinois University at Champaign, has graduated one woman who is a practicing architect and civil engineer in the far West; another will complete the course this year. Professor Ricker says that in architectural history women are his brightest pupils, but he finds the majority deficient in liking for the higher mathematics. Another instructor writes that a woman pupil submitted the boldest design of the year, while the most effeminate was the work of a man.

* * * * *

The total number of women graduates from the various schools of the country can hardly exceed a dozen, and most of these seem to have renounced ambition with the attainment of a degree, but there are among them a few brilliant and energetic women for whom the future holds great possibilities.

There are also a few women drafting in various offices through the country, and the only respect in which they fall below their brothers is in disinclination to familiarize themselves with the practical questions of actual construction. They shirk the brick-and-mortar-rubber-boot-and-ladder-climbing period of investigative education, and as a consequence remain at the tracing stage of draftsmanship. There are hardly more successful women draftsmen than women graduates, but the next decade will doubtless give us a few thoroughly efficient architects from their number.

So much for the past and the present. If in what I say of the future your personal prejudices are offended, pray remember that you have bound me by no previous confession of faith.

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.

The future of woman in the architectural profession is what she herself sees fit to make it. It is often proposed that she become exclusively a dwelling house architect. Pity her, and withdraw the suggestion. A specialist should become so from intrinsic fitness, not from extrinsic influence. Furthermore, the dwelling is the most pottering and worst-paid work an architect ever does. He always dreads it, not, as someone may have told you, because he must usually deal with a woman, but because he must strive to gratify the conflicting desires of an entire household, who dig up every hatchet for his benefit and hold daily powwows in his anteroom, and because he knows he loses money nearly every time. Dwelling house architecture, as a special branch for women, should be, at the present rate of remuneration, quite out of the question.

This brings us to another all-important point. The open sesame to the favor of our compeers and the respect of the public is "Equal Remuneration for Equal Service," and a strict observance of all the honorable traditions of our profession and its amenities of practice.

* * * * *

In response to questions concerning the Women's Fair Building Mrs. Bethune said: "Such a building is talked of, but the idea of a separate Women's Board Exhibit, etc., expresses a sense of inferiority that business women are far from feeling. The board desires a woman architect, and the chief of construction has issued a circular inviting competition, notwithstanding the fact that competition is an evil against which the entire profession has striven for years, and has now nearly vanquished; it is unfortunate that it should be revived in its most objectionable form on this occasion, by women, and for women.

"The building will cost about \$200,000, and the prize offered to the successful competitor is \$1,000. This is all she is to receive. That is, she renders 'personal artistic service,' and also prepares her competitive drawings, all for one-tenth of the regular rate for full professional service. The extremely equitable arrangement made with the *appointed* architects for the ten large buildings is that each renders his personal artistic service for \$10,000, *all* his drawings to be made at the expense of the commission. The sum total to be expended for the ten principal buildings is in the neighborhood of \$6,000,000, making an average of \$600,000 each. Thus each architect receives about one-third his regular full commission, for which he renders about one-third his full professional service.

"The proportion of remuneration to the architect of the Women's Building is about three-tenths of the average rate paid the already appointed architects for nearly similar service. It is an unfortunate precedent to establish just now, and it may take years to live down its effects."