

DANKMAR ADLER:
A BIOGRAPHY

Rochelle B. Elstein

Arthur S. Elstein, Editor

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TABLE OF CONTENTS

	Pages
Editor's Introduction	i-iii
Author's Introduction	iv-xvi
1. Early Life	1-17
2. From Burling & Adler to D. Adler & Co.	18-33
3. Adler & Sullivan: The Early Years	34-62
4. The Auditorium and its Context	63-86
5. The Rise of Adler & Sullivan	87-116
6. At the Summit	117-140
7. Leader and Mentor; Architect or Engineer?	141-163
8. Adler without Sullivan	164-210
9. End of a Life	211-234
10. Adler's Writings	235-267
11. Evaluation	268-291
Appendices	
A. Corpus of Adler Buildings	292-303
B. Adler's Autobiography	304-309
C. End of the Partnership	310-327
Bibliography	328-376

Editor's Introduction

Rochelle Berger Elstein worked on Dankmar Adler over her entire professional life. Her M.A. thesis at the University of Chicago, in General Studies in the Humanities, *The Architectural Style of Dankmar Adler*, is dated September, 1963. Of course, her work on Adler had begun before that date, perhaps as early as 1961. In Chapter 9, footnote 23 of this book, she relates that she interviewed Adler's surviving daughter, Sara Adler Weil, on June 27, 1962. She had been introduced to Mrs. Weil by one of her teachers, Prof. Edward Weil Rosenheim, himself a member of the family.

She began her studies of Adler acknowledging that he had long been regarded as the lesser of the partners in the famous architectural firm, Adler & Sullivan. She recognized, as have others, that Louis Sullivan was a genius and that Adler, whatever his gifts may have been, lacked that spark. He was, she thought, a competent architect, an excellent engineer, a much better businessman than Sullivan, and importantly, a good family man of exceptional character. She also believed that Adler's contributions, both to the firm and to late nineteenth-century American architecture, were insufficiently appreciated. Her master's thesis was the first step in correcting that assessment; this book is her last contribution to the topic.

When we left Chicago in 1965 and moved to Boston, her work on Adler was suspended, partly because we were starting a family and partly because Adler had never built anything in Boston and there were no records to be searched. Adler re-appears in her thinking and writing when she began her study of synagogue architecture in the Midwest. He was well connected with the Jewish community of Chicago (as this book will show), and his connections led to several important synagogue commissions for the firm of Adler & Sullivan and, later, for D. Adler & Co. These buildings, and many others by other architects, are discussed and analyzed in her 3-volume PhD dissertation, *Synagogue Architecture in Michigan and the Midwest: Material Culture and the Dynamics of Jewish Accommodation* (Michigan State University, 1986). Adler was a crucial link between two of her abiding interests, architectural history and Jewish material culture.

We returned to Chicago in 1984 and Shelli soon found a position as Art Bibliographer in the Northwestern University Library. After completing her PhD dissertation, she resumed work on Adler, in addition to her full-time job at Northwestern and her family responsibilities. Her searches of various libraries and archives for primary literature on Adler and writing sections and chapters continued on a part-time basis until her retirement from Northwestern in 2006. She hoped then to devote herself full time to revising and completing this book, which can fairly be said to be the product of at least 20 years of investigation and reflection. (For example, the first draft of Chapter 9 is dated August 23, 2000; her last revision is dated Oct. 31, 2007. A Christmas letter dated December 1991 expresses the hope that the manuscript will be completed in 1992.)

Sadly, health problems began to loom large in her life a few years after retirement. The chapters now presented were all written and re-written many times, as she was a research perfectionist, but as her health further declined, she could not assemble a completed, final manuscript suitable for publication. The dates on the computer files of the various drafts show that her last efforts on this project were in October 2007. The first date of the Bibliography is July 1998 (although clearly begun before that date). Last revised by her in early 2010, the Bibliography runs nearly

50 pages, approximately 1000 entries, 12000 words. The earliest surviving version of Chapter 1, dated June 2000, proposed to begin the story with the Guaranty Building in Buffalo, New York, the last building designed by the partnership of Adler & Sullivan. Later versions employ a more conventional format, beginning with Adler's birth and youth. I adopted that version of chapter 1, but the opening paragraphs of the earliest chapter 1 are preserved in the Author's Introduction.

By the time she retired, if not earlier, it was clear that finding an academic publisher for this monograph was unlikely for several reasons: The entire enterprise of publishing scholarly books was under severe financial pressure which continues to this day. A publisher might be willing to take a risk on yet another book about Sullivan, but Adler—not so much. Finally, a publisher might be willing to take a risk on a book by a well-known scholar, but she was not that well known.

This difficulty led Shelli to consider publishing her findings as journal articles. Only one was completed, "Adler & Sullivan: The End of the Partnership and its Aftermath." It appeared in the *Journal of the Illinois State Historical Society*, 2005, 98:51-8, included as Appendix C. It is a more detailed analysis than the monograph provides of an issue that has been the subject of much discussion among architectural historians: why the firm dissolved in 1895, after so much success, and why it was never reconstituted. As a measure of her talent as an architectural historian, the paper won the Harry E. Pratt Memorial Award, presented by the ISHS each year to one scholar, to acknowledge "the general excellence, style, and accuracy of the original manuscript." In short, it was the best paper published that year in that journal.

As Shelli's health problems worsened, I was forced to conclude that she would never resume work on this project and complete it. So I undertook to edit the manuscript and to publish it in the format of the 21st century, as an e-book. Obvious typos have been corrected; redundancies that accrued over years of writing sections at varying intervals have been eliminated; the entire text, including the bibliography, has been edited to improve clarity. Some footnotes are obviously incomplete; there is a number in the text without an entry. These stand as the author left them. I have not checked the other footnotes for accuracy, relying instead on her commitment to thoroughness and her eye for detail. The multitude of primary and secondary sources cited in the extensive footnotes and the bibliography testify to the thoroughness of her research. Correcting her errors, if there are any, is beyond my scholarly competence. Further, the text frequently points to figures and pictures of buildings, but what image from her extensive collection of architectural photographs she wanted at each point cannot be determined. This is less of a deficiency than might be the case, for *The Complete Architecture of Adler & Sullivan*, by Richard Nickel and Aaron Siskind, with John Vinci and Ward Miller, was published in 2010. Her text was essentially complete before their definitive work was published. It contains hundreds of images, including a few provided to these scholars by Shelli herself. No one can possibly do better than their book to bring Adler's buildings to the public's attention. The interested, committed reader can find in *The Complete Architecture* at least one picture of every building she mentions.

The author's goal was to tell Adler's story and to gain for him the recognition she believed he deserves. The editor's aim has been to present her research to three constituencies: readers of architectural history, scholars interested in the social history of late 19th century American Jewry, and the people who loved her. In these pages, those who knew her can hear her voice, now

stilled. For the editor, it has been a labor of love, a tribute to my lifelong partner, an opportunity to stay in contact, albeit intermittently, with her lively intellect.

A special thanks to our son David for his patient assistance in readying the final product for uploading to the internet.

Arthur Elstein

Chicago, May, 2017

Author's Introduction

From 1880-1895, the architectural partnership of Adler & Sullivan was enormously successful. After joining forces in 1879, Sullivan matured from student/apprentice to architect, while Adler went from novice to expert architect and engineer. Their schism in 1895 was an American architectural tragedy because Adler & Sullivan had built some outstanding buildings between 1883 and 1895. As a team they built over 150 structures, some of them the best produced in the nineteenth century. Separately they were much less innovative, creative, productive or prosperous, although each remained influential in increasingly separate spheres. Adler died in 1900 while Sullivan lived until 1924, but with few commissions.

The firm also trained a generation of successful architects, among them Frank Lloyd Wright, Alfred S. Alschuler, Irving Gill, Simeon Eisendrath, Hugh Garden and Henry Ottenheimer. Adler was instrumental in providing a solid foundation for the professional practice of architecture, and he was active in securing passage of the first state architectural licensure law in the United States and the first certifying examination. He also served on the executive committees of the leading architectural societies of his time and he used technologies in pioneering applications.

The irony—and he was witty and ironic--was that Adler himself was "the proud possessor of no academic degrees."¹ He did not have a French diploma (like Richard Morris Hunt or William LeBaron Jenney) nor even an abbreviated acquaintanceship with the Ecole des Beaux Arts (like Sullivan and Henry Hobson Richardson). He had not attended the German or French technical academies, as had Frederick Baumann and Nathan Clifford Ricker. Unlike William Sooy Smith (West Point, class of 1853; M.A. in engineering, Ohio University, 1855) or

John Wellborn Root (New York University, class of 1869), he did not have an engineering degree. His college was the Civil War where he served under the direction of experienced civil engineers and architects, among them Milo Darwin Burke of Cincinnati and Otto Matz of Chicago. That war provided his initial engineering training. He transformed his lessons in military engineering and large-scale project coordination into peace-time projects, such as the multipurpose Auditorium Building (Chicago, 1887/1889/1890 - extant) and the Transportation Building for the 1893 World's Columbian Exposition (demolished.)

Dankmar Adler's skills were not Louis Sullivan's. He did not "draw like an angel." He was a solid craftsman with knowledge of his limitations. He was proud to "pass the artistic crayon to Sullivan" and to direct his attention to other aspects of the building business.² When circumstances required, he was an architect; when the situation warranted, he was an engineer. He wrote nearly 50 articles, speeches, and committee reports for professional journals and was a member of the Western Association of Architects and the Western Society of Engineers. As an architect, he had a solid reputation, but he encouraged Louis Sullivan to work his magic on most of their buildings. As a result, the junior partner is often regarded as the primary one. Louis Sullivan's ornament ensorcelled but Dankmar Adler was not just the sorcerer's apprentice.

As more of their works are razed, we are left with only photographs that necessarily distort the three-dimensional edifices, far too few to visit and experience. Adler's contributions have been overshadowed not only by Sullivan's gorgeous ornament, but by Sullivan's and Wright's penchant for legends. Adler was not the romantic hero that Louis Sullivan and Frank Lloyd Wright have portrayed themselves as being. A modest man, he eschewed self-aggrandisement and poked fun at his own "*amour propre*."³

The Depression of 1893, although delayed in Chicago by the 1893 World's Columbian Exposition, made the practice of architecture there between 1894 and 1898 a chancy business. Adler opened a New York branch office with a fellow engineer from that city in 1896, but it did not prosper. Adler and Sullivan went their separate ways in 1895, never again to work together. The brilliance and synergy of their collaboration far outshone what each did alone. Their respective contributions to buildings like the Auditorium and the Wainwright Building, the Chicago Stock Exchange and the Guaranty Building are hard to determine, but it is a question that this book will attempt to answer. Louis Sullivan's story has been told by himself and others, but a successful partnership requires a partner and little has appeared on Adler.⁴

Plan of the book

Chapter 1 recounts the background of Adler's family, their emigration from Germany, his education and training in Detroit, his Civil War experience, and his early apprenticeship and continuing development in Chicago, as a junior and then senior partner in a small firm. It draws upon memoirs, histories, maps, guidebooks, and primary data from several archives and personal interviews.

Chapter 2 tells of Adler's partnership with Edward Burling, a very successful architect, in the context of Chicago after the Civil War and the Great Chicago Fire, when economic and social developments and educational practices took Adler to the next stage of his career. The destruction wrought by the Fire presented a great opportunity for a young practitioner. Adler said "we counted our buildings by the mile."⁵

Burling's fostering of Adler's talents allowed the younger man to strike out on his own in 1879, creating his first independent commission, the Central Music Hall, in which Louis Sullivan

played a minor role. Adler's maturation took place at this time, marked by his full partnership with Burling, his marriage, the birth of his children, and the founding and growth of his own firm, all of which took place in Chicago and its Jewish community. Adler was firmly rooted in both.

Chapter 3 considers the relationship between Dankmar Adler and Louis Sullivan, who formed the firm Adler & Sullivan in the 1880s and 1890s. In 1882, Sullivan advanced from draftsman to junior partner in the firm of D. Adler & Company, and he became a full partner in Adler & Sullivan the following year. Their clients, early business buildings, and smaller commissions such as residences, clubhouses, and synagogues are discussed in Chapter 3.

Chapter 4 focuses solely on the Auditorium Building and its context, in time, in space, and in technology. It is the Adler & Sullivan building that customarily gets close study for several reasons: it was the first commission that made the firm worthy of national notice, it was innovative and difficult to design and construct, and finally because it still stands in spite of all attempts at demolition. The Auditorium was the key to the firm's national reputation for outstanding musical venues.

The quintessential innovation of the period--the tall office building--had roots in the 1870s and grew skyward from 1882 to 1895. Chapter 5 contrasts two of them built more than a decade apart--the Wainwright building in St. Louis and the Chicago Stock Exchange--and some other notable Adler & Sullivan buildings.

Chapter 6 describes the growth of the firm and the scope of its architectural practice at the time of its greatest success, from 1886-1895. It reviews the young men who were attracted to the office and went on to successful careers, and the 1893 World's Columbian Exposition and

its effects on American architecture and the firm. The chapter concludes with a note on the end of the partnership, a topic treated in more detail in Appendix C.

Chapter 7 documents changes in architectural practice in response to the commissioning of large and complex projects. Architects and engineers required new sources of information, such as professional journals, for which Adler wrote extensively. His thoughts and values, summarized in this chapter, mark him as a man of the late nineteenth century for whom Darwinism could be translated into social and economic realities. This chapter discusses the growth of the architectural profession--education and preparation, organization, professionalization, certification--and the crucial roles Adler played in each. In attempting to bring together like-minded professionals (the idea of a labor union was anathema to him), architects and engineers used the 1880s to expand and solidify their associations and to effect mergers of such organizations. Specialization marked the education and roles of architects and civil engineers in the 1890s and university education replaced apprenticeships. Adler's involvement in the major professional issues of the day, like licensure and federal competitions, was part of the movement to exercise greater control over entry into the profession, and to extend opportunities for independent practitioners to win lucrative government commissions.

The story of Adler's departure from and rapid return to architecture is told in Chapter 8. It tells of his search for business in New York City. D. Adler & Co., in its five years of existence, built a handful of buildings. His relationships with his son, Abraham, and E.L.Corthell and his unsuccessful attempts to drum up business in New York end the chapter.

Adler's sudden death in 1900 shocked his family and his colleagues. The tributes paid included an impressive eulogy by an eminent rabbi and the encomiums in the professional

journals of the time, both architectural and engineering. They are in Chapter 9, which also continues the story of the Adler family and what happened to the firm after the principal died.

Chapter 10 summarizes Adler's writings on several issues to which he made significant contributions: the design of theatres, building regulation and the development of foundations for tall buildings. Between 1886, when he saw his first piece in print, and July 1895, when he went to work for Crane, he authored 32 articles, some very brief. Thirteen were published between his leaving Crane and his death. Many were substantial pieces, including his contribution to the most important symposium of the decade. He was working on an encyclopedia article when he died.⁶ The final section of this chapter aims to place Adler's architectural theory in the social context of the late 19th century, and illustrates one of the author's core convictions: that architectural history is entwined with social history. (Much of this material had been placed in earlier chapters, in roughly chronological order. In my judgment, the arc of the book was better served by moving these materials to a separate chapter. Ed.)

Readers familiar only with Louis Sullivan's books and articles will doubtless be struck by their contrasting styles--Adler's cool and analytical style focused mostly on technical matters; Sullivan's fervid, colorful, and poetic style, dealing with the art in architecture and, later, with his views on education, his life and philosophy. Their respective writings immediately after they split in 1895 reflect the animosity that divided them as each pursued his own career; nothing documents the family's claim that a reconciliation did take place. Sullivan, however, was one of the pallbearers at the funeral and drew a commemorative portrait of Adler for the cover of a professional journal. (The author also intended to collect here writings that Adler left, some of them unfinished and most uncollected until now. That plan is partially fulfilled by extensive

quotations in the text. To the best of my knowledge, the materials she intended to include are in the Adler Archive at the Newberry Library in Chicago. Ed.)

Chapter 11 assesses Adler's critical reputation during his lifetime and after, and his impact on American architecture. It was the riskiest for the author but may be the most rewarding for the reader. Despite the lack of documentary evidence, I attempt to separate the contributions of each partner. Finally, I compare Adler's career with two other Midwestern architects, similar in background, to see how the twentieth century differed from the nineteenth and how opportunities and setbacks that one cohort encountered did not affect a later generation.

The corpus of buildings in Appendix A is complemented by the “Autobiography” in Appendix B. The Adler & Sullivan firm's architectural records no longer exist, which made it necessary to painstakingly recreate a catalogue of his works from many sources, all identified in Appendix A. Particularly useful has been the Richard Nickel archive of Louis Sullivan's work, in the possession of the Chicago architect John Vinci. (This list had been compiled by 1992, well before the publication of *The Complete Architecture of Adler & Sullivan*, cited in the editor's introduction. Ed.)

The autobiography was written in late 1894 or early 1895 for Schuyler's article in *Architectural Record*. It formed the basis for Hugh Morrison's very brief chapter on Adler in his monograph on Sullivan.⁷ The document is noteworthy for Adler's bemused tone and ironic comments on himself, his teachers and mentors. Adler, no spinner of romantic legends, provided a brief account of his life that emphasized his partner's contribution to their joint success. One can hear him chuckle as he describes his early training, especially his introduction to architectural history according to the idiosyncratic theories of John Schaefer. The essay contains

a sketchy inventory of the buildings he designed while with Edward Burling in the 1870s and a lengthy description of the engineering and construction details of the Auditorium.

Appendix C presents the author's paper on the end of the partnership, reprinted with permission of the *Journal of the Illinois State Historical Society*.

While the autobiography is singularly silent on his personal and family life, Adler's letters provide a wealth of information and illuminate the loving relationships between himself and his wife, children, parents, brothers, and sisters. There are some later letters regarding architectural politics and some wickedly funny correspondence with his brothers. Adler was close to his family, both literally and figuratively, and his relationships with them constitute the matrix of his life in which his career was an important element. In their pride in his achievements, the family preserved some of the most interesting artifacts of his life, including a sketchy diary written during adolescence, the aforementioned letters and autobiography, scrapbooks and a large clipping file. These materials, all in the Adler Archive at the Newberry Library in Chicago, were consulted extensively.

Dankmar Adler died in April, 1900. His tangible monument is a column from the Central Music Hall, which was torn down to make way for the new Marshall Field & Company building. But his real monument is his contribution to his profession, as Sullivan wrote:

Ideal thought and direct action should so compose the vital substance of our works that they may live, with us and after us, as a record of our fitness, and a memorial of the good we may have done.⁸

Adler's son Abraham attempted to carry on the practice, with his brother Sidney and Alfred S. Alschuler, but it flourished only briefly.

In Adler's life, an important event was his trip to the capitals of Europe while designing the Auditorium. The European influence on America--more specifically on Chicago

architecture--has been closely examined in *Chicago Architecture 1872 - 1922 Birth of a Metropolis*, edited by John Zukowsky.⁹ English, German, Austrian, and French interactions influenced the building arts in eastward and westward directions. From this process a new architecture was synthesized in which everyone benefitted and from which no one was immune. Publications crossed the oceans as did theories, techniques, ideas, and, very often, architects themselves.

The exodus began when native-born Americans went to study abroad: Richard Morris Hunt, Henry Hobson Richardson, Louis Curtiss, William LeBaron Jenney, Nathan Clifford Ricker, and Louis H. Sullivan. And it sometimes took the form of young men apprenticing in the United States under European-trained architects: Solon S. Beman worked for the Richard(s) Upjohn, father and son, and Dankmar Adler did a stint under Augustus Bauer. In the 1850s and in the post-Civil War decades, architectural education in the United States depended on imported faculty: from France came Eugene Letang (M.I.T.) and Claudius Crozet (United States Military Academy at West Point, New York). Then the University of Illinois sent the young Nathan Clifford Ricker to Germany in the 1870s and hired him upon his return to devise and teach the architectural curriculum.

There was so much traffic back and forth between the Midwest and Europe that sometimes it seems that only two architects were in Chicago minding the store: Dankmar Adler, who couldn't go, and Frank Lloyd Wright who wouldn't go. Adler's family was far too poor to have sent him to study abroad and Wright was far too proud and wary to accept "Uncle Dan[iel]" Burnham's offer to send him to the Ecole des Beaux Arts. But there were other options and both architects seized upon them. Adler and Wright (albeit almost 15 years apart, with different motivation, and in different circumstances) did see European buildings. And vice versa, as

European architects were attracted to Chicago by the 1893 fair, some attended in person and others read about the "White City" in British, French and German publications.

Now is a particularly propitious time to assess Dankmar Adler's career because there is a burgeoning literature on Chicago architecture, planning, technical and social history. Some material has already appeared in print; other essays and catalogues will be published in the near future. Thirty-five years ago, Carl Condit provided a model of architectural history that must be addressed, and addressed it has been in recent publications that emphasize the European and the American contexts. He wrote about the roots of Chicago architecture and engineering, and the economic and social factors that shaped the "Second City." In 1996, Sarah Bradford Landau and Condit examined the New York skyscraper in a book best described as revisionist.¹⁰

It is therefore necessary to look anew at Dankmar Adler, and it is possible to do so because most of his work has been documented and photographed. Despite the loss of the buildings, the firm's records, and most of his correspondence, much survives.

Today, architecture and architectural history flourish in Chicago. Every major museum has architectural exhibitions; most have permanent curators. Two Chicago foundations support architectural study and research, and civic architecture is frequently a public issue. Many universities have schools of architecture and, of those that do not teach design, some offer architectural history. Chicago architects are building around the world, and the Society of Architectural Historians headquarters was moved to Chicago in 1995.

But the picture is not all optimistic. Of all the buildings that Adler and Adler & Sullivan built in Chicago, only 16 percent still stand. St. Louis has three of the original five structures and New York State its Guaranty Building (and the Bayard Building by Sullivan alone.) The Art Institute of Chicago has the Trading Room and the Metropolitan Museum a staircase from the

Chicago Stock Exchange. A large collection of ornament is owned by Southern Illinois University at Edwardsville, about 275 miles from Chicago.

Adler was aware of this demolition process because it began during his lifetime:

Four of these [early buildings by Burling and Adler] have since been demolished and replaced by modern "skyscrapers," two of them by myself, one by Mr. Henry Ives Cobb and one by Mr. Burnham. The others will probably follow in the course of the next two decades.¹¹

But the process has greatly accelerated in the past four decades. The struggle to preserve Adler's buildings, many of them meriting landmark status, has often been too little, too late. High regard for our architectural heritage is usually posthumous, a building praised only after it's buried.

Louis Sullivan said: "If you live long enough, you'll see all of your buildings torn down, but after all, it's really the idea that counts."¹² But for Adler, the idea was inseparable from the building.

¹ Dore Ashton, *Out of the Whirlwind: Three Decades of Arts Commentary*, (Ann Arbor, MI: UMI Research Press, 1987): p.309;

² John Root, "Architects of Chicago," *Inland Architect and News Record* XVI (January 1891): 92.

³ Dankmar Adler, "Autobiography," p. 4

⁴ Louis H. Sullivan, *Autobiography of an Idea*, (New York: Press of the American Institute of Architects,) 1926; Hugh Morrison, *Louis Sullivan: Prophet of Modern Architecture*, (New York, W.W. Norton, 1935); Robert Twombly, *Louis Sullivan: His Life and Thought*, (New York, Viking, 1986).

⁵ Dankmar Adler, "Autobiography," (Typescript, Dankmar Adler Archive, Newberry Library, ca. 1895) p. 4. A brief history of Dankmar Adler's training and career was written in early 1895, probably for Montgomery Schuyler's "Architecture in Chicago: Adler & Sullivan," *Architectural Record Supplement*, (Dec. 1895): pp. 3-48. For a complete text of the brief document, see Appendix C. The document will henceforth be called the "Autobiography," and pages will be numbered as they are in the Appendix copy.

6. Lewis Mumford, *Roots of Contemporary American Architecture*. New York: (Reinhold, 1952): pp.

⁷ Hugh Morrison, *Louis Sullivan: Prophet of Modern Architecture*, (New York, W.W. Norton, 1935.)

⁸ Louis H. Sullivan, "Characteristics of American Architecture," 1885, *Louis H. Sullivan: Public Papers*, ed. Robert Twombly, (Chicago: University of Chicago Press, 1988): p. 8.

⁹ John Zukowsky, ed., *Chicago Architecture 1872-1922: Birth of a Metropolis*, (Munich, Prestel Verlag, 1987).

¹⁰ Carl W. Condit, *The Chicago School of Architecture*, (Chicago: University of Chicago Press, 1964); Sarah Bradford Landau and Carl W. Condit, *The Rise of the New York Skyscraper 1865-1913*, (New Haven: Yale University Press, 1996).

¹¹ Dankmar Adler, "Autobiography," p.5.

¹² Louis H. Sullivan quoted in Joan W. Saltzstein, "College Club Lecture" April 22, 1983 (Adler Archive, Newberry Library).

CHAPTER 1: EARLY LIFE

ADLER'S BEGINNINGS

Dankmar Adler was born at Stadt Lengersfeld near Eisenach, in Saxe-Weimar, Germany on July 3, 1844. His father, Liebman, was a teacher in the government-supported school and cantor in the synagogue. The son and grandson of rabbis who, by the mid-nineteenth century, were longtime residents of south central Germany, Liebman Adler was born January 8, 1812. As the youngest of eight children of Rabbi Judah and Mrs. Bess Loeb, he received the most attention and affection and grew up with a positive disposition. He was broadly educated, starting to study at age with his father at age four and continuing through the regional seminary for training teachers for Jewish schools. He championed education his entire adult life.¹

Liebman courted the much younger Sara Eliel of nearby Nenterhausen, being simultaneously her suitor and her teacher. Her formal education was brief because she had to tend to her younger siblings and the household's domestic duties; but Adler wrote her letters about poetry and literature, as well as love. His family regarded the Eliels as their social inferiors because of their occupation as tanners but Sara won over Adler's parents and they were wed September 5, 1843. Less than a year later, Sara Eliel Adler gave birth to a healthy baby boy who would be called Dankmar, a popular name at the time. The couple's plans for the future were cut short when Sara died at age 23, when the baby was six days old. She was buried in the local Jewish cemetery.

Dankmar nonetheless had a happy childhood, cared for first by Liebman's sister, Betty, and then by his stepmother, Zerlina Picard. She brought to the match a trade—she was a

milliner—and a commitment to raising Dankmar, to whom she was devoted and whom she favored because of his early loss. The Adlers had several more children, causing them live in increasingly straitened circumstances. Nevertheless Liebman wrote to his brother Henry in Cincinnati in 1852: “as far as I am concerned I am still staying here at Stadtlengsfeld and I will, in all probability, also conclude my days.” The plight of Jews further deteriorated as laws were enacted limiting Jewish marriages. The migration that began as a trickle in 1848, doubled in 1853, tripled in 1854, and crested at 215,000 Jews in 1854. The push came from the terrible economic and political conditions, and the pull came from America’s reputation as *die goldene medinah*--what Rabbi Adler called “the only bastion of liberty with a new spiritual dimension”²

Like other ethnic groups, Jewish families worked hard to bring siblings and parents, even grandparents, aunts, uncles, and cousins, to America. Jews resembled other immigrant groups in they sent for their families; people from the same villages settled in the same towns or urban neighborhoods. But one characteristic was unique to Jews: for most, the journey was a one-way trip--they never went back to Europe. Whereas members of other ethnic groups frequently went back when they had saved enough money to buy a farm or start a business, Jews stayed. So commonplace was the Jewish journey to the New World that the prayer book for travelers crossing the sea went through four editions by mid-century.

The Adler family joined the exodus and arrived in New York City in 1854 when Dankmar was 10 years old. Liebman Adler’s first permanent job was in Detroit as a rabbi. Beth El then was a small congregation meeting in rented space. All they would pay was \$360 annually, arguing that it was a reasonable amount, given the number of fast days on which he would not be eating. The Adlers moved into a modest house on Fort Street, and Liebman assumed the

multiplicity of tasks that was the work of a rabbi at the time: preacher, cantor, teacher, ritual slaughterer, *mohel* [ritual circumciser] and legal expert. Because of his belief in equality, he was active in the political sphere, giving sermons and making public statements on abolition, and later supporting the Republican Party because it opposed slavery.³

The most rewarding of his activities was as principal and teacher of the Beth El school. Most synagogues established elementary schools that offered both secular and Jewish studies, and Dankmar and his siblings attended the Beth El school which met in the Adler house. Hebrew studies included reading and translating the Bible, grammar, and history; on the secular side, reading, writing, arithmetic, spelling, composition, music, and German were taught. Soon after Liebman's arrival, the congregation sent him to Cleveland for the first rabbinical conference ever held in the United States. One agenda item was synagogue-based elementary schools to which there was considerable opposition. Hence, by 1860 most had closed, and Jewish children were sent to public schools.⁴

EDUCATION IN MICHIGAN

A year after his bar mitzvah, Dankmar Adler was described as being "almost as tall as his father, filled-out, healthy and strong." A diary he began to keep during his years at the Barstow School is one of the few artifacts remaining from his early life. It contains his grades, which show him to have been a good student; and a list of books he borrowed with a ratio of books in the library to those he read. Some sketches of the school and "the Great Seal of D. Adler," one captioned "Dankmar Adler alias Dr. Puff Stuff," are the earliest examples of his draftsmanship.⁵

Ann Arbor Union High School had an impressive curriculum when Adler matriculated. The college track included Latin, Greek, algebra, geometry, and natural philosophy. It was the most expensive high school in the state but it virtually guaranteed admission to the University of Michigan, which was highly regarded. Adler was a good student so it is all the more remarkable that he was not admitted to the University of Michigan, especially in light of the excellent preparation he had had in high school. Moreover he was the only male student in his class of eight men (and three women) who was rejected.⁶

He described his busy schedule in "how I spend my time", from which it was apparent that he had very little leisure. Up at 5 a.m., he washed and dressed; studying between 6 and 7 a.m., followed by breakfast. In the afternoons he tutored the children of the family in exchange for room and board, and in the evenings, he returned to his own studies.⁷

Adler could not have been pleased to return to Detroit as a failure, but by the time he wrote his brief autobiography at the age of 51, he narrated the episode in his by-then familiar ironic tone. [I] "undertook to prove to the professor that his use of exponents ... was not in accordance with [my] matured ideas of mathematical proprieties." Professor DeVolson Wood, who was Adler's examiner, seeing no humor in the situation, failed him.⁸

One advantage of being the rabbi's son was the willingness of Beth El congregants to facilitate his entry into the business world, but Adler's "unsatisfactory apprenticeship in the banking, exchange, and shipping business ... succeeded in proving [his] unfitness for mercantile pursuits." Since the young man had shown "much inclination and some aptitude for architectural work" his family supported this interest by having him study freehand drawing with German born sculptor Julius Melchers, father of a renowned painter, Gari Melchers.⁹

Dankmar Adler gradually moved into an architectural and engineering career path only after failing at other pursuits. His first instructor was John Schaefer, who had been an engineer with the Detroit & Milwaukee Railroad, and a draftsman under Albert H. Jordan. Jordan was especially noted for his well-designed churches, all quite sophisticated edifices revealing some eastern architectural training and great skill in both design and construction.

Mr. Schaefer, my new master, gave me quite a thorough training in “The Orders” and in architectural ornament chiefly Romanesque and Byzantine in tendency, and undertook to teach me the origin and history of architectural styles. Among his teachings was one to the effect that our ancestors in erecting buildings devoted to the worship of God, designed them in a manner or style intended to illustrate by an upward tendency of lines of structure and ornament, their aspirations toward God, and that the style so developed was therefore called “Goddik.” He also favored me with continuous series of conversational lectures upon the ethics of the architectural profession as understood and practiced by him, and I fear by many of his contemporaries. This code may be summarized as a glorification of self, and a general and indiscriminate denunciation and vituperation of every other claimant for professional honor or position.¹⁰

One of the few documented Schaefer buildings was Temple Beth El's second home, which he converted from a church shortly after the Adlers moved to Chicago.

After Adler left Schaefer he was hired by E. Willard Smith for whom he had great praise:

I was introduced to a systematic study of architectural history and of the philosophy of architectural design, as also to neatness and finish of rendering of drawings and water colors. Under their guidance I worked indefatigably, often twelve and sixteen hours per day, and laid the foundation of whatever actual knowledge of my profession I may have acquired.¹¹

Congregation Beth El was riven by a schism, as were most pioneering congregations in cities with growing Jewish populations. More traditional members were dissatisfied with certain practices that met with approval from more liberal members, leading to a separation. The church building the congregation purchased to remodel in early 1861 came too late to keep the rabbi. The Adlers moved to Chicago in May 1861 where Rabbi Adler accepted the pulpit of Kehillat

Anshe Maariv at an annual salary of \$1,200. His oldest son was then 17 and he, too, moved to Chicago, but he found “absolute stagnation of business in the offices of all the architects” and no opportunities for young draftsmen.¹²

ABRAHAM KOHN

Jewish Chicago began to coalesce in 1847 when Abraham Kohn, a Bavarian immigrant, started a *minyan* [prayer quorum of ten men] which met in his home. He was born in Moenichstroth, Bavaria in 1819, one of six sons and a daughter in a pious family. Abraham and his brother left home in mid-June 1842, setting sail from Bremen on July 12, and arriving in noisy, congested, and frenetic New York City September 3. Without any capital, he turned to peddling, which also had its costs, monetary and otherwise: a \$100 license, the necessity to work on the Sabbath, extensive plodding, persuasive pleading, and uncertain lodging. He wrote in his diary that his vision of a better life included a congregation to pray with, time to put on phylacteries to gather with friends from home, and to eat kosher food. He criticized Americans as lazy, materialistic, inhospitable people who went to church for the sake of fashion, not salvation. He was especially bitter about millinerians, specifically the Millerites who lived in his New England territory awaiting the end of the world on April 20, 1843. They didn’t need a peddler. Kohn confided to his diary that he should have stayed in Europe. His only hope, which he expressed most dramatically in Biblical terms, was that as God had guided the Israelites through the Exodus, he, Abraham Kohn, would be guided to a better life by the same benevolent force.¹³

Abraham Kohn would have advised his fellow German Jews not to come to America, but he could not allow himself to disillusion his family. He and his brother left New England and came to Chicago in 1845, an odd but fortunate choice; odd because of his often-stated antipathy to harsh

winter weather, fortunate in that he was an immigrant among immigrants in a frontier city where they were needed.

Kohn and his brother opened a clothing store which enabled them to bring their mother and remaining siblings from southern Germany. For his mother's sake, Abraham went to New York City and returned with Ignatz Kunreuther, who served the Chicago Jewish community as an all-purpose religious functionary (rabbi, cantor, ritual slaughterer and *mohel*) and led the first congregation, Kehillath Anshe Maariv [KAM]. A Jewish cemetery predated the synagogue and in the decade before the Civil War Chicago could boast of a well-established Jewish infrastructure, including the Hebrew Benevolent Society (1851) and a B'nai Brith lodge (1857)¹⁴

KAM's monopoly ended in 1852 when forty reform-minded members seceded and organized B'nai Sholom. In 1861 Sinai Temple was established, also largely by people leaving KAM. Two other Reform congregations that formed in the nineteenth century and took members from the older temples were Zion Temple and Isaiah. The proliferation of congregations reflected the growth of the community, preferences for various degrees of traditional practice, and a growing ability to support congregations, pay their rabbis and build buildings.

Abraham Kohn was very happy to stop roaming, marry and settle down in Chicago, where there were large numbers of Germans and increasing numbers of Jews. He became active in civil society, serving as city clerk under Mayor "Long" John Wentworth (1857-1858) and was, like Rabbi Adler, an advocate of abolition and an admirer of President Abraham Lincoln.

Abraham Kohn was a fortunate man. He knew what it was to suffer, and he learned how it was to prosper. He began his life in a Germany that held little promise for Jews, and he ultimately came to Chicago at a time when immigrants could aspire to economic and political equality. His

odyssey teaches about Jewish success in the New World, about the attachment of post-Enlightenment Jews to tradition and history, and about Chicago as a place of pluralism and opportunity. And he figured importantly in Dankmar Adler's life; Adler married Dila, daughter of Fannie and Abraham Kohn.

Dila was plump and attractive woman who loved the arts--poetry, music, painting, and architecture and disliked travel. Her exceptionally close-knit family was shattered by the sudden death of Abraham Kohn at the age of 52 in March 1871. Dila and Dankmar wed early in 1872 and soon became parents.¹⁵

The Adler family moved into their new home at 39 W. Van Buren, and Dankmar was soon looking for a job in an architect's office. In contrast to Louis Sullivan, who said he acquainted himself with the architecture of his potential employer and chose his job based on his appreciation of the designs, Adler did not say how he chose his employer or how Augustus Bauer chose him.

AUGUSTUS BAUER

Augustus Bauer was born near Frankfurt am Main, on June 16, 1827, the son of a university professor, and was graduated from the *Darmstadt Kunst-und Gewerbeschule* in 1850. Jobs were scarce so he moved to New York, where he apprenticed under Jonathan Snook, known for old Grand Central Station of the 1860s. The New York Crystal Palace of 1852—renowned for Elisha Graves Otis's demonstration of the elevator—provided many jobs for architects, and Bauer worked for the building's designers, Carstensen and Gildemeister. But post-fair competition for commissions was fierce in New York and Bauer headed west, settling in Chicago

in 1853 and entering into a partnership with Asher Carter. The Depression of 1857 made it a struggle initially, but in the 1860s business improved. Bauer prospered, married, started a family and purchased a house on the North Side. Bauer left his mark on Chicago with Old St. Patrick's Church (1852/5 - extant) at 140 South DesPlaines, the Illinois Central Railroad Depot [with Otto Matz], a synagogue and some commercial buildings. The partnership with Carter was terminated in 1866, and he then paired up with another German-born architect, Robert Loebnitz. Between 1871 and 1881 he was in solo practice, and in the late 1880s Henry W. Hill joined him. As a member of the Chicago Board of Education, Bauer was well positioned to oversee school architecture and he designed several school buildings.

He brought to Chicago a thorough grounding in German architecture and engineering, and an appreciation of "varying depths of surface" and "beautiful proportions ... delicate ornament and American motifs." Adapting the *rundbogenstil* to Chicago's needs was one part of his legacy, and another was the role he played as president of the newly formed Illinois Institute of Architects. In 1857 he drew up the Code of Business Practice and served as president of the Chicago chapter of the American Institute of Architects [AIA] from 1879 to 1886.

Adler worked in Bauer's office from mid-1861 to July 1862, and again from August 1865 to early 1866.

I enjoyed great opportunities for observing the highest possible development of the economics of office management ... but I never profited by what his example should have taught me. I did however learn to appreciate directness of method in design and thoroughness in construction.¹⁶

Adler's experience with Bauer stood him in good stead for his whole career, because unlike Louis Sullivan and Frank Lloyd Wright, he always paid attention to costs as well as to

creativity. He credited Bauer with providing him with the proper perspective, "a hardheaded practical way of looking at things," and throughout his career, he was known for managing the business side of the office with great skill. Bauer's lasting legacy was Adler's sustained involvement with organizations that put architecture on a professional footing. When Adler worked in his office before the Civil War, fewer than a dozen architects practiced in Chicago. By the end of the next decade there was a professional organization—the Chicago chapter of the American Institute of Architects and in 1882 it was joined by a new and vigorous group: the Western Association of Architects.

DANKMAR ADLER: SOLDIER

In 1862 the outcome of the Civil War was much in doubt. Adler had long been exposed to the abolitionist views of his family and his teachers and when the cause turned into armed conflict he enlisted in Company M, First Regiment, Illinois Light Artillery, serving in campaigns of 1862, 1863, and 1864. When Dankmar Adler entered military service, he was a striking looking young man "18 years of age, 5 feet 6 inches tall, dark complected with black hair, and grey eyes." He listed his occupation as "draughtsman" on his enlistment form. As an artilleryman he had "opportunities for stealthily carrying extra baggage in ammunition chests and availed [himself of the opportunity thus afforded [him] for carrying quite a number of scientific and historical books, the unrighteous spoil of various southern homes." He alluded to danger, fatigue, and hardship but downplayed his injuries. In fact, he was often in the thick of the action in major battles at Chattanooga (Tennessee), Lookout Mountain (Georgia), and Chickamauga (Mississippi) where he

was wounded, leaving him with a slight limp. Being a military man also affected his demeanor and his speech was “sulphurous”-- according to a young cousin.¹⁷

He was promoted to corporal in the Topographical Engineers Military Division of the Tennessee in 1864, where he gained useful experience as an engineer under Milo D. Burke. Burke, three years Adler's senior, was born in Ohio and educated at Oberlin College but left before completing his degree. He enlisted in 1863 and was assigned as chief engineer to General George Thomas's headquarters. Burke's division was assigned to develop rail transportation and solve logistical problems for General Sherman. Thomas Tallmadge, a younger Chicago architect, credited Adler with designing bridges for Sherman's “March to the Sea”. This was probably an exaggeration, but bridge-building skills served him well in the design of the Auditorium Building. He was discharged on July 24, 1865, shortly after the war's end.

Adler's prewar apprenticeship in Bauer's office must have been satisfactory because he returned there. But his stint was cut short by Bauer's sneers at his military career, which Bauer thought was a waste of precious time. “Bauer,” Adler wrote, “hurt [my] patriotic *amour propre*” because he believed that he had benefitted greatly from his military service. “When discharged from the army in August, 1865, I had made good use of my time and was nearly as well equipped for my life work, as if my studies had been pursued at home.”

The Civil War was a turning point for Dankmar Adler as it was for the United States. He metamorphosed from draftsman to architect and engineer. He entered the army as a green apprentice, became a foreman, and later attributed his managerial success to “the knowledge of men which my army life had given me.” His competence in financial and personnel matters began to develop in the army and so did some of the affiliations that would last a lifetime, such as

his membership in the Union League Club and in the veterans association of the Headquarters Battery, First Illinois Light Artillery. Military service broadened his horizons, educated him to the diversity of America, strengthened his patriotism, and tested his courage. He had risked his life in order to extirpate slavery and protect the Union, and when Augustus Bauer denigrated the value of Adler's experiences, the young man sought employment elsewhere.

While Adler was away at war, Chicago grew and prospered. The town of 13,000 people in 1850 became a city of almost 250,000 in 1865. Processing food and producing clothing for the Union Army were the beginning of Chicago becoming a manufacturing center. Before the war, the country's natural transportation routes were north-south on the large rivers that bisected the nation. Raw materials were shipped north for manufacturing, and finished goods were shipped south to markets. This traffic was interrupted by the conflict and east-west routes rapidly developed. In a very short time, transportation and communication routes grew between Chicago and the West, and Chicago and the eastern metropolises.

O. S. KINNEY AND ASHLEY J. KINNEY, 1866-1871

The Adlers had grown to a family of 13, living at 32 West Quincy Street and needing the income provided by the oldest children. Dankmar entered the newly-established practice of Ozias S. Kinney and his son, Ashley J. Kinney, on the south side of the city. Some young draftsmen newly-arrived from Germany were in the office when Adler joined them in early 1866. Kinney had "quite a large practice as architect of churches, school-houses, and court-houses, chiefly in the Western Reserve, in Northern Indiana and in Central and Northern Illinois." Adler cited some of their work: the Second Presbyterian Church at LaPorte, Indiana; the First Presbyterian Church,

Freeport, Illinois; and the LaPorte Waterworks. Adler quickly rose to become the chief draftsman, and when the elder Kinney died in 1869, Ashley Kinney and Dankmar became partners.

As chief draftsman Adler had performed many tasks, among the most important the training of apprentices. He aided in the Americanization of young immigrants who joined the firm with little fluency in English and inadequate preparation in mathematics. Adler later recollected that he had tutored algebra and geometry—this was the same man whose mathematical skills had prevented his acceptance at the University of Michigan—and taught English to new immigrants, whom he described as "not on speaking terms with the English language."

Frederick "Fritz" Foltz was about Adler's age and had been a practicing architect in Germany. A dearth of commissions led him to emigrate first to New York and then, early in 1866, to Chicago. After a period in Kinney & Adler's office, he formed a partnership with Samuel Treat that would last for twenty-two years. Adler remembered him as "positive, blustering, genial and clever."

Fritz Waescher, whom Adler described as "plodding ... a stern and unflinching martinet", joined Kinney's office around the same time. Fritz Foltz sang in the Grace Church choir and the Germania Men's Choir, which staged Mozart's *Zauberflöte* at the Crosby Opera House. Waescher was in the rival Concordia choir and performed in Carl Maria von Weber's *Der Freischütz*. Chicago was not only a German city but also one that loved opera. Adler's early reputation rested upon his music halls, theaters, and opera houses.

The assimilation of the young draftsmen was expedited by Saturday afternoon baseball games played at Prairie Avenue and 30th Street. These games attracted young apprentices and novices from almost every architectural office in Chicago: Jack Flanders (of Charles Furth's office);

B. Schaidtner (of George B. Post's office) and “a couple of fellows from William Boyington's practice.” On Sunday mornings, they met as a sketch club.

At the time of the senior Kinney's death, several unfinished commissions remained in the office. Kinney & Adler built the First Methodist Episcopal Church in Kalamazoo, Michigan (1869-1926) and the Wilcoxon Opera House in Freeport, Illinois (1869-1955), a commission that resulted from the success of their earlier church. The Kalamazoo church, which cost \$50,000 (\$877,000 in 2014 dollars), was dedicated on September 12, 1869; a tower was added in 1873. The church is in the German *Rundbogenstil*, with an elaborate corbel table and a tall facade window crowned with a rose window, flanked by bays with doors topped with keystones.

The Freeport opera house (fig 7) was of a building type at which Adler later excelled--a combination performance space and a commercial building whose rents were to offset the operating costs. The music hall, located on the third and fourth floors, was 60 by 50 feet, and held 800 people. Its frescoed interior drew lavish praise in the local press. The stone and brick exterior was characteristic of its time and the cutaway corner entrance was a feature that Adler later used in the First National Bank and Chicago Tribune buildings. Incised piers and a heavy cornice constituted the ornament on a building that appeared heavier and more somber than its neighbors.¹⁸

In his autobiography, Adler discussed at length the Main Building (1870-1901), at Wooster College in Wooster, Ohio. It contained the Kauke Chapel and was the college's most impressive building. Old Main, as it was later called, was a five-story brick and stone building with a projecting entrance tower capped with a mansard roof topped with a roundel and belvedere. O.S. Kinney had already had a reputation in Ohio, which is why the agent of the college, Dr. Henry True,

went directly to the Kinney & Adler office for the new building. Their design required a large truss to support the rooms above the open span of the lecture hall/chapel. It was Adler's first opportunity to use the engineering skills he learned in the army and he noted that "we arranged the matter somehow," and that the truss was still carrying its load thirty years later.¹⁹

Ozias Kinney's death in 1869 orphaned Ashley but he and Dankmar could turn for advice to a neighbor in the Oriental Building at 10 North LaSalle Street, Henry Gay. In his reminiscences, Adler twitted him as having not yet "become a Lord"—he would later call himself Henry Lord Gay. He had the advantage of a sojourn in Europe and extensive training under Sidney Mason Stone, a one-time student of Ithiel Town. Gay came to W. W. Boyington's office in Chicago in 1867 before starting his own practice. He and Adler shared their hopes and aspirations and expectations--early on they had a lot of time on their hands--and undoubtedly consulted with each other on their problems as well.

Adler and Kinney went their separate ways in January, 1871, and Adler joined the office of Edward Burling, "then an architect of very high standing at Chicago"²⁰

¹ *Liebman Adler: His Life Through His Letters*, ed. Joan Saltzstein, Milwaukee: 1975

² Ibid.

³ Irving Katz, *The Beth El Story*. Detroit: Wayne State University Press, 1955

⁴ German Judaism underwent tremendous changes in the 1840s and 1850s, and Liebman Adler adopted some of the innovations. He was tolerant of the diversity of opinion and practice even in his own household, especially the determined orthodoxy of his son Abraham. *Liebman Adler: His Life*.

⁵ Marcy-Barstow Banquet," *Detroit Times*, 19 Feb. 1904, p. 4. Unpublished holographic diary, Adler Archive.

⁶ Anna L Clinton,. "History of Ann Arbor Public Schools." Ann Arbor, 1951; Jonathan Marwil, *A History of Ann Arbor*, Ann Arbor Observer Co., 1987; pp.33-34.

⁷ Helen Aminoff, "The First Jews of Ann Arbor" *Michigan Jewish History* 23 (January 1983): 3-14.

⁸ Dankmar Adler, "Autobiography," Adler's letters and papers are in the Special Collections department of the Newberry Library, which will be referred to as the Adler Archive. A copy was provided by Sara Adler Weil to the author, June, 1963; It was written for Montgomery Schuyler's "Architecture in Chicago," *Architectural Record*, Dec. 1895, p.14; A longer biographical sketch was included in Hugh Morrison's *Louis Sullivan: Prophet of Modern Architecture*, New York: W.W. Norton, 1935, pp: 283-93

⁹ <<http://www.groveart.com/shared/views/article.html?section=art.056629#art.056629>>
Joseph Dreiss, *Gari Melchers: His Works in the Belmont Collection*. Charlottesville VA: University of Virginia Press, 1984, p. 1.

¹⁰ Dankmar Adler, "Autobiography"

¹¹ *Ibid.*

¹² *Ibid.*

¹³ . Abraham Kohn, "Reflections of a New England Peddler," *Memoirs of American Jews*, ed. Jacob Rader Marcus, v. 2, (Philadelphia: Jewish Publications Society of America, 1955): pp. 1-4. I. Kopeloff, "First Days in America," *Voices from the Yiddish: Essays, Memoirs, and Diaries*, ed. Irving Howe and Eliezer Greenburg, (New York: Schocken Books, 1975): p. 194.

¹⁴ Abraham Kohn, "Reflections of a New England Peddler," in Jacob Rader Marcus, *Memoirs of American Jews, 177-1865*, v. 2. Philadelphia: Jewish Publication Society of America, 1955: pp. 1-21; Hyman Meites, *History of the Jews of Chicago*. Chicago: Jewish Historical Society of Illinois, 1924, pp.

¹⁵ Interview with Sara Adler Weil, Chicago, June 1962.

¹⁶ "Autobiography,"

¹⁷ Jeannie Gerstley,

¹⁸ Freeport newspaper.

¹⁹ Autobiography

²⁰ Autobiography

CHAPTER 2: FROM BURLING & ADLER TO D. ADLER & COMPANY

Chicago had existed for almost 35 years when Dankmar Adler and Edward Burling (1819-1892) became associated in 1871. New York was larger but by the time they became partners, no other city had grown as rapidly or reached a comparable level of size and sophistication. “Paris on the prairie” was a local jest and many looked to the Baron Hausmann’s French capital as a model for their city’s future expansion.¹

Plum commissions went to prestigious East Coast designers--Richard Morris Hunt for the Marshall Field mansion and Henry Hobson Richardson of Boston for John Glessner’s house on Prairie Avenue, although his design is Romanesque, a very different vocabulary than Hunt’s.²

Hunt was the first American to go to the *École des Beaux-Arts*. The diploma bestowed a special cachet on those who studied there and differentiated them from their fellow builders. It also provided an imprimatur to the styles with which they became identified. Richardson, although he died young, became the most famous architect of his time. His Chicago buildings were few in number but mighty in influence. Many lingered in his shadow that in authority and in avoirdupois was gigantic and enduring. His 1873 American Merchants Express Building (fig. 9) showed a continental influence. A six-story building with heavy lintels, a dentil stringcourse oddly placed above the second story, a mansard roof with boldly decorated dormers and a lacy iron parapet, it owed nothing to the Romanesque style that the architect so brilliantly used later in Chicago and Boston. In fact American Merchants tended more toward Gothic than

Romanesque in its ornamental vocabulary. Dankmar Adler became one of his many admirers but more for his Romanesque buildings of the 1880s, like Glessner House and the Marshall Field & Company Warehouse, than for this 1873 building.

In the 1850s there had been brisk building activity on the main commercial streets. The first in Chicago to sport such a facade was the Robbins Building, and, surprisingly, a few still survive over a century later.³ Louis Sullivan (fig.10) wrote a valuable description of the prototypical Chicago commercial building of 1860s. Frederick Baumann improved on this type of building by introducing isolated footings that permitted thinner walls, thus yielding more interior space.⁴ Most of the components of tall office buildings were unknown in the post-Fire decade. The only elevators were of the horizontal hydraulic type, fireproofing was primitive, and plate glass still had to be imported from Europe. There was not a steel-framed structure in the entire country. A decade later, in 1883, all of these features-- improved foundations, safe vertical elevators, sophisticated fireproofing, and locally produced glass--were in use,. But important tools such as the blueprint and the hectograph were still unavailable. Instead, architects relied on tracings that, as Sullivan stressed, were time-consuming to produce and quite fragile.

ADLER'S PREDECESSORS AND THEIR BUILDINGS

Like Burling and Adler, most early builders on the Chicago scene were uncredentialed. They were experienced craftsmen, carpenters or to use a term popular in the early 1800s, housewrights. Between 1872 and 1879 more than 10,000 building permits were issued, and the

value of construction completed between 1872 and 1889 was \$316,220,000 (\$9.3 billion in current dollars). The building industry thrived in two decades of sustained population and economic growth; architects and engineers shared in the expansion.

One building that survived the Great Chicago Fire was the Nixon Building that had a cast-iron frame with a veneer of concrete and plaster-of-Paris fireproofing covering the iron. It was an influential step towards scientific protection. Dankmar Adler and his first partner absorbed the lessons of the Fire, as did Peter B. Wight, George N. Johnson and Sanford Loring, who "coupled an English material [terra cotta] with French theory [metal cladding] to solve an American problem [skeletal deformation under intense heat]."⁵

EDWARD BURLING

Adler reported in his autobiography that he left the Kinney partnership and "formed one with Mr. Edward Burling, then an architect of very high standing at Chicago."⁶ He did not say why he chose Burling or why Burling chose him, first as his chief draftsman (1871) and then as partner (1872). It proved to be a productive and lucrative relationship.⁷

In the 1850s Burling had been associated with Augustus Bauer and Frederick Baumann. The *Chicago Tribune* described his work as having "solidity and thoroughness in construction, elegance and simplicity of design, the avoidance of frippery and vulgar ornamentation and above all things, adaptation to [their] purpose."⁸

Even before the Great Chicago Fire, Burling had built some of Chicago's most important buildings. After the conflagration that destroyed most of the city, he had more work than he

could handle alone. He took Adler on as chief draftsman and turned some of the work over to him. The fire of October 1871 destroyed most everything that Burling and others had built; it had to be rebuilt, and some of it redesigned as well. Burling & Adler, in a single year, were reputed to have built 100 buildings with 8875 feet of frontage that were valued at \$4,022,000 (over \$77million in 2014 dollars).⁹

Burling & Adler's homage to Paris of the 1860's and 70's was the Illinois Eye and Ear Infirmary (fig. 8) built at Adams and Peoria Streets in 1874. Burling designed it and it remained in use for almost a century. With polychromy, mansard roof, and the *savoir faire* of a man wearing a beret, it proclaims itself to be in the mainstream of French trends in architecture.¹⁰ The Palmer House, a 225-bed, \$200,000 (over \$3.8 million in 2014) commission completed in 1871 by John Van Osdel was likewise in Second Empire style:

"five-part facade, usually of stone, carrying an elaborate bracketed cornice often topped by a mansard with pavilions at the center and the corners. The facades were distinguished by a mixture of arched and linteled windows of several sizes, variations in floor heights, and a plethora of pilasters and columns."¹¹

Burling & Adler's clientele consisted of men who had come to Chicago with little wealth in the two decades before the fire and lived near the city center in modest Italianate houses. In the aftermath of the Civil War and Great Chicago Fire, those who grew substantially wealthier relocated to the north side where land was abundant and where they could invest in handsome new houses in a congenial neighborhood. Many were in banking and real estate, members of the same clubs, or related to each other through marriage. It was a homogeneous group. Of the half dozen residences mentioned in Adler's autobiography, most were on the newly fashionable

North Side, some were even north of Division Street. Clients' favorite streets were LaSalle and Dearborn. Burling designed churches in the same area for congregations that numbered among their congregants several of his residential clients. Burling & Adler houses were stylistically derivative, but they were securely built, well finished and within the amount budgeted. Adler's autobiography leaves little doubt that the great majority of these clients were Burling's and that Adler found their association productive. (John Edelmann, who later introduced Louis Sullivan to Dankmar Adler, was in the Burling & Adler office at that time. He is thought to have designed some of the houses.¹²)

One of the projects that Burling & Adler worked on after Adler was promoted to partner was the Chicago City Hall competition in 1873. The anonymized submission was code-named "Fitness and Economy." Their design was an exuberant pile with corner bays capped with mansards, and domes above the main entrances, one with a bell tower and the other with a clock. Projecting lintels surrounded the windows of the upper floors, while segmented arches defined the ones on the main floor. The firm did not win--politics did.¹³ The *Chicago Times* critiqued their submission as "cheap, insecure, and despicable," a third-rate plan for a \$2.5 million building. More serious were the charges that the partners attempted to bribe a *Chicago Times* editor to receive better publicity. The *Chicago Tribune* reported the story after meeting with Adler. One of Burling & Adler's young draftsmen, J. J. Flanders, whom Adler described as "the sole support of a family of brothers and sisters," offered the city editor of a newspaper \$500 without consulting either of the partners. This ethical breach apparently did not harm J. J. Flanders's career because we find him later in a flourishing partnership with W.C. Zimmerman.

Nor were Burling & Adler affected, for they prospered throughout this period.¹⁴

Dankmar Adler was not yet a full partner when he designed the First National Bank in 1871, and much of the structure survived the fire. He rebuilt it on the same site, replacing the marble interior that had been damaged in the banking room on the main floor. If the interior was monochromatic, the exterior was not; the iron door and window frames were painted in shades of green and gold. Adler had some latitude in determining the Washington Street facade (Figure? on the right in the picture), and he used it to vary the fenestration and divide a fairly long facade with a projecting bay and a secondary entrance. He felt no need to make the two facades the same, although they had been in the pre-fire building.¹⁵ He later built the German National Bank for Henry Greenbaum, who had arrived before the Civil War.¹⁶

THE CENTRAL MUSIC HALL

In 1876 Dankmar Adler was man of 32 with a wife and family to support. He had an architectural practice that was successful but beginning to be adversely affected by a decline in building activity. The Panic of 1873 that had cost Louis Sullivan a job in Frank Furness's office in Philadelphia finally caught up with Chicago. The Fire of 1871 had buoyed up building in the city but now the rebuilding was overtaken by the nationwide economic depression. Stagnation was the general condition in Chicago with one notable exception: the Central Music Hall.

David Swing and George B. Carpenter shared a dream of a multi-purpose building providing the optimum worship space/concert hall, along with a commercial base to make it profitable. Carpenter brought this scheme to Burling & Adler. Between 1876 and 1879 Adler

produced six sets of plans, each with a slightly different conception of the project, but all including a program that had multiple spaces with different uses. If Adler was skeptical about the viability of the project at the outset, he never mentioned it. So much did he believe in the building that he himself bought stock in it, and so did enough investors for the project to get underway in early 1879. It was completed in 1881.¹⁷

Adler's reputation as a successful architect was such that he was able to win the commission for the Central Music Hall independently. He terminated his partnership with Burling in 1879 and formed D. Adler & Company.

The approved design was a six-story building (fig. 11) with a large sanctuary/music hall at the east end, two smaller halls on the fourth and six floors. There were six shops on the ground floor, 70 offices, and a clock tower, all to be built at the southeast corner of State and Randolph Streets. The building's exterior projects heterogeneity of uses and spaces. The State Street facade was Lemont limestone, with polished red granite columns flanking the main State Street entrance. On the top floor was Apollo Hall and on the fourth, Fairbank Hall. Sources for the design included Greek, Italian, Renaissance palazzo, and Victorian Gothic architecture. One critic praised it in the following terms: "The structure had a certain force and dignity, especially in the simplicity and regularity of the long State Street elevation."¹⁸ The music hall was on the Randolph Street side between the taller office section and the carriage entrance/alley. Its primacy was underscored by the polychromy of the stone work and the ornamentation across the windows. It was more blocky and heavier than the main facade which was divided into nicely balanced three sections.

The State Street detailing was crisp and linear, especially in contrast to the neighboring buildings to the south, where chunky Second Empire ornament dominated the roofline. The arched windows of the top floor were re-echoed in the music hall section and prefigure the Auditorium (1886/9) with its integration of opera house and hotel. As in the later buildings, the Central Music Hall used metal and masonry to achieve Adler's end although the Central Music Hall's foundations and structural integrity generated suspicion.¹⁹

The trusses used by Adler to carry the ceiling over the orchestra in the Central Music Hall were challenged and the foundations were also questioned. As for the foundation brouhaha, Adler had been warned by "a prominent architect" that the corner piers were inadequate, but Adler cited Frederick Baumann's writings to prove their stability.²⁰ Baumann's theory and Adler's implementation won the argument. The piers were still doing their job when the building was demolished to make way for the Marshall Field & Company retail store in 1900.

In planning the Central Music Hall, Dankmar Adler traveled some distance to study existing music halls. He went to Salt Lake City to see the Mormon Tabernacle, and learned that he could achieve the desired acoustics even if the hall and the balconies were left open in the back. Carpenter learned, when he returned to Chicago, that funding such projects was difficult. By the time the Central Music Hall was finished and functioning, the cost had been reduced from \$215,000 (\$5 million) as originally announced to \$156,463 (\$3.6 million) as written in Adler & Sullivan's ledger.²¹

The *raison d'être* of the building was the 2,000-seat fan-shaped hall (fig.12) with balconies extended rearward over the foyer rather than thrust out over the main floor "parquet

circle."²² In similar fashion, the upper balcony did not cover much of the lower balcony, and few columns impaired the sightlines. The ceiling was not domed but laterally curved and broken with transverse projections. The seats were carefully placed to optimize viewing. The curves of the floor and ceiling, combined with the careful design of beams, placement of chairs, and use of effective materials produced excellent acoustics and sightlines.

The audience's and performers' comfort and safety were also maximized with an elaborate heating and ventilating system that blew warm air from the stage front and from the ceiling beams and exhausted it under the seats. The many aisles were wide and the doors opened out. There were a total of sixteen exits from the building, but no emergencies ever required them. A capacious foyer and a large lobby on State Street were arranged so that every member of the audience could enjoy uncrowded peripatations during intermissions. Even the patrons in the gallery were provided strolling space.

Performers' needs were met with spacious and well-appointed dressing rooms and excellent stage heating and ventilating. The theater became a place popular with performers and audiences although "eighteen rather undistinguished years of engineering and architecture lay behind the design of the Central Music Hall."²³

Upstairs, Apollo Hall was divided into three parts: a 34 by 49 foot auditorium, with a small performance area on the other side. A "parlor" 18 by 36 feet, the two spaces being separated by columns and two doorways could be joined together. Together they seated about 400 for chamber music concerts and lectures. Fairbank Hall was a miniature version of the main hall except that the floor was level and it seated only 500 to 600 in its 50-by-80 foot interior.

Dankmar Adler wrote several articles in the 1880s and 1890s on acoustics and theater design. The Central Music Hall was the basis for many of his observations about these subjects, and also about heating and ventilating, fireproofing and safety. Condit praised the building as "the perfectly functional arrangement of interior elements in what was then a unique kind of building." "It is," as Charles Grimsley noted, "the only building that is fully Adler's." The architect stressed its importance in his career:

I devoted myself to the design and erection of Central Music Hall Block, which has proved in many respects one of the most successful buildings ever erected in Chicago, and which I shall always consider the foundation of whatever professional standing I may have acquired.²⁴

This edifice was noteworthy for yet another reason. It brought Louis Sullivan into Dankmar Adler's office on a permanent basis and there he stayed for 16 years.²⁵

D. ADLER & COMPANY: LOUIS SULLIVAN'S ENTRANCE

Louis Sullivan had first been introduced to Adler by John Edelmann in 1876, when Adler was still in partnership with Burling. Sullivan recorded his first impressions of Adler at that meeting in 1876 when Sullivan was but 20 years old and Adler was 32. He had already determined to find himself a place in the office of an established practitioner whom he could admire and make himself invaluable. He described Adler (fig.13) as:

A heavy-set short-nosed Jew, well-bearded, with a magnificent domed forehead which stopped suddenly at a solid mass of black hair. He was a picture of sturdy strength, physical and mental.²⁶

Early in 1879, Sullivan heard from Edelmann that Adler and Burling had gone their

separate ways and that Adler was especially busy with the Central Music Hall. Edelman told him "that this was Louis's opportunity... That Adler had all the strong points, but was feeble in design and knew it."²⁷ So Louis paid him another visit, at which he agreed to "take charge" of the office, that, in addition to the music hall had the John Borden House, the Borden Block, and the Grand Opera House remodeling on the drawing boards. He praised his new boss as "original...open-minded, generous-minded, quick to perceive, thorough-going, warm in his enthusiasm." As Adler encouraged independence and taught the young draftsman building techniques, Sullivan learned craftsmanship in addition to draftsmanship, how to draw and how to construct.²⁸

The Grand Opera House had been constructed in 1873 as a billiard hall and retail building. John Borden bought it in 1879, and his son William engaged D. Adler & Co. to improve upon the 1878 theater remodeling, within a budget of \$40,000. Adler added two stories and opened up the facade with large areas of glass. He converted some space into offices which made the venture profitable enough so that the Bordens did not complain when the job exceeded the budget by \$15,000.²⁹

The Borden Block (fig. 14) is the first building mentioned by Adler as being a collaboration between himself and Sullivan. It had already been commissioned when Adler hired the younger man, and when it was finished, Adler moved his office into the top floor. It contained 65 offices, mostly occupied by lawyers, and six stores. It boasted two passenger elevators in isolated stone footings, putting Frederick Baumann's 1873 proposal into practice.³⁰

Photographs show it to be a significant advance over the typical Chicago business

building of the 1870s and early 1880s. The Borden Block, with its rectilinearity and unique fan-shaped lunettes, was a clear break with Adler's past. Sullivan played a more major role. An 1898 Chicago guidebook remarked that it "sacrificed beauty to the need for more light and air."³¹ Thomas Tallmadge criticized its "naive 2-2-2 story sequence."³² But they all failed to see how revolutionary it was for its time. In earlier buildings, Geraniotis noted, facades were solid surfaces with windows punched into them. But in the Borden Block, window size and position were determined by the framework. It remained unique for quite some time: "The vigorous articulation which the Borden revealed was not duplicated for seven years."³³ Anyone who wishes to know the source of the Wainwright and Guaranty Buildings must begin with the Borden Block.³⁴

D. Adler & Co. built John Borden's house to rival the mansions of Prairie Avenue in size and opulence with 22 fireplaces, most of them marble, and elegant mahogany woodwork carved in a leafy design. *The Chicago Daily News* attributed the house to Louis Sullivan before the flowering of his "original native American style of architecture." Louis Sullivan, when he reminisced about called it "a large substantial residence...a solidly-built well-equipped house."³⁵

¹ Baron Hausmann (1809-1891) was the genius behind Paris's Second Empire. He supervised the work of architects and planners although he held no degrees in architecture or engineering. Trained as a lawyer and employed as a civil servant, he worked in the provinces before 1853 when he became Prefect of Paris. The three goals of his administration were 1) maintaining security; 2) improving the urban substructure; 3) modernizing the city and developing Ile de la Cite. During his tenure in office (1853-1870) two important Paris landmarks were built: Les Halles and the Opera; and a clearly discernable "Second Empire"

style emerged.

² Elaine Harrington, "International Influences on Henry Hobson Richardson's Glessner House," In *Chicago Architecture 1872-1922: Birth of a Metropolis*, ed. John Zukowsky, (Munich: Prestel Verlag, 1987): p. 193.

³ The Page Brothers building (northeast corner State and Lake Sts.) is still extant in 1989. For details about cast-iron facades, see Margot Gayle, "A Heritage Forgotten: Chicago's First Cast Iron Front Buildings," *Chicago History* 7 (Summer, 1978): 98-108. For post-Fire retail buildings, see also Neil Harris, "Shopping--Chicago Style," *Chicago Architecture 1872-1922* p.137-156.

⁴ Louis Sullivan, *Autobiography of an Idea*, (New York: American Institute of Architects, 1924): p. 203.

⁵ Gerald R. Larson, "The Iron Skeleton Frame: Interactions between Europe and the United States," *Chicago Architecture*, ed. Zukowsky, p. 48.

⁶ Adler, "Autobiography," p. 4.

⁷ Burling was born in Newburgh, New York in 1819, apprenticed as a carpenter, he became a housewright. Twenty-five years Adler's senior, Burling came to Chicago in 1843. He had been invited by William B. Ogden whom he had possibly known in upstate New York and who predicted great opportunities for a competent builder. Burling designed some commercial buildings in the following decade, and by 1855 he had to his credit at least two houses, a church, three hotels, and a dozen office buildings, including the Marine Bank. He also had a street named for him

The Garden City Insurance Building on Courthouse Square was his as was the Chamber of Commerce Building at LaSalle and Washington, built during the Civil War and completed in 1865. Edward Burling's interpretation of Second Empire architecture came to Chicago's central city in the form of this \$45,000 hospital building,

One Burling building that Adler knew well was the Garden City Insurance Building on Courthouse Square. A five-story brick and stone building, it paired arched windows under heavy lintels with a large porticoed entrance, a heavy cornice and quoins. It was unremarkable but workmanlike, like much of Burling's work that one critic characterized as "architecturally undistinguished." Another edifice was the Chamber of Commerce Building at LaSalle and Washington, built during the Civil War and completed in 1865. Rochelle S. Elstein, "The Architectural Style of Dankmar Adler," (M.A. thesis, The University of Chicago, 1963): pp. 23-26.

⁸ Quoted in Thomas Tallmadge, *Architecture in Old Chicago*, (Chicago: University of Chicago Press, 1941): p. 100.

⁹ Adler, "Autobiography," [en. 40]: p. *Chicago Tribune*, (9 Oct.1872), p. 9.

¹⁰ Edward Burling's interpretation of Second Empire architecture came to Chicago's central city in the form of this \$45,000 (\$937,500) hospital building.

¹¹ C.W. Westfall, "From Homes to Towers: A Century of Chicago's Best Hotels and Tall Apartment Buildings." In *Chicago Architecture 1872-1922: Birth of a Metropolis*, , ed. John Zukowsky, (Munich: Prestel Verlag, 1987): p. 268.

¹² Charles Gregersen et al, "Dankmar Adler: His Theaters and Auditoriums," (Typed manuscript, Adler Archive, Newberry Library, 1977): p. 27.

¹³ So that the jury would be unbiased, architects' names were not on the entries, but instead each bore a motto (largely Greek or Latin.) Third prize went to Thomas Tilly's "Eureka;" Henry Gay's "Aut Caesar et Nihil" came in second. Otto Matz submitted "Justica" and was awarded the \$5000 first prize. The competition was tabled and subsequent labor problems, plus politics with an admixture of corruption, imposed a decade-long delay. Architect James Egan got the commission and completed the building in 1885.

¹⁴ *Chicago Tribune* (16 May 1873): 5. Roula Mouradellis Geraniotis, "German Architects in Nineteenth Century Chicago," (Ph.D. diss., Univ. of IL, 1985): p. 15. *Land Owner* (May 1873): 48,51,59,87.

¹⁵ Randall, *History*, p. 48. *Land Owner* (February 1872): 19; (May, 1872): 69. *One Year From the Fire: Chicago Illustrated*, (Chicago: J.M. Wing & Co., 1872): p. 17.

¹⁶ Elstein, "Architectural Style," p. 27-28. The building is identified in this source as the Greenbaum Building or German Savings Bank.

¹⁷ The date of the final plans is difficult to pinpoint. The *Chicago Tribune* said they were begun in 1876 but in a speech published in 1886, Adler claimed he designed the building in 1878. *Chicago Tribune* (25 Dec. 1878): 8; *Chicago Tribune* (2 March 1879): 6; Dankmar Adler, "Bearing Capacity of Chicago Soil and the Construction of Foundations," *Inland Architect and Builder* 7 (Feb. 1886): 16.

George B. Carpenter died suddenly at the age of 35 but Lulu (Mrs. Carpenter) and Dila K. Adler remained lifelong friends. Carpenter's funeral was at the Central Music Hall where a memorial window carried a line from a poem that Carpenter had written: "A song of triumphant joy bursts forth proclaiming the grand victory of immortality." Joan W. Saltzstein, "Unpublished manuscript" (Adler Archive, Newberry Library): pp. 41-44.

¹⁸ Condit, *The Chicago School*, p.32.

¹⁹ In addition, the architect was exceptionally proud of his having pioneered the use of two passenger elevators as early as 1879 in the Central Music Hall. D. Adler, "The First Elevators," *Economist* 5 (4 May 1891): 798. Adler, "Bearing Capacity," p. 16; Charles E. Grimsley, "A Study of the Contribution of Dankmar Adler to the Theater Building Practice of the Late Nineteenth Century, (Ph.D. diss. Northwestern University, 1984): pp. 126-128. The descriptions of this concert hall complex will hereafter be from Grimsley unless otherwise specified.

²⁰ For Adler, Frederick Baumann (1826-1921) was the embodiment of engineering expertise. Born in Pomerania and educated at the technical school, he studied at the Berlin *Gewerbeinstitut* where he remained for 2 1/2 years until the aborted Revolution of 1848 propelled him to come to America. Arriving in Chicago in 1850, he worked briefly in tandem with John Van Osdel and then Edward Burling, but he left the profession--as Dankmar Adler would briefly do--to become a contractor. He and his cousin Edward Baumann opened an office that flourished between 1868 and 1879. Roula Mouroudellis Gerianotis, "German Architectural Theory and Practice in Chicago *Winterthur Portfolio* 21.

²¹ Ledger of the firm, Adler & Sullivan, Burnham and Ryerson Library, Art Institute of Chicago.

²² The parquet circle is the section of main floor seating under the balcony.

²³ Condit, *The Chicago School*, p. 31.

²⁴ Adler, "Autobiography," p. 6.

²⁵ Carl Condit, *The Rise of the Skyscraper*, (Chicago: University of Chicago Press, 1952): p.41. Grimsley, "A Study," p. 130. Adler, "Autobiography," p. 6.

²⁶ Sullivan, *Autobiography* (New York: American Institute of Architects Press, 1924): p. 252.

²⁷ Sullivan, *Autobiography*, p. 255.

²⁸ Sullivan, *Autobiography*, pp. 255-256.

²⁹ *Chicago Tribune* (29 Aug. 1880): p. . Hugh Morrison, *Louis Sullivan: Prophet of Modern Architecture* (New York: W.W. Norton Co., 1935): p. 66.

³⁰ In the 1881 City Director, Adler is listed as having his office in #56, Borden Block, while Sullivan's address was the firm's old office on LaSalle Street. The date of the partnership has been a long-debated question among architectural historians. It is clear that that Sullivan was not a partner in 1881, as he contended, but that he spent the year 1882 as a junior partner

(with a one-third interest in the firm). In 1881 he was still just the chief draftsman.

Richard Nickel, "A Photographic Documentation of the Architecture of Adler & Sullivan," (M.A. thesis, Illinois Institute of Technology, 1957): p. 16. Randall, *History of the Development*, p. 18.

³¹ *Ibid.*, p. 196.

³² Tallmadge, *Architecture in Old Chicago*, p.155.

³³ Condit, *The Chicago School*, p. 38.

³⁴ Randall, *History of the Development*, p. 196. Tallmadge, *Architecture in Old Chicago*, p. 153. Gerianotis, "German Architects in Nineteenth Century Chicago," p. 26.

³⁵ *Chicago Daily News* (18 Oct. 1940): p. . *Chicago Daily News* (20 Sept. 1958): p. 17. Louis Sullivan, "Development of Construction," [*Chicago*] *Economist*, (24 June 1916): 1252. The Borden family was long socially and politically prominent in Chicago. Ellen Borden was the wife of Illinois Governor and two-time presidential candidate Adlai E. Stevenson, Jr., and the mother of Illinois Senator Adlai E. Stevenson, III.

CHAPTER 3: ADLER & SULLIVAN: THE EARLY YEARS

FORMING THE PARTNERSHIP

Dankmar Adler and Louis Sullivan differed in every conceivable way: their ethnic and religious backgrounds, their schooling, and especially their temperaments. Adler was “a graduate of the boards”; Sullivan had a more formal education. Denied admission to the University of Michigan, Adler had learned as an apprentice and later as a draftsman in the offices of architects in Detroit and Chicago. Firmly rooted in the Jewish community because of his father’s pulpit at Chicago’s pioneer congregation, he had personal and professional relationships with many German-Jewish families for whom he built houses in the 1870s. He was also bound by family ties. In 1872, he married Dila Kohn, the daughter of Abraham Kohn. Kohn’s death in 1871 left his wife, Fannie, a widow and orphaned several children who lost their source of financial and familial support. Despite their youth, Dila and Dankmar provided as much help as they could afford.

Louis Henri Sullivan was born in Boston, September 3, 1856, the son of Patrick Sullivan, an Irish dancing teacher, and Andrienne List, a young German-Swiss woman who was an accomplished pianist. When the Sullivans relocated to Chicago in 1868 for Andrienne’s health, Louis moved in with his maternal grandparents in South Reading, Massachusetts and commuted to school in Boston. Moses Woolson, a teacher at Boston Classical High School (later Boston English), influenced Sullivan, who wrote in his *Autobiography* that “Woolson, a thorough genius

as a teacher turned a crudely promising boy into, so to speak, a mental athlete.”¹ He prepared him well to follow the advice of an older friend to apply to “Tech” but the faculty did not inspire him as Woolson had. He attended the Massachusetts Institute of Technology [MIT] as a special (non-degree) student for less than year, describing it in a much later reminiscence as:

a misch-masch of architectural theology ... [Louis] began to feel a vacancy in himself, the need of something more nutritious to the mind ... Moreover, as time passed he began to discover that the school was but a pale reflection of the *Ecole.des Beaux Arts*²

which he attended for an even shorter period of time.because of the “hovering conviction that this [*Ecole*], in its perfect flower of technique, lacked the profound animus of a primal inspiration.” In 1873, having been unable to find employment in Philadelphia, he joined his family in Chicago. The genesis of his association with Adler has been described in the previous chapter. The firm was called D. Adler & Company when Sullivan joined. It became Adler & Sullivan in 1881, according to Sullivan, but 1883 is more likely³.

ARCHITECTS AND CLIENTS

Architects live in an environment consisting of clients--male and female--very exacting and often unreasonable. They require novelty, beauty, thorough protection from all elements. They must be warm in winter, cool in summer, comfortable at all times. There must be a universal adaptability of things. Every one of their whims and needs, habits and notions must be satisfied. Each one must have something handsomer, more novel and generally better than anyone ever had before. All this must be crowded into a 25 foot lot, and produced at an expenditure that will not pay for the half.⁴

Architectural partnerships, such as Adler & Sullivan, began with house designs and won commissions for larger projects from the men and women who were satisfied with their

residential work. Larger projects like the Borden Block (1880) brought these two men together on a permanent basis but their bread-and-butter work from 1883 to 1887 was homes for middle-class businessmen and affluent widows, most of whom settled on the south side of Chicago and in Oakland (later annexed to Chicago) along streets such as Michigan, Wabash, Indiana, Prairie and Ellis. Like most firms, they designed houses before larger commercial buildings began to keep the office fully occupied.

Adler was the partner who brought in most of the commissions in the 1880s, thanks to his seniority, visibility in the community, and reputation as a skilled practitioner. He had proven his ability with Burling and in his solo practice, but personal connections as much as designing skill attract clients to an architect. Robert Twombly emphasizes the role of religion in Adler & Sullivan's clientele: before 1887 most houses were for Jews. Of the 43 residential commissions between 1881 and 1892, 17 were for non-Jews.

Their nearly two dozen Jewish clients were related by blood or marriage, in the same businesses, or attended the same synagogues or clubs, which is to suggest the Jewish clients had different links to the firm than did their non-Jewish clients. The Sterns, Leopolds, and Rubels chose Adler & Sullivan for the same reason Christian clients like Washburne, DeKoven, and Waller hired Burling: they knew him from church or club or family ties.

ADLER'S JEWISH CONNECTIONS

German Jews like the Kohns and the Adlers lived in two cultures: German--opera, theater, and newspapers--and Jewish.

Chicago's city charter, dated March 4, 1837, incorporated an area of ten square miles with a population of 4,000. Early documented Jewish landowners in the metropolitan area were members of the Cook County Jewish Colonization Society that in 1840 owned a 160-acre tract of land in what is now Schaumburg. They neither built houses there nor resided in the area. But by the early 1840s, several Jewish families, many of whom would later commission houses and commercial buildings from the firm of Adler & Sullivan, resided in Chicago itself. There were 100 Jews in Chicago in 1850, 1500 in 1860, and 10,000 by 1880. Adler's father-in-law, Abraham Kohn, was the first Jew to hold political office. At first, Jews were concentrated at Lake and Randolph Streets between Clark and LaSalle. The first Jewish "institution", characteristic of Jewish settlement everywhere, was a cemetery near the site of what is now the Chicago History Museum in Lincoln Park.

1845 was a crucial year in Chicago Jewish history: land for the cemetery was purchased that year and a *minyan* was begun by Levi Rosenfeld. The *minyan* grew into a synagogue which, as befitted its location and situation, was called "Society of the Men of the West [Kehillat Anshe Maariv--KAM]." It was also known as the *Bayerische Shul*, connoting the Bavarian background of many of the members. Three years after KAM's founding in 1847, a synagogue building at Clark and Adams was dedicated. Ignatz Kunreuther, who had known Liebman Adler at the *yeshiva* in Frankfort Germany, was brought to Chicago from Germany to lead the congregation but he remained only two years, to be succeeded by Godfrey Snyderacker from Westphalia. *The Chicago Democrat* reported that the Jews in Chicago were few in number but wealthy, very respectable, and public-spirited.⁵

In Germany Jews had experienced exclusion from the dominant culture:

Aversion from social contact with Jews was deeply ingrained in the German mind. Jews had lived for centuries in Germany but separated by the walls not only of religion, but of custom, culture, and even language. This strangeness, in spite of proximity, created a mutual mental reservation and distrust, which persisted even when, at a later period, contact took place. The image of the unsociable or unsavoury [sic] character of the Jew who was thought to be incapable of mixing with any but his own kind continued to exist and was sometimes the reason given...for rejecting Jews. This prejudice was often backed by theology...[and] the idea of Jewish character as being intrinsically lower changed only gradually.⁶

But in America, Jews were few in number and could find acceptance, politically if not socially, provided that they were willing to find their opportunities in relatively uncharted territories.

KAM unified all Chicago Jewry, but only briefly. In 1852 forty reform-minded members seceded and organized B'nai Sholom. In 1861 Sinai Temple was established, largely by people leaving KAM. Two other Reform congregations that formed in the nineteenth century, taking members from the older temples, were Zion Temple and Isaiah.⁷ The proliferation of congregations reflected the growth of the community, preferences for various degrees of traditionalism, and a growing ability to support many buildings and pay their rabbis. By the Civil War, Chicago could boast of a well-established Jewish infrastructure, including the Hebrew Benevolent Society (1851), B'nai Brith lodge (1857) and the aforementioned cemetery. Jews opted to have separate charities and burial grounds. They were forced to have their own social clubs and hospitals, for while hospitals did admit Jewish patients, they refused to grant Jewish physicians admitting privileges.

In the last two decades of the nineteenth century, cataclysmic forces in Europe led to an

inundation of Jews from Russia and Poland that changed Jewish Chicago. Violence and economic and political discrimination induced East European Jews to emigrate to America in large numbers as German Jews had done in the 1840s and 1850s. Chicago held a great attraction for those who could afford a train ticket to the Midwest. Chicago neighborhoods that had once housed German Jews became Russian and Polish neighborhoods. These co-religionists came with little money, no English, and scant knowledge of America. Taking advantage of cheap transatlantic fares, they still had to confront the problem of moving inland. Most Jewish newcomers did not--they settled in New York City which had over one-half of the Jewish population of the United States living in its five boroughs by 1890. But Chicago had its share, as Jews in Europe and Jews from Europe urbanized. Steven Loewenstein observes, "The general pattern of Jewish migration attested to by impressionistic evidence is 'poor to America--rich to the [German] cities.'"⁸ Many of the former came to Chicago.

Chicago's Jewish population increased between from 10,000 to 80,000 between 1880 and 1900. Statistics tell some of the story but the progressive zones of settlement were another indicator of change. German-Jewish Chicagoans lived mostly on the south side before 1900 while East European Jews were concentrated on the west side. Identifiable Jewish neighborhoods coalesced as the percentage of Jews at least quadrupled--and many moved to better areas on the periphery. Their institutions moved with them, although rarely before them.

Jewish Chicago in 1891, when the new building for KAM was completed, was a different place than it had been in the 1880s, and even more so than in 1861 when Adler had arrived. There were many more Jews, now mostly East European, linguistically and economically

different from the Adlers, Selzs, Sterns, Schlesingers and Kuhs who may have begun as peddlers, but by 1883 were merchants and/or manufacturers. In 1887, in the aftermath of the Haymarket Riot and on the model of the United German Trades, the United Hebrew Trades began to organize Jewish workers. Dankmar Adler, whose political sympathies were definitely anti-Socialist, was probably not sympathetic.

East European Jews required health care, social services, language instruction, preparation for naturalization, places in which to worship as well as to live, schools, jobs, and models of assimilation. The relatively affluent German Jews provided, willingly or less willingly, many of these. In the view of some "it would be desirable if [Polish Jews] would stay away altogether," but Dankmar Adler and Eli Felsenthal were among those who led the German-Jewish community's charitable institutions and organizations' efforts to take care of newcomers.⁹ Adler's "Jewish" buildings included homes for agencies and clubs, most notably the Standard Club, Jewish Manual Training School and the United Hebrew Charities Dispensary.

Jews could act collectively in order to absorb the newcomers but Chicago Jewry was always divided geographically, politically and denominationally. Jews were on both sides of the abolition question and were active in both the Democratic and Republican parties, especially in what one historian called the "Protestant Puritans or do-good wing" of the GOP. Abraham Kohn was a Republican; Henry Horner (1878-1940), the first Jewish governor of Illinois, was a Democrat.¹⁰

Abraham Kohn and his brothers may have shuttered their business on the Sabbath but other Chicago Jews did not. Kohn's children were less observant than their father. Liebman

Adler, too, understood the difficulties facing the native-born generation and acknowledged them in his ethical will:

One thing more, my children. I know well that you could not, even if you would, practice Judaism according to my views and as I practiced it. But remain Jews and live as Jews in the best manner of your time, not only for yourselves as individuals, but also for the welfare of the community.¹¹

Relaxation of observance and ritual began not in the United States and not in the 1880's.

In spite of the strong, traditional home environment, which made Jewish living uncomplicated and natural, the younger generation was less *frum* and less strongly attached to traditional Jewish life.¹²

HOUSES

For Jews in the 1880s, Michigan and Indiana were popular streets. Prairie Avenue was home to wealthy non-Jews: the Marshall Fields, John J. Glessner (a partner in the McCormick farm implement manufacturing business), and W. W. Kimball, piano makers, all built their mansions there. The Jews largely resided in much smaller houses a mile or more south of those business and philanthropic leaders.

One typical Jewish client was Morris Selz, born in Germany in 1826. At the age of 18 he immigrated to America where he entered the dry goods business as a clerk in Hartford, Connecticut, and later in a small town in Georgia. Gold lured him to California in 1851, where he briefly searched for riches, but practical man that he was, he maintained a clothing business in Sonora as well. In 1854 he moved to Chicago and married a woman with whom he had two children. She died six years after their marriage, and he waited five years before re-marrying. The young woman he chose was Dila Kohn Adler's twin sister, Hannah. They had one daughter

and three sons (including one called Abraham Kohn Selz). Morris prospered in the shoe and boot business; Selz & Schwab would annually produce \$1 million in footwear sales, and he and his partner, Charles H. Schwab, lived in an Adler & Sullivan double house at 1715-1717 South Michigan Avenue (fig.20).¹³ It was demolished in 1967.

The Blumenfeld house on Chicago Avenue near State Street was only 25 feet wide, and, at three floors plus basement, made for vertical living. In proportion and massing it was closest to the Rothschild Building, although the decoration is much less flamboyant. Lotus flowers made the facade look taller, as did the mullions that ascended to a balcony. The iron mullions and decorated spandrels were a pleasant contrast to the flat facade. And the 1:2:1 proportioning of the western part of the facade was nicely balanced by the eastern third.¹⁴ Fannie Bloomfield (1865-1927) was a musical prodigy. A popular anecdote described how, as an eight-year-old, she practiced piano on the lawn in the aftermath of the Great Chicago Fire.¹⁵ She had early exhibited the musical talent that made her famous throughout Chicago and soon she was performing before larger audiences. (She may have anglicized the family name to advance her musical career.) She spent the latter part of her childhood in the house and resided there with her husband, Sigmund Zeisler, after their marriage in 1885.

Another Jewish client, Eli Felsenthal, was Adler's attorney who became his patron, champion, and friend. Alone among all the firm's clients, Felsenthal remained loyal to Sullivan after Adler's death. He built buildings of all types, residential, industrial and commercial, with Adler & Sullivan, and with Sullivan after 1900. Felsenthal was Adler's neighbor in an exceptionally close living arrangement, a row of three townhouses, where Adler lived with his

own family and his widowed mother-in-law in the adjacent townhouses, all at 3541-3-5 South Ellis.¹⁶

The Adler-Kohn-Felsenthal townhouse residences, variations on a theme rather than carbon copies of one another, demonstrate the literal and figurative closeness of the three families. Hugh Morrison described the houses as picturesquely conceived.¹⁷ The renderings in *Building Budget* (fig.23) show how much more adroitly the designer managed the facades in contrast to the Selz and Schwab houses of two years earlier. The composition was at once both unitary and divisible. Each house had its own character with a different organization of the parts, and parts of the parts. The north (left) had a different bay from the central one, and both were distinguishable from the south house. And so on through the gables, the fenestration, parapets, and ornament. All are flatter, more planar than the firm's earlier designs. Ornament is enframed by lintels, sills, and gables; gone is the Egyptoid decoration. (All three houses were demolished between 1958-1961.)

The designer of these three houses must have been Louis Sullivan. They point to his later work, such as the Falkenau houses, his own residence, and the James Charnley mansion in Chicago. They have the same sensibility as the Walker Warehouse and the Auditorium Building. And there was no designer whom Adler admired more than his own partner.

By 1885, Sullivan was almost 30 years of age; he had been with the firm for almost five years, as a full partner for two. Adler remarked in his autobiography that he turned over the design work to Sullivan, and one senses that he did so with a measure of relief. Sullivan certainly was the more gifted designer. The pictures of these houses tell something about the

division of labor in the firm--who planned and who designed--and they also reveal much about the clients.

Victor and Louis Falkenau, real estate developers and building contractors, had an enduring association with Adler & Sullivan who designed several residences for the Falkenaus as early as 1883. They commissioned the Chicago Stock Exchange (1891/1894). Victor and Louis Falkenau conducted their business on LaSalle Street but resided at 3420-3424 S. Wabash in Adler & Sullivan rowhouses. Frank Lloyd Wright, a draftsman in the Adler & Sullivan office between 1888 and 1893, claimed credit for the Falkenau houses, but his claim has been convincingly discredited. The Falkenau houses prefigure Sullivan's own residence and the Astor Street Charnley house for which Wright also took credit. But that does not prove that Wright did them.¹⁸

Louis Sullivan built his own house in 1891/92 at 4575 S. Lake Park Avenue, completing it when he was 36 and at the height of his career. It was a single-family house where he resided with his mother and then with a married couple who were close friends until 1896.. When Sullivan moved out, his brother's family moved in.¹⁹ The house on Lake Park stood until 1970.

The Sullivan house was beautiful, with a handsome stone facade and brilliant ornament, at once both geometric and organic. Its triangular bay was also a feature of the Falkenau houses, but was less symmetrical and more planar than its predecessor. The flat roof could be traced to the Borden Block of 1880. The decorated fascia capped the design with a suitable finality and the curve of the entrance beautifully contrasted with the rectilinearity of the first floor windows. The great skill with which he sited the building was evidenced by the shadows that the overhang

cast on the second floor bay. Every plane met every other in a crisp line; gone were the quoins that equivocated around the corners of the Stern and Goodman houses. This design had all the necessary elements of house-ness (to borrow a word that the German architectural theorist Gottfried Semper used to describe his concept of a dwelling): a roof for protection from the elements, a door for access and egress, windows for light and air; and walls for structure and privacy.²⁰ Take away the foliage, take away the ornament, and this house would still, to borrow a Sullivanism, look comely in the nude.

The last residential commission was for the Charnleys. As many historians have mentioned, Frank Lloyd Wright claimed credit for it which may have been deserved but is impossible to verify. The house shows a further progression toward symmetry, despite the problem of an asymmetrical site, and away from the irregular facades of the houses of the mid-1880s. Gone are the tourettes, the dormers, and the asymmetrically placed entrances. Gone, too, are the quoins, pedimented lintels and the arches, but the polychromy and the wealth of materials with their varying textures and proportions remained Adler & Sullivan hallmarks. So did balconies. Charnley House is similar to another "house"--the addition to the Standard Clubhouse at Michigan and 24th Street. The Charnley balcony expresses the horizontality of the design as do the stones of the base, and the thin Roman bricks. The ornament of the balcony provides a textural and colorful highlight, much like the Golden Portal that defined the entrance to the Transportation Building (which Wright did not design).

The Charnleys were Sullivan's clients and friends; Sullivan built a country house for them in Ocean Springs, Mississippi as well as their city house in Chicago. James Charnley (1844-

1905) had been in the lumber business and was later in metal manufacturing, as president of the Garden Wire and Spring Works. By the early 1890's, prosperity and the desire for a better house and a better address prompted him to move north. Members of the Fourth Presbyterian Church, he and his wife, Helen, chose to build on Astor Street. The house still stands at 1365 N. Astor and now houses the headquarters of the Society of Architectural Historians.

The visitor to Chicago will find on the South side, along Michigan Boulevard, south of 15th Street, a continuous line of beautiful residences; the same can be said of Indiana Avenue, Prairie Avenue, parts of Calumet Avenue...Grand Boulevard [now King Drive], Drexel Boulevard, Kenwood and Hyde Park.²¹

And the same could be said of Astor Street.

SYNAGOGUES

Rivalries and schisms benefitted architects. Institutions multiplied as Jews divided. In 1857, KAM lost its monopoly. Seven years after B'nai Sholom was founded, another group established a west side congregation, Zion, under another German-born rabbi, Bernhard Felsenthal. To compete successfully for new members, each needed its own building.

By the summer of 1885, Rabbi Felsenthal's Zion Congregation was large enough and prosperous enough to undertake a \$40,000 building (\$975,000 in current dollars).²² This was Adler & Sullivan's first commission for a house of worship. The architects chose the Moorish style, influenced no doubt by Cincinnati's Plum Street Temple (now called the Isaac Mayer Wise Temple after the founder of Reform Judaism in America). The building measured 65 by 115 feet, was three stories high, and was built of brick and stone with a slate roof and terra cotta

ornament.

Zion Temple combined features from the Central Synagogue in New York with the exoticism of Rodef Shalom (Philadelphia, 1869, Frazer, Furness, and Hewitt) and Temple Emanu-el (New York, 1868, Eidlitz and Fernbach.) The plan was basilical, with twin towers flanking the triple-arched entry. A large rose window with a Star of David circumscribed within it was an attractive feature. The corner blocks contained stair towers which led to the sanctuary (on the second floor) and the gallery (on the third). A pediment, tourettes, finial, and minarettes created an interesting, if over-busy, roofline. Keyhole arches marched across the side bays admitting light into the sanctuary; horseshoe arches enframed the windows that illuminated the lower part of the stair block. The first floor contained lecture and classrooms, a plan that became quite popular in the 1880s and 1890s. The main hall seated 1000.

The congregation remained in the building until 1920; by then, most Jews had left the near west side, making the building a liability. The building was so well designed that it was rebuilt by the church that bought it after a fire in the 1930s. It was demolished in 1954.

KAM underwent change in the 1880s as Rabbi Adler (fig.) became senior rabbi in 1883, after serving the congregation for 31 years. An American-trained rabbi, Samuel Sale, was hired and attracted so many new members that the 1874 KAM building at Indiana Avenue and 26th Street became inadequate. As we have seen, the center of the Jewish community had already moved further south (along Prairie, Michigan, and Wabash between 29th to 36th Streets and beyond.) The southward movement continued, and after 15 years at 26th Street, the KAM leadership bought a lot at the southeast corner of Indiana and 33rd and commissioned the first

new building in their history. Naturally they chose Adler & Sullivan to design their new home. (Their former home was sold to B'nai Sholom, which had been occupying an Augustus Bauer-designed building.)

Even if nepotism were not an advantage, Adler & Sullivan was the logical firm to design KAM. They had done the remodeling and additions for Sinai Temple at 21st and Indiana in 1884, and they had designed Zion Temple in 1885. Moreover they were exceptionally skilled in the design of auditoriums.

KAM's rabbi and membership were more traditional than Sinai Congregation or Zion Temple, and their building reflected it. KAM was to have been built of polished ashlar but this and other features were scaled back due to financial exigencies. As built, (fig.) it was a rugged stone structure with a pyramidal roof, a large Syrian-arched door, and arched windows. It bore scant resemblance to Zion Temple which had a central plan. KAM is a basilica clothed in Romanesque which reflected the influence of Glessner House and other Romanesque Chicago buildings. It drew upon German sources as well: The Lubeck-Moisling, Germany Synagogue (1826) was a close cousin.²³

The building seated 1,500 in the sanctuary and gallery, and the spacious foyer provided a social hall and Sunday school classrooms. The plan is conventional for a Reform temple of its time and reflected the mainstream. KAM is Adler & Sullivan's most gorgeous and fully realized religious building. Had it been built with the materials envisioned, it would have been second only to the Auditorium in magnificence.

Recent renovation of what is now the Pilgrim Baptist Church by Chicago architect John

Vinci makes it clear that the interior (fig.) originally was gloriously uplifting. The acoustics were outstanding and the ornament superb. Only the colored glass windows disappoint the visitor but the newly-installed roof, while not the stone of the original design, was less discordant than its green predecessor. This building served a Jewish congregation for over 20 years, and it comfortably housed Pilgrim Baptist Church since 1922. Sadly, the building was destroyed by fire during renovation in early 2006. The interior was gutted but the brick and stone walls remained standing and were judged to be structurally sound. The congregation's hopes to rebuild appear to be fading.

Sinai Congregation rapidly became the most radical of the Reform temples after its founding in 1861. Emil Hirsch, who occupied the Sinai pulpit for four decades, was active in civic affairs and taught at the nominally-Baptist University of Chicago shortly after it was founded by William Rainey Harper. He continued the practice of Sunday morning Sabbath services that Rabbi Kaufmann Kohler had introduced at Sinai in 1874.²⁴

Sinai's membership grew under Hirsch's leadership. A committee consulted with Dankmar Adler in the 1890s for improvements that were approved even as the Jewish population began moving further south.. The newly-remodeled building was dedicated on September 21, 1892 and it served the congregation for many years. As Frank Furness' s Philadelphia's Rodef Shalom (1869) influenced Zion Temple in Chicago, Arnold Brunner's Beth El in New York helped shape Sinai's new incarnation.

The Adler & Sullivan remodeling was finished in 1892, not coincidentally a year after the

new KAM building was dedicated. In the competition for members, temples and synagogues endeavored to erect the largest and most attractive buildings. The pride with which the "new Sinai" was viewed is evident in the detailed and lengthy mention of the changes the architects put in place. Sinai's interior, in particular, was lavishly done, and inspired the rabbi and congregation to express their pride in the building. An ark was unnecessary because under Rabbi Hirsch, the Torah portion of the week was read from a printed book and not a scroll. It was as radical a departure as the Sunday Sabbath service had been and fewer congregations adopted this second innovation, even briefly.

In all temples and synagogues, the custom was to own or rent a pew or seat, and, as with theater seats, there were gradations in cost.²⁵ Wealthier members had choice locations, poorer congregants sat in the back or behind a column. Seats could be inherited or sold, and temples were no different than churches in the scramble for status. Ecclesiastical design reflected the beliefs, values, and spiritual life of those who commissioned it and those who used it. Adler, being conversant with synagogue form and function, did exceptionally well on these commissions.

CLUBHOUSES

The first Jewish social club was the Concordia, primarily for upper-class men. It was noteworthy for equipping a Jewish unit, the Concordia Guards, for the Civil War. In 1869, a large group left the Concordia to establish the Standard Club. The 69 members built a clubhouse

at 13th Street and Michigan Avenue with a dining room, ballroom, billiard room and bowling alley in 1870. Dankmar Adler served on the board of directors, and his brother-in-law Morris Selz was vice-president at the time of the fire when social pursuits were put aside and the clubhouse temporarily became a relief society.²⁶

In short order Jewish social clubs multiplied: the Ideal, Lakeside, and West Chicago clubs were organized. The first two were short lived; the last had a building that Adler & Sullivan remodeled into a clubhouse on West Throop Street in 1886. Its membership was predominantly Bohemian Jews.

If KAM was the culmination of synagogue buildings and drew upon the firm's experience with the Auditorium, the Standard Club was, in a visual sense, their preparation for the Auditorium. Membership grew threefold and more in the 1880s and the club outgrew its building. Adler & Sullivan designed a clubhouse at the southwest corner of 24th and Michigan. They moved in February 1889, having sold their old headquarters to the G.A.R. Even the spacious new six-story granite building soon became crowded, however, and an 1892 addition provided improved kitchen facilities, guest bedrooms, and card rooms.

Many of Adler's and Adler & Sullivan's residential and commercial clients were among the organizers and members of the Standard Club, among them Levi Eliel, Eli Felsenthal, Hugo Goodman, Benjamin Lindauer, Adolf Loeb, Simon Mandel, Max Rothschild, Charles Schwab, Morris Selz, and Marx Wineman.²⁷

In 1886 the center of Chicago German Jewry lay south of 18th Street, so when the Standard Club board bought property at 24th and Michigan, the constituency it served was

already settled in the neighborhood. At that time no one predicted the success the building would enjoy, nor that an annex would be needed within a few years. But there must have been difficulty in financing the initial construction of the Standard Club because it took nearly two years until the first phase was completed.

The building (fig.), as illustrated in Hugh Morrison's book, was a handsome four-story structure of rusticated limestone with little exterior ornament to distract from its solid and substantive bulk. The simple rhythms of the windows and the impressive arched entrance harmonize well. The Standard Club was one of a number of buildings from the late 1880s that reflected Henry Hobson Richardson's influence on Adler & Sullivan. They must have been stung by its dismissal in the architectural press, where it was written: "[The Standard Club is] entirely devoid of artistic form."²⁸

When the opportunity came to expand the structure, Sullivan produced a highly decorated arcade, similar to McKim, Mead and White's Boston Public Library but with columns suggestive of Henry Ives Cobb's Fisheries Building at the 1893 fair. Because of the rough-cut masonry, in contrast to the smooth ashlar of the Auditorium, the Standard Club seems more massive and more plastic. Sullivan inserted into the arcade small lion's heads along the balcony and the lower wall. Their size made them less objectionable than Union Trust or his post-Adler 1919 Farmers and Merchants Bank buildings but this was the beginning of something that was uniquely Sullivan and that Adler did not employ.²⁹ Sullivan never improved a design by incorporating animals or angels but he did not seem to realize it.

COMMERCIAL BUILDINGS

The Rothschild and Rosenfeld Buildings

During the transitional period of the early 1880s, when Sullivan was a presence in the successive firms, D. Adler & Co. and Adler & Sullivan, but before he took over the design pencil, it is possible to distinguish his work from Adler's. Two of the earliest buildings to have been designed by the firm while Sullivan was still a draftsman exemplify the contrast between the partners' approaches. The buildings were contemporaries, but they manifest different methods and differing design philosophies.

The first was the Rothschild Store, costing built by Max Rothschild in 1881 at a cost of \$75,811 (\$1,763,000) and occupied by the firm of Emmanuel Rothschild and Brothers, a retail and wholesale clothing emporium at 210 West Monroe. The Rothschilds were among Chicago's equivalent of "our crowd" which included the Adlers, so it is not surprising that Adler's firm got the commission.³⁰ What is surprising is the building itself--a narrow five-story building heavily ornamented on the upper floors. To maximize the light, the mullions were narrow and the windows wide. The facade was cast iron, and it bristled with spiky ornament. Sullivan's ornament was still experimental as he developed his skill as a decorator.

Levi Rosenfeld was German-born and came to Chicago in the early 1840s. As one of the organizers of the first *minyán*, he served on KAM's first board of trustees and he knew both Rabbi Liebman Adler and his son, Dankmar Adler, well. The Rosenfeld building announces itself as Adler's design, being derived from the Central Music Hall and the Borden house. It broke no new ground as the Rothschild building began to do, and instead relied on polychromy, a

relatively open street-level facade, and a mansard roof that was definitely out of style by the early 1880s. The Rosenfeld building was erected in two stages: the first in 1881/82 cost almost \$43,000 (\$1 million) and the second in 1883 \$92,000 (\$2,139,000). The remodeling added several bays on Washington Street and three more floors on top of both sections. Adler & Sullivan built both.

Ryerson Buildings

For a lumberman to speculate in commercial real estate was natural and Martin Ryerson was one of Chicago's more successful speculators. He began by hiring Burling & Adler, continued with Adler when he was in solo practice, and remained with him when the firm became Adler & Sullivan. Many of the buildings are better known by the names of their purposes or their tenants but their construction was a product of the collaboration of this specific client and this particular architect.

Martin Ryerson commissioned more Adler and Adler & Sullivan buildings than any other individual. Although he did not live in an Adler & Sullivan house, he is spending eternity in one: Adler & Sullivan designed his mausoleum at Graceland Cemetery. Ryerson was an unusual client and an unusual man.³¹

His first commission is popularly called the Jeweler's Building (fig.19), and was once known as the S. A. Maxwell Building after an early tenant. It is a loft building of a type quite common, with a large shop front on the first floor, and four stories of trabeated architecture above. Completed in 1882 at a cost of \$90,260 (\$2,100,000) it has a clipped corner, some

rosettes and Egyptoid columns, plus brick and stone textural and color contrasts. Of pressed brick and Berlin sandstone, it was rescued from sterility by its polychromy and Egyptoid ornament, which suggest a familiarity with the works of Frank Furness and Owen Jones.

This building is quite characteristic of its time. It is only five stories high and has too sculptural a facade. The piers are not continuous, the windows vary from floor to floor, and, although the fenestration is extensive, it is not a proto-skyscraper. Robert Twombly calls the building at 15-19 South Wabash “vague and indecisive.”³² It certainly did not advance the march toward the tall office building, as did the Rothschild building, but its longevity indicates that it was well-suited to its purpose. Adler was proud of its being the first Chicago building to have an elevator. It shows Sullivan's early ornament and it has the unusual virtue of surviving.³³

After the Jeweler's Building in 1881 came the Revell building in 1881/83, the Ryerson (aka Gray, Kingman and Collins) in 1884; Ryerson Charities Trust (aka Edson Keith) in 1886; the Ryerson Warehouse (better known as the Walker Warehouse) in 1886; and the Ryerson tomb.

The second Ryerson commission, the Revell building, coincided with Sullivan's arrival in Adler's office. It was completed in 1883 at a cost of \$321,112 (\$7,467,000), twice the cost of the Central Music Hall. Much of it was attributable to the pioneering use of fireproofing described by Frank Randall as terra cotta slabs protecting the wooden joists. Peter B. Wight of New York was the consultant on this job and, although it added 30 percent to the price, there never was a major fire in its 70 years of existence.

The six-story building, encompassing 1.7 million square feet, was a measure of both

Ryerson's and Alexander Revell's success. Revell had both a retail and wholesale furniture business and, later in the decade, manufactured commercial furnishings and distributed a wide range of ornamental electrical products. (For example, Revell supplied the lighting fixtures for the Auditorium complex [1889].) Adler & Sullivan's 1882 design opened the facade to provide ample light and air, and attractive shop windows on the ground floor. The building was a close relative of the Borden Block (1880) but less successful. The otherwise planar facade was broken at the roofline with pediments and cresting. Verticality was suggested in the piers and mullions, but it was compromised by the entablatures and signage, and especially by the polychromy. If it looks retardataire, it is due to the clumsy ornament at the roofline and the strongly-defined horizontals, projecting corner bay and Egyptoid ornament. There is, however, more modernity than first meets the eye in this edifice. It was one of the first to use iron mullions, a move towards metal-skeleton framing.³⁴

The Ryerson building of 1884, at 16-20 East Randolph, built at one-half the cost of the Revell, was even more ornamented. The Ryerson building has been the least favored by critics of Adler & Sullivan designs, although Martin Ryerson must have liked it because he rehired the firm a year later. Thomas Tallmadge called it Sullivan's worst building; Hugh Morrison deemed it "the least successful of Sullivan's attempts to evolve a new grammar of ornament." Twombly calls it "a step backward."³⁵ It was a building with exceptional fenestration in which can be seen the outlines of the "tall office building." Most of the facade was glass, including the bays that extend out to capture the sunlight. But it is the antithesis of tall, with its squat columns and thick piers. There is an unprecedented amount of ornament, much of it Egyptoid and all of it clumsy.

At the completion of this building, Adler probably wished that he had curbed his partner's drawing pencil, but the building was well planned and the interior well illuminated.

In 1897, the Ryerson Building was remodeled; new store fronts and entrances and an electric elevator were installed. Adler and Sullivan were still actively practicing architecture but not as partners, and another German-born architect "Fritz" Foltz, got the commission. That is the most telling criticism of this Ryerson building.³⁶

Two others were the Ryerson Charities Trust (1886) at 318 West Adams, for which little documentation and no photograph exist, and a warehouse originally commissioned by the Ryerson estate and later taken over by James H. Walker. Best known as the Walker warehouse, it was the most impressive and famous of Adler & Sullivan's industrial buildings. Finally the Ryerson family engaged the firm to do Ryerson's mausoleum.

This chapter has demonstrated the importance of Adler's connections to the community of German Jews in Chicago for the early commissions of the firm. Yet Martin Ryerson's considerable patronage of D. Adler & Co. and Adler & Sullivan puts to rest the notion that Adler's major clients--major either in terms of the number of commissions or the size of each--were exclusively German Jews. It is widely recognized that Adler's social skills contributed greatly to the firm's success, he was in that sense the "outside" man. And it is clear that neither partner did as well after the break-up of the partnership.³⁷

¹ Sullivan, *Autobiography*, p. 168.

² Sullivan, *Autobiography*, pp. 188-9

³ Sullivan, writing much later in his *Autobiography*, remembered 1881. Twombly, working from contemporaneous sources, dates the partnership of Adler & Sullivan to 1883, acknowledging that Sullivan began to work with Adler in 1879, but not as full partner. Robert Twombly, *Louis Sullivan: His Life and Work*. New York, Viking, 1986, pp. 96-98. Cf. Richard Nickel, Aaron Siskind, John Vinci & Ward Miller. *The Complete Architecture of Adler & Sullivan*. Chicago: Richard Nickel Committee, 2010, p.12.

⁴ William LeBaron Jenney, "A Few Practical Hints," *Inland Architect and News Record* 13 (1889): p. 7.

⁵ Hyman Meyers, *History... Chicago Democrat*

⁶ Jacob Katz, "Freemasons and Jews," in *Emancipation and Assimilation: Studies in Modern Jewish History*, (Westmead: Gregg, 1972): p. 154.

⁷ The ambivalence of well-established German Jews toward their co-religionists is well-documented. A national German-American publication had a negative editorial opinion: "It would be desirable if [Polish Jews] would stay away altogether." *The Occident* (31 Dec. 1886) quoted in Edward Mazur, "Jewish Chicago: From Diversity to Community, p. 178, *The Ethnic Frontier: Essays in the History of Group Survival in Chicago and the Midwest*. (Grand Rapids, MI: William Eerdmans Pub. Co, 1977.)

⁸ . Loewenstein, Steven M. "The Rural Community and the Urbanization of German Jewry," *Central European History* 13 (Sept. 1980): 226.

It is intriguing to look at the list of "Past and Present Members" of Kehillath Anshe Maariv for the 50 years from 1847 to 1897, and to speculate on how many of these men and women were not German-born or the descendants of German-born parents. The names alone do not reveal national origins, since *Ostjuden* tended to take German names. But the general pattern was that immigrants tended to seek out the kind of religious institution that they were familiar with in the old country, although their children often wanted more Americanized religious services. There are several instances in which native-born German-American Jews left Judaism and joined such groups as the Ethical Culture Movement founded by Felix Adler (no relation to Dankmar). One such case was Chicagoan Edwin Kuh, M.D., a surgeon at Michael Reese Hospital, who trained at the University of Heidelberg in the 1880s. He was politically independent but joined a number of groups: The Ethical Culture Society; Chicago Medical Society, and the American Medical Association. Flinn's Handbook, xxxx p. 233.

⁹ *Occident* (31 Dec. 1886): 6.

¹⁰ . Henry Horner grew up in a house designed by Adler & Sullivan at 17th and Michigan, and, like Adler, he was buried in Mount Maariv (KAM's) cemetery.

Mazur, "Jewish Chicago," p. 266ff; p. 272. *Dictionary of American Biography*, 2nd Supplement, s.v. "Horner, Henry," by Paul M. Angle.

¹¹ Liebman Adler's ethical will, in *Liebman Adler: His Life through His Letters*, ed. Joan Saltzstein, (Milwaukee, 1975): p.128.

¹² Herman Eliassof, "Jews of Illinois," *Reform Advocate* (4 May 1901): 340; *Real Estate and Building Journal* 28 (30 July 1885): 262.

¹³ Andreas, *History of Chicago*, v. 3, p. 730. Herman Eliassof, "The Jews of Illinois' *Reform Advocate* 4 (May 1901): 395-396. S.S. Schoff, *The Glory of Chicago—Her Manufactories*, (Chicago: Knight & Leonard, Printer, 1973) p. 187.

¹⁴ For biographical information on Fannie Bloomfield Zeisler, see Fannie B. Zeisler, "Program of Concert" (30 April 1884) Paul Allais, "The Fannie Bloomfield Zeisler Golden Jubilee Celebration," (Chicago 1925). Mrs. Fannie (Bloomfield) Zeisler, "Scrapbook of Materials," (Chicago, n.d.). All these materials are in the Chicago Historical Society Library. Elaine Harrington, "International Influences on Henry Hobson Richardson's Glessner House," *Chicago Architecture 1872-1922: Birth of a Metropolis* ed. John Zukowsky, (Munich: Prestel Verlag, 1987): p. 202.

¹⁵ Joan W. Saltzstein, "Dankmar Adler and the Chicago Fire," *Inland Architect* 11 (October 1967): 8.

¹⁶ Robert Twombly erroneously identified him as the son of Rabbi Bernhard Felsenthal. Robert Twombly, *Louis Sullivan: His Life and Work*, (New York: Viking Press, 1986): p. 108.

The original University of Chicago was established in 1858 and occupied a building at 33rd & Cottage Grove, but it lasted until 1886. Later, John D. Rockefeller and Marshall Field backed William Rainey Harper's plan to build a great private university in the Midwest. The second University of Chicago was a different institution: it occupied a site in Hyde Park, followed a different educational philosophy, and recruited a new faculty. It opened in 1892.

The Standard Club's First 100 Years 1869-1969 (Chicago, 1969), p. 31; Meites, *History*, p. 162-164.

¹⁷ From Morrison's viewpoint--keep in mind his book's title--they were uninteresting buildings because, like most of the residences, they did not lead to the future. Hugh Morrison, *Louis*

Sullivan: Prophet of Modern Architecture, p. 74.

¹⁸ Robert Twombly, *Louis Sullivan*, pp. 231-232.

¹⁹ Patrick and Andrienne Sullivan, Louis's parents, resided on East 23rd street from 1871. Their younger son joined them in 1873, and returned to Chicago again after his sojourn in Paris in 1875. He did not remain on the south side. Self-described as an architect in the 1877-78 city directory, he moved to Chicago Avenue in time to be listed in the 1878 directory. His later listing "architect," with the firm of Adler and Sullivan, architects; 58 Borden Block" appeared in 1884.

Twombly reported that the house was designed in 1891 for Adrienne List Sullivan, but that she died of an "atrophied liver" in 1892. Twombly, *Louis Sullivan*, p. 207. Her death was probably due to alcoholism-induced cirrhosis. Alcoholism has been attributed to Louis Sullivan by several historians, and it is no doubt true that he drank to excess. He took addictive drugs as well. When I interviewed Sara Adler Weil in 1963 she told me that bromides had contributed to his deterioration.

"Bromides produce depression of the central nervous system and were once widely used for their sedative effect. Because overdose causes serious mental disturbances, they are now used seldomly [sic]...Overuse results in symptoms that impair effective functioning such as dullness, deficient memory, tremors, and ataxia [staggering]. "In most cases, addiction results in transitory psychotic state, delirium or hallucinations." Symptoms of bromide addiction produce a condition similar to paranoid schizophrenia. *Dorland's Illustrated Medical Dictionary*, (Philadelphia: W.B. Saunders Company, 1988): p. 235-236.

²⁰ Gottfried Semper, translated by John Root.

21 Andreas, *History* v. 3; p. 368.; "Astor Street District," Chicago: Commission on Chicago Historical and Architectural Landmarks, 1974):

²² The original design for Zion Temple is reproduced in Twombly, *Louis Sullivan*, p. 133, but it is of poor quality. A better one is in Andreas v.3, p.53.

²³ I am grateful to Sarah Nazimova for bringing the German synagogue to my attention.

²⁴ A few midwestern congregations followed Sinai's lead in making Sunday morning services the major focus and performing Sabbath rituals using the text of the Sabbath service. One supporting argument was that the temple should attract the widest audience, by which one infers that proselytizing was an unvoiced goal of these services. In the end, i.e. by 1910, Sinai was alone in this practice, although many synagogues had Sunday morning services that used the weekday morning prayers and had no Torah chanting. The practice is still maintained in its new

building at 7 West Delaware Street.

²⁵ An interesting parallel to buying a seat or pew at Sinai or KAM is buying a seat on the Board of Trade, the Commodities Exchange, etc. The prices of both are shaped by market conditions--there is/was no set price. It is also the case that owning or renting temple space does not mean that it was always owner occupied. Some wealthy Jews held membership in more than one synagogue, and some bought seats but attended only High Holyday services. Some synagogues, hard pressed to pay their bills, attracted non-members by selling High Holyday tickets. One midwestern congregation, when faced with an overflow crowd on Rosh ha-Shanah, held a lottery to defuse potential conflicts between long-time members and visitors. By early in the twentieth century, rented or reserved pews were eliminated in 90 percent of Reform temples, while among Orthodox *shuls* 90 percent still had reserved space.

²⁶ For a description of social discrimination, see Naomi W. Cohen, *Encounters With Emancipation: The German Jews in the United States 1839-1914*, (Philadelphia: Jewish Publication Society of America, 1984): 32; Alfred T. Andreas, *History of Chicago*, v. 3 (Chicago: 1885, reprint ed. New York: Arno Press, 1975): 408; George D. Bushnell, "Chicago's Leading Men's Clubs," *Chicago History* 11 (Summer, 1982): 81-83; "The Standard Club's First 100 Years," (Chicago, 1969): 16

²⁷ . Another Standard Club member was Henry Greenebaum, a founder of the first B'nai Brith chapter in Chicago, a Jewish charitable and social organization intended exclusively for German Jews. The Ramah Lodge was established in 1857 but Dankmar Adler appears never to have joined it.

²⁸ *American Architect and Building News* 24 (23 March 1889): 137.

²⁹ In the Standard Club design, the placement of the animal heads in the center of each balcony panel is similar to the balcony of KAM from around the same time. But in the synagogue, Sullivan used a six-pointed *magen David* with a light bulb at its center. Lest the reader think that animal forms are prohibited by Jewish law, many synagogues of that time had carved lions as part of the *aron kodesh*. Hence it was not iconoclasm that dictated KAM's design but aesthetic choice. Adler himself never used in his own designs animals or angels--see Sullivan's Bayard Building for the latter--but his writings give no clue as to what he thought of such features.

³⁰ Stephen Birmingham, *Our Crowd*, (New York: Harper & Row, 1967).

³¹ Martin Ryerson, Chicago Historical Society (CHS) Clipping File. Charles Harpel, "Scrapbook of Obituaries. CHS. Martin Ryerson, not to be confused with his son, Martin A. Ryerson, donated an Indian statue in Chicago and has a public school named in his memory.

³² Robert Twombly, *Louis Sullivan, His Life and Work*. (New York: Viking Press, 1986) p. 123.

³³ Richard Nickel, "File #10." Chicago Commission on Chicago Historical and Architectural Landmarks, *Jeweler's Building* (Chicago; 1978); *Economist* 5 (9 May 1891): 798.

³⁴ Frank Randall, *History of the Development of Building Construction in Chicago*, (Urbana: University of Illinois Press, 1949) p. 99, Tallmadge also commented on the terra cotta slabs under the floor joists, a method of fire-proofing installed and approved by Peter B. Wight, who, by the early 1880s, was expert on the subject. According to Tallmadge, a knowledgeable source on Chicago architecture, Louis Sullivan actually designed the Revell Building. The placement of the ornament on the top floor and the character of that ornament would certainly identify him as the decorator, but Adler did the plan. Tallmadge, *Architecture*, p. 155.

³⁵ Robert Twombly, *Louis Sullivan, His Life and Work*. (New York: Viking Press, 1986) p. 126.

³⁶ *Economist* 17 (30 Jan. 1897): 120.

³⁷ Rochelle B. Elstein. "Adler & Sullivan: the End of the Partnership and its Aftermath." *Journal of the Illinois State Historical Society*, 2005, 98:51-81.

CHAPTER 4: THE AUDITORIUM AND ITS CONTEXT

Beyond America's borders, Chicago's reputation was that of a vulgar, jostling, greed-driven, crude metropolis. Two European observers, artists themselves, characterized the city as "butchering of the hogs, a horrible and magnificent spectacle" and rhetorically asked "who the devil wants to go to these butchers?"¹ These views would have horrified the city's proud burghers who had established cultural facilities that reflected Chicago's high aspirations. The city charter had hardly been signed when a historical society and a theater company were organized. Bringing the railroad to Chicago and settling thousands of immigrants manifested the founders' zeal and enthusiasm. Their aim was making Chicago the equal of Paris or Vienna and gaining on New York, its major rival.

BEFORE THE AUDITORIUM

As befitted a rapidly developing commercial center, the first civic building to go up was William LeBaron Jenney's Interstate Industrial Exhibition Center on the east side of Michigan Avenue. Intended for trade fairs, it had a huge clear span but was otherwise architecturally undistinguished. It later housed a temporary opera house of awesome size and acoustical excellence. Like mushrooms after a rain, an opera hall sprouted up inside it every two years until a permanent structure was erected.

The Chicago Opera Festival attracted contributors by giving them boxes for a season that lasted less than a week in the early days. The Chicago May Opera Festival ran from May 23rd to

the 26th, 1884, in a 6,000-seat hall that one historian described as "rudely constructed in the south end of the Exposition Building."² Adler & Sullivan provided far better facilities for the May 1885 opera festival, seating more than 6,000 people in an improved hall that cost \$60,000 (\$1.5 million in 2015) to adapt. Despite the season's success, the \$5,817 deficit was absorbed by backers like Richard T. Crane, Ferd W. Peck, Edson Keith, David Swing and other Adler & Sullivan clients. Adler was also a guarantor.³

In 1880 and again in 1884, the Interstate Industrial Exposition Center hosted political conventions for which more than 9,000 seats were installed. But the pinnacle of the hall's use was the 1885 Chicago Opera Festival, where the raked floor, fan-shaped room, large sounding board, and improved climate control and furnishings resulted in a "handsome, tasteful, thoroughly warmed, brilliantly-lit paradigm of opera houses." J. A. Mapleson's singers had eleven new dressing rooms plus a large one for the star, Adelina Patti, who sang like an angel. The season was extended: fourteen operas grossed \$132,000 (\$3.3 million in 2015), and the season ended with "a handsome balance." Sixty-two hundred people paid from \$1 (for gallery seats) to several hundred dollars for choice box seats that were sold at auction, and everyone could hear every word. Clearly it was time to erect a permanent opera house; and the Board of Directors knew it.⁴

In Europe, where the arts were subsidized, a freestanding concert hall or opera house was the norm. In the United States, where theaters were businesses, buildings had to generate revenue to offset production costs and make a profit. As early as 1869, Kinney and Adler's Wilcox Opera House contained offices and retail shops as well as the hall. The opera house put Freeport, Illinois on the cultural map just as the Auditorium made Chicago a cultural capital

twenty years later. Both buildings--so dissimilar in scale and complexity--were developed by realistic capitalists who expected, indeed required, a profit on their investment. "Theater had become just another business, and as such was expected to bring in profits. These businessmen pandered to the public in order to fill the theater and insure a profit."⁵

Before the Opera Festival Hall was built, there were multi-purposes venues for dramatic productions, vaudeville, and small concerts that reflected changing patterns in entertainment. At the beginning, local talent was often featured, but around the time of the Civil War, traveling stock companies were formed to bring the arts to the frontier. By 1886, there were over 280 traveling players' groups, and every town and village boasted an "opera house" in which they could perform. From the Wilcoxon Opera House to northern Michigan's Calumet Opera House, to the mountain city of Pueblo, Colorado, halls accommodated road companies, most of which brought their own stage sets. Later, booking agents and theater owners assembled circuits--networks of halls in which troupes could perform their most popular hits for limited runs.

When it came to costs, reason dictated frugality, but most owners wanted the most modern features and appurtenances. When Haverly's Theater needed remodeling in 1884, the owner turned to Oscar Cobb, who went to Europe to study the advances in theater design that had not yet reached Chicago. But his plans proved unsatisfactory and Adler & Sullivan were hired for this minor commission, which consisted of increasing the exits, improving the dressing rooms, and enhancing the interior with decoration described as "gorgeous but not oppressive." Haverly's Theater was one of the first to have electric lighting and for several decades, was a profitable house. It enhanced the reputation of the firm but the road to the Auditorium was not

direct. The remodeling of the McVicker's in 1885 was even more important.

Adler had had other theaters to his credit before he and Sullivan became partners, and they did six more before receiving the biggest commission of their careers in 1886. Some of those earlier buildings have been well researched, Kalamazoo's Academy of Music (1882), for example. But a few remodelings, such as the Grand Opera House, Chicago (1880), have not been studied. Those buildings permitted the architects to work out solutions they later employed in the Auditorium and that came to be characterized as an Adler & Sullivan music hall.⁶

For the Opera Festival Hall, Adler & Sullivan used their first raked floor. The 1884 hall was not heated, but the 1885 Festival Hall had steam heat. It was totally gaslit, whereas their 1885 McVicker's Theater remodeling was entirely electric. Haverly's was the missing link, a hybrid having both gas and electricity. The first European theater to feature electric lighting was in Halle, Germany, completed in 1886.

Booth's Theater in New York (1869) had mechanical ventilation and the Madison Square Theater (New York, 1871), and Adler & Sullivan's 1885 remodeling of the McVicker's Theater introduced forms of climate control before the Auditorium. Adler & Sullivan devised a form of air-conditioning for the Auditorium. With respect to acoustics, the designer of the Booth had also used transverse arches, but integrating a permanent sounding board into a ceiling is credited to Dankmar Adler.⁷

The McVicker's remodeling is worth exploring because of its artistic expression and because it was one of the firm's first buildings to garner publicity in a national architectural journal. *American Architect and Building News* devoted a brief article to it in December 1887,

concentrating on the decor but also mentioning its mechanical features. The color scheme and the materials won the author's admiration. He described the spikey leaf ornament and the “semi-Persian”[sic] woodwork. The lights were in recessed receptacles sunk into the plaster and surrounded by foliate forms, so the ornaments looked like incandescent rosettes. Chandeliers did not mar the sight lines, and gaslight did not increase the fire hazard. Still the building burned down in 1890 and was rebuilt by Adler & Sullivan at a cost of \$106,000 (\$2,789,000). Another advance that Adler employed was a shell or false covering that shielded the craftsmen from harsh winter weather; as a result, the 1890 rebuilding was completed six weeks early. The McVicker’s was one of the first buildings to have a separate annex for heating, ventilating equipment, and power generators. Much later, Sullivan wrote that the McVicker’s was the first to use electric lighting aesthetically. He concurred with Carl Condit who noted that the success of the McVicker’s got Adler & Sullivan the Auditorium commission.⁸

THE AUDITORIUM

“If America is the land of the superlative, Chicago is the superlative of America.”⁹ The Auditorium (fig. 24) lends itself to hyperbole. At the time it was built, 1886/90, it was the largest and costliest structure in the United States. It has been studied and measured and written about more than any Adler & Sullivan building.¹⁰ It weighed 220 million pounds, contained 9 million cubic feet of space, and cost \$3,145,291.50 (at today's prices about \$80 million). The Auditorium complex accounted for more than 20 percent of Adler's lifetime earnings. The mosaics contain 9,832,716 tesserae, and there are 25,000 light bulbs in the hall. There were

several thousand plans and drawings, in large measure because there were many changes, even after the foundations were in. No sooner had construction begun than the backers wanted to add a banquet room, increase the height of the tower, and change the facade from brick to stone.¹¹

The Auditorium was architecture on such a scale of size and complexity that the board decided to have the plans approved by experts before proceeding with construction. Louis Sullivan and Ferd Peck (fig.) carried the plans to Professor William Ware of Columbia University--he had been at M .I. T. when Sullivan was there--who did not just approve them but pronounced them “electrifying.” Meanwhile, Adler wrote to Louis's brother Albert telling him of his brother's trip to New York City on this essential errand, and also describing the progress being made on the design of the complex.¹²

The guiding force behind the project was Ferdinand W. Peck, born in Chicago in 1848, a lawyer, community leader, and music lover. Son of a New-England-born property owner, Peck had amassed a worth estimated at \$10 million in 1890 (over \$260 million today). He was a landlord with a conscience.¹³ Peck had sold the idea adapting the Interstate Exposition building for opera, and he fervently believed that Chicago needed a permanent opera house. His connections with Chicago's wealthiest men made it possible for him to invite Wirt Dexter, Martin Ryerson, and Edson Keith to join him in raising \$2 million to build a landmark. The February 1888 stockholders list contains names of many men who were Adler & Sullivan clients--Daniel F. Crilly, R. Knisley, Adolf Loeb, B. Loewenthal, Alexander Revell, Morris Selz, and Charles Schwab--and the architects themselves. Suppliers of materials and equipment, like the Shone Ejector Company, later engaged Adler & Sullivan to build buildings for them, and

engineer William Sooy Smith, who had on-going relationships with both partners, was deeply involved with the Auditorium. Not all supporters were Chicagoans; Frank Roosevelt (builder of the auditorium's organ) of New York was also a stockholder.

Wirt Dexter secured the Auditorium land, a site adjacent to S. S. Beman's Studebaker Building, which it dwarfs, but Adler & Sullivan, in their design, respected the organization of the facade, the diminution of window size above arcuated windows, and a base of rusticated stonework. These and nearby buildings south along Michigan Avenue replaced the hitherto residential quality of the street, but the backers believed that South Michigan Avenue, so close to the gilded ghetto of Prairie Avenue and the near south side, would become Chicago's commercial and cultural center. The Auditorium would facilitate that process. A key element in the planning was to provide appropriate settings for many types of entertainment: opera, ballet, choral performances, orchestral concerts, political conventions, and fancy-dress balls, not to mention banquets and business meetings. The more the building was used, the higher the profits.

“Temple of art and expedient of commerce,” Chicago needed urban glue. In the 1870s the shared experience of the Great Fire welded people together, but Chicago in 1887 was a different place with a different character, a heterogeneous city with a diverse population, the majority foreign-born or the children of foreign-born. Neighborhoods were stratified by wealth, ethnicity, and race. The sexes were segregated by leisure-time pursuits as well as by occupation (or lack thereof). Men had social clubs, most of which barred women from the premises except for the ladies' dining room. Women, more than men, were active in religious life; they attended services in greater numbers than men, and they formed church and synagogue auxiliaries so they

frequented their religious centers more often.

Churches, literary and social clubs brought women together but only with those in their own socioeconomic stratum. Philanthropy also united them, but except for their servants and the women they met while volunteering at settlement houses, upper- and middle-class women were on a separate plane from the working class. And the men were equally as stratified. What, then, was the adhesive that could hold Chicago together? What and where was the real "civic center?"¹⁴

In a few years, the 1893 World's Columbian Exposition would occupy center stage but as the golden fantasy of the entire population, literally an incandescent symbol of cultural perfection, the Auditorium addressed the same needs with similar success. The Auditorium was sublime and natives as well as visitors were captivated by it.

Visitors to the World's Columbian Exposition went or were taken to see the Auditorium. So popular was it with fairgoers that 1893 was the only year in which the stockholders received a dividend (of 3%). The south Loop never blossomed as the backers had anticipated and the Chicago Symphony Orchestra moved out fifteen years after the Auditorium was completed. The opera company left in 1929. Gauged by aesthetics and innovative engineering, the Auditorium was a glowing success; in financial terms, it was a failure. Its backers intended to make this opera house self-sustaining so the Auditorium had a hotel, offices, shops, ballrooms and bachelor apartments. As James Roosevelt, president of the Met said: "No opera-house in the world has ever paid as an investment, and none will ever pay."¹⁵

The building's great tower at first worried people but rapidly became a source of pride--

the tower became the embodiment of the citizenry's aspirations. It was the "cathedral" of Chicago and, like ecclesiastical architecture, part of the building soared above more modest edifices and looked protectively upon the city below. Chicago needed something that would belong equally to everyone and enrich the lives of all. To a certain extent, public libraries and free museums helped fill this niche, but the preeminent cultural force was music in myriad forms: opera, symphony, choruses, chamber music, and solo concerts; the Auditorium made them available to everyone. Impetus for the Chicago Opera Festival and later the Auditorium had been ticket prices of \$3 to \$6 (about \$75-150 today) for performances of the Metropolitan opera's touring company visiting Chicago in the mid-1880's.¹⁶

THE TRIP ABROAD

"The greatest room for music in the whole world" did not spring full blown from the head of Adler any more than the skyscraper materialized in Sullivan's imagination during a walk down Michigan Avenue.¹⁷ It was the product of extensive theater-building experience, reinforced in the summer of 1888 by Adler's trip abroad to see the great halls of Europe. A grand tour to European capitals was a prerequisite for building on a grand scale. Ferd Peck, Chairman of the Auditorium Board of Directors, preceded Adler and John Barstow, manager of the Auditorium. The ocean crossing on the S. S. Servia was fortunate, for they met "Captain" Jones, a superintendent at Carnegie Steel, a contact which probably helped Adler work as a consultant on the design of Carnegie Hall.

While in Europe, Adler wrote to Dila almost daily; some letters survive. These letters

covered personal matters, like seasickness and the cuisine, and afford a view of the private man who commented on many things--British railways and the topography he traversed, comparing Liverpool, England to Oconomowoc, Wisconsin, with which Dila was familiar. One letter mentioned the Glasgow Exhibition that acquainted him with comparable fairs before he served on the architects' committee of the 1893 Exposition. Traveling around Great Britain, he inspected machine shops and steel mills and acquainted himself with the architecture and engineering of railroads and bridges, as well as buildings. He wrote about an especially impressive bridge over the Firth of Forth. Since the Auditorium trusses were an adaptation of bridge trusses, this particular visit had a fruitful outcome.

Ferd Peck left Adler and Barstow on August 24 and Adler proceeded to London, stopping to enjoy the Birmingham Music Festival and meeting with J. N. Mapleson, impresario of the Chicago Opera Festival, who was abroad to recruit talent for the new opera house. In London, Adler did a "round of theater going between 8:30 and 11:30," ignoring the performances and focusing on the space and the equipment. One morning he and Mapleson visited the new London theaters under construction, for the latest in stage technology and building techniques.¹⁸

Adler went as a professional, but his observations and evaluations convey the whole man, public and private. London surprised him with its size, parks (many were used to pasture sheep, he noted), street paving, and wild driving habits of the cab drivers. He went to what he called the "Italian Exposition" near London. Belgium merited a quick stop, and he wrote a critique of the Brussels Hotel de Ville and the Cathedral, disclosing his preferences in northern Renaissance painting.¹⁹ He especially liked Rubens.

He went to Vienna and Budapest, the latter a city known for progressive architecture and engineering; Gustave Eiffel had built the railroad station with a metal skeleton in 1875 . Vienna also impressed Adler and he praised the Hofburg Theater as aesthetically the most magnificent and gorgeous in the world. But despite its great beauty, he thought it was badly planned, providing a mere 1,800 seats in a hall with the same volume in which Adler could accommodate 4,200, as he did in the Auditorium. London's theatres lacked central heating; the Hofburg had poor acoustics; many were firetraps. He observed that theater-going was an excuse for fashion displays and pageantry, and that his opera hall should accommodate the serious opera buffs and the promenaders.

In a more personal vein, he reported that he had bought a gift for Sara, expressing the wish that Dila, the "skilled shopper," had come with him. He would sail home in early September but needed to meet with some people in New York and also had to travel to Boston to see the Mitchell Granite Works. He tried, sometimes unsuccessfully, to visit friends and relatives in Europe and had to cancel a planned trip to Lengsfeld, his birthplace. He regretted that he and Dila would not see Europe together and that, given his obligations on the East Coast, he "[could] not rush right over to you the moment my work is done."²⁰

His Viennese host from the company that manufactured the Asphaleia system, C. Denggand, brought Adler to the railroad station to depart Vienna for Paris on the Orient Express. Aboard the train, he and a Mr. O'Donoghue, had a songfest in their compartment, probably as the result of a libation or two, singing "Dere's One More Ribber to Cross" to the mystification of their fellow travelers. At Epernay they drank champagne as the train sped west toward Paris.

The beauty of the land, the charm of the villages, and the fresh aroma of the forests captivated him. "The whole was a series of pictures is as enchanting as anything I have ever seen."²¹

Paris, the City of Light, was less illuminated than he had anticipated. His last letter was from Paris where he stayed across the street from the Paris Opera, on which, unfortunately, he did not comment. Staying at the Grand Hotel on the Boulevard Capucines, he received a great many friends: some of the Mandel family, a Gimbel or two, and B. Loewenthal. Ever the careful observer, he noted that some had lost weight and looked younger and healthier. (This was perhaps intended to goad Dila into dieting; in middle age she became quite stout, and her husband teased her about it.)

THE DEDICATION

Sixteen months before the gala opening, Ferd Peck had written to Adler about the hall's success and Adler's role in it:

I must personally send you this tribute of my personal recognition of your genius and services in the designing and construction of the Auditorium together with the special details involved in the preparing of the Convention Hall. There is but one opinion in the minds of the American public on this subject, as evidenced by the articles written by outside correspondents as well as for our local press. Your part in the achievement will never be forgotten by me.²²

The Auditorium theater (fig.) was dedicated on December 9, 1889. The president of the United States, Benjamin Harrison, who had been nominated in that hall, former New York governor and now vice-president, Levi Morton, plus the governor of Illinois, and various wealthy and distinguished guests were present. A cantata by Harriet Monroe, sister-in-law of architect

John Root and prominent in Chicago literary circles, was performed. Adelina Patti, Metropolitan Opera diva, sang. Afterward she declared that the acoustics were perfect, and the Metropolitan Opera House could hardly compare to the Auditorium.²³

Gifted architects and risk-taking engineers provided an enviable hall, and it became middle- and upper-class Chicago's civic symbol. Sullivan's encomium to Henry Hobson Richardson's Marshall Field Wholesale Store, "a monument to the commercial spirit," could have been modified to fit the Auditorium's commercial and artistic spirit. At last Chicagoans were more than hog butchers; they proved to be discriminating opera- and concert-goers, art lovers and elegant society models of fashion and taste.

A Chicago newspaper reported on the dedication that the happiest attendees were Rabbi Lippman [sic] and Mrs. Adler, both well into their seventies. Dila was there, of course, along with the three children. To celebrate her father's greatest achievement, Sara, age 12, wore the coral necklace her father had bought her in Paris. Years later she recalled that when the program ended and the architects were invited to receive the applause of the over 5,000 attendees, Adler was in the boiler room adjusting the machinery. This appealing anecdote suggests his humility...if not his stage fright. But Adler was accustomed to public speaking--he had been president of the Western Association of Architects and was poised in front of audiences. He had earned Chicago's approbation and he would have expected to be acknowledged. If he was briefly tinkering with the heating system, it was undoubtedly because he wanted everything to be perfect.²⁴

Louis Sullivan recorded his recollections of that building--the pinnacle of his and Adler's

careers--in his autobiography published in 1924. The project was fully realized at great psychic and physical costs for the architects. The strain took its toll on Adler; he did not collapse immediately but, according to Sullivan, its effect was deadly but delayed.²⁵ Sullivan suffered a nervous breakdown after the Auditorium dedication, only gradually recovered during a long rest in Ocean Springs Mississippi. He remained susceptible to bouts of anxiety and depression throughout the rest of his career, while Adler died at an early age from hypertension.

If the Auditorium shortened their lives, it lengthened their reputations. Before the Auditorium, Adler & Sullivan were architects of "almost national reputation." By 1889 they were famous nationally and internationally. The Auditorium and its predecessors shaped Adler's thinking with regard to distinctly American architecture because European music houses were as stratified as the societies that built them, while the Auditorium was a clear break with that tradition. Chicago architects, they claimed, were as concerned for the comfort and safety of the people in the gallery as they were for the box-holders.

Dankmar Adler and Louis Sullivan shared equally the glory and sense of achievement in the Auditorium, although critics, both their contemporaries and ours, have tended to see one or the other as the primary designer. Some regard Sullivan as only a decorator and Adler as the planner and designer. Others view the Auditorium as Sullivan's, with Adler doing the less consequential and less visible technical work. Certainly Sullivan was candid about the sources of the commission: Adler "was Peck's man" and "as to Louis" [Peck] was "rather dubious."²⁶

Adler had had more experience, and it was easier for Peck to persuade the board to award such a large commission to a 25-year veteran than to a man of 32 who had never produced a

building in its entirety by himself. Adler had done the Central Music Hall, the Academy of Music (Kalamazoo), Haverly's Theater, and the Chicago Opera Festival auditorium. Sullivan acknowledged Adler as an innovator when he pointed out that Adler could not turn over the project to a consultant because the problems were so novel.

[Little] professional advice Mr. Adler could call to his aid [for the Auditorium]. He practically had to dig it out for himself and it was a tremendous proposition.²⁷

Recent critics agree and, pointing to the success of the egresses and ingresses, remark on Adler's skill as a planner. George Elmslie, who worked closely with Sullivan after their rift, reported, "Adler and Sullivan deferred to each other at all critical exigencies."²⁸

The design of the Auditorium with its simple, massive façade, and fanciful and gorgeous interior reflects a symbiosis of two great talents. Adler concluded his autobiography by describing the uniqueness and practicality of its power plant. What was Sullivan's evaluation?

It is very difficult to understand today, but if you can only grasp the idea of what that auditorium was and what it became very soon after it was completed, you will see the signal position that it occupied in the history of Chicago architecture: that it was a tremendous advance and was soon superseded.²⁹

It was superseded because it was not a steel-framed building--only the organ chamber had a steel skeleton. A metal skeleton would have obviated many of the foundation problems, permitting faster construction, but it would have resulted in its demolition in the 1940s. Some features were never improved upon. The counterweighted scenery-moving system, the number and locations of entrances and exits, the fireproofing, the flexibility of the hall which could be made smaller with movable panels, the heating and ventilating, the sight lines, and, most crucial of all, the acoustics, have been models for several decades. They have not been bettered. "In the

last quarter of the nineteenth century, there were more changes in the physical theater than there had been during the previous two hundred years."³⁰ But the Auditorium and Carnegie Hall have both been restored in recent decades because their qualities were worth preserving.

Adler and Sullivan were instrumental in attracting to Chicago the World Columbian Exposition because of the success of the Auditorium.³¹ The journal *The Architect* (later *The Architect and Building News*) published for British architects a brief article on the Auditorium . Excerpted from *Industrial Chicago*, it stressed the size and complexity of the program: "never before were opera house, hotel, business block, projected under one roof." They praised Adler for "overcoming treacherous dangers in the friable soil," and credited Sullivan with designing the entire complex.³²

AFTER THE AUDITORIUM: CARNEGIE HALL AND PUEBLO OPERA HOUSE

Chicago's monument to high culture was also Adler & Sullivan's entree to other theater commissions.³³ An undocumented commission that Adler undertook was consulting on the Music Hall in New York City, more familiarly known as Carnegie Hall. Adler mentioned it briefly in his autobiography but did not define his role, calling himself "consulting architect." Walter R. Damrosch and Richard Morris Hunt also were hired to advise the designer. The recipient of this advice and consultation was William R. Tuthill, a fellow member of the Sunset Club. The project began with Andrew Carnegie putting up \$1 million for a proper concert hall in New York, complete with smaller performance spaces, and separate recital and chamber music halls. The large hall could be converted into a ballroom, a feature also found in the Auditorium.

Andrew Carnegie is reputed to have given Adler a silver matchbox with the inscription *Servia Umbria* as a token of his appreciation for Adler's contributions to the hall and to memorialize Adler meeting William Jones aboard the *Servia*. An old press clipping, unfortunately undated, reported that Dankmar Adler was "taking especial charge of the development of acoustical properties, arrangement of ingress and egress, ventilation, and general solidarity of the proposed structure."³⁴ The program for the inaugural concert credited both Dankmar Adler and Louis Sullivan as consultants, but failed to specify their contributions.³⁵

That Adler did make a contribution to the design of Carnegie Hall is true.³⁶ Sara Adler Weil believed that her father would have gotten the commission himself, but a New York architect was required. Since licensure of architects did not begin until 1897 and spread slowly, this cannot be true in a legal sense. What might be true is that it was politic to use local talent; when Cass Gilbert was much later engaged to design the Woolworth Building, many New York architects were very angry.³⁷

While the Auditorium was under construction, Adler & Sullivan began designing an opera house for Pueblo, Colorado, which then had a population of just under 25,000. Its original opera house had started life as a roller rink, but the success of Frank Edbrooke's Tabor Opera House in Denver was regarded as a cause of that city's population growth. (From 4,000 in 1870 Denver soared to 107,000 in 1890.) At Pueblo, the copper-millionaire Guggenheim family were eager to foster the growth of the city, and their ranks were augmented by several wealthy men who put up \$115,000 to be matched by \$135,000 raised by the Pueblo citizenry toward what ultimately cost \$368,000 (about \$9.7 million in 2015). The architects of choice were Adler &

Sullivan, identified in a history of Pueblo as the designers of the Auditorium. The list of artists, craftsmen, and suppliers who worked on the Grand Opera House is a reprise of the Auditorium's: Healy and Millet, Albert Burridge, and Richard T. Crane.³⁸

Like the Auditorium, the Pueblo opera house was a mixed use building, although it lacked a hotel. The ground floor housed a bank--Sullivan's first opportunity to design one--something that he would do almost exclusively in the first two decades of the twentieth century. Dankmar Adler employed a reinforced concrete raft foundation, the same as was used under the Auditorium; he again put the power plant in a separate building. The Colorado building had a tower, although not as tall as the Auditorium's, and muscular stone arches with a scaled-down version of the Michigan Avenue second-floor loggia above the theater entrance. The squat columns of the upper floor are borrowings from Chicago, but the hipped roof is not. That kind of roof would later cap Adler & Sullivan's Victoria Hotel, but it was not much used in their concert halls and opera houses. The Grand Opera House in Pueblo was lighted exclusively with electric power--500 electric lights illuminated and enhanced the decor in the large hall--and it had capacious foyers and lobbies.

Louis Sullivan visited the site in May or June 1888, shortly after the firm got the commission, and Adler took the plans to the backers in July. The project was delayed because fund raising went slowly. It was first mentioned in the *Real Estate and Building Journal* in January 1889, with figures and facts given in detail and a cost estimate of \$250,000. Ground was broken in February, 1889. Many changes in that eight-month interval tailored the design to the budget. The backers also needed to raise more money to build the building they wanted. The

design was less coherent than the Auditorium, and the interior, while gorgeous, was not as spectacular. The function of the Grand Opera House was to make Pueblo superior to all the other burgeoning mining towns in the West, and it achieved that goal. Pueblo had "a big city opera house with elaborate machinery" and a growing reputation.³⁹

The Pueblo building was not a carbon copy of the Auditorium, being smaller and shorter. The tower, while interesting, was not well integrated into the building's mass, and the proportions of the overall composition were not as pleasing. The material was also different, as was the color. Manitou red sandstone was complemented with grey granite trim. At \$300,000 (\$7.9 million now), it was much less expensive than the Auditorium, but it was a prime commission as Adler acknowledged when he sent Henry French west to oversee the construction. Among its advances were a sounding board as an integral part of the proscenium structure and intersecting barrel vaults that Adler sometimes used. But the feature that most impressed the opera-going public was the absence of columns supporting the balcony and the gallery. Adler's maxim was "if you can see clearly, you can hear clearly." In fact, in this 1,100-seat theater, both sight lines and acoustics were superb.⁴⁰ "It is said that visiting theatrical troup[e]s often declared that it possessed the best acoustical qualities they ever encountered."⁴¹

Adler returned to the site in September, 1890, a month before the building's opening, to make sure that everything was ready. But he did not return to see the inaugural performance, Gilbert & Sullivan's *Iolanthe* which, being an enthusiastic fan of their work, Adler would have enjoyed enormously. (The building was destroyed by fire in the winter of 1922.)

¹ Sarah Bernhardt and Camille Pissarro quoted in Henri Loyrette, "Chicago: A French View" in *Chicago Architecture 1872-1922: Birth of a Metropolis*, ed. John Zukowsky, (Munich: Prestel Verlag, 1987): p. 124.

Both Bernhardt and Pissarro happened to be Jewish but that would hardly have colored their perceptions. Other commentators of other faiths made similar observations, but theirs were among the most ardently stated.

² *Inland Architect and News Record* 3 (July 1884.): 84

³ Robert Twombly, *Louis Sullivan: His Life and Work* (New York: Viking Press, 1986): 161-.; "Grand Opera Festival" p. 1; Alfred T. Andreas, *History of Chicago*, (Chicago 1885, reprint ed. New York: Arno Press, 1975.) v. 3, p. 651; Charles Gregersen, *Dankmar Adler: His Theaters and Auditoriums*, (Athens, Ohio: Ohio University Press, 1990): pp. 60-61; Richard Nickel, "A Photographic Documentation of the Architecture of Adler & Sullivan," (M.A. thesis, Illinois Institute of Technology, 1957): p. 23.; Joan Saltzstein, "Dankmar Adler: The Man and the Architect," (Adler Archive, Newberry Library): pp. 64-65.

⁴ Mr. G.S. Pratt, festival director, checked the acoustics and pronounced them perfect. *Real Estate and Building Journal* 27 (4 April 1885): 160.

Perfection and quantity are themes that characterize the literature on Adler & Sullivan's music halls and auditoria. One is told that two million board feet of lumber were needed to transform the Interstate Exposition Building into the Opera Festival hall. When we get to the Auditorium, there is a plethora of statistics, down to the number of bricks and of tesserae in the mosaics.

⁵ Perhaps Sarah Bernhardt had had a less than successful booking in Chicago, but other famous actors and actresses enjoyed their stints in Chicago all the more so as technology provided adequate and well-equipped dressing rooms.

Charles Grimsley, "A Study of the Contributions of Dankmar Adler to Theater Building Practices of the Late Nineteenth Century." (Ph.D. diss. Northwestern University, 1984): p 26ff.

⁶ In the theaters of this period, the "parquet" was the main floor closest to the stage; the remaining part of the first floor under the balcony overhang was the parquet circle. Box seats, located above, were the most costly. The balcony was divided between "the balcony", the first two to four rows and the dress or family circle. Above the balconies was the gallery, site of the cheapest seats. It had the most distant views, and the columns that supported it impaired sight lines for some patrons in the balcony or parquet. In the early days, the gallery had only standing room or benches and unupholstered or folding chairs. Adler spent much of his career designing theaters with balconies supported from trusses, which did not require columns. His acoustics

were so excellent that even in the gallery seats the performers could be heard.

Charles Gregersen, "Early Adler & Sullivan Work in Kalamazoo," *Prairie School Review* 11 (Third quarter, 1974): 5-15. Charles Grimsley, "A Study," pp. 139-141; 152-170.

⁷ Grimsley, pp. 32, 207-208; 411, 419.

⁸ C. H. Blackall, "Notes of Travel," *American Architect and Building Journal* (24 Dec. 1887): 299-300; *Real Estate and Building Journal* 33 (31 Jan. 1891): 152; *Inland Architect and News Record* 4 (May 1885): 68; Louis H. Sullivan, "Development of Construction," [*Chicago*] *Economist* 55 (24 June 1916): 1252; Carl Condit, *The Rise of the Skyscraper* (Chicago: University of Chicago Press, 1952): p. 48.

⁹ Paul Lindau quoted in Dudley Arnold Lewis, "Evaluations of American Architecture by European Critics," (Ph.D. diss., University of Wisconsin, 1962): p. 112.

¹⁰ The essential sources on the Auditorium are: Dankmar Adler, "The Chicago Auditorium," *Architectural Record* 1 (April-June, 1892): 415-437; Adler, "The Auditorium Tower," *American Architecture and Building News* 31 (4 April, 1891): 15-16; Adler, "Foundations of the Auditorium Building," *The Inland Architect and News Record* 11 (March 1888): 31-32; Wilbur Denson, "A History of the Chicago Auditorium," (Ph.D. diss., University of Wisconsin, 1974); Edward Garczynski, *The Auditorium* (New York: E.S. Hard Publishing Co., 1890); Charles Gregersen, "Dankmar Adler: His Auditorium" (photocopy), Adler Archive, Newberry Library, 1979; Gregersen, *Dankmar Adler: His Theatres and Auditoriums* (Athens, Ohio: Swallow Press, 1990): 65-70; Hugh Morrison, *Louis Sullivan, Prophet of Modern Architecture* (New York: W.W. Norton, 1935): 80-110; Daniel Pearlman, "The Auditorium Building: Its History and Architectural Significance" (Chicago: Roosevelt University, 1976); Joseph Siry, "Chicago's Auditorium Building," *Journal of the Society of Architectural Historians* 57 (June 1998): 128-159; Twombly, *Louis Sullivan*, p. 146.

¹¹ For an account of the factors involved in this decision, see Siry, "Chicago's Auditorium," pp. 135, 148ff.

¹² Dankmar Adler, Chicago, to Albert Sullivan, (12 Feb. 1887). (Adler Archive, Newberry Library).

¹³ A man who opposed even the inequality inherent in theatrical boxes, Peck was neither as fearful of the radicals and laboring classes as Marshall Field nor as innovative as his friend Nathaniel K. Fairbank, backer of the Central Music Hall. He had an educational/cultural/philanthropic vision for Chicago encompassing a free school for adults, grand opera at affordable prices, and a place where lectures on the important issues of the day could be heard. Joseph Siry, "Chicago's Auditorium," pp. 133, 138-9, 149-152.

¹⁴ Helen Horowitz defined a wealthy clique that governed all aspects and institutions of culture. Many of their names will be familiar because Adler & Sullivan built for them. Helen Horowitz, *Culture and the City: Cultural Philanthropy in Chicago from the 1880s to 1917*, (Lexington, KY: University of Kentucky Press, 1976).

¹⁵ Siry, "Chicago's Auditorium," p. 153 fn. 16.

¹⁶ *Ibid.*, p. 137.

¹⁷ Frank Lloyd Wright quoted in William Jordy, "The Tall Buildings," *Louis Sullivan: The Function of Ornament*, ed. Wim de Wit, (New York: W.W. Norton Co., 1986): p. 65.

¹⁸ Adler's reasons for going to Europe included familiarizing himself with the Asphaleia System. Over a leisurely lunch, the inventors described the system for moving stage sections with hydraulic jacks that permitted various stage configurations. Adler pressed them to apply their system to the needs of the Auditorium. Later in his trip he visited some of their installations and subsequently, with his engineer Paul Mueller, developed a workable variant for Chicago.

¹⁹ "I must confess that I like an exhibition of the works of modern masters better, and in fact in their collection of the works of old masters, I enjoy seeing the stiff, naive, literal, and somewhat illiterally grotesque works of the very old masters better than that of the so-called masters."

²⁰ Dankmar Adler, Vienna, to Dila Adler, Chicago, September 23, 1888, (Adler Archive, Newberry Library).

²¹ Saltzstein, "Dankmar Adler: the Autobiography," p. 23. Adler letters (Adler Archive, Newberry Library).

²² Saltzstein, "Dankmar Adler: The Man and the Architect" [manuscript], (Adler Archive, Newberry Library): p. 110. Ferd Peck, Chicago, to Dankmar Adler, Chicago, June 1888.

²³ For a description of the sight lines and acoustics, see Siry, "Chicago's Auditorium," pp. 140-144.

²⁴ Saltzstein, "Adler manuscript," p. 106-107.

²⁵ Had that been the case, however, Adler would not have gone on to do other great theaters, although if Sullivan meant to say that Adler never achieved as much in subsequent theaters, that is a more persuasive argument. But it is equally plausible that in 1924, exhausted, broke, ill, and in the depths of despair, Sullivan was projecting his own feelings onto Adler.

²⁶ Louis Sullivan, *Autobiography of an Idea*, (New York: American Institute of Architects, 1924): p.294.

²⁷ Sullivan, "Development of Construction," [*Chicago*] *Economist* 56 (1 July 1916): 40. Reprinted in Robert Twombly (ed.), *Louis Sullivan: The Public Papers* (Chicago: University of Chicago Press, 1988).

²⁸ George G. Elmslie, quoted in Claudia Cassidy, "On the Aisle," *Chicago Tribune* (Adler Archive, Newberry Library), no date or page.

²⁹ Sullivan, "Development," p. 40.

³⁰ James Marston Fitch, cited in Scott, "Present at the Birth," p. 9. Scott, like Hugh Morrison, noted the traditional sources for the preliminary designs: French Gothic, Renaissance towers, and mansard roofs. According to Connely, the Hotel de Ville in Paris was the design's inspiration. Grimsley, "A Study of the Contribution," p. 44.

³¹ *Inland Architect and Builder* 5 (March 1885): 25.

³² "Chicago Auditorium," *The Architect* 43 (21 Feb. 1890): 125-126.

³³ In the history of Adler and Sullivan's collaboration, 1886/9 was the high point. The great opera hall that Adler & Sullivan created within a monumental stone-faced block of a building conveys a sense of timelessness and perpetuity that belied its fate. In truth, it has survived because it was too expensive to demolish. Fortunately it found a new incarnation as a college in the late 1940s. The hall was restored in the mid-1960s, and in recent years it has provided a venue for large-cast musicals, some solo instrumentalists, a few classical concerts, and an occasional ballet

³⁴ Adler Archive, Newberry Library, no page cited.

³⁵ Gregersen, p. 94

³⁶ In fact, he billed \$1,800 for some of his services but apparently never collected his entire fee.

³⁷ Joan Saltzstein, "Dankmar Adler: The Man, the Architect, the Author," *Wisconsin Architect* (July-Aug. 1967): p. 18; Saltzstein, "Dankmar Adler: The Man and the Architect" manuscript (Adler Archive, Newberry Library, undated): p. i.
Thanks to Sharon Irish for providing the information on Cass Gilbert.

³⁸ *History of the State of Colorado*, v.3 (Chicago: Blakely Printing Company, 1891): p. 483.

³⁹ Lloyd Engelbrecht, "Adler & Sullivan's Pueblo Opera House: City Status for a New Town in the Rockies," *Art Bulletin* 67 (June 1985): 277-295.

⁴⁰ Charles Gregersen, "Dankmar Adler's Principles of Acoustics," (Adler Archive, Newberry Library, n.d.): p. 1.

⁴¹ *Real Estate and Building Journal* 31 (19 Jan. 1889): 35.

Engelbrecht believed that the Pueblo design predated the Auditorium, but Charles Grimsley thought the opposite. The photographs and plans suggest that the Engelbrecht position was more accurate. See Engelbrecht, "Adler & Sullivan's Pueblo Opera House," p. 282; Grimsley, "A Study of the Contributions," p. 305-306.

CHAPTER 5: THE RISE OF ADLER & SULLIVAN

THE PROBLEM OF THE TALL BUILDING

Jacques Hermant wrote: "If possible...the American would erect a super-structure that contained all of the business establishments of the city, a Tower of Babel transformed into the ultimate tower of labor."¹ The architect saw it as a planning problem--the inherent density of the tall building, magnified by a concentration of skyscrapers.

Rabbi Liebman Adler, like Henry James, saw skyscrapers from the point of view of morality.² James, a New Yorker, first saw skyscrapers as "mercenary monsters" and a short time later offered a paean of praise to the "multitudinous skyscrapers [looking] from the water like extravagant pins in a cushion already overplanted, [with] flash and flicker like the lamps of some general permanent celebration." But James represented genteel New York, and mercantile New York was more preoccupied with profits, the "underlying business competition and importance of business in the city."³

In his late writings, Liebman Adler recognized (or feared?) the skyscraper's potential to destroy the city. If built in substantial numbers, "they would cut off light and air from shorter neighbors, disgorge hundreds of people onto inadequate sidewalks at quitting time and, while under construction, block sidewalks and streets with heavy equipment. There, every physical and moral power is strained and overexerted to meet the insatiable demands of city life and customs."⁴

A doleful observer predicted the deterioration of city life as it was enjoyed in the early

1880s:

'These monstrous structures shall before long convert the streets into narrow gorges, as inaccessible to the light and air as they must be concentrative of the increasing noise and dirt of incessant money-spinning.'⁵

THE PATH TO THE WAINWRIGHT BUILDING

Two American characteristics were embodied in the tall office building: the propensity for size and admiration of Yankee ingenuity. Building upward may have been necessitated by land costs, but it also satisfied the American penchant for bigness that was celebrated in song and myth, e.g., Paul Bunyan and his Great Blue Ox Babe and other larger-than-life heroes. The chain of causality, as one historian noted, was that ingenuity led to simplicity, which led to logic and economy in building.⁶

During the mid-1880s, Adler & Sullivan were working toward a new type of building--the tall office block, or skyscraper--but its gestation was long. The problem of access to light and air was addressed in a building they designed for Wirt Dexter (1887). Originally announced as an iron-fronted building to cost \$15,000, the final design was closer to \$100,000 (\$2.5 million in 2014). The architectural press proudly stated that the windows of this store and factory would admit 76 percent of available light. But the press did not describe or evaluate the design. Later generations of architectural historians have seen Adler & Sullivan's mature skyscrapers growing out of unadorned commercial/industrial buildings such as this one at 630 S. Wabash (demolished in 2006).

Above the rusticated masonry and ironwork of the ground floor rises the undecorated

piers and paired windows of a modern building. The center bay is slightly recessed, and a shallow gable at the roofline prevents it from qualifying as a "block," a key type in William Jordy's taxonomy of Sullivan buildings. Despite its traditional elements, this building is planar. There is no ornament in the spandrels, nor is the top interrupted with "bedstead" forms. A bit of brick ornament is all the decoration that was deemed appropriate. Hugh Morrison characterized it as "the end-point of the style-development of the early and middle eighties and the next step towards a purely structural monumentality."⁷

One of the most interesting of Adler & Sullivan's elevator buildings was the 1884-85 Troesch Building (fig.) at 15 South Wacker Drive (demolished in 1978). If you can envision the Troesch building ending at the fifth floor, you are more than halfway to the Wainwright.

The Wainwright building was a significant advance, but it, too, was superseded. The St. Louis man who chose Adler & Sullivan as his architects did not know what impact his skyscraper would have on American architecture, but to give brewer Ellis Wainwright his due, he was a man of discernment in the arts. He collected Barbizon School paintings, French nineteenth-century art that Adler also admired, and married Charlotte Dickson who shared his aesthetic passions. He sold his brewery in 1889 and began investing in street railways and real estate. In 1890 he paid \$127,000 (\$3.3million) for a lot at Seventh and Chestnut in St. Louis and shortly thereafter hired Adler & Sullivan and a local architect, Charles K. Ramsey, to build a tall office building.

Charles K. Ramsey (1845-1913), the son of a carpenter, studied engineering at Washington University in St. Louis. He furthered his architectural training during two years in

France (1869-71). Returning to St. Louis, he practiced architecture, first with F. W. Raeder, later with Albert Swasey. In 1887 he established a solo practice. His most successful building was the Hauser building of 1888, a skillful adaptation of Richardson Romanesque as much in debt to the Rookery with its finials and entrance bay as to the Marshall Field Wholesale Store.⁸ The client was Daniel Hauser, publisher of the *St. Louis Globe Democrat*.⁹

In addition to working with Adler & "Sutherland" [sic] on all three of their St. Louis buildings, Ramsey supervised local construction for the Boston firm of Cummings and Sears. His reputation as "a safe and reliable man" made him a logical choice to oversee the Wainwright, Union Trust, and St. Nicholas Hotel buildings, but how he and Adler became acquainted has been a matter of conjecture. Paul Sprague speculates that Ramsey had worked in Adler & Sullivan's office and helped direct Mr. Wainwright to Adler & Sullivan.¹⁰

It is equally likely that Adler and Ramsey met through their professional associations since both were active in the Western Association of Architects and the American Institute of Architects. Ramsey attended several WAA conferences, beginning with the one in St. Louis in 1885, where he heard Louis Sullivan speak on "inspiration" and in Chicago in 1886, where Dankmar Adler relinquished the presidency of the association. Ramsey served as president of the Missouri state association (1888), and was treasurer of the St. Louis chapter of the A I A. Adler always surveyed the local architecture when he traveled to meetings, so he may have been sufficiently impressed with Ramsey's residences and factories to file away Ramsey's name against the day when he needed a St. Louis contact.

The Wainwright design underwent several changes, but the basic plan remained the

same: a U-shaped plan around a light court, with offices and corridors narrow enough to admit light into all the rooms. Real estate brokers described it as "one of the most desirable office buildings in the city," with extra-heavy steel columns and oversized beams, a concrete and stone foundation, and strictly fireproof construction. Offices could be tailored to the occupant's needs because all interior partitions were movable.¹¹ The Wainwright was a modular building but, more importantly, it looks like one. It is not difficult to imagine the number of stories increased to twenty or more.

Sullivan's ornament for the Wainwright is more advanced and better integrated into the design than in any earlier building. The engineering side of the work was also more up-to-date and sophisticated. The Wainwright boasts reinforced concrete footings--the building settled less than a quarter-inch in two years--riveted steel columns and beams, terra-cotta cladding of the metal skeleton and modular construction. Adler located this building's mechanical apparatus in the basement rather than in an annex. If the project broke no new technological ground, it certainly integrated all the latest technology and at a lower cost than comparable buildings, approximately \$.25 per cubic foot for a total of \$561,225 (\$14.76 million).

The building itself is an arresting design. A solid block ascends skyward and terminates in a slab cornice beneath which an attic story bursts into bloom. Each spandrel contains a different pattern of foliation, so that the viewer's eye is drawn by the decoration and the aspiring piers ever upward. This building broke with the past; it is not beholden to Henry Hobson Richardson or even to John Root. It is Adler & Sullivan's monument to urbanity, not a Tower of Babel but a landmark synthesis of beauty and business. The Wainwright was so popular that the

Union Trust Company commissioned a tall office building a block away in 1892.

THE BORDEN BLOCK AND THE SCHILLER BUILDING

To summarize developments between 1880 and 1895, when the firm of Adler & Sullivan was dissolved, one can compare two neighboring buildings designed by D. Adler & Co. and Adler & Sullivan: the Borden Block (fig.) and its neighbor, the Schiller Building (known more recently as the Garrick Theater). Rare is the opportunity to juxtapose two such buildings from two architects' careers that illustrate their maturation over a decade and more. Happy chance provided that for Adler and Sullivan in the form of the Borden Block (1880/1) and its immediate neighbor, the Schiller Theater (1891), two buildings that once graced Randolph Street.¹²

Low and boxy, the Borden sat solidly on its site, depending for its attractiveness on its proportions, the color and textural contrast between the red/brown brick and pale gray stone, and the sculptured mullions and the entablature. Its proportions were pleasing. The columniated attic story and cornice, and the rich thick ornament in the lunettes were especially effective. The Borden "block" was just that--blocky with an almost equal number of bays on Dearborn and on Randolph, and with an almost cubic facade at 80 x 90 x 100 feet.

The windows were set deeply into the facade, controlling the light admitted and creating interesting shadows as day turned into evening. In the Borden Block, natural light and fresh air were admitted through paired windows divided by iron mullions (another use of metal). While the lower floors were treated like trabeated architecture, the lunettes at the top added a cachet that few buildings of its time possessed.

Advertising signs were apparently limited to the ground floor, while above nothing detracted from the building itself that, in a real sense, announced to passers-by that a new architectural firm was in charge and a new architecture was gestating. The Borden Block was where the young firm of Adler & Sullivan would be housed, but when it opened in 1881, Louis Sullivan had not yet become a major figure. He was still a draftsman, albeit a gifted one.

Adler was adventurous, and in the Borden Block he used iron I-beams to carry the spandrels. The isolated footing foundations were of the type that Baumann touted. As Adler's writing reveals, he knew that businessmen like John Borden valued a building by the amount of rentable space. To the triad of architectural virtues "firmness, commodiousness and delight," capitalists added profitability. That meant a good location, light, ventilation, efficiency of plan and flexibility. The Borden's favorable location was confirmed by the placement there of the Schiller Building a decade later. In the late 1870s and early 1880s, Chicago's population was growing north and south, as well as westward from the Lake. Randolph Street was close to the population center and the intracity transportation network.

Later in Sullivan's career, filigreed iron work forms would emerge along with terra cotta, but in an article published in 1916, he ignored the Borden Block's ornament and remembered the building mainly for its innovative use of isolated stone foundations and for being one of the first in Chicago to use plate glass and finished hardwoods throughout. He claimed credit for the foundations, which is highly unlikely. He stressed that the project was fully rented before it was finished. He did not even mention the ornament, but Thomas Tallmadge did. In fact, Tallmadge credited Sullivan with the entire design.¹³

The Schiller Building (1891) came much later in the architects' careers. Instead of turning its back on the Borden Block, the Schiller acknowledged its character, materials, form, and proportions. The Schiller was, of course, a far more complex and complicated project due to its site, program, size, and prominence. It required much more care and more staff time at greater cost. That it became a great success reflects several changes in American architecture, in terms of practicality and professional capabilities.

Adler & Sullivan got the commission for a tall office building on Randolph Street in Chicago, between the Borden Block and the Dime Museum Building, in early 1890 while they were fully engaged in the Pueblo Opera House. The project is now variously known as the German Opera House, the Dearborn Building, the Schiller Building, and the Garrick Theater. . They hired several extra draftsmen in addition to Frank Lloyd Wright, who had joined them in the summer of 1888, and the partners themselves worked longer hours. Not until the following year (1891) was a theater was included in an illustration. There were many changes in the plans as the client, the German Opera House Company (incorporated in 1891), refined their program and their requirements, but there never was equivocation over the choice of architect. "Adler & Sullivan were selected because of their success in designing theaters."¹⁴

The commission for the Schiller unfolded over a two-year period. At first the architects were to produce a theater for the German Opera Company and other musical uses, a hotel, offices and club meeting rooms, the same program as the Auditorium. The site was deep, but the frontage was only 80 feet wide on Randolph Street, by that time a part of a larger cultural-commercial district. The earliest idea was to build on Dearborn Street, but that proved

undesirable. Plans for a \$600,000 structure on that north-south street were scrapped in favor of a new program that successfully wedged an office block-theater complex into so small a space that the hotel idea had to be abandoned. Initially the tower was to have been ten stories tall; it was increased to fourteen and then eighteen.¹⁵

"Revisions and decisions that a minute might reverse"¹⁶ aptly describes the evolution of the final design, although compared to the Auditorium's history, the changes were relatively insignificant: most importantly the height of the building was increased. Also its Romanesque styling was altered, a flat roof with a belvedere was added as was a balcony on the second floor. From the outset, this was a mixed-use building: a 1,300-seat theater, clubrooms, kitchen, restaurant, and perhaps a hotel. The hotel never materialized, but the first setback skyscraper did.¹⁷

Adler and Sullivan were uniquely qualified to design this building--although buildings would be a more accurate description. Adler's experience with multi-function buildings dated back to his earliest days with Kinney and with Burling. The issue of a larger-than-usual clear span was one he had already resolved for the Kauke Chapel in Wooster, Ohio and at the Wilcoxon Opera House. The Central Music Hall was a tremendous achievement by any criterion and marked his professional coming of age. Moreover, when the Schiller Building took shape in 1890/1, the Auditorium had been completed and its critical success gave confidence to the Schiller's backers.

Like the Auditorium, it was to have a tower. This is an important point because once Adler solved the height issue and proved that ever greater heights could be successfully and

safely reached, the tower became the dominant motif of many Adler & Sullivan designs, especially those for performing arts centers. The Schiller's revised plan was for a 1,300-seat theater, with offices in the flanking wings. The clients ended up with what they wanted--a 2.4 million cubic foot complex costing \$737,100 (\$19.4 million), housing shops, an exemplary theater, meeting rooms, and 324 offices.

In contrast to the Auditorium, the tower was the building; the flanking bays are not only dwarfed by it but are also visually subordinate. The plan was that of a capital "I" with a long narrow midsection connecting the Randolph Street facade with the rear. From the side it appeared to be a slab. The experimental aspects of the Auditorium--the foundations, trusses, absence of ornament on the exterior--were well tested by the time of the Schiller Building and handled adroitly by men of experience. The Auditorium's traditional elements, load-bearing walls and relatively small windows, were superseded. Building upon success, the Schiller/Garrick had a bravura that characterizes a mature design. Setbacks solved the lighting problem, always one of Adler's prime concerns, and the steel skeleton made for lighter weight, larger windows, and speedier construction. But the Schiller was not without problems.¹⁸

Despite its hybrid purpose, the Schiller does not look patched together. It was the result of coordinated efforts by a number of specialists. It is, therefore, a paradigmatic building of the 1890s, even as the Borden Block had been of the 1880s. The foundations were the work of Adler in collaboration with S. S. Beman and Baumann & Cady.¹⁹ The plans for the steel framing were done by Binder & Seifert, and William Sooy Smith consulted on the foundations and the superstructure. The theater in the center of the block was 55 feet x 85 feet and went from

six to eight stories. Unlike the Borden Block, the Schiller building had a riveted steel frame.

Like the Auditorium, several trusses carried the upper stories over the large void.

Because of its steel skeleton, the seventeen-story building did not require a massive concrete raft, so Adler and William Sooy Smith (fig. 27) developed a wooden pile foundation, as Adler described it, with fifty-foot piles driven down to clay. He proudly noted that if the Garrick ascended to 30 floors, they need only double the number of piles. Trusses were a now familiar component as were bridge-type trusses, and in the Garrick, Adler used them to carry the upper stories above the theater without collapse. "The Auditorium was the last of its kind--a stone building with bearing walls, the Garrick was among the first of its kind, a beacon lighting the way to what would be done." ²⁰

Foundations were especially problematical for several reasons: Chicago's soil, the great height of the building, the necessity of leaving neighboring structures undisturbed, and the cost. Adler resolved the foundation question by driving wooden piles more than 70 feet long. He foresaw that buildings as high as 20-30 stories were possible once all the engineering problems were overcome. Every successful tall office building on pile foundations reinforced his argument.

The Schiller Building had an unfortunate construction history and a fairly bleak economic one. Ultimately the pile and cantilevered foundation proved appropriate but while the piles were being driven, the neighboring Borden Block was jeopardized by vibration and water seepage. The owners of the undermined building sued to prevent construction of the new one, and the court ordered new foundations to be inserted under the weakened party wall. Before the building was completed, a large fire in the adjacent building damaged the cladding of the upper stories of the Schiller, but it did not compromise the skeleton. Adler reported to his colleagues on the lessons learned from this disaster.²¹

The Schiller Building, originally the German Opera House, later the Dearborn Building, and still later the Garrick theater, was a functional and aesthetic success but it was not profitable, as the changes of name and ownership indicate. The theater opened in October 1892 and the office sections three months later. In July 1898 it went into receivership and emerged as the Dearborn. The corporation was reorganized yet again in 1901 and later became the Garrick, which it remained until its demolition in 1960--amidst strong citizen protest. When the Borden Block was razed in 1916 to make way for a movie theater, no one tried to prevent its demolition,

but razing the Garrick was a cause celebre.

The proximity of the two buildings resulted in a harmonious architectural context on Randolph Street, and the architects did so with a skill worth emulating. The younger building paid obeisance to its neighbor in some obvious ways, although the Schiller was a more mature work and bears the stamp of the skyscraper--something the Borden Block could do only without an 18-story behemoth next door. The Schiller capitalized on all the latest improvements in building technology and architectural design. The setbacks were impressive and beautifully integrated into the facade. The loggias were harmoniously arched into an otherwise rectilinear composition, and the flanking bay windows were a variation on the paired windows of the Borden. The spandrels were ornamented but with more complex and artful motifs. Sullivan's virtuosity in terra cotta got full play in the Schiller Building, outside and inside where gorgeous plaster ornament (fig.) greeted the concert goer. Sculptor Richard Bock did the proscenium and the decoration of the boxes.²²

The hallmarks of a great theater were large and well-lighted spaces for the performers as well as the audience. A brightly-illuminated stage, and promenade areas generous aisles and exits, large lobbies and foyers, elegant restrooms, and enough elevators were incorporated. A counterweighted scenery system, modeled on the one in the Auditorium, was employed at the Garrick, with a backstage area high enough for the flies. An asbestos stage curtain, and cable and metal machinery replaced ropes and wooden pulleys. In addition to safety, comfort was assured not only because of an advanced heating system but also because an electric air-conditioning system improved upon ice-cooled air as used in the Auditorium and other earlier buildings.

Visibility was guaranteed because the Garrick Theater had no columns to impede the view.

Hugh Morrison said of the facade that it was "cast in one jet."²³ It was tall, and its height was underscored by recessed side bays. Chicago critics loved it, especially Barr Ferreé. In the critics' view it represented modernity--Ferreé called it "one of the most beautiful and impressive high buildings in the world."²⁴ Britisher Banister Fletcher was stunned by it and made the building known to the English in his columns. Carl Condit, six decades after Barr Ferreé, pronounced it one of the greatest buildings in the world, calling it a building of the twentieth century. "It belongs to our day, the creation of trained engineers as well as an imaginative architect."²⁵

In addition to the narrow range of materials and techniques the architect of the Central Music Hall had had at his disposal in 1879, new materials--steel, plate glass, terra cotta--new techniques and new technologies, foundation types, structural systems, heating and cooling equipment were available in the 1890s. What is extraordinary is not only how great the Garrick building was but how progressive the early ones were!

Adler learned about acoustics, though perhaps not as intuitively nor as much an autodidact as Sullivan believed. The Central Music Hall worked well, but little science was behind its acoustics. By reading the available literature and visiting American and European theaters, Adler learned from theory and practice. By the time that he designed the Garrick Theater, he had become the nation's foremost acoustician and he wrote on acoustics for an international audience.²⁶

THE CHICAGO STOCK EXCHANGE

Adler & Sullivan's next skyscraper was the Chicago Stock Exchange (see fig.). Ferd Peck--inspiration behind several Chicago cultural facilities, impetus behind the Auditorium--had grown up in a house at the address that became 30 North LaSalle Street after the streets were renumbered. The site had sentimental value for him as well as potential for a handsome return on his investment because banks and tall office buildings were turning LaSalle Street into Chicago's Wall Street. As early as 1891 Peck began to plan a building on LaSalle and he engaged Adler & Sullivan to be the architects. The building did not take shape until 1893 and was completed in 1894 at a cost of \$1,131,555 (\$29.8 million). It resembled the Walker Warehouse, although more vertical, more forcefully terminated, and more ornamented. The flat and largely open facade was punctuated with bays that prefigure the Reliance Building. The main entrance was a muscular arch framed in a highly decorated portal. The street-level shops provided a base upon which the two-story trading floor rested. As in the Schiller building, the large windows and extensive ornament signified an important space within, the exchange room. Above were 410 offices that created a kind of three-dimensional grid, balancing the verticality of ten more stories of modules with the horizontality of the fenestration.²⁷

Even more than in the Wainwright building, Adler & Sullivan's design for the Stock Exchange was sharp, crisp and planar. While the lower floors, with their lavish ornament, secured it to the ground, the upper nine stories seemed to float weightlessly on the base. The colonnade and the large cornice above it somewhat abruptly terminated the building. Despite the building's economic function and businesslike office section, the entrance was a reminder of the

“Golden Door” of the Transportation Building of the 1893 Fair and, as such, was far more ornamented than anything else the firm did at the time. A measure of Sullivan's success with the entrance is the extent to which it was imitated. It is impossible to imagine buildings such as many Chicago warehouses without the Stock Exchange as precedent. Frederick Kees and Serenus Colburn translated Sullivan's forms for their Minneapolis Deere and Weber warehouse fifteen years later (fig.)

The Stock Exchange exhibited a veritable explosion of geometry and fecundity, seeds and flowers, vines and beading. The trading room's exterior was made similarly splendiferous in textured relief, from chamfered corners to lunettes.²⁸ The edifice revealed Sullivan's passion for ornament--some might say even excessive ornament--but in this case, rather than excessive it appears to vivify the undecorated office block. John Root had died in 1892, but Adler & Sullivan's Stock Exchange carried on a dialogue with Root's Monadnock block at Jackson and LaSalle Street. If Root had pushed austerity to its limits, the Stock Exchange responded to that severity with organic ornament. As the Monadnock's oriels are sculptured, Adler & Sullivan's were flat; and as the Monadnock's ground and first floors announce the weight they bear, the trading room carried its load ever so lightly.

The Chicago Stock Exchange appears to be more Sullivan's design than Adler's. The planarity of its surfaces, finality of the cornice, exfoliation of the lower floors, and elegance of the interior ornament plus the colors and forms in the trading room are hallmarks of his style. The successful equilibrium of the verticals and horizontals presage the Carson, Pirie, Scott department store, while the plethora of ornament on the lower floors forecasts the Guaranty

Building in Buffalo, NY (1894-95). "Mr. Adler always had his hand on the lever, and every intricacy of plan he was thoroughly familiar with and gave his approval of before the work was executed."²⁹ Nevertheless, in this project both most of the responsibility and the final design appear to be Sullivan's.

Adler is credited with doing the foundations for the Chicago Stock Exchange, using the Chicago caisson foundation in a pioneering application. He and William Sooy Smith confronted a problem in the substructure of the Stock Exchange because of its proximity to newspaper printing presses that could not sustain excessive vibration. A few years before, Adler and Sooy Smith had turned to caissons for a delicate situation under the Auditorium, and used them successfully.

The question arises whether they were the first to do so, and the answer is "no." Frederick Baumann described well foundations in Berlin that were old when he was still a young man, and Chicago caissons are like those used by Paul Abadie and Henry Rauline under Sacre Coeur church in Paris, begun in 1875. Even earlier, builders in India dug caissons to support buildings on unstable soil. British architects in India credited the Chinese with inventing them. In the United States, Louis Curtiss, a French-trained architect, and E. Chamberlain used metal-rimmed caissons under the Kansas City, Missouri city hall. Adler and Sooy Smith were familiar with several of these instances and did not claim to be pioneers. They popularized caisson foundations and disseminated the technology at conventions and in published articles. Their influence was felt widely: Sooy Smith and his son, Charles Sooy Smith, worked extensively in New York, and Adler's articles on foundations had a national audience.³⁰

FACTORIES AND INDUSTRIAL BUILDINGS

The opportunity to design a large theater complex or a tall office building came only occasionally, but industrial architecture was the bread-and-butter work of many Chicago firms. Of Adler's almost 200 designs and remodelings, thirty-one were factories. The early industrial commissions were Adler's, with several coming from the same German Jewish social stratum as the residences discussed in Chapter 3. A typical client was Moses Bensinger, whose father-in-law established a successful billiard table manufacturing business in Cincinnati. John Brunswick produced his first pool table in 1845 and opened a Chicago office in 1848. Moses Bensinger rose to the top of the firm by 1872, and he and Troescher became vice presidents. Mergers with other manufacturers in 1873 and 1884 gave Brunswick, Balke, and Collender a veritable monopoly in the business and the growing concern soon required larger quarters. Brunswick remained in Cincinnati, but between 1881 and 1891, Bensinger built a complex of factory, warehouse, stables, barns, and drying rooms on a square block in Chicago, bounded by Huron, Superior, Orleans and Sedgwick. He expanded the product line to include bars for hotels and saloons, and later bowling alley equipment. Adler first, and then Adler & Sullivan, built all the company's industrial architecture, although not their showroom on State Street in downtown Chicago. Brunswick, Balke, and Collender supplied the billiard tables as well as the ornate bar for the Auditorium.³¹

Adler's factories illustrate Heinrich Klotz's assertion: "Chicagoans had developed an approach that began with strict calculation of capital investment, rather than with a definition of

the construction task...it is the architecture of utilitarianism."³² Utilitarianism, as Klotz used it, refers to rational planning and accurate accounting in general. Factories, rationally conceived, may have been austere edifices, but their proportions and simplicity often have a beauty of their own. Many such buildings provided ideas and elements for tall office buildings and other fancier building types. The Brunswick, Balke and Collender factory (fig.), a product of additions and alterations, indicates how readily a module can be repeated almost indefinitely. In this case it is not vertically, as Sullivan said of the skyscraper, but horizontally.

The Aurora Watch Company (fig. 35), built in 1883 was progressive for such an early work. The regular fenestration, the uniform piers, and recessed spandrels prefigured the Wainwright Building. Only the sills above the first floor interrupted this facade. If one wishes to talk about a neutral grid, as William Jordy did when writing about the Carson, Pirie, Scott building, Adler & Sullivan's mill-construction factory buildings like this one is where it was born.³³ In 1883 Adler & Sullivan created a facade with an equilibrium between the directions; the grid existed independently of and long before metal framing. Both factories, Brunswick and Aurora, provide support for the view that buildings of this type were welcome opportunities to experiment with forms that, when successful, found their way into other building types.

Adler's earliest known connection to Kalamazoo, Michigan, was the First Methodist Episcopal Church (1869) that he worked on in Kinney's office. In 1882, D. Adler & Company did Kalamazoo's Academy of Music, a successful music hall that survived for 65 years. Frederick Bush was on the selection committee for the Academy and may have recommended Adler to Bernhard Desenberg who had decided to build a new building in early 1886. It is

equally plausible that Adler already knew the Desenberg family through his father's earlier visits to Kalamazoo. Slightly older than Adler, Desenberg was active in Jewish life, having been a founder of B'nai Israel Congregation, and, also like Adler, was a staunch Republican and a Mason.

Both Bernhard and his brother Meyer Desenberg were German-born and educated but came to the United States in mid-century for economic reasons. The familiar progression from peddler to merchant (like Abraham Kohn's odyssey) was made by the Desenberg brothers, along with a brief experience gold mining in the West. For some time they were partners in a wholesale fruit and tobacco business, but Meyer Desenberg retired to Salt Lake City in 1871. The business that Bernhard established in 1860 grew and diversified. He soon became the largest wholesaler of groceries within 300 miles of Kalamazoo, a jobber of tobacco, importer of tea, and Kalamazoo's distributor for the Standard Oil company, with six salesmen working on the petroleum part of the enterprise alone.³⁴ The Desenberg family was a cultural force in Kalamazoo. Edward, Bernhard's son, a talented musician, managed the local orchestra. Bernhard Desenberg was interested in art as well as music and commissioned a wholesale grocery that was as attractive as it was commodious.

The building completed in 1886 on East Michigan Avenue, was subtly colored--light stonework contrasting with warm rich brick and terra cotta, and a dark sheet-metal cornice with a parapet and turrets. Part warehouse, part retail store, the Desenberg block (fig.) is an important building because of its architectural attributes and because of the client. It was recently restored to its original condition. More unified than the Rothschild or Troescher buildings, but also

more cautious, it is obviously indebted to John Root's Rookery building, which Adler clearly admired.³⁵

The Walker Warehouse

"I'm going to show them in the Walker building more than Richardson ever knew," vowed Louis Sullivan³⁶ and critics have compared the two wholesale stores with each other and with other Adler & Sullivan buildings. Hugh Morrison wrote: "Architecturally, the Walker Warehouse is far more significant than the Auditorium," and Robert Twombly also elevated it to a higher status: "In some ways [the Walker] improved upon [Marshall Field]."³⁷

The commission was important; James Walker sold furniture and fixtures, supplying the linens, dining room and kitchen furniture for both the Auditorium and the Schiller building. Architectural historians have always seen the Walker Warehouse (1888/89) as Adler & Sullivan's response to the Marshall Field Wholesale Store just next door, while stressing its importance in the emergence of the skyscraper. In the Walker building, Adler & Sullivan eschewed the heavy rock-faced masonry that Richardson had used in favor of a smooth geometric cube. Every intersection of plane and plane produced a clean and emphatic edge, it is light and shadow that decorated this facade, as much as the limited ornament on the portal arch supports.

The organization of the facade reflected a rethinking of the Richardson edifice which is weighty and massive. Closer in feel to the Auditorium (at least above the rusticated base), the Walker Warehouse presaged the Wainwright building with its brick and terra-cotta skin. Although not as decorated as the St. Louis building, it had more of a historicist air about it.

Thomas Tallmadge called Marshall Field's majestic and dismissed the Walker Warehouse as hard, gaunt, and bony.³⁸ But Louis Sullivan immodestly called his design "the last word in the Romanesque."³⁹ If that is the case--if the Walker Warehouse is the *dernier cri* in the Romanesque Revival--then the Wainwright is the first word in what came to be known as the Chicago School.

By contrast, another industrial building, the Chicago Cold Storage Exchange (fig.), had extensive fenestration only on the ground and first floors. The West Water Street side would have had four arched entrances on each of the wings, surmounted by paired rectangular windows, and above these, narrow slits in what appear to be massively thick walls. Actually they were not thick, but something in this design, which was only partially built, is almost forbidding. Even the river side arcade, with its arcuated windows, contributes to a kind of brooding presence that was magnified by the somber tones of the rendering but it is also a feature of the building.

U-shaped buildings would become a common feature of Adler & Sullivan's architecture, but in their tall office buildings like the Wainwright, the hollow of the U usually opened toward the rear of the site. In the Cold Storage Warehouse the U rotated 180 degrees and became wings flanking a court that was partially filled by the office structure. This plan was fully realized a few years later, in a bank, the Union Trust building in St. Louis.

The Union Trust (1892/93) is clearly Sullivan's design; it has hallmarks of his style in the portal and porthole windows of the first floor, projecting piers and recessed spandrels, top floor colonnade and large and ornate cornice. Does this mean that Sullivan alone designed the

Chicago Cold Storage Exchange Building? It cannot be said with certainty, but a building costing \$2 million (\$52.6 million) would not have gone out of the office without Adler's alterations and approval. Still, it was so unusual a design that singular attribution becomes difficult.

Critics of the Union Trust building deem it inferior to the Wainwright. In its present form, the architects' original design is severely compromised by an addition that fills in the court but even in Sullivan's original design, one is perplexed by the large round windows and heraldic lions that have been characterized as "a major lapse."⁴⁰ It was not an unconscious lapse. Sullivan would use similar lions on some of his bank buildings in the early 1900s after Adler's death, but they were not altogether absent even in the earlier work, for example, the addition to the Standard Club.

The Oakley Warehouse (fig.) (1892) was one of a dozen that the firm turned out between 1883 and 1895. The partnership had done a factory for the Walker & Oakley Tannery in 1891 in a north side industrial district near North Avenue. The volume of business soon required more storage space, so J. W. Oakley requested a large warehouse of 1.3 million cubic feet. Adler & Sullivan's initial estimate was \$100,000, close to the final figure of \$95,017.94 (\$2.5 million). It was characteristic of Adler to keep within the clients' budget, and early in his career, he developed a reputation as a careful and reliable manager of clients' resources. Unlike other architects and some of his former draftsmen (like Frank Lloyd Wright, who customarily went over budget), Adler was an accurate prognosticator of cost and a careful builder.⁴¹ Whenever Sullivan's ornament threatened to get out of hand, either aesthetically or financially,

Adler made certain that Sullivan eliminated the excess.

The initial location of the Oakley building was to be on LaSalle Street. Other Adler & Sullivan warehouses were proposed for Michigan Avenue and State Street. By the early 1890s, however, land costs on those streets had increased, and so two new warehouse districts grew up, one along the river, the other on Hubbard Street north of the river and the central business district. Industrial architecture, later admired for its minimalism, differed in concept and purpose from the tall office building. A warehouse required only a simple plan, a maximum of open space inside, a paucity of decoration, fireproof construction, and an advantageous location. The Oakley Warehouse successfully integrated all five. It was a loft building with few columns to take up valuable storage area. With its uniform fenestration and simple brick ornament, the architects satisfied the client's needs at an unusually low cost. The building, not a key monument in the history of American architecture, is nonetheless sturdy, serviceable and sound architecture. It still manifests the tripartite base, shaft, capital division that stemmed from classical precedent from which neither partner ever departed (even if later generations of critics lauded their modernity.) Little about this building indicates which partner designed it, and it may well have been by one of the junior men in the office.

Adlerian restraint may account for the appearance of the building for M. A. Meyer (frequently and erroneously cited as Mayer) at 301-311 West Van Buren in the wholesale garment district centered around Wells, Jackson, Franklin and Van Buren streets. A drawing published in *Inland Architect and News Record* shows it to be the progenitor of the Adler & Sullivan Guaranty and Schlesinger & Mayer buildings with delicate embroidered ornament

around the bays and a balanced gridlike facade.

The first floor of the Guaranty building in Buffalo, NY was recessed behind ornately decorated capitals, whereas the Meyer building stands lightly on its ornate capitals. In the Meyer, a visual division exists between the base, the cornice, and the block, with the last occupying the bulk of the building. The ornament was restrained and contrasted beautifully with the smooth entablature and the piers. The spandrels were undecorated but thin bands of terra cotta framed the windows, and trimmed the shop fronts, and emphasized the horizontals. The terra cotta was beautiful and delicate, as had been the cornice above the row of small rectangular windows at the attic story.⁴²

The completed Meyer building (fig. 39) is not the same as the originally published design. It was pared down: the first floor columns are gone; the shop fronts are prosaic; paired windows have no adornment, only an iron mullion between them, and there is no cornice. The attic windows are there, but in such diluted form that they are hardly worth noting. In its naked state, it forecasts nothing about Sullivan's or Adler's later architecture, except that austerity is cheap, and when times get tough, ornament is expendable. The owners got 2,088,000 cubic feet for only \$205,825 (\$5.4 million). Hugh Morrison was ecstatic about it because with its pure forms, "[it] might easily be taken as an example of the International Style current in Europe and America today."⁴³ To today's viewers, on the other hand, this building is basic, spare, and unimaginative, competent but not exciting.

¹ Jacques Hermant in Dudley Arnold Lewis, "Evaluations of American Architects by European Critics, 1875-1900," (Ph.D. diss. University of Wisconsin, 1962): 223.

² Liebman Adler, "The Tower of Babel," in *Sabbath Hour Thoughts* (Philadelphia, Jewish Publication Society of New York, 1893): 60ff.

³ Henry James, cited in Sarah Bradford Landau and Carl W. Condit, *Rise of the New York Skyscraper, 1865-1913*, (New Haven: Yale University Press, 1996): pp. 285, 187.

⁴ Liebman Adler, "The Tower of Babel," in *Sabbath Hour Thoughts*, (Philadelphia, Jewish Publication Society of America, 1893): pp. 60, 65.

⁵ "Very Tall Buildings," *The Architect* 30 (15 Sept. 1883): 155, quoted in Dudley A. Lewis "Evaluations of American Architecture by European Critics 1875-1900," (Ph.D. diss. University of Wisconsin, 1962): p. 365.

⁶ Neil Harris, "Shopping--Chicago Style," in John Zukowsky (ed.), *Chicago Architecture 1872-1922: Birth of a Metropolis* (Munich: Prestel Verlag, 1987): p. 137.

⁷ William B. Jordy, "Functionalism as Fact and Symbol: Louis Sullivan's Commercial Buildings, Tombs, and Banks," *American Buildings and Their Architects: Progressive and Academic Ideals at the Turn of the Twentieth Century*, (Garden City, N.Y.: Anchor Books, 1976. Hugh Morrison, *Louis Sullivan*, pp. 62-63.

Adler and Sullivan were working on the Auditorium when the Dexter Building was under construction. They knew Dexter through his efforts on behalf of the opera festival and his role in the Auditorium. Furthermore the first occupants of the building were Joseph and Rudolph Diemal, who were active in the Chicago Jewish community.

⁸ For more information on Charles K. Ramsey, see:

George McCue, *The Building Art in St. Louis: Two Centuries* (St. Louis: St. Louis Chapter AIA, 1981).

_____ and Frank Peters, *A Guide to the Architecture of St. Louis*, (Columbia, MO: University of Missouri Press, 1989).

St. Louis Landmarks Commission, "Pen and Sunlight Sketches," (St. Louis, n.d.)

_____, "St Louis Architects, Famous and Not So Famous," in "Landmarks Newsletter," (July 1985): p. 5.

Charles Savage, *Architecture of the Private Streets of St. Louis*, (Columbia, MO: University of Missouri Press, 1987.)

St. Louis Architect and Builder 8, (1886): p. 11.

⁹ The Houser Building is illustrated in Lawrence Lowick, *The Architectural Heritage of St. Louis 1803-1891: From the Louisiana Purchase to the Wainwright Building* (St. Louis: Washington University Art Gallery, 1982).

¹⁰ Paul Sprague, "The Wainwright--Landmark Built and Saved," *Historic Preservation* 26, (October-December 1974): p. 6.

¹¹ "Wainwright Building" (Art Institute of Chicago Burnham and Ryerson Library, Pamphlet file, 1892).

¹² Both buildings have been demolished, the Borden Block in 1916 to make way for the Woods Theater, a movie house; and the Schiller/Garrick Building in 1961 for a parking lot. The latter was torn down after a long fight by preservationists who were galvanized into action by the magnificence of the building and the theater it housed. A portion was salvaged and now graces the facade of the Second City theater building at 1616 N. Wells Street.

¹³ Louis Sullivan, "The Development of Building Construction", *Economist* 55 (24 June 1916): 1252. Thomas Tallmadge, *Architecture in Old Chicago*, (Chicago: University of Chicago Press, 1941): pp. 55-57, p. 153ff.

Tallmadge claimed that Louis Sullivan designed the Borden Block, and criticized it for its rhythms which in 1941 seemed retardataire. Tallmadge's view was that the overall plan of the building harkened back to the Marine Bank (an odd choice because it was not an Adler design) but that after Sullivan joined Adler, their work improved considerably, a thoroughly justified view. Tallmadge identified both the lunette ornament and the regular spacing of the windows as especially indicative of Sullivan's participation in designing.

As for more contemporary critics, Roula Gerianotis classed the Borden Block with factory buildings of its time because of the regular fenestration. She saw the building as one of a unique class of works--those designed from the inside out, that is with the modular framing determining the facade. Roula Gerianotis, "German Architects in Nineteenth Century Chicago," (Ph.D. diss., University of Illinois at Urbana, 1985): p. 26.

¹⁴ [*Chicago*] *Economist* 5 (14 Feb. 1891): 253.

For a description of the building and an analysis of the contribution of each partner, see Paul Sprague, "Adler & Sullivan's Schiller Building," *Prairie School Review* 2 (Second quarter, 1965): 5-20.

¹⁵ *Real Estate and Building Journal* 32 (15 March 1890): 203; *Economist* 5 (24 January 1891): 25; *Ibid.*, 6 (7 Feb 1891) 208; *Ibid.*, (14 Feb 1891): 25.

¹⁶ T.S. Eliot, "The Love Song of J. Alfred Prufrock," lines 46-47.

¹⁷ Paul Sprague persuasively argues that Adler was responsible for the plan and the setback design that was the solution to the problem of lighting and rentable space. Sprague, "Adler & Sullivan's Schiller Building," p. 17.

¹⁸ A fire that injured no one fortunately did not deform the terra-clad metal skeleton. The McVicker's fire required that the theater be rebuilt.

¹⁹ Sullivan claimed that the piles were his idea but Adler, who was used to sharing the credit with his partner, never confirmed it. It is more likely that he and Sooy Smith generated the application based on the founding of grain elevators.

Twombly, p. 295-6. Dankmar Adler, "Foundations," *Economist* 5 (27 June 1891): 1136-1138. Also published as Dankmar Adler, "High Buildings and Their Foundations," *American Architect and Building News* 34 (24 Oct. 1891): 54-55.

²⁰ Source unknown. Cannot be located.

²¹ Dankmar Adler, "Fire-Proofing: Some Notes Upon the Struggle for Survival Between Burnt-Clay Fire-Proofing and Its Newly Arisen Rivals." *Brick Builder* 7 (June 1898): 123.

²² Bock was hired by Adler & Sullivan to do some of the Schiller's interior, but he never became a regular member of the firm. He is best known for his collaboration with Frank Lloyd Wright on several projects, including the Heller house in Chicago, the Dana-Thomas House in Springfield, IL, and the Darwin Martin house in Buffalo, NY. Hugh Morrison, *Louis Sullivan: Prophet of Modern Architecture*, (New York: W.W.Norton Co., 1935): p. 160. Wikipedia article on Richard Bock.

²³ Morrison, *Louis Sullivan*, p. 158.

²⁴ Barr Ferree, "The High Building and Its Art," *Scribner's Magazine* 15 (March 1894): 312.

²⁵ Carl Condit, "The Structural System of Adler & Sullivan's Garrick Theater Building," *Technology and Culture* 5 (Fall 1964): 539.

²⁶ Gregersen, "Dankmar Adler: His Theaters and Auditorium," (Adler Archive, Newberry Library, 1977): p. 5. John Scott Russell, "Treatise on Sightlines," *Edinburgh New Philosophy Journal* 27 (1838): pp.

²⁷ The site that in 1836 cost \$3937 by 1908 was worth \$1.29 million. Large fortunes were made by real estate developers, and Peck was more successful than most. John H. Jones and Fred Britten, *A Half-Century of Chicago Building: A Practical Reference Guide*, (Chicago: 1910): p.

39.

²⁸ The trading room was removed from the Stock Exchange building when it was demolished and was installed by John Vinci in the east building of the Art Institute of Chicago. The entrance arch and frame are also outside the museum, a sculpted overture to the Columbus Drive wing.

²⁹ Arthur Woltersdorf, "Portrait Gallery of Chicago Architects: II Dankmar Adler, *The Western Architect* v. 3 (July 1894): 277.

³⁰ Rochelle Berger Elstein, "The American Caisson Foundation and Its European and Asian Precursors," Paper presented at the annual conference of the Society of Architectural Historians, Washington, D.C., April, 1986.

³¹ Rick Kogan, *Brunswick: The Story of an American Company from 1845 to 1985*, (Skokie, IL: Brunswick Corporation, 1985). The complex was converted into an art gallery and was destroyed by fire in 1989.

³² Heinrich Klotz, "The Chicago Multistory as a Design Problem," *Chicago Architecture 1872-1922: The Birth of a Metropolis* ed. John Zukowsky, (Munich: Prestel Verlag, 1987): pp. 65-66.

³³ William H. Jordy, *American Buildings and Their Architects: Progressive and Academic Ideals at the Turn of the Twentieth Century*, (Garden City, NY: Anchor Books, 1976): pp.83ff.

³⁴ Michiganians were surprisingly active in the trade with the Orient. In fact one enterprising Alpena businessman exported ginseng root, grown in eastern Michigan, to China.

³⁵ The building was owned by Russell Powell and for some time housed a retail sporting goods store. Powell engaged architect Gordon Rogers who did a \$75,000 restoration--the building originally cost \$18,000 to build--that restored it to its original appearance. It is on the National Register of Historic Places. Happily the Desenberg Block escaped the fate of the Academy of Music.

³⁶ Louis H. Sullivan quoted in Irving Kane Pond, "Autobiography of Irving Kane Pond," (New York: American Academy of Arts and Letters, National Institute of Arts and Letters, n.d.): p. F14

³⁷ Morrison, *Louis Sullivan*; p. 114; Twombly, *Louis Sullivan*; p. 243.

³⁸ Tallmadge, *Architecture*, p. 156.

³⁹ Quoted in Frank Lloyd Wright, *Genius and the Mobocracy*, (New York, Horizon Press, 1949), p. 63.

⁴⁰ Twombly, *Louis Sullivan*, p. 308.

⁴¹ Wright was known for his extravagance in excess of clients' budgets. He sometimes sent out plans and drawings with postage due.

Rochelle S. Elstein and Judy Lowman, "Frank Lloyd Wright in Chicago and the Midwest," Northwestern University Library exhibition, March 2-30, 1988.

⁴² Unfortunately the Meyer Building cornice, like that of the Republic Building and Schlesinger & Mayer's, was removed, to the great detriment of all of them.

⁴³ Morrison, *Louis Sullivan*, p. 169.

CHAPTER 6: AT THE SUMMIT

CHANGES IN ARCHITECTURAL PRACTICE

Long before the nineteen-story tower of the Auditorium grew skyward setting a new height record in Chicago, in fact before its foundations were even laid, the nature of architectural practice had begun to change. In some instances it went from a one- or two-person practice to a corporation of specialists assisted by a raft of draftsmen--young men who either became architects through an apprenticeship or rounded out their two- or four-year technical education with hands-on experience.

Residences presented no problems for the small firms, but by 1887 residences were the last thing that Adler & Sullivan wanted to design. They were much occupied by the Auditorium commission, and houses would siphon off draftsmen who were needed on the large project. Their mix of building types changed significantly between 1885 and 1895. Their commercial and industrial commissions remained fairly constant--65 percent between 1879 and 1885, 70 percent between 1886 and 1895, while their residential work tumbled from 15 percent to virtually nothing. Between 1886 and 1895 large-scale projects like opera houses, railroad stations, apartment buildings, and hotels came in to the firm of Adler & Sullivan. Theater commissions became progressively more lucrative; in absolute numbers the commissions declined a bit, but they doubled in percentage of earnings.¹ During the time that the Auditorium was on the drafting tables, one young man was designing homes. Frank Lloyd Wright

surreptitiously designed houses for himself and others in Oak Park. It cost him his job.²

There was increasing rivalry with large and successful architecture practices for major projects. Moreover there were more practicing architects and civil engineers with whom to compete. Large and tall buildings required more expertise, and with their increased profits, Adler and Sullivan were able to expand their labor force to meet their clients' demands. A comparison between the Adler & Sullivan firm as constituted in the Borden Block with that in the aerie of the Auditorium tower shows significant differences.

THE GROWTH OF THE FIRM

In the early days of solo practice, Adler relied on free-lance draftsmen or temporary employees like John Edelmann and Louis Sullivan. Little work exceeded their collective expertise and before 1887 the firm's growth was steady if not spectacular. Adler ran a tight ship and clients never perceived a staffing problem, although many preferred to work directly with Adler. The boss worked on designs and plans, and only when Sullivan, whom Adler had rescued from the oblivion of William Strippelman's office, proved himself a brilliant artist did Adler make him a partner. Sullivan, although by far the most creative and successful, was not Adler's sole employee on the Borden Block.

The firm of Adler & Sullivan outgrew its space in the Borden Block just as more commissions in distant cities took Adler out of his office and sent him around the Midwest and beyond. The important connections that the senior partner had by virtue of family, training, professional and social milieu, and his charitable endeavors enabled him to provide a solid

financial and professional foundation for the firm in the 1880s. But great renown was not theirs early in the decade. Their national reputation grew in the late 1880s until their outstanding wedding of architecture and engineering led to major commissions in Chicago and the West, such as the Wainwright and Pueblo Opera House, and other projects unbuilt but influential, like the Seattle Opera House.

The success of many of their buildings of the late 1880s and early 1890s catapulted Adler & Sullivan to the forefront of American architecture. The appearance of Adler's article on the Auditorium in the premier issue of *Architectural Record* illustrates that as vividly as the effusive praise that was voiced at the dedication of the ravishingly beautiful Auditorium Theater.

THE OFFICES OF ADLER & SULLIVAN

"Manifestly you cannot become truly educated in the schools. Ergo, you must educate yourselves," Louis Sullivan wrote.³ The "classroom" in which this self-education took place was a spectacular duplex office (fig.38) on the top two floors of the Auditorium tower with a fabulous view of the lake and the city around and below. The Auditorium tower, Sullivan said, "holds its head in the air, as a tower should."⁴ It was reached by a special elevator from the tenth floor, from which one emerged into a small foyer a few steps away from Adler's office. One wall of his inner sanctum contained bookcases jammed with architectural and engineering texts that overflowed onto a work table piled high with manuals, handbooks and other technical publications. Next door was the library/consulting room, handsomely trimmed with oak woodwork. Sullivan's studio had cherry wood table covered by a Turkish carpet and a plaster

cast of bronze tomb doors. It looked out on a view of the lake a few hundred yards away.

Visitors recalled that Sullivan had bookshelves filled with books on poetry and travel, and a cabinet for displaying his Japanese pottery. In the corner of the suite was Wright's perch, and above them all was a flat roof with a weather station and a viewing platform that allowed the public to enjoy a breathtaking view of the city from its tallest skyscraper.⁵

Wright claimed that he designed the office. If that is true, he gave Adler and Mueller rather less space, and himself and Sullivan rather more. During a period of unknown duration, Elmslie occupied a desk in the corner of Wright's office, so perhaps the space allotted him was not so generous after all. The drafting room was adjacent to Wright's office was and at some periods contained as many as twenty to thirty men. Wright, without benefit of much formal education, managed employees scarcely younger than himself, some of whom had studied at MIT and traveled abroad. He was so situated that he could see Sullivan's desk and oversee the drafting room simultaneously. And he could look out the "guillotine" windows to see the lake.⁶

Frank Lloyd Wright's description of Dankmar Adler is worth quoting, because it contradicts the negative tone that characterized some of his reminiscences and because few other contemporary descriptions exist:

Dankmar Adler was a solid block of manhood, inspiring the confidence of everyone, a terror to any recalcitrant or shifty contractor. His ideas throughout were far beyond his time as his choice of a partner would indicate, and he was known even in those more liberal days (before architecture became obsessed with college degrees) as a liberal original thinker.⁷

Wright worked closely with Adler and obviously admired him.⁸

Sullivan, too, commented about the office and the workflow. Without specifying a date at which the transformation took place, Sullivan wrote in 1924 that Adler & Sullivan had a commercial department, an engineering group, estimators, and specialists in marketing. In short, the office in the Auditorium, creative though it certainly was, was becoming a business.

Other architects bemoaned this state of affairs, which was not unique to Chicago. Leopold Eidlitz, as influential and acclaimed in New York as Adler was in Chicago, regretted the passing of the "old way." No longer did architects spend their time on design. The press of meeting with clients and staff; writing letters; overseeing projects; and engaging in social activities with clients and potential clients occupied the hours formerly devoted to designing and building. Adler, too, spent increasing amounts of time doing things other than designing buildings.⁹

Despite their hard work, Adler & Sullivan were not financially successful. When Adler was starting out, a skilled architect with little local competition could earn as much as \$8000 per year. Burling & Adler generated commissions worth about \$4,022,000. By comparison, the Auditorium itself cost more than \$3.2 million but very few other buildings in the Midwest cost more than half a million dollars. Because the data are too fragmentary, their exact earnings are unknown, but neither Adler nor Sullivan lived a lavish lifestyle and Sullivan's life ended in two decades of poverty

Their office and staff were smaller than Burnham & Root's, more comparable to that of Henry Ives Cobb, whose sixteenth and seventeenth floor suite in the Title and Trust building offered the same services that Adler & Sullivan could provide. The Burnham office handled

commissions of a greater order of magnitude, especially after the turn of the century, when they became city planners as well as architects.

Adler & Sullivan did not have to spend much to hire the best of ten to thirty novices for the office. Jobs were scarce and draftsmen abundant, even in reasonably good economic times. Of the 650 architectural graduates of Columbia University, an excellent school, only about 20 percent got jobs in their chosen field; the situation for those lacking a diploma was even worse. Around the turn of the century, civil engineering required a great deal of costly preparation, but a reasonable salary for an experienced engineer in 1900 was only about \$2400 per annum. And a young architect could expect no more.¹⁰

APPRENTICES AND JUNIOR MEN

Two pairs of men, attracted to the office by the great potential that Adler's growing reputation promised, shared in Adler's tutelage and managed to "graduate" and strike out on their own or in a partnership patterned on Adler & Sullivan's collaboration: Fridolin Heer, Jr. and Paul Mueller; and Henry John Schlacks and Henry Ottenheimer (fig. 39). Heer and Mueller were both Stuttgart-trained, although whether they knew each other in Germany is a matter of conjecture. Heer was the son of a Swiss-born architect who apprenticed him to Adler & Sullivan to learn the elements of the craft. A product of Wisconsin schools, the young Heer's formal training took place at the Royal Architectural School in Stuttgart, and by 1887 he had returned to Dubuque, Iowa, to join his father's practice. From Heer's temporary presence in Adler & Sullivan's office, it is clear that the firm's renown was not confined to Chicago. Heer's father

must have known Adler's reputation before sending his son to their office for some training.¹¹

Paul Mueller, on the other hand, remained in Chicago and in the Adler & Sullivan office for long periods of time. Hugh Morrison called him the "faithful competent German" and noted that he left Adler & Sullivan in 1883 to go with J. Lyman Silsbee, returning to Adler & Sullivan in 1886. Mueller had been trained in Stuttgart and was in charge of the Auditorium project as supervisor of drawings and superintendent of construction. Possessed of a quiet authority that made him a natural leader, he tended toward the technical side of building and stagecraft. Mueller modified the Asphaleia machinery for the Auditorium, supervised the construction of the building, and made many suggestions about construction techniques, some adopted, many rejected. The rapidity with which the building was erected and its stability for a century indicate how competent an advisor and assistant he was.¹²

Frank Lloyd Wright remembered Mueller as Adler's right-hand man. Tall, dark-haired and bearded, Mueller proved to be proficient beyond his years. He directed the construction of many an Adler & Sullivan building, including the Garrick in Chicago and the Union Trust in St. Louis.¹³ When Mueller moved into the Auditorium Tower, his corner office was almost the size of Adler's own, but not even those perquisites prevented him from leaving the firm after the Union Trust Building was completed. The older man lost a friend and confidant as well as a gifted builder when Paul Mueller joined the Probst Construction Company. Wright wrote that Adler 'had trained him thoroughly...and lamented him for years." Mueller's successors were inferior, but Adler harbored no grudge against his protege, enlisting Mueller as the contractor for the Ira B. Cook Hotel (unbuilt) late in his career. Wright, too, consulted him on a hotel, the

famous Imperial Hotel in Tokyo that withstood the earthquake of 1923.¹⁴

Henry L. Ottenheimer entered Adler & Sullivan's employ in 1884, the year after Mueller came and went the first time. Born in 1868, he was 24 years younger than Adler and 12 years younger than Sullivan. Like the latter, he spent time in Paris (1889-1892) but only after six years with Adler & Sullivan, learning the craft. Ottenheimer worked on the drawings for the Auditorium, the Standard Club, and Sinai Temple as well as many residences. After returning to the United States in 1892, he worked on the 1893 World's Columbian Exposition under Charles Atwood, design assistant to the architect-in-chief Daniel Burnham. It was excellent experience for Ottenheimer who, much later went on to form his own firm, Ottenheimer, Stern, and Reichert. Dubbed "the dainty designer of beautiful homes,"¹⁵ his output was impressive. While lacking Adler's technical expertise and Sullivan's genius for ornament, his baroque houses manifest a charming exuberance. They could be found in Chicago, Indiana, Michigan, and Minnesota.

Ottenheimer achieved more than technical competence in Adler & Sullivan's office. He met his first partner there, Henry Schlacks (1868-1938), also a native Chicagoan, also a draftsman at Adler & Sullivan, and, like Ottenheimer, destined to continue his studies abroad. Schlacks had taken the two-year formal training course at MIT when he joined Adler & Sullivan. During their post-Adler & Sullivan partnership, Ottenheimer and Schlacks built several churches and public buildings around the Midwest, but their collaboration ended in 1896. Schlacks developed a successful church-design practice. He was responsible for the addition to Holy Name Cathedral and many other such structures while Ottenheimer took over the Michigan

Avenue office and attended to residences, apartment houses, factories, and "general work."

Included under those rubrics were the Steele-Wedeles building (1909), the Crerar-Adams warehouse, and many buildings in Michigan's Upper Peninsula.¹⁶

Joseph L. Silsbee's office was an incubator of architectural talent for Adler & Sullivan. In addition to Paul Mueller, Frank Lloyd Wright and George Grant Elmslie came from there. Elmslie, whom Wright characterized as a conscientious Scot, slow in speech and movement--a man "never young"--attained less fame than Schlacks and Ottenheimer, less fame (and notoriety) than Wright, and less credit than he deserved. Wright claimed that he brought this "steady understudy" to Adler & Sullivan but Wright often exaggerated his own importance.¹⁷

Whoever brought Elmslie into the office in 1889 did something beneficial for Sullivan. Never given to verbosity, Elmslie was Sullivan's most loyal assistant. He remained with Adler & Sullivan until the partnership dissolved and took Wright's place as "Sullivan's pencil" in Sullivan's solo practice. Sullivan, irascible, unreliable, and often ill after 1895, was fortunate to have had Elmslie standing by him, executing ornamental designs that showed a mastery of *Lieber Meister's* style and buffering the older man from critics and frustrated clients. Elmslie made suggestions regarding design beyond that of ornamentation. He quit finally in 1919, but he remained Sullivan's defender until his death in 1952. As Mueller was Adler's man, G. G. Elmslie was Sullivan's.

Lesser lights also passed through the drafting room in the Borden Block, most lured by the expansion caused by the Auditorium commission, others because the experience of working under Adler and Sullivan was highly regarded. Edgar M. Newman, an Indiana-born architect,

moved to Chicago in 1884 and by 1887 was working on Auditorium plans. Active in designing a national pavilion at the 1893 Fair, he opened his own office after 1893, where he specialized in factories, one being the Foster Shoe Company manufacturing plant, plus schools and houses. A longtime member of the Illinois Society of Architects, Newman, like Adler, was active in architectural politics and was president of the society in 1905.¹⁸

Charles Bebb, a peripatetic construction engineer, was born and had been educated in England before traveling to Lausanne, Switzerland, for engineering training. After a stint as a railroad engineer in South Africa, he came to the Illinois Terra Cotta Company in 1880, where he spent five years learning the business and adapting this new material to varied architectural uses. Adler & Sullivan, no doubt, had dealings with Illinois Terra Cotta where they made the acquaintance of Bebb, whom they hired as construction supervisor in 1885. Soon the attraction of the Pacific Northwest proved irresistible, and in 1890 Bebb packed up his desk and drafting board and moved to Seattle, where he was productive and exceptionally successful.¹⁹

Another draftsman, Simeon B. Eisendrath, served his apprenticeship at about the time Bebb was in the office, having been educated at the Chicago Manual Training School and MIT. His attraction to architecture may have been stimulated by his family's involvement in brick manufacturing. At age 20, Eisendrath began to work at Adler & Sullivan, "the leading architects of Chicago," but he was anxious to try his wings and stayed only two years. He opened his own firm in 1890 but later went east, first to Pittsburgh and then New York City. His Chicago practice was quite productive, due in part to his ties with the increasingly successful Jewish community. His Jewish buildings included the Michael Reese Hospital Annex for Women and

Children; the Drexel Home for Aged Jews; and the Chicago Home for Jewish Orphans. But he was not limited in any way--he built the Plymouth building and other business blocks, too.

Between 1889 and 1893 Eisendrath was an instructor at the Chicago Evening High School, from which he resigned to serve as Chicago's building commissioner. He maintained a solo practice on the fourteenth floor of the Marquette Building, but in the early 1900s he left. Eisendrath was more successful than Adler was in soliciting business in New York.²⁰

Another pair of Adler & Sullivan draftsmen was James B. Rezny and Irving Gill, both hired after the Auditorium was essentially completed. One went on to make a name for himself, the other spent his career in a local firm for which he worked without much fame or glory.

James Rezny is now little known. He began his career as an Adler & Sullivan draftsman, an apprenticeship successful enough to land him a job with Jarvis Hunt (nephew of Richard Morris Hunt), who came to Chicago in 1893 for the fair and stayed. Rezny was one of the first architects to be licensed in Illinois and in 1897 was promoted to chief draftsman of the Hunt office, which validated his ability despite his exclusion from all the histories of Chicago architecture.²¹

In contrast, Irving Gill enjoys an excellent reputation as a designer of houses, churches, schools, exhibition halls, and civic buildings in California. Gill went to California in 1893 for health reasons, but before that time, the young man from Syracuse worked under Sullivan's watchful eye in the drafting room. Frank Lloyd Wright's version of Gill's departure from Adler & Sullivan involves Gill's imitation of his mentor. Gill worked closely with Wright, just a few years his junior, and aped Wright's dress (fig.40) and demeanor, copying Wright's characteristic

bowtie and hairstyle. When Wright, preferring to be the firm's only long-haired draftsman, told Gill to get a haircut, Gill quit and went to San Diego.²²

Others in the office were Hugh Garden, Paul Lautrup [or Lothrop], Henry French, and Frank Lloyd Wright. Of this quartet, the first made his mark on Chicago as a partner in Schmidt, Garden, and Martin (later Schmidt, Garden & Erickson). Wright's saga and episodic successes are well known and well documented. Paul Lautrup was cited by Thomas Tallmadge as “a famous Scandinavian draughtsman whom the old timers will remember.”²³ French remains an enigma, known only for superintending the construction of the Pueblo Opera House.

To this group, two more names should be added: Lorenzo Cleveland and Alfred Alschuler. The latter will be discussed in the last chapter; Cleveland's career signifies that Adler & Sullivan not only hired apprentice architects and engineers, but also employed proven practitioners. Considerably older than Adler, Cleveland had begun his career in Springfield, Illinois. At age 50, he came to Chicago where he built the Bonfield building and the State Savings Bank (1874). In 1879 he became Chicago's building commissioner and almost a decade later helped oversee construction of the Auditorium Hotel, working closely with Mueller and Adler.²⁴

Frank Lloyd Wright's account of the office emphasized his centrality in it, but he called it "an unfriendly, contentious and hostile environment." Nonetheless, he flourished there and he acknowledged how fortunate were the young men who worked there. “As for these Adler & Sullivan offices--well...it was something in the eyes of the by-and-large to be there at all in any capacity whatsoever!”²⁵

The firm was one lure--Chicago was another. In 1881, when the flow of immigrants into the United States was only a trickle, the population of Chicago stood at about half a million. New construction totaled about \$8.8 million, or about \$16.60 per resident. In the next five years the population increased by about 55 percent, while the value of new construction went up almost 250 percent, to about \$26 per capita. The rate of increase again sharply accelerated in the next five-year period as well, generating jobs, housing, factories, business blocks, theaters--in short the hallmarks of a burgeoning and prosperous city.

CONSULTING ARCHITECTS, ENGINEERS AND CONTRACTORS

In his writings Adler drew a careful distinction between architects and contractors, claiming, to no one's surprise, that architectural fees were a good investment and could save the client money while providing more imaginative solutions in new situations and careful supervision of all construction. Nonetheless, he employed contractors on several projects. Paul Mueller did several buildings, and after him, the "syphilitic Sickles" and the "conscientious Kleinpell." Victor Falkenau, who built Adler's Yondorf building, was another. George B. Swift was both a contractor and a former mayor of Chicago.²⁶

Adler & Sullivan provided complete professional services, extending to heating, plumbing, and ventilating--one of Adler's younger brothers was a plumbing contractor--interior painting and stenciling, and furniture design. Supervision of construction was a high priority because problems at the construction site frequently required on-the-spot changes. In buildings on remote sites, Adler sent his own man or hired local architects to oversee the work.

Warren R. Hayes, Isaac Stockton Taylor, William B. Tuthill, and Charles Ramsey were a few of Adler's fellow architects requiring his consultation. Hayes worked with Adler & Sullivan on the 1884 Democratic convention hall, Taylor did the 1896 Convention Hall in St. Louis, and Tuthill hired Adler for Carnegie Hall in 1888-89. Ramsey was connected with the Wainwright and other St. Louis commissions.

Warren R. Hayes was one of the earliest and least well known. Born in 1849 and an 1871 graduate of Cornell University's architectural program, he practiced in nearby Elmira for a decade before moving to Minneapolis, where he specialized in churches and auditoriums. Adler credited him with contributing to the remodeling of the Chicago Opera Festival Auditorium/Interstate Industrial Exposition Building into the Democratic National Convention headquarters of 1884, and Hayes was probably responsible for Adler's involvement in the 1892 Republican National Convention Hall in Minneapolis.²⁷

Charles Ramsey, mentioned in Chapter 5, was French-educated, the son of a successful builder who was one of two supervising architects on the Shillaber Building (1876), for which the Boston firm of Cummings and Sears were the designers. Obviously Ramsey was quite proficient by the time the Wainwright Building became his responsibility, and for a time he concentrated his activities on Adler & Sullivan projects.²⁸

William Tuthill was an interesting blend of musician and architect. An 1875 graduate of the City University of New York, he served as a draftsman in Richard Morris Hunt's office until 1878, when he opened his own office and, the same year, began singing tenor with the Oratorio Society of New York. An amateur cellist as well, he played with a string quartet for 36

years. He and his wife, Henrietta Corwin, an organist and pianist, had one son Burnett Corwin Tuthill, with whom he established the Society for the Preservation of American Music in 1919.

Carnegie Hall was Tuthill's greatest commission; he prepared for it by touring European concert halls and studying their acoustics, as Adler had done for the Auditorium. Although his professional life was spent in New York City, he knew Adler & Sullivan to be superior theater and opera house designers. "In association with Dankman Adler [sic]...architect of [Chicago's] Music Hall, Tuthill worked out successfully the acoustical problems involved in his building."²⁹ Adler's involvement in Carnegie Hall was a natural outgrowth of his reputation and acquaintance with Tuthill, a fellow Sunset Club member.³⁰

In addition to Ramsey, another St. Louis architect with close contacts with Dankmar Adler was Isaac Stockton Taylor, Nashville-born but St. Louis trained. He designed a wide range of buildings in St. Louis and, after the turn of the century, served as director general of the Louisiana Purchase Anniversary Exposition. Adler worked with Taylor on the 1896 Republican Convention Hall in St. Louis and summarized his views on this topic in an 1895 article, "Convention Halls" in *Inland Architect and News Record*.³¹

THE WORLD'S COLUMBIAN EXPOSITION

Barely over two decades separate the two major events that most influenced the city of Chicago in the nineteenth century and shaped the architecture of the metropolis: the Great Chicago Fire (1871) and the World's Columbian Exposition (1893). The first was catastrophic with \$200 million worth of destruction, but it was a boon for architects. The builders had to

reconstruct quickly and cheaply, and make the new city's commercial district fireproof. As we have seen, Chicago became a magnet for architects, a *tabula rasa* for an emerging profession on which to write in a new architectural language. Practitioners came from far and near; Louis Sullivan and Nathan Clifford Ricker were two among a multitude.

As a result of the fire, a town with only a forty-year past invented the city of the future. On the ashes of this pyre, a new urban phenomenon would emerge. No wonder the emblem of the nascent University of Chicago was the phoenix--symbol of resurrection, of hope reborn. The fair was adjacent to the new university, a mecca of a different sort.³² Both a phenomenal success and a terrible fiasco, the fair attracted hundreds of thousands of visitors--many from foreign lands. They came to see the White City, to sample its attractions, appreciate its architecture, and to carry their impressions back home. The fair had an impact on visitors; many mentioned it in articles diaries and letters, some published in the newspapers of faraway cities.

News of the fair was rapidly transmitted to Europe, Great Britain, Russia and China. The status of American architects, barely known outside Chicago or New York before the fair, suddenly was international. Visitors and journalists reflected on how this visionary Brigadoon—a shimmering city here today, gone tomorrow--came into being. Who spearheaded the design? Who executed the buildings? Who planned it? How was it funded?

A plan to commemorate in Chicago the 400th anniversary of Columbus's discovery of America was first proposed in 1882 and given further impetus by an 1888 convocation of Chicago's social clubs, including the Union League and Standard Clubs. The idea took bureaucratic form rapidly. At its apex were Harlow Higinbotham of Marshall Field & Company

and Adler's champion, Ferd Peck. Daniel Burnham was chief planner and John Root would have been the principal architect had he not died of pneumonia. Burnham, bereft of his partner, turned to New Yorker Charles Atwood as overall designer, and he divided the major buildings among ten architectural firms, five Chicagoans and five outsiders.³³ Adler was initially leery, but other Chicagoans signed on eagerly: William LeBaron Jenney, Henry Ives Cobb, Charles Frost, Burling & Whitehouse, and ultimately, Adler & Sullivan³⁴

The nation's most prestigious landscape architect, Frederick Law Olmsted of Central Park fame, was the topographical planner, creating a system of lagoons, a wooded island and a central *cour d'honneur*, the ensemble known far and wide as "the White City." With no time to spare, Daniel Burnham assigned the firms their building and gave each one month and \$10,000 to come up with usable plans. Meanwhile, he appointed artists and sculptors to enhance the architecture to come. Frank Millet was the decorator and Gari Melchers, son of Adler's long-ago drawing teacher, Julius Melchers, worked under him.³⁵

The opening ceremony on May 1, 1893--a year late for celebrating Columbus's voyage--attracted 350,000 visitors. The fair's boosters proudly noted that the World's Columbian Exposition was the largest in area (633 acres), the most expensive (\$7.3 million), yet the most cost efficient (\$1.39 per square foot) of the great nineteenth-century extravaganzas. They compared it with the Paris exposition of 1889: 238 acres, \$3.9 million, \$1.74 per square foot; and the Philadelphia Centennial of 1876: 284 acres, \$5.2 million, and \$2.16 per square foot. To a city of 1.3 million people, attracting 21.5 million people--equal to 10 percent of the United States population at the time--the exposition seemed like a windfall.

Yet the seeds of economic disaster were already growing and would shortly plunge Chicago into the economic catastrophe that already gripped the rest of the country. Even as the fair's doors opened, local banks were closing theirs. Chemical National failed on May 9 and two days later the Columbia National Bank, which had a branch on the fairgrounds, became insolvent, taking many exhibitors down with it.³⁶

The Exposition ended not with a whimper but with a bang!³⁷ For some, the fair was a success: the Transportation Building was a triumph for Adler & Sullivan who garnered national and international praise and awards. Adler was given an Exposition medal inscribed, "To Dankmar Adler, one of the designers of the World's Columbian Exposition, On the Four Hundredth Anniversary of the Landing of Columbus, October 21, 1892." Sullivan donated casts of the "Golden Door" to the *Union Centrale's Musee des Arts Decoratifs* in Paris and received three medals from the *Union*, surely a form of recognition never anticipated by one who had such a brief tenure at the *Ecole des Beaux Arts*.

On October 29, 1893, Dankmar Adler rendered his verdict on the Renaissance Revivalism of the fair's architecture:

The immediate effect of the example of the Fair buildings will be a general and indiscriminate use of the classic in American architecture. Efforts will be made to force into the garb of the classic Renaissance structures of every kind and quality devoted to every conceivable purpose...in palace and cottage, in residence and out-house, in sky-scraping temple of Mammon on city streets, and in humble chapel and schoolhouse of the country roadside.³⁸

Banister Fletcher, in the *Engineering Magazine* of June 1894, predicted: "we shall see a great classic revival which will go far beyond any craze we have had in England and do more to retard

to true progress of art in America than if no exposition had been held.”³⁹ *The [London] Architect* said succinctly that the Chicago fair was “the costliest of architectural fiascos.”⁴⁰

Twenty-five years later, Sullivan echoed Adler's sentiments. Borrowing a phrase from the Civil War, he dubbed the failure to create a new vision in architecture "the lost cause" and wrote: “the damage wrought by the World's Fair will last for half a century from its date, if not longer.”⁴¹

HARD TIMES: END OF THE PARTNERSHIP

The Depression of 1892 was slow to hit Chicago but the subsequent recovery did not crest until 1897. Adler & Sullivan, like all architectural firms, was in trouble by 1894. The senior partner had made investments over the years in land and building corporations, like the Central Music Hall and the Auditorium, but he had to leave Chicago to solicit business. Adler's investments kept him afloat but the impact on the firm was enormous. Personally and economically Adler fared better than Sullivan, even though he had a family to support.

It is well known that the partnership of Adler & Sullivan dissolved in 1895. It was not the only partnership in which the principals each went his own way at this time. Henry Schlacks and Henry L. Ottenheimer foundered, as did Samuel Treat and Fritz Foltz. If, as Dudley Lewis Arnold wrote, “the cooperation between architects and engineers became a symbolic act portending progress,” then progress was over by 1895.⁴² The breakup of a firm should not have been an unpredictable event. Adler left Burling after less than ten years, and Adler & Sullivan had, after all, been together for 12 years. The nature of their relationship was unique and, as

Tolstoy wrote, "All happy families resemble one another; every unhappy family is unhappy in its own fashion."⁴³ A close partnership was like a marriage, and its severing was a psychological blow akin to divorce. Both partners lost: lost commissions and lost the synergy that had produced so many excellent, successful, and even gorgeous buildings. Adler lost his artist, and Sullivan, his engineer, mentor and buffer. This personification of united form and function, having been severed by economic and social forces, would never again be joined.

Money was always an issue in the firm, in the profession, and in the press.

Was the role of the artist to starve gracefully? Were architects really artists? Were architectural engineers even architects at all? Could engineers, unaided, design beautiful buildings? If there was no consensus, there was also no dearth of opinions:

Architects, especially those that considered themselves artists, should be carefully watched so as not to be given a chance to create a structure poorly adapted for its utilitarian purposes.⁴⁴

George B. Post expressed the view that Adler held:

It must be remembered that good architecture is always good engineering. Good architecture and construction go hand in hand; where the engineering is bad, the architecture is generally bad, and where the architecture is bad, the engineering is usually worse.⁴⁵

Editor's Note: The Author's detailed account of the design and construction of the Guaranty Building in Buffalo, New York, and the break-up of the partnership has been published in the *Journal of the Illinois State Historical Society*. This paper is Appendix C, reprinted with permission of the Illinois State Historical Society.

¹ Richard M. Levy, "The professionalization of American architects and civil engineers, 1865-1917", (Ph.D. dissertation, University of California, Berkeley, 1980.) p. 376.

² Frank Lloyd Wright, *Genius and the Mobocracy*, pp. 82-83.

³ Louis Sullivan quoted from "The Young Man in Architecture," cited in Robert Twombly, *Louis Sullivan: the Public Papers* (Chicago: University of Chicago Press, 1988): 144.

⁴ Louis H. Sullivan, *Autobiography*, p. 303

⁵ Joan Saltzstein's manuscript (Chap.IX), Adler Archive, Newberry Library, n.d. pp. 90-91; Garzynski, Edward xxx

⁶ Wright, *Genius*, p. 61

⁷ *Ibid.*, p. 57.

⁸ Frank Lloyd Wright contended that Sullivan was the traveling partner; according to Hugh Morrison, Adler was more frequently on the road.

⁹ Louis H. Sullivan, *Autobiography of an Idea*, p. 326; Leopold Eidlitz, "The Architect of Fashion," *Architectural Record* 3 (April-June, 1894): 357.

¹⁰ Levy, "The Professionalization," p. 36, 43-4, 52, 131; Bozdogan, "Towards Professional Legitimacy," p. 130; Saint, *The Image of the Architect*, p. 88.

¹¹ Henry F. and Elsie R. Withey, *Biographical Dictionary of American Architects (Deceased)*, (Los Angeles: Hennessey & Ingalls, 1970): p. 275.

¹² I am indebted to Kathryn Bishop Eckert for describing Paul Mueller's connection with the Upper Peninsula of Michigan in the 1890s. He worked extensively in Houghton/Hancock and Calumet. Many of Henry L. Ottenheimer's (q.v.) designs were constructed by Mueller. Kathryn Bishop Eckert, Lansing, MI, to Rochelle Berger Elstein, Wilmette, IL, July 12, 1995.

¹³ *Ibid.*, p. 84.

¹⁴ *Ibid.*, p. 84-85; Wright *Genius* p. 69.

¹⁵ Herman Eliassof, "Jews of Illinois" *Reform Advocate* 21 (4 May 1901): 285. Quoted in Rochelle Berger Elstein, "The Jews of Houghton-Hancock and their synagogue," *Michigan Jewish History* 38 (November 1998): 5.

¹⁶ Eliassof, "Jews of Illinois" *Reform Advocate* 21 (4 May 1901): 390; Withey, *Biographical Dictionary* p. 450; Eliassof, p. 285; Withey, p. 540; *Economist* 16 (12 Dec., 1896): 615.

I am grateful to Kathryn Bishop Eckert for informing me about Henry Ottenheimer's office in Houghton, Michigan that he advertised in the [*Houghton*] *Daily Mining Gazette* (9 Oct. 1899). He designed several important buildings, among them the Sheldon-Dee Block (1899), the Allen Forsyth and Caroline Willard Reese House (1899/1900), the Douglass House Hotel (1899/1900), the James Dee Block (also known as the Houghton-Hancock post office), and many school building. Kathryn Bishop Eckert, Lansing, Michigan, 12 July 1995, to Rochelle Berger Elstein, Wilmette, Illinois.

There is also stylistic evidence that Ottenheimer designed the Hancock synagogue, Temple Jacob, in 1910. *Buildings of Michigan*, ed. Kathryn Bishop Eckert (New York: Oxford University Press, 1993): p. 470.

The Steele-Wedeles Building was considered to be a pioneering use of underwater caissons for a building. Edward J. Fucik was the engineer, and the closeness of their collaboration and Ottenheimer's readiness to try new foundation applications is a measure of how well Adler trained his mentees in every aspect of building.

Among the aforementioned, Frank Randall cited the Norman Building (1915) and the Elks Club (1916) as Ottenheimer's. Randall, *History of the Development* pp. 235-6; 250-252.

¹⁷ Wright, *Genius* pp. 61, 68.

¹⁸ Withey, *Biographical Dictionary* pp. 449-450.

¹⁹ Withey, *Biographical Dictionary* p. 45.

²⁰ Eliassof, "The Jews of Illinois" pp. 285, 310, 358, 360, 389-390; Randall, *History*, p. 147; *Economist* 12 (27 April 1895): 509.

Withey lists several New York buildings: The Free Synagogue of Manhattan, the Brooklyn Home for the Aged, and Shaare Zidek [sic].

²¹ Withey p. 504. Adler was an admirer of Richard Morris Hunt, referring to him as a genius in his article on the "Proposed Technological School, and he was personally acquainted with Unt because both were active in the AIA. Adler, "Proposed" p. 36.

²² Withey, p. 235; Wright, *Genius*, p. 68. Hugh Morrison, *Prophet*, p. 124.

²³ Thomas Tallmadge, *Architecture in Old Chicago*, (Chicago: University of Chicago Press): 161.

²⁴ Withey, p. 126; Randall, *History*, pp. 70,80.

²⁵ Wright, *Genius* p. 67.

²⁶ *Ibid.*, p. 69.

²⁷ Withey, p. 274.

²⁸ St. Louis Public Library, Vertical Files; Cox xxxx *Old and New St. Louis* xxxx; *Pen & Sunlight* xxxx p. 239.

²⁹ Withey, p. 608.

³⁰ Other New York buildings designed by Tuthill were the Post-Graduate Medical School and Hospital (1892), Infirmary of Women's Medical College (1900), Columbia Yacht Club (1900), and Home for the Friendless (1902). He also built the Princeton Inn in Princeton, New Jersey (1893), and the Carnegie Library in Pittsburgh (1894). He still had enough time to write several practical manuals on architecture and a history of English churches, and he served on the board of directors of Carnegie Hall for much of his life. William Tuthill was another embodiment of the link between music and architecture and, like Edward Burling, had strong ties to the Protestant establishment, in this case in New York. *Dictionary of American Biography*, s.v. "Tuthill, William B." by Talbot F. Hamlin.

³¹ Withey p. 591; Dankmar Adler, "Convention Halls," *Inland Architect and News Record* 26 (Sept. 1895): pp. 13-14; (Oct. 1895): 22-23.

³² The site was undeveloped land south of the university at what would become the Midway. It had been chosen as the venue in 1890 in no small measure due to lobbying by the Illinois Central Railroad that already owned the right of way.

³³ Four out-of-towners--Richard Morris Hunt; George B. Post; McKim, Mead, & White; and Peabody & Stearns--balked. Only Ware & Van Brunt of Boston and Kansas City responded positively to the initial proposal. Hunt, especially, was skeptical that sufficient funds could be raised to do the job properly. A visit from Burnham allayed the anxieties of the easterners.

³⁴ *The Official Directory of the World's Columbian Exposition*, (Chicago: W.B. Conkey Publishers, 1893): 31ff, 42, 60; Reid Badger, *The Great American Fair: The World's Columbian Exposition and American Culture*, (Chicago: Nelson Hall, 1979): 67.

³⁵ Richard Morris Hunt had been too faint-hearted. The board under the leadership of Lyman Gage (later to serve as McKinley's secretary of the treasury) as chief of the corporation was able to raise more than the \$14,411,506.74 cost of construction and even to pay the shareholders a small profit on their investment.

1976): p. 99; *Official Directory*, pp. 31, 60.

³⁶ *Official Directory*, pp. 70, 197; Badger, *The Great American Fair*, p. 92.

³⁷ The gate receipts were disappointing, but the Columbian Exposition had made Chicago a world-class city. The events of the penultimate day, however, scarred its reputation and forever branded it a violent city. Patrick Eugene John Prendergast, a paranoid Chicagoan, went to city hall to exact revenge on the powerful men whom he believed were preventing him from getting a much-deserved city job. Adolf Kraus, corporation counsel, managed to evade a confrontation. Mayor Carter Harrison was not so fortunate and Prendergast assassinated him. Flags everywhere flew at half-staff, and the next day the fair ended in a solemn and mournful ceremony. Badger, *The Great American Fair*, pp. 129, 164.

³⁸ *Chicago Tribune* (29 October 1893): 37.

³⁹ Banister Fletcher, "American Architecture through English Spectacles," *Engineering Magazine* 7 (June 1894): 321.

40. Quoted in *American Architect and Building Journal* 43 (2 Feb. 1894): 50.

⁴¹ Louis H. Sullivan, *The Autobiography of an Idea* (New York: Press of the American Institute of Architects, 1924): 325.

⁴² Dudley Arnold Lewis "Evaluation of American Architecture by European critics 1875-1900; (Ph.D. diss., University of Wisconsin, 1962): 248.

⁴³ Leon Tolstoy, *Anna Karenina*, Part I, Chapter 1, p. 1.

⁴⁴ Barr Ferree, *Engineering Magazine* 7 (1894), quoted in Levy "The Professionalization," p. 111.

⁴⁵ Charles SooySmith, "Concerning Foundations for Heavy Buildings in New York City," American Society of Civil Engineers *Transactions* 35 (July 1896): 472.

CHAPTER 7: LEADER AND MENTOR, ARCHITECT OR ENGINEER?

ADLER'S ROLE IN THE WAA AND THE AIA

At its onset, the Chicago chapter of the American Institute of Architects (AIA) was vigorous and active. The seventh convention was held in the Windy City in 1873, a scant two years after the fire, and Burling & Adler's architecture was seen by easterners for the first time.¹ By the 1880s, however, the Chicago chapter had hardly grown (members numbered 30) and it did not meet in 1883 or in 1884. More ominously, competition threatened to fracture the unity that had been the great strength of the AIA for more than a decade and a half. The architects of the Midwest needed an active organization to represent their interests and strengthen the profession.

Robert Craik McLean, who had begun publishing *Inland Architect and Builder* in February 1883, perceived those needs and called a conference in Chicago in November 1884 out of which emerged the Western Association of Architects (WAA). More than 100 men attended the organizational meeting, the majority of them Chicagoans, although 14 other states sent charter members. The WAA, recollected McLean, "was not a Philistine movement but grew out of the insistent and general desire for professional association, the comparison of ideals, expression of ambitions, a better practice and more gregarious professional life."²

The men who led the nascent organization were Chicago's most prominent practitioners. They would play leadership roles in the AIA after the merger of the two groups in 1889. Daniel

Burnham was the WAA's first president, Dankmar Adler the first treasurer. At the second WAA convention in St. Louis, Adler was elected president and John Root became secretary. Again convening in Chicago, Root succeeded Adler as president. Adler outlined his views on architecture as he turned over the gavel.

In his presidential address to the WAA, Dankmar Adler noted a dichotomy between private architecture, which he deemed "good", and public architecture that had yet to be developed. Sprightliness, grace and vivacity must lead to virility, dignity and serenity. Much needed to change, yet there was much to be optimistic about. He described the preconditions for great architecture: a society with wealth sufficient to build well, with a taste for luxury that allowed for large building budgets. A "naissance" was dawning, a golden age of architecture was beginning and never was there a greater opportunity to do great things. American architecture was in its infancy whereas American literature was already mature. The future was promising. Progressive clients, mature designers, the development of architects' mental and spiritual facilities plus keen competition between them would produce outstanding architecture. In both residential and civic building, greatness was in their grasp. In achieving their goals, a distinctive, democratic, and uniquely American architecture would evolve.

Architects, Adler said, were endowed with special insight; they understood their constituency and had solid relationships with their clients. Moreover, they possessed a special understanding of the American people, their needs and values (a position voiced later by Louis Sullivan). The study of the past alone, Adler stated at the convention, was insufficient since the problems facing architecture were new, but lessons could be gleaned from the works of

exceptional architects and engineers of the past, even the distant past. In fact, such activity was essential, because studying the giants of the past and their cultural milieus could lead to solutions of modern problems. It was not enough to advocate change--change for its own sake was frivolous. It was essential to subject every challenge to rational analysis. Therefore, to study the problems of the present and the lessons of the past simultaneously was the nucleus of a good architectural education. The task facing architecture, as essential as it was difficult, was to integrate foreign ideas and methods with native culture into something coherent and quintessentially American.³

The Western Association of Architects was progressive and successful, open to new ideas and individuals. *Inland Architect and News Record* reported that the WAA's fifth annual convention elected Louise Bethune of Buffalo second vice-president when there were few women in any professions and fewer still in leadership positions. She served on a board dominated by Chicagoans; Samuel Treat was treasurer, Normand Patton was secretary. The WAA soon outstripped the AIA in membership with 300 members to the older organization's 250, and Adler contrasted the two, saying that the WAA had new blood and scores of active members and that it was a professional association while the AIA was a gentlemen's club.⁴

Still, the continued effectiveness of the WAA was hampered by its regionality. Neither the AIA nor the WAA could speak for the whole profession. Leaders of both groups recognized the need for consolidation, and the AIA reached out to the upstarts by meeting in Chicago in 1887. At that convention, Daniel Burnham gave a speech on unification, and, in the following year, both groups appointed committees to negotiate a merger. Dankmar Adler chaired the

WAA committee. Much united the two organizations, primarily the desire to put the practice of architecture on a par with medicine and law, with the same power, status and control over the supply of trained people.

In Adler's view, a major goal was to replace intraprofessional animosity with warmth, restore esprit de corps, and "to meet and learn to esteem one another." United organizations could prevent the exploitation of architects and of engineers and the concomitant advantages of joint action instead of individually negotiated professional fees. In the interests of unification, the WAA was willing to give up its name and operate under the single rubric of the AIA, but they refused to compromise on the matter of a two-tiered membership system. The AIA wished to retain two categories: associate and fellow. The WAA--and both Adler and Sullivan were vociferous on the matter--was egalitarian and opposed any such hierarchy. They were victorious, temporarily, and the WAA approved consolidation via a mail ballot. At the 1889 convention in Cincinnati, the two associations merged.⁵

Dankmar Adler was an active member of the newly consolidated organization. He was on the Committee for Foreign Correspondents and Clerk of the Works Committee and the Uniform Contract Committee; and in 1893 he edited the proceedings of the annual convention. The man who had chaired the consolidation committee with great skill, tact and determination, naturally attracted the interest of the AIA leadership. Soon he and other former WAA leaders, were being mentioned for high office. The convention elected two Chicagoans to the board at the Cincinnati meeting: John Root became AIA secretary, a post he held until his death in January 1891, and Samuel Treat was treasurer until 1899. They and Adler had gained valuable

executive experience in the WAA as had its first president, Daniel Burnham, the first Chicagoan to head the AIA--although not the first to be considered for that post. That distinction belonged to Adler whose account of events at the Boston convention where he was almost nominated makes apparent his disinclination to accept the honor.

I have had quite a time already this morning trying to convince the chairman of one of the nominating committees that I want to be secretary and not president of the AIA I thought I had packed both committees against myself but find myself mistaken in the case of one of them.⁶

The letter to Dila closed with emphasis--"believe me, Your ever-loving Husband."

Dila undoubtedly did believe him; his fellow architects appeared, for a time, not to have. The next day he wrote, "I was sorry to learn that one of the committees has nominated me for President. If the other has done the same, I shall have to accept. If it has not, I shall probably decline the honor, even if I have to lose the secretaryship." He compared himself to the pike fisherman who would throw back a trout in his determination to "get the pike for which my hook is baited." His steadfastness paid off. The convention nominated Edward H. Kendall for president and Adler, as he hoped, became secretary. "So the matter is all right, and I can accomplish the work I wanted to in my own way."⁷

In addition to facilitating the consolidation of the two large associations, Adler also fostered the merger of the Illinois State Architectural Association into the AIA in 1890 and, again, served on the Charter Committee. The statewide organization, a constituent chapter of the WAA, had been formed in January 1885, and Adler was nominated to head the association, an honor that he attempted unsuccessfully to decline.⁸

An important function of conventions was the transmission of history in order to educate younger architects about a past of which they were ignorant. Political action by the AIA might have been national, but history was local, if it was to be pertinent. Therefore tours of architecture in the convention cities were supplemented by talks on the host city's past. In the singular year of 1893, when Chicago was the cynosure of world architecture, Frederick Baumann addressed the AIA. A taciturn man reluctant to speak in public, Baumann nonetheless shared his reminiscences with colleagues as he was nearing the end of his career.⁹ Chicago, he reminded them, had an excellent location but was plagued with soil problems. Both the advantage and disadvantage stemmed from its lakefront location. In the early years, the city in winter was icebound and lifeless. The harsh climate shut down commerce and construction, and only the primitive bridges--the "lifelines" Baumann called them--connected the city which was trisected by the river and like Caesar's Gaul, was divided into three parts.

Despite the difficulties faced by the few trained engineers and architects in the 1840s, technology had solved most of the problems in a relatively short time. At first the water supply was primitive and a wooden box sewer carried wastes into the Chicago River. The newly-invented balloon frame was the usual method of construction. Most buildings were of lumber that came from nearby Wisconsin and Michigan.¹⁰ Baumann described the business district shopfronts as "a rural American type."

Baumann characterized Chicago buildings of the 1850s as "mostly French, a few German," but both Americanized. The unique feature on the skyline, besides the church steeples, was the behemoth grain elevators into which golden wheat and corn were poured.

Chicago grew to be the commodities market of the United States and of the world. Baumann neglected to mention how these topless towers of Illinois were constructed or their role as predecessors of the skyscraper, perhaps because he was reluctant to attribute to these sternly functional buildings paternity of the ornamented and decorated tall office buildings that sprouted up in the 1880s and 1890s.

He also neglected to mention architectural publications from the East and Europe that provided the styles and models for Chicago area builders, nor that many shop owners purchased cast-iron storefronts from the Daniel Bogardus mail-order house in New York. The first major civic structure was the courthouse for which a distant source, a Buffalo, New York quarry, provided the stone. It was transported to Chicago via the Erie Canal and the Great Lakes, thereby underscoring the excellent transportation system that was the basis of Chicago's early growth.

THE DEVELOPMENT OF ARCHITECTURAL EDUCATION

"The wisdom of a learned man cometh by opportunity of leisure; and he that hath little business shall become wise."¹¹ "One does not become an architect all at once."¹²

Until the eighteenth century most architects were gentlemen amateurs. Even those for whom it was a full-time occupation were trained through apprenticeship. Dankmar Adler was neither gentleman amateur nor college educated. His rise in the profession would have been impossible had he been born in 1900 instead of dying in that year. He was outmoded by the

establishment of architecture programs in schools like the Massachusetts Institute of Technology (1865), the University of Illinois [Illinois Industrial University] (1867), and Cornell University (1868). Urbanization required trained professionals for reasons of safety and to guarantee an appropriate supply of educated builders. At the time of the Civil War, only 20 percent of Americans lived in cities; by the turn of the century the percentage was twice as high. Chicago burgeoned from 229,000 in 1870, the year before the Fire, to one million only ten years later, and population pressure forced architecture outward and upward. Building higher meant that architects had to have more engineering training and fostered the application of civil engineering, formerly for bridges and railroads, to commercial buildings. Learning the principles of civil engineering required a science- and mathematics-based curriculum.

During the last quarter of the century, Chicago matured from the unofficial capitol of the prairie West to a civilized metropolis that successfully hosted a world's fair; produced world-renowned architects and engineers; welcomed regional, national, and international conventions; and debated issues of progress. Unchecked growth had detriments as well as advantages; proud skyscrapers were one face of the city, "the wretched refuse of [your] teeming shores"¹³ packed into crowded, dilapidated, outmoded housing was another. For the building professions, limitation of building height, the enforcement of building codes, and the licensure of architects were the central issues of the day.

Architecture did not become a profession all at once. Separate educational and vocational strands from Europe were woven together and reshaped to suit American conditions and needs. Those needs varied from region to region. In Illinois, academic-based architectural

education developed and grew far away from the dynamic hub of Chicago in the distant grove of academe Urbana-Champaign, at the school known initially as the Illinois Industrial University.¹⁴

Neither Adler nor Irving K. Pond, who like him was educated in Ann Arbor, were overnight successes. Their careers were not assured by virtue of early training. Adler was not a finished engineer by 1871 when he joined Edward Burling, although his proclivities and apprenticeships, in uniform and after the war, proved to be better grounding than he knew at a time before either profession was adequately defined and sharply divided. He would play a part in developing both professions, and the synthesis of the two which was the hallmark of architectural education in the Midwest. And his firm shaped a generation of men who carried architecture and engineering into the twentieth century.

It is a truism among architectural historians that when architects cannot build, they write. They also organize in order to speak with a unified voice and they teach in schools of architecture. In 1892 Adler joined the list of guest lecturers (including also William LeBaron Jenney and William Sooy Smith) who rode the train from Chicago to Urbana-Champaign to share their expertise with students by lecturing and "informal and impromptu talks." Adler proposed several topics to the University of Illinois architecture dean, Nathan Clifford Ricker -- auditorium design, foundations, heating and ventilating--but because he had "a most harassing and exacting winter schedule," it took several months to work out the details. He finally agreed to appear in late May 1892 to address the topic "Theory of the Design of the Auditorium," reassuring Ricker and the trustees that he had "not been trifling with the great honor you have conferred upon me."¹⁵

One contribution to Adler's busy schedule that winter and spring of 1891/92 was an article he wrote for the April 1892 issue of *Inland Architect*, "A Proposed Technological School from the Standpoint of the Architect," in which he explicated his view of what a well-trained architect must know. Combining traditional Jewish reverence for scholarship with skepticism toward the sequestered classroom, he stressed that architects must be exposed to and knowledgeable about all phases of culture: the humanities, science, natural history and social science. Even if students could not master all the disciplines, they must be conversant with them and become less narrow specialists.

"The future belongs to those who can discover new outlets for human enterprise, to those who can point out new methods of ministering to human wants, and chiefly to him who will show many new wants and with them the means of satisfying. The architect of the future must therefore know nature and her products and phenomena, man and his history and philosophy."¹⁶

He stressed, as he had in his 1886 WAA presidential address, that architects must comprehend their own culture; they should know the minds and souls of their fellow citizens, especially those who were cultural leaders. Architectural education was condemned as being too segregated and too specialized. Architects should not be educated in isolation but with the nonprofessionals who would become their future clients. If the two groups were to be mutually sympathetic, if they were ever to communicate, if architects were to become practical while businessmen were becoming aesthetically sensitive, it would begin in the college classroom. He foresaw that, in the future, architects would not emerge from the ranks of builders. If they were not to be estranged from the real world, if they were to become proficient as soon as possible and remain callow (Adler's word) as briefly as possible, they should be liberally educated with their peers in other

disciplines.

The AIA, as one of its earliest acts, established a committee on education that recommended a national polytechnical institute with specifications on the nature and scope of the curriculum, the amount required to fund the enterprise, the size of the faculty and their salaries, and the library. The school never materialized. Architectural education became rooted in individual private and public institutions, the first being MIT, whose program was heavily influenced by the École des Beaux Arts. The University of Illinois, which followed hard upon the eastern school, modeled itself on German institutions, especially the Bauakademie in Berlin. The relationship between the University of Illinois and Chicago architects began early and remained crucial during the entire nineteenth century.¹⁷

The University of Chicago never created the technological school Adler advocated in his article in *Inland Architect*, but architectural education made some gains in the decade of the 1890s. National progress was glacial; between 1865 and 1879 permanent programs were established at four schools. By Adler's death in 1900, twelve more had come into being. The University of Michigan got off to a good start with William LeBaron Jenney, but the program failed to get the necessary support of administrators and legislators and closed in 1878, not to be rejuvenated until 1906.

When Adler's son, Abraham, attended the University of Michigan in the early 1890s, majoring in architecture was not an option. He could, however, have remained in Chicago, because a short course in architecture was offered at the Art Institute of Chicago, administered by Louis Millet and William A. Otis. Both had trained at the University of Michigan and at the

Ecole des Beaux Arts and brought French educational methods to their school. Other instructors were brought in for specific courses, including Jenney (an experienced pedagogue and also Otis's partner), Daniel Burnham, John Root, and Irving K. Pond. In 1895 an arrangement between the Art Institute School and the Armour Technical Institute (later the Illinois Institute of Technology) moved the scientific and technical courses to Armour, while drawing and design remained at the Art Institute under Millet's direction. It bore the name the Chicago School of Architecture and eventually it became a four-year curriculum requiring a thesis.¹⁸

THE PROFESSIONALIZATION OF ARCHITECTURAL PRACTICE

With the consolidation of the architectural professional societies, architects had seized the gatekeeping function, staffing review committees that certified new practitioners. They were also responsible in a more formal sense than had been the case with apprenticeships.

Educational preparation became longer and more rigorous, and by the turn of the century, many building projects of any size larger than a house were in the hands of architects.¹⁹

In 1909, the AIA issued "A Circular of Advice Relative to the Principles of Professional Practice and the Canons of Ethics," its first code of ethics. While not fully in the control of all building activity, architecture had greater control over itself and over design and construction than did contractors or craftsmen. Architects were better educated; more knowledgeable about art, science, and technology; and also better trained in scientific management. The year of the ethics statement was also the year the Chicago Plan was published, underscoring the power and influence of an architect/planner on the future direction of a major American city.²⁰ While

advocating the synthesis of the aesthetic and the technological, architectural firms were more likely than ever to be departmentalized into separate units for design, construction, business, and supervision. Partly as a result of specialization, partly because the projects on the drawings boards were larger and more complex, firms grew in size. The 50-75 person office of the early 1890s would become the 100-125 member practice of the 1910s.

In the 1910s, the AIA's schedules of fees remained in the realm of the recommended, not the mandated. When only five states licensed architects, some wanted to purge the profession of incompetents by setting a level that only the qualified could meet, whether by education, examination, or registration they did not say. Their faith clearly lay in the power of the federal government to confer on architecture the status they envied in physicians and attorneys.²¹

THE PROFESSIONALIZATION OF ENGINEERING

To ask a practitioner like Benjamin Latrobe if he was an architect or an engineer would have been a meaningless question. He designed buildings and he also designed public works. To Dankmar Adler, too, such a distinction would have been perplexing. If his partner was a skilled artist, as Louis Sullivan was, Adler supplied the overall design and engineering expertise. If his associates were engineers, like his son Abraham, he handled the architectural duties. And he was active in the societies of both professions.

"The fact [is] that there was little or no division between the professions we know today as civil engineering and architecture,"²² and that had been true throughout the ages. Just as artists like Leonardo and Michelangelo had been masters of applied chemistry and physics,

possessing a profound knowledge of the science and technology of their media, Renaissance architects were also engineers who built projects as massive as the dome of St. Peter's. In the late nineteenth century, this fusion of art and science began to come apart. A division between architecture and engineering was justified by the increasingly complex technical problems that had to be solved, most particularly for skyscrapers. A synthesis was achieved in the University of Illinois's program in architectural engineering, but the legal and educational separation remained. It was expressed in the race for professional recognition by separate professional societies and licensure laws.

Engineers had worked on large-scale projects long before engineering organizations were established. Probably the most well-trained and famous early engineer was Benjamin Henry Latrobe, who helped establish the professions of architecture and engineering in the United States. He came to the United States in 1796, where he immediately began major engineering and architectural undertakings, such as the Philadelphia Waterworks, Richmond Penitentiary, and the Bank of Pennsylvania. He worked on the federal capitol and the White House and, perhaps most important of all, was instrumental in bringing to these shores British-trained engineers. Moreover, he trained many native-born engineers in his office and, as a result of his endeavors, Philadelphia became a source of professionals who spread out across the country, building railroads, bridges, and sanitation systems. Latrobe was the earliest and most important vector in the transmission of building technology from the Old World to the New. He was also a major influence in organizing civil engineers, although his initial efforts were not crowned with success.²³

THE WESTERN SOCIETY OF ENGINEERS

Chicagoans too perceived a need for a local society "for the purpose of promoting the best interests of the engineering profession."²⁴ What became the Western Society of Engineers (WSE) in 1880 was born on May 25, 1869, calling itself the Engineers Club of the Northwest. Fourteen men assembled at the Sherman House hotel in Chicago, and elected a president, Roswell Mason, later mayor of Chicago, and a secretary, Louis P. Morehouse, who served in that office for almost 20 years. A small committee was charged with drafting a constitution and bylaws. The majority were railroad men; at that early date no Chicago architect was involved. By 1879, when Dankmar Adler joined, there were a few others like him. The impetus to share ideas and be informed soon led the society to create a regular conference with published proceedings (1876), permanent headquarters in the Monadnock block (1895), and a journal (1896). The journal had great breadth, containing articles on international matters as well as local ones. Besides Adler, many other architects wrote for it, including Normand Patton, Hugh Garden, and Dwight Perkins. Frank Lloyd Wright's "Art and Craft of the Machine" was reprinted in the July-August 1901 issue of the *Western Society of Engineers Journal*.²⁵

Some WSE members played roles in the World's Columbian Exposition. Willard Smith Pope built the favored attraction, the Ferris Wheel; DeWitt Cregier was on the Columbian Exposition planning committee. Some won fame in politics. Roswell Mason, for example, was not only WSE president and mayor of Chicago but also a trustee of the University of Illinois. Further afield, three WSE presidents worked on the Panama Canal and one of them, Isham Randolph, organized an international symposium on civil engineering at the 1893 fair.

Many left permanent mementos on the landscape. Ellis Chesbrough, who some claim was the progenitor of the WSE, designed the sanitation system of Chicago, and another individual whom we have already met--William Sooy Smith--was responsible for the foundations of many Chicago buildings. Samuel Artingstall from Great Britain built Chicago's first power-driven swing bridge.²⁶ Abraham M. Gottlieb, too, was a bridge engineer with many commissions to his credit when, in 1892, he was appointed chief engineer of the 1893 fair. He built both the Fine Arts and the Administration Buildings.²⁷

The World's Columbian Exposition was a magnet for engineers just as it was for architects. The World Engineering Congress also met in Chicago in 1893. At the moment that Frederick Jackson Turner was describing the end of the frontier, new frontiers in engineering and engineering education were being contemplated and institutionalized. As a result of a session on education at this conference, a new organization came into being: the Society for the Promotion of Engineering Education.²⁸ One of its leaders was DeVolson Wood, who, thirty years earlier, had prevented Dankmar Adler's admission to the University of Michigan. Wood was now president of Stevens Institute of Technology in New Jersey. Adler had turned his rejection into an amusing anecdote; he was not a man to harbor a grudge.²⁹

ARCHITECTURE AND ENGINEERING: ARCHITECTURE VS. ENGINEERING

Both architecture and civil engineering came of age in the late nineteenth century but engineering carried a special aura in early twentieth-century America. Thorstein Veblen, for example, believed that engineers should control society, noting that the primary role of an

engineer was to adapt science to serve social ends. He also pointed the way to a key role played by civil engineers, that of being the managers of large multi-professional endeavors, coordinating work teams, and supervising construction, sometimes even staying on to manage the enterprise after it was completed.³⁰

New occupations arose taking on some of the characteristics and esteem of the older learned professions. . .while bringing to that designation new qualities of their own. While science was the preoccupation and diversion of gentlemen at the beginning of the nineteenth century, it became a professional occupation of highly trained personnel by the end.³¹

Faith in science and in progress was the bedrock American faith, buttressed by an all-consuming optimism and passion for growth. No matter that the frontier was closed--cities became the new frontier. College-educated professionals would provide the brains while hundreds and thousands of new immigrants supplied the brawn. New architects and engineers had been immersed in science and technology; they had at hand wonderful new tools and unprecedented opportunities to build and literally to shape the future.

The last two decades of Dankmar Adler's life were a time of ferment and evolution in architecture and engineering in the Midwest and the nation. Fed by larger and more numerous programs in schools and universities and by the desire for status and security, more young men and a few brave young women prepared for the practice of architecture.³² The number of civil engineers fueled by the availability of education and work in the 1880s lost its momentum in the mid-1890s. The debate about the relationship between the two professions was not resolved by practitioners or observers then or now.

"Was architecture a sub-field of civil engineering or was civil engineering a sub-field of

architecture?" asked a historian in 1980, only noting that the division of labor was often more symbolic than real.³³ Another modern-day analyst stressed the artificiality of the great divide: "Although the profession of civil engineering is actually more closely related to the practice of architecture than it is to some branches of engineering, a regrettable barrier of provincialism has always separated the two professions."³⁴

A contemporary of Dankmar Adler addressing the AIA on the unitary nature of civil engineering and architecture when the architectural engineering curriculum and degree program was introduced at the University of Illinois, echoed Adler's position: "Architectural engineering...is construction, both artistic and scientific, both qualities being so intimately blended that we cannot conceive of the other being removed."³⁵

Dankmar Adler said in 1891:

I wish to protest most particularly against the assumption that a good architect is not also a good engineer. The engineering problems solved by such architects as those of the building hereinbefore mentioned are as great as those placed in charge of men building railroads and bridges, and their solutions are equally successful. If architects find it necessary to employ in their offices men with the training of engineers, they are employed the same as their draftsmen for the purpose of carrying out under their supervision and according to their own instructions the conceptions and ideas as to the design of buildings entrusted to their charge. All parts of a building, if it is to be successful, must be designed together; all phases and features are dependent on each other. You cannot leave the design of the plan of a building to one person, the devising of its structural features to another and its artistic development to still another. To produce even an approximately fine building, there must throughout from foundation to roof, in the arrangement of all the parts, in the design of every line, the imprint of an all-pervading influence of one master mind. If you separate the function of architect and engineer you insure the erection of a hybrid structure full of contradictions and imperfections.³⁶

¹ Of all the AIA's activities, Adler most valued conventions. The AIA sponsored them annually from 1867 on, except 1917 and 1933. During its first decade, there had been only an annual dinner on the anniversary of the founding, but full-scale conventions began in the postwar period. The first three were held in New York, but the need to expand the scope of the organization led to meetings in Philadelphia (1870), Boston (1871), Cincinnati (1872), and Chicago (1873). The power and influence of the chapters were indicated by the location of the annual meetings. During Adler's lifetime the most popular venue was New York, Chicago was the second, with Boston, Philadelphia, Cincinnati, and Washington tied for third place. Indicative of the institute's difficulties in the mid-eighties was the small attendance at the 1885 convention in Nashville--only thirty members attended. Saint, *The Image*, p. 84.

² *Western Architect* 19 (March 1913): 24.

Sibel Bozdogan noted that the formation of the Western Association of Architects coincided with the National Association of Builders, also begun in 1884 and believed the two events were causally connected. Bozdogan, "Towards Professional Legitimacy," p. 43.

³ Dankmar Adler, "President's Address," *Inland Architect and Builder* 8 (December 1886): 76-77.

⁴ *Inland Architect and News Record* 12 (November 1888): 61; Bozdogan, "Towards Professional" p. 45.

⁵ Dankmar Adler, "Where Should the Joint Convention Meet?" *Inland Architect and News Record* 14 (August 1889): 8.

One of the proposals that Adler backed, the creation of eastern and western divisions within the new AIA, had earlier failed so that the consolidation effectively obliterated the regionality that had been so strong a factor in the WAA. But in terms of power, Chicagoans constituted an important presence, amounting to 15 percent of the 465-member organization.

For a negative view of the proposed merger in which the liabilities for a "creditable" WAA were stressed, see "The Architects of Western America," *The Architect* 40 (28 December 1888): 359.

⁶ Dankmar Adler, Boston, to Dila Adler, Chicago, 29 October 1891.

⁷ Dankmar Adler, Boston, to Dila K. Adler, Chicago, 30 October 1891; Dankmar Adler, Boston, to Dila K. Adler, Chicago, 31 October 1891.

With the election of 1891 the AIA membership re-ratified the WAA-AIA merger since Kendall had been Adler's counterpart as head of the AIA committee. Happily for him, he lost that election but his colleagues persuaded him to lead the organization in 1886-87. The cause that Adler wanted to champion was licensure; he chaired the WAA Committee on Licensure for many years. Dankmar Adler, New York to Dila Adler, Chicago, 21 Feb. 1895; *Ibid.*, 18 Mar.

1895 (Adler Archive, Newberry Library, Letters 25-26). The Engineer's Club was at 10 West 29th St.

⁸ Dankmar Adler, New York to Dila Adler, Chicago, 21 Feb. 1895; *Ibid.*, 18 Mar. 1895 (Adler Archive, Newberry Library, Letters 25-26). The Engineer's Club was at 10 West 29th St. *Inland Architect and News Record* 6 (October 1885): 43; Joan W. Saltzstein, "The Autobiography of Dankmar Adler," in Charles Gregersen et al, "Dankmar Adler: His Theaters and Auditoriums," (Adler Archive, Newberry Library, 1977): 162.

⁹ Frederick Baumann, "Chicago: A Sketch of Its Developments," American Institute of Architects *Proceedings* (1893): pp. 329-330.

¹⁰ Paul E. Sprague, "The Origin of Balloon Framing," *Journal of the Society of Architectural Historians* 40 (Dec. 1981): 311-314.

¹¹ *Ecclesiasticus/The Wisdom of Ben Sira* 38:24. This verse was quoted by W.M.R. French, "Are There Any Canons of Art?" The Sunset Club 64th Meeting, (7 Dec. 1893): 50.

¹² Irving K. Pond, "Autobiography of Irving K. Pond," (New York: Academy of Arts and Letters, National Academy of Arts and Letters): 19.

¹³ Emma Lazarus, "The New Colossus," 1883. Statue of Liberty National Park, New York, NY.

¹⁴ The state of Illinois had a sizable number of building professionals in 1880--241 architects--even before the state university began producing them in large cohorts. That initial number tripled in ten years and then increased again by 50 percent by 1900. At the same time, Illinois had 299 civil engineers whose ranks had tripled by 1890 the number. In the next ten years, however, that number increased only by 20 percent. The number of engineers per capita went up 250 percent between 1880 and 1890 but remained constant between 1890 and 1900. The initial growth of professional engineers was stimulated by the increased complexity of the tasks challenging all segments of the building profession and by new materials. "The increased use of structural steel, as indicated in...framing plans has found the architects, to a great extent, unprepared to solve in detail many of the problems imposed on them." (Citation missing.)

¹⁵ Dankmar Adler, Chicago, to Nathan Clifford Ricker, Urbana-Champaign, January 4, 1892. (Nathan Clifford Ricker Papers, University of Illinois at Urbana-Champaign) *Ibid.*, 2 April 1892; *Ibid.*, 11 May 1892.

¹⁶ Dankmar Adler, "Proposed Technological School from the Standpoint of the Architect," *Inland Architect and News Record* 19 (April 1892): 36-37.

¹⁷ Gambaro, "Early Days" details the particulars of the AIA proposals (pp. 165-166); Roula Gerianotis, "The University of Illinois and German Architectural Education," *Journal of Architectural Education* 38 (Summer 1985): 19.

¹⁸ Levy, "Professionalization," fn. 93, p. 161; Turak, Theodore xxxx ; and Weatherhead, *History of Collegiate*, pp. 57-59.

¹⁹ Bozdogan, "Towards Professional," pp. 44, 104, 137.

²⁰ Daniel H. Burnham and Edward H. Bennett, *Plan of Chicago*, ed. Charles Moore. Chicago, 1909.

²¹ *Ibid.*

²² James Kip Finch, "Civil Engineering Through the Ages," *Technology and Culture* 5 (Summer 1964): 435-36.

²³ Darwin H. Stapleton, "Benjamin H. Latrobe and the Transfer of Technology," *Technology in America: A History of Individuals and Ideas*, ed. Carroll W. Purcell, Jr., (Cambridge: MIT Press, 1981): 34ff.

Benjamin Latrobe was part of an effort to establish a professional organization for civil engineers in 1839, but the group barely limped along because engineers were widely dispersed. By 1850 the group was moribund. A resurgence of interest in 1852 led to the formation of the American Society of Civil Engineers, which soon acquired the appurtenances of organization: a meeting place, regular meetings with programs and social events to promote collegiality and conviviality among the members. The history of the ASCE is like that of the AIA in terms of structure and qualifications, but it differed from the architects' organization because it was not welded together from local or regional societies. Some local engineers clubs, Boston and New York, were begun in 1848 but the national association burgeoned after the Civil War. By 1875 the ASCE had 355 members, about a third of them New Yorkers. The organization instituted five different levels of membership: honorary, corresponding, regular, junior, and fellow. It could speak on behalf of a broad and scattered constituency, but many engineers benefitted most from local activities.

Raymond H. Merritt, *The Engineer in American Society*, (Lexington, KY: University Press of Kentucky, 1969): 99-103.

²⁴ Walter Katte, "The Founding of the Western Society of Engineers," *Western Society of Engineers Journal* 20 (1915): 339-340.

²⁵ *The Centennial of the Engineer* (Chicago: Western Society of Engineers, 1970): 4-6.

²⁶ *Ibid.*, pp. 39-48.

²⁷ *ASCE Proceedings* 20 (March 1984): pp. 76-78.

²⁸ The first engineers educated in the United States were products of the United States Military Academy at West Point (established in 1802.) West Point imported teaching talent from Europe, especially France, and relied on French institutions to provide the model for the curriculum. One exception was the Russian system of shop (what Americans called manual training). Other schools, like the early schools of architecture, adopted the Russian system with its emphasis on hands-on experience.

Rensselaer Polytechnic Institute in Troy, New York was another pioneer in civil engineering education. American innovations included laboratory instruction where lectures were supplemented with practical problems sets that gradually increased in complexity. Formal instruction in management was a uniquely American addition to the curriculum. Theory and practice were combined by making an internship a requirement for graduation. In 1870 there were a dozen engineering schools; by 1896, 110. Between 1889 and 1910 the number of graduates tripled, and some institutions offered graduate degrees. For example, the nation's first architectural school, MIT, instituted a master of science in civil engineering in 1894.

Accurate statistics are available about Americans who became civil engineers in the nineteenth century. The great majority of them were native born: 85 percent compared to 13 percent of the 1,672 professionals born before 1860. An amazingly large proportion were academically trained--45 percent versus 16 percent who had served only apprenticeships. As expected, the trend towards college preparation, especially technical school attendance, increased as the century wore on. Two-thirds of the oldest cohort, those born before 1790, were trained on the job or had been apprentices, while for the youngest group, Dankmar Adler's cohort, only about one-third arrived via that route. In the pre-1790 group, only 20 percent had a technical education; among Adler's contemporaries, nearly 60 percent were graduates of a college, university, or technical institute.

An analysis of the first twenty presidents of the WSE reveals similar findings. Of this elite group, only two were foreign born, seventeen native born--mostly from New York--and one unidentified. Ten had post-high school educations; two were West Point alumni. Three were active in the ASCE and three were, like Adler, Civil War veterans. Seven had their own offices, and most capped distinguished careers by becoming consulting engineers which gave them more elevated status while simultaneously being able to control their working hours.

John Rae, "Presidential Address: Engineers are People," *Technology and Culture* 16 (July 1975): 413, 416-7.

²⁹ Lawrence P. Grayson, "A Brief History of the Engineering Education in the United States," *Engineering Education* 68 (Dec. 1977): 246-263; William H. Wisely, "Professional Turning Points in the American Society of Civil Engineers' History," *Civil Engineering* 47 (Oct., 1977):

137.

³⁰ Thorstein Veblen, *Engineers and the Price System* (New York: Viking Press, 1936): 69.

³¹ Samuel Haber, "Edwin Layton, *The Revolt of the Engineers*," *Technology and Culture* 13 (Jan. 1972): 101.

³² Mary L. Page got her degree in architecture at the University of Illinois in 1878, making her the first female architect in the United States. Ira O. Baker and Everett E. King, *A History of the College of Engineering of the University of Illinois 1868-1945* (Urbana, IL: University of Illinois Press, 1947): p. 304.

³³ Levy, "The Professionalization," p. .

³⁴ William Wisely, *The American Civil Engineer 1852-1974* (NY: ASCE, 1974): p. 300.

³⁵ Thomas C. Clarke, "Architectural Engineering" *American Institute of Architects Proceedings of the Twenty-seventh Annual Convention*, (Oct. 1893): 325.

³⁶ Dankmar Adler, "On Inspection of Buildings," *Economist* (30 May 1891): 946.

CHAPTER 8: ADLER WITHOUT SULLIVAN

"[Chicago is] the only great city in the World to which all its citizens have come for the one common, avowed object of making money."¹

When times were good, all prospered; when times were bad, everyone suffered. Building technology progressed throughout the decade of the 1890s, while commissions were scarce. New equipment, materials, and methods, coupled with rejuvenated demand, made the years 1895-1900 especially active. Chicago architects used steam cranes to expedite the erection of steel skeletons. Elevators became safer and more sophisticated; the first electric elevator, invented by Siemens, a German firm, made its appearance and the Otis Elevator Company adapted it for use in the United States, installing some in a New York building in 1889. Electric elevators came to Chicago soon thereafter. Architectural materials then included steel, plate glass and a new/old one--terra cotta.

Questions arose about the morality to using new materials for deceptive ends. A critic decried the steel skeleton:

This simple treatment, in buildings of such great scale and height, would have a very powerful effect if it were all genuine masonic architecture. The knowledge, however, that the apparent masonry exterior is only a veneer concealing an interior construction of steel, robs such a structure, to my mind, of all its impressiveness; it is a vicious method of building, contrary to all true architectural principle; and it is to be hoped before long the Americans, architects and building-owners alike, may come to recognize this and give up a method of building, which, besides a gigantic architectural sham, is not without its element of danger.²

While architects and others debated, clients demanded what was profitable, sham be damned:

Chicago men have shown a most extraordinary instinct for progress in things, but in nothing has it been more curiously evinced than in the manner in which a rough and ready stratification of business pursuits have [sic] developed.³

Adler & Sullivan's clientele were men of their time; they believed in "progress" and they benefitted from a virtual explosion in science and technology of which one example was fireproofing. The failure of the current terra cotta application spurred people to go beyond the cladding that was state-of-the-art in the 1880's and sparked improvements. The combined voices of architects and clients impressed the heads of local terra cotta companies, some, like Peter B. Wight, themselves onetime architects. In the 1890s, seamless terra cotta cladding, developed to shield steel members and protect the integrity and durability of skyscrapers, saved many buildings from burning or deforming under the heat.

ADLER'S RETIREMENT FROM ARCHITECTURE AND HIS RETURN

In the 1890s, with fewer opportunities to use the drafting pencil, Dankmar Adler turned to the writing pen. His first appearance in the [*Chicago*] *Economist* was a letter correcting some errors that had been published in the May 2nd, 1891 issue about past Chicago building practices. He had, in fact, been the first to use two elevators in a single building, but it was not, he emphasized, in the Borden Block as the *Economist* had indicated. Instead, it was in the Central Music Hall, completed two years before the Borden Block. The first wholesale loft building to contain an elevator was also his: the Jeweler's Building. The significance was that in such a

factory building, extremely heavy loads had to be transported, and Adler learned to accommodate them. The building's owner, Martin Ryerson, was a risk taker, and Adler initially appreciated that quality which Richard Crane also possessed.⁴

Richard and Charles Crane had arrived in Chicago in 1855 and established a brass foundry. About 30 years later Adler & Sullivan built a pipe mill for Richard Crane followed by a factory in 1890. The Crane brothers were the nephews of Martin Ryerson, for whom Adler built more buildings than for any other client.⁵ (Much later one of the Cranes was responsible for Sullivan getting the commission to design the Russian Orthodox Holy Trinity Cathedral at 1121 North Leavitt Street.)

In 1895, as construction dwindled, Richard Crane asked Dankmar Adler to come to work for him in his new elevator company. He offered a high salary, reputedly in the range of \$25,000 (over \$700,000 in 2015 dollars), and the prospect of professional development broadening out into a new and promising specialty. Adler would supervise the sales department and the "agents" and become a consulting architect, a task not wholly new. He had been a consulting architect on Carnegie Hall and had used many consulting engineers on his larger and more complex commissions. Rather than opening a new office of his own in financially precarious times, he could avoid that hazard and become an employee.⁶

A multiyear contract was signed and Adler became sales manager. It was not the first time that Adler and elevators were linked, nor was it the first time that Crane had offered him a job. But now Adler could not resist the temptation to accept employment, which he had earlier eschewed, because 1895 was his least profitable year. Moreover, Crane Elevator Company was

planning a new \$35,000 building, so he was seemingly guaranteed an architectural task at the outset.⁷

Everyone who has studied Adler's later career has proffered an explanation of why, despite the anticipated success of the venture, he left Crane after only half a year. A very large salary lured Adler into the commercial world but he was not happy there. Arthur Woltersdorf, a younger Chicago architect, believed that Crane and Adler clashed because they were so much alike. Woltersdorf characterized both men as "virile," by which he meant their desire to be in charge, and no enterprise has room for two "big chiefs," as Frank Lloyd Wright called Adler. Adler's ambivalence towards capitalists, as reflected in his writing, was influenced by his close but conflicted relationship with Crane. The very qualities he had praised--farsightedness, aggressiveness, and determination in the ceaseless struggle for success--made this hitherto admirable man difficult to work under. Both Dankmar Adler and Richard Crane were used to giving orders, not taking them, and so they parted after six months.⁸

Having experienced the business world, Adler was prepared to take his chances and return to the profession he had practiced since 1869.⁹ His resignation told Crane why he left at the beginning of 1896. Don't forget him, he had asked his colleagues when he took his leave--he was still an architect. And once again, in 1896, he turned his full attention to designing and building.¹⁰

"[Dankmar] Adler was himself again," reported the *Chicago Times* in an 1896 article that described Adler as the *artist* [italics mine] to be credited with the Auditorium and stressed that the profession had been shocked by his departure, although the large salary was a factor. Ferd

Peck and Milward Adams, the two men most involved with Adler in the Auditorium, were cited as having congratulated him for his wise decision to resume doing what he did best--architecture.¹¹

A RECONSTITUTED D. ADLER & CO.

Before Adler left the partnership in 1895 and long before Sullivan wrote his diatribe in the 1920s against the White City, an admired New York architect and leading figure in the AIA, Leopold Eidlitz, wrote a critique of architectural practice. Architecture had ceased to be an art and had become a business--a fashionable business carried on by business methods and principles. An experienced and successful practitioner who ran a large office and designed many buildings of note, Eidlitz felt himself drawn into a new constellation of demands and bemoaned this turn of events.¹²

The New York that Eidlitz inhabited was halfway between Henry James's *Portrait of a Lady* (1881) and Edith Wharton's *Age of Innocence* (1920), a realm of wealth and privilege, influence and comfort. Adler's Chicago was grittier and more muscular, an admixture of *Sister Carrie* (1900) and *The Jungle* (1906). In 1887 Adler had predicted that the society in which he lived would inevitably (and happily) go from strength to strength--from strong and beautiful buildings to attractive and efficient cities. In his crystal ball, beauty was inevitable because beauty was profitable. He proved to be a better architect than a prophet.

Adler loved beauty even if he could not achieve great heights in decoration. Frank Lloyd Wright said that Adler admired Sullivan's genius at ornament because it was a realm he could not

enter. But when Adler picked up the design pencil again in 1896, he did not try to copy Sullivan.¹³ “Adler is notoriously [sic] the best engineering architect in the United States” one critic wrote, and for the last century, the debate continues over which term gets the emphasis: *engineer* or *architect*.¹⁴

“Style,” wrote Frederick Baumann, whose reputation as builder put him in the engineers' camp, “is the parity between inner and outer life.”¹⁵ Success was the parity between designer and owner. Baumann and Adler built what their clients wanted as did Sullivan, but that was very little after 1895. For Adler that included a few remodelings and additions, some academic buildings and some modest business blocks, factories, power plants, and a temple.

The first few months were especially slow as Adler tried to rebuild his architectural practice. A new firm (with an old name), D. Adler & Company, with his son Abraham as partner, began to pursue clients.

As an architect, Adler could not carry his office in his hat as he once counseled Wright to do, and he did not see architecture as occupying that uneasy position halfway “between the unscrupulous contractor and the feckless artist.”¹⁶ In taking back the design pencil, which Sullivan had relinquished (and regretted), Adler once again became the principal designer in the newly-constituted D. Adler & Company. He needed to call on a variety of skills, again becoming the architect/artist instead of the architect/engineer and marketing himself in a search for new commissions.¹⁷

Adler returned to the practice of architecture when economic hardship still blanketed Chicago. He did write, teach, consult and become active in certification, but he could only

pursue commissions where architecture was already recovering or there was less competition. He left Chicago to meet potential clients in New York but that proved to be an unsuccessful endeavor. His efforts for the licensure of architects, however, succeeded.

LICENSURE OF ARCHITECTS

Architectural licensure was born in the Midwest. Adler worked on attaining that goal from the mid-1880s until his death in 1900. If he had left no other legacy to American architecture, his work on that legislation would have earned him a place in the professional pantheon as the father of architectural licensure. As early as the formative meeting of the WAA in late 1884, he proposed a Committee on Statutory Revision, which he was named to chair. The committee began by addressing issues of construction and building codes, and soon focused on the examination and registration of architects.¹⁸ At the 1885 WAA conference, Adler's committee presented a model act whose chief provisions “by which each of our Western States will protect the public” were detailed in the *Inland Architect and Builder*.¹⁹

The bill had twelve sections and required that every practicing architect be licensed. A five-member board was to be appointed by the governor, with the board to include a professor from the state university and four architects, each with more than ten years' experience. Established practitioners would be automatically licensed so long as former clients had no objections. Others needed to pass an examination for which they qualified by earning a university degree and serving a four-year apprenticeship in an established architectural office; or being a builder with one year's experience in the office of an architect of good standing. A third

alternative was having served six years, two in the employ of a builder of good standing, and four with an architect also of good standing. The examination would specifically cover construction, strength of materials, the ability to apply concepts in practical situations, and the laws of sanitation. Reciprocity between states was granted automatically.

The remaining sections covered some important particulars like suspension or revocation of license due to carelessness or recklessness, although appropriate action on this critical issue was insufficiently detailed. Fees were set, as was compensation for the board (for expenses only--they served without salary under this act). The term "architect" was defined, and penalties were set for practicing without a license. During his tenure as WAA president, Adler advocated that members lobby their state legislators to enact these regulations. He himself actively lobbied from 1886 until 1897, when a bill finally passed in Illinois.²⁰

For several decades before legislation became law, there had been agreement among architects that "something had to be done to safeguard the reputation of the profession and to protect the life, health, and property of the people," although some might have reversed the order of those objectives. The architectural press in Chicago expressed its impatience: a Chicago architect [Dankmar Adler] had moved for a licensing law and many people had invested time in drafting a good law "yet the legislature ignored it." In frustration, the AIA chapter turned to the Chicago City Council for a licensing ordinance but that accomplished nothing. In an attempt at self-regulation, the state AIA chapter had created a committee to draft a code of professional conduct. Even after ten years of work, no final product had emerged.²¹

The crusade was set back in 1896 when New York governor Roswell Flower vetoed a

licensing and registration bill put forth in that state. Meanwhile, back in Chicago, Adler gained a valuable ally in Frederick Baumann, who joined in the campaign for licensure by writing a letter to the *Economist* urging that the architectural profession demand and support regulation.

Charging that fully one-sixth of Chicago buildings were botched, Baumann “hope[d] that the time is not far away” when architecture would join medicine and law as a licensed profession.²²

The movement that had begun so optimistically in 1885 was finally crowned with success on June 3, 1897. Charles W. Nothnagel, an architect as well as a state representative, introduced the bill, “An Act to Provide for the Licensing of Architects, and Regulating the Practice of Architecture as a Profession.” Illinois was the first state to license architects, due in large part to the unremitting efforts of Adler, Baumann and the Chicago architects.²³

Governor John R. Tanner appointed to the first board Nathan Clifford Ricker of the University of Illinois architecture faculty; Dankmar Adler, William Zimmerman, and Peter B. Wight, all of Chicago; plus William H. Reeve from Peoria. They plunged into their work. One task was to write the first examination, which they were to administer over a three-day period in February 1898. The other was to process applications from practicing architects who, by the terms of the law, had only six months to apply for licensure and waive the examination. The board certified 714 practitioners under the grandfather clause by the time the deadline passed, and they examined the first nineteen applicants. Adler served as the board's first president until late in 1898, when he began spending more time out of Illinois. Adler was succeeded by Ricker who held the position for eighteen years. After Adler's death, the board changed the rules and accepted a four-year degree in architecture or architectural engineering in lieu of taking part of

the examination.²⁴

By the time Adler re-entered the profession in 1896, he had been an architect for more than 25 years and he had seen many changes in that time. As a young man, he had apprenticed to several mature architects and in turn was mentor to many others. At the century's end, most architects were products of schools of architecture. Apprentice-trained architects and builders were supplanted by people who learned to master scientific tools for measuring the strength of materials, their fire-resistance under different stresses, and the kind and quality of illumination, heating and ventilating equipment. Collectively, these advances changed the cityscape and made the nineteenth century the most progressive since the birth of the industrial city. As Jean Kerisel remarked in his detailed history of building foundations, the most numerous and effective innovations were to be found in pre-Christian Mesopotamia *and* in the West in the nineteenth century.²⁵

Licensing was not immediately popular, even among architects. Cass Gilbert, for example, favored an educational requirement, and supported certification similar to admission to the bar. Some AIA chapters opposed any licensure while others favored it in theory but did not think that the time was right in 1897. Chicagoans backed the idea to the limit and tried to sway their colleagues at the AIA convention in Detroit that year. They were not able to persuade the majority.²⁶

THE TARSNEY ACT

Licensure was one way to limit the number of architects; a way to select among them,

ostensibly on merit, was the architectural competition. In the 1890s, competitions were becoming popular in the private and public spheres. The AIA, in 1894, established guidelines for government-sponsored competitions. The proposed legislation, later known as the Tarsney Act, stipulated that juries had to be composed of experts; competitors were to be recompensed for their labor, win, lose, or draw; and the winner would be guaranteed the commission.²⁷

Adler disdained competitions as mockeries and shams, an attitude shaped when he had worked with Edward Burling. They had submitted a design for the Chicago City Hall competition, against which bribery and corruption charges had been made. Adler died “believing that ‘competitions’ detracted from professional dignity as well as being unbusinesslike and demoralizing.”²⁸

Adler's colleague, Frederick Baumann, almost as prolific in print as he was in stone and steel, also voiced his objections to architectural competitions. Architects must work independently and with a good conscience, never inveigling or stealing work from peers. He believed that the only competitions worth pursuing must be carefully screened and organizationally authorized and monitored. Baumann's goal was to elevate architects in popular esteem. To have the profession besmirched in the public mind was far worse than losing a commission and a poorly administered competition would impugn the outcome of the contest.²⁹

Early in the history of the country, there had been a post of government architect, later replaced by the supervising architect of the treasury. Corruption plagued the office, especially after Alfred Mullett left in 1874. Post offices and government buildings of all types were plum commissions; private architects wanted a chance to break the monopoly of the supervising

architect of the treasury and to design them, too. Legislation was drafted to allow architects to submit plans to the secretary of the treasury. The AIA, which had lobbied for legislation, believed this bill was acceptable and anticipated it would be introduced in Congress in 1893. It was not. Four years later, when Chicagoan Daniel Burnham was president of the AIA, the bill stalled again. The AIA drafted a new bill that also failed.³⁰

It looked like a dead issue--or was it?

In Adler's opinion, the Tarsney Act did not have smooth passage due to Grover Cleveland's secretary of the treasury, John G. Carlisle of Kentucky. Carlisle stalled and delayed; clearly he would not seek passage, much less implementation, of this legislation. Adler wanted to improve the capital city. He attributed the disappointing quality of architecture in Washington, D.C. to the many officials who had moved there from small towns that lacked good design. The government, he maintained, should have access to the best architects, and architects in private practice should have access to government commissions. He came to believe that the Tarsney Act would improve the quality of government buildings, reduce the costs while increasing the esteem and income of the profession. The act promised great benefits (as well it should, having been drafted by architects), so he decided it should be given a fair trial.³¹

More than a decade after George Post and other AIA officers had begun to lobby for the bill, a new president and a new secretary of the treasury took office. Lyman Judson Gage, a Chicagoan well known to Adler became President McKinley's Secretary of the Treasury. Gage spent most of his life in Chicago, rising from cashier of the First National Bank to president of the American Banking Association. Active in civic affairs, he was a director of the World's

Columbian Exposition. With his support, the Tarsney Act became law, and architects were finally victorious. Access to lucrative government commissions would be theirs. George B. Post, Daniel Burnham and the board of the AIA accepted the terms of the revised act (a 5 percent prize to the winner and remuneration for travel costs to all competitors.) Victory, however, was short-lived; the act was repealed in 1912. Neither Adler nor Sullivan ever did win a government commission.³²

CORTHELL AND ADLER

In the spring of 1896, the *Economist* carried a brief announcement of a new firm: Dankmar and Abraham Adler were sharing offices with Elmer Corthell, a well-known engineer. "[The] work of both [D. Adler and E.L. Corthell] is too well known to require description" but the journal mentioned some notable works by each for good measure: Adler's St. Louis Convention Hall (an odd choice) and the Technical Club were both currently on the drawing board. For Corthell, the article cited the Detroit River Bridge and the Cape Cod Canal. Abraham Adler was an unknown and was not mentioned. The Adlers and Corthell shared the rent but not the work.³³ Their initial space was on the second floor of the Auditorium on the Wabash Avenue Side. In August, the Adlers and Corthell moved again, ceding their space to the Republican National Committee which would alter the concert hall to house their nominating convention.³⁴

Ernest Lawrence Corthell (1840-1916) was educated at Brown University, where he was an outstanding student. Like Adler, he fought in the Civil War, rising from private to captain.

He earned a Master of Arts degree at Brown and began working as a civil engineer, specializing in transportation.³⁵ Corthell went to Europe in 1891 to study engineering education at the urging of President William Rainey Harper of the University of Chicago, although he apparently never taught in a university. He was, however, a productive author on topics like the history of jetties, deep-water foundations, harbors, ports, waterworks, city planning, and maritime commerce. For Corthell's efforts on behalf of engineering education at the institution, the University of Chicago appointed him to its board of trustees.³⁶

Corthell was gathering information as Adler was publishing his ideas about whether the new university in Hyde Park should graduate architects and/or engineers in *Inland Architect and News Record*.³⁷ What Adler called "a study of man, his aspirations and wants"-- what later generations would know as the social sciences--was as essential to the curriculum as science. Those who lacked a formal education were obsolete. The idea of what an academic university curriculum should be was clear.³⁸

Lauding the leaders of the profession--Richard Morris Hunt, Henry Hobson Richardson, Stanford White, George Post, and closer to home, Daniel Burnham-- he cautioned educational planners to eschew the model of the technical school where architects were educated in isolation while all other students studied elsewhere. Adler asked his fellow architects and clients to adopt the cause of the University of Chicago opening a "technological school" (as opposed to a technical school) and to support it with financial contributions. But neither Corthell nor Adler persuaded President Harper to see things their way, and such a program of studies was never introduced.

Corthell was a genial man and a joiner; he was a member of every engineering society. He belonged, as Adler did, to the Western Society of Engineers--in fact, Corthell headed the organization late in the 19th century and that is probably where they met. The Columbian Exposition brought them together too. Their shared a vision that professional education should be rationally planned, which made them believe they could share offices as well. Contrasting his plan with the education in other countries, which Corthell characterized as too brief and sketchy, he devised a superior scientific curriculum for engineers [for Adler, read "architects."]

The firms of D. Adler & Co. and of Elmer Corthell moved into suite 64 on the Michigan Avenue side of the Auditorium where they remained through 1900. The city directories list D. Adler, architect; Abraham Adler, mechanical engineer; and E.L. Corthell, civil engineer. This arrangement was so satisfactory that they duplicated it in New York.³⁹

When Dankmar Adler was in New York searching for business, his stationery bore the address of 71 Broadway, Corthell's offices from 1897 to 1900. Abraham Adler was listed also on the letterhead but in smaller type as befitted a novice. "Corthell," according to Joseph Freitag, "[was] striving to unite architecture and engineering" a synthesis that Adler achieved in his own practice for his few remaining years.⁴⁰

LATER COMMISSIONS

In 1895, when the Guaranty Building was occupying most of the partners' attention, a few minor commissions came into the office, including the National Tube Works on South Clark Sreet. It was to cost \$17,000 (\$485,000 in 2015); that is all that is known about it. The National

Linseed Oil Factory, 7700 South and adjacent to the Illinois Central Railroad, is equally undocumented.⁴¹ Like other functional factory buildings, they would have been considered less architecture than engineering---and engineering is rarely preserved and hardly ever photographed.⁴²

Taken in the aggregate, Adler's commissions from 1896 to 1900 would not support a family. It was cold comfort to know that Sullivan and others of his fellows were also in straitened circumstances. The Adlers had a further complication--Sara Adler's engagement to Julius Weil. While Dankmar and Dila Adler were delighted with the match, a wedding of some size entailed a significant expense. Adler loved his daughter; he had indulged her modest desires her entire life, and he wanted her to have the wedding of her dreams. And he was a man of his word.⁴³

So Dankmar went prospecting for business in New York.

"Of course, I may not succeed in making anything go, but if I don't it will not have been for want of effort," he wrote to Dila from New York early in 1895, detailing the prospects that seemed to have some possibility of success for Adler & Sullivan: a job in Buffalo (probably the next phase of the Guaranty complex), a theater in New York for Neil Burgess, and an addition to Temple Emanu-El in the same city. Siegel-Cooper, a New York concern that had built a significant retail store in Chicago, also appeared to be a prospective client, but by February, Adler was not optimistic. He thought that the theater, at an estimated \$250,000 (\$7.1million in 2015), and the temple addition were minor, or too small to share with anyone else, and by this he must have meant Sullivan. If successful, he would look after them himself, and he remained in

New York for that purpose. He lingered in vain. While he waited, mostly at the Engineers' Club where he could sketch, write letters, and enjoy the company of the his fellow professionals, he kept himself occupied studying French.

The commissions did not materialize but things were so slow in Chicago that a year later, almost to the day, Adler was back in New York, again writing to Dila about the minutiae of everyday life--lunching at the Engineer's Club and thinking of attending a program at the Architectural League. He stayed at Kinsley's Holland House at Fifth Avenue and 30th Street, never renting or sharing an apartment during the entire five years in which he maintained an office in Manhattan.⁴⁴

Over the next few years the economy began improving and Chicago firms were faring better, Adler's among them. D. Adler & Co. did two buildings and a remodeling in 1896: a tall business block for the M. A. Meyer estate in downtown Chicago, a dormitory for Morgan Park Academy (the preparatory division of the University of Chicago at that time) and the remodeling part of a hotel into the Technical Club headquarters. Adler also consulted on the St. Louis Convention Hall.

Adler & Sullivan had been active in St. Louis where their work was well known. If they had done nothing but the Wainwright Building (1890), they would have been famous. But they did more: two buildings, a tomb, and three unbuilt projects. Isaac Stockton Taylor (1856-1917) was best known as the supervising architect of the Louisiana Purchase Exposition in 1903/4. Still, until the turn of the century, he could not shake off the reputation of being a residential designer of limited talent and influence. In St. Louis as in other cities, imported architects had a

greater cachet. But it was more than cachet that the Republican National Commission was seeking when they hired Adler as a consultant.⁴⁵

At the end of March 1896, Adler traveled to St. Louis, a trip he had made several times since 1885 when the fledgling WAA met in the city on the mighty Mississippi. His task was to review plans--Taylor-made plans, one might say--and suggest changes and/or improvements. There were few, and Adler found little to do. The hall, which seated 14,000 and cost \$50,000, was unprepossessing except for its size, which was 260 feet x 180 feet. The structure was a 4 1/2 story wooden box with a berm around it and simple exterior staircases. The interior was a clear span with exposed trusses, lower and upper balconies, and a skylight. The only decoration was the oddly shaped first-floor windows and fabric panels on the walls, their purpose more acoustic than artistic. Located on Clark Street between 12th and 13th Streets, it was demolished immediately after the convention. How much Adler was paid is unknown. He brought to St. Louis decades of experience in convention halls, music halls, and theaters; what he returned with to Chicago is harder to ascertain. It was his last job in St. Louis, in fact the last he did outside Chicago.

The Chicago architectural press announced a commission that Adler received after his return from St. Louis, but it also was not a major project. A remodeling job estimated to cost \$12-\$15,000 (roughly \$400,000 in 2015 dollars), it was for an organization dear to him, and he would have taken it no matter how small a commission it was or how many other jobs he had on the drafting table. The Technical Club proclaimed its clientele as architects, engineers of all kinds, and "persons interested in technical work." Two hundred people belonged, about 30

percent of the number in the New York Engineer's Club after which it was patterned. Adler was to take an existing building and put in meeting rooms for professional conferences, plus space for leisure and social activities: lounges, a billiard room, a library, dining rooms, and a roof garden, all fitted out with modern heating and lighting and electric elevators.⁴⁶

Levi Z. Leiter was owner of the National Hotel at 220 South Clark St., whose top three floors would become the clubhouse, (with the lower stories used as commercial space.) Judging from the comment in the *Economist* that the conversion would "place it on a much higher plane," the National Hotel was not one of the city's more elegant lodgings. Adler was given three months to complete the metamorphosis, and he did. After it had served its purpose, the Technical Club was demolished to make way for the Bankers Building in 1926.⁴⁷

The commission that followed was a business building, an edifice new from foundation to roof in the west Loop at 413 South Wacker Drive (formerly Market Street) in the shoe-manufacturing district. The estate of M. A. Meyer was the owner; Adler & Sullivan had built for Meyer a large manufacturing building on Van Buren Street four years earlier (fig.) and Adler's Wacker Drive building was financed by the executors of the estate.⁴⁸ A large parcel of land, 92 feet x 109 feet and trapezoidal in shape, was assembled for a building of Bedford stone and pressed brick, of slow-burning mill construction with a composition roof. Designed for manufacturing purposes, it was equipped with multiple freight and passenger elevators. The building was expected to cost \$67,000 (\$ 1.9 million in 2015), D. Adler & Company's most lucrative job to date.⁴⁹

The Meyer Estate Building on Wacker Drive turned out to be an attractive factory with a

planar facade, its rhythms reminiscent of the Brunswick, Balke and Collender and the Aurora Watch factories, although taller. Paired windows share a common sill with flat brick arches above each one. What separates this building from the great skyscrapers like the Wainwright is the absence of decoration, but like its St. Louis cousin, it is a modular building whose units can be multiplied almost indefinitely. The facade appears to be a slab with only one wall, visually believable but obviously untrue. At the corner, the edifice seems poised on tiptoe as it rests lightly on the building's sole visible column. It has been accurately characterized as orderly and logical.⁵⁰

A recessed double-door entrance and an unornamented exit flank large ground-floor windows, originally for displaying merchandise. Base, shaft, capital, the ubiquitous tripartite division is here interpreted as ground floor, stories one through five, and attic with narrow, rectangular three-over-two windows. An undecorated entablature divides the ground floor from the first, and a stringcourse separates the middle floors from the attic story. A corbelled cornice topped off the design but it has been removed, because like all Chicago cornices, it was thought to be a safety hazard.

Victor Falkenau built the Meyer Building and it was easy to collaborate on the translation from drawing and plan to three-dimensional building because they had so often worked together. Meyer's building was first leased by a shoe and bootmaker, G. A. Kantrowitz and it was later subdivided for small manufacturing.⁵¹ It was demolished in 1982.

Despite his reputation and proximity, Dankmar Adler was never asked to build at the University of Chicago. The closest he came were two buildings he designed for the preparatory division, later known as the Morgan Park Academy. The intention of the Board of Trustees of the university was to open a preparatory school a distance from the Hyde Park campus. When the Baptist Theological Union offered the university a 999-year lease at \$1 per year on some acreage in the town of Morgan Park, President Harper accepted with alacrity. The academy, like the college, opened in 1892, with 99 high school students enrolled.⁵²

Within four years the student body grew to 158, and an ambitious building program was undertaken. Henry Ives Cobb, an architect who designed many University of Chicago buildings, built Park Hall for the Academy in 1896. That year Dankmar Adler was invited to design a dormitory at 2153 West 111th Street. Of pressed brick and stone, 45 feet x 150 feet, it was to have a slate roof, fine hardwood finishes, and steam heat, and to accommodate sixty students. The dormitory was estimated to cost \$40,000.⁵³

West Hall, somewhat more imaginative than its name, nods in the direction of Sever Hall (1878/80) at Harvard University by Henry Hobson Richardson. Adler had traveled to Boston on more than one occasion, and the Harvard University campus would be something that an architect would be likely to see. He might have seen it in 1892 when the AIA convention gathered in Boston. He wrote his wife from that meeting:

I do delay in getting home which is also a consequence of my love for the bean eaters and the desire to breathe the air of culture surrounding them.⁵⁴

Adler's dormitory (fig.) was neither so Romanesque nor so plastic as Richardson's

design, but it borrowed from Sever Hall its carved brick ornament, projecting towers, and stone arch defining the entrance. Adler did not copy the entrance arch on the Harvard Yard facade, he did not have the desire to mold turrets but he did use unusual dormers. Adler knew his limitations and his obeisance to Richardson is the acknowledgement owed to a greater talent.

Adler had champions on the university's Board of Trustees. Three men who would have nominated him for any job were among those who had served since the university was founded: Ferd Peck, Eli B. Felsenthal, Elmer L. Corthell. Felsenthal was the most instrumental in the genesis of West Hall and in the selection of an architect. In July 1896 he wrote to President Harper in support of a new building while instructing Dean [headmaster] Thurber to look for a suitable location. Felsenthal conferred with another trustee, George C. Walker, and promised to get the assistance--financial or otherwise--of Martin A. Ryerson.⁵⁵

Progress was rapid despite the contingencies. Adler was chosen architect at a special meeting of the executive committee at the end of July, and in mid-October he submitted the bill for the finished building: \$28,000 for materials and labor and \$1,400 for architect's fees, the 5 percent ardently advocated by the AIA.⁵⁶ If not a landmark, the dormitory was an honest and workmanlike building that served its purpose for 77 years. It garnered him another commission in 1898: D. Adler & Co. returned to the far southwest side of Chicago to build another four-story dormitory similar to the earlier one. The University had been satisfied with the earlier dormitory, and in 1898 Adler had another champion on the Board of Trustees, Andrew MacLeish of Carson Pirie Scott and Company.⁵⁷

East (later named Haskell Hall) was somewhat more decorated than West, with brick

ornament at the attic story, an indented entry bay enclosed within an arch and a pedimented doorway reminiscent of Sever Hall. (fig.) At 137 1/2 feet by 60 feet, it was a presence on campus. The blueprints and drawings reveal a plan that offered students a choice of rooms that varied in size, (from 10 by 12 feet to 14 by 14 feet,) location, and yearly cost. Haskell Hall had the characteristic arrangement of a college dormitory: kitchen, dining room, boiler' and servants' rooms in the basement; toilets and tubs in the center of floors one and two, with bedrooms arrayed along halls on either side of the central staircase, and storage space in the attic. Haskell was another of Adler's commissions that was altered after the initial plans were drawn, although on a far more modest scale than the Auditorium. Despite the changes, total construction costs were only \$36,455 (\$1.9million in 2015) and architect's fees were \$1,800 (\$51,000 in 2015).⁵⁸

1897-1899 COMMISSIONS

Adler prided himself on staying within budget, one reason why he had so much repeat business. His reputation for honesty, efficiency and probity was national in scope, not quite enough to gain him entry to New York architectural practice but sufficient to gain him at least one lucrative job in Chicago in 1897. The Chicago Dock Company (fig.) had already erected a sizable warehouse on the west bank of the Chicago River at Taylor Street, for which Adler & Sullivan had been the architects in 1894/5. The early months of 1897 found Adler at work expanding the warehouse complex, putting on a nine-story addition with the impressive dimensions of 80 x 100 feet, and building a separate 11-story building, 50 x 100 feet. Both were brick and stone, with mill construction and interior firewalls. Despite Chicago's frigid

temperatures, pilings were dug in early January.⁵⁹

Construction went along very rapidly which was not surprising in view of the paucity of jobs that year. The preponderant use of the buildings was for grain storage, which required 15 steel grain tanks. A few years later, Albert Dickinson Co. was the prime tenant in the smaller east building, also using it for agricultural seeds. The west building housed construction equipment and paper storage. Plain as it was, the Chicago Dock Warehouse complex at \$160,000 (\$4.6 million in 2015), was the architect's most lucrative commission of the post-Sullivan period. It would have earned him about \$8,000 (\$230,000) at five percent.

A warehouse is not an opera house but there is a dignity to these two buildings. Both had corner towers that would again be seen in Chicago in Graham, Anderson, Probst, and White's Merchandise Mart in 1925/9. There was little ornament, except for a beltcourse and cornice on the shorter building and brick corbelling on the taller. Brick relieving arches, a standard feature of Adler's industrial buildings, graced these buildings as well. Located in the industrial rather than commercial or retail areas of the central business district, it was not seen by many Chicagoans. But the client was satisfied, the buildings attracted prime tenants, and Adler must have been pleased. These warehouses stood on the bank of the Chicago River for 18 years until they were demolished to make way for the Pennsylvania Railroad Freight Terminal.⁶⁰

The Wright and Hills Linseed Oil Company was another satisfied customer, returning to Adler to design an additional building, more modest than those for Chicago Dock. Adler & Sullivan had built the Wright and Hills oil mill on the near south side in 1890 at a cost of \$100,000, and Adler returned to the site on Lumber St, on the Chicago River north of Cermak

Road, for the addition.⁶¹ D. Adler & Company built a tank and cake house, 114 feet x 125 feet, part one story, part two. Largely of brick, it does not rank as a major commission in aesthetic or in monetary terms--it cost about \$15,000--but it increased Adler's income. Flaxseed cakes were pressed in the single-story cake house and the oil exudate was collected and stored in the two-story tank building. Wright and Hills did not flourish; two years after these buildings were completed, the company was bought by American Linseed Oil Co. which continued to process oil at this site until 1928.⁶²

The final commission of 1897 was not of the magnitude of Chicago Dock; it wasn't even as big as Wright & Hills. It consisted only of an L-shaped addition topping a building at 233 West Lake and 183 North Franklin for M. L. Barrett Co. It cost only about \$2,000 but its importance lies in its being a barometer of Adler's approach to design in the 1890s. The building to which he added was reminiscent of his work of the 1870s, the First National Bank and the Tribune. While respecting the Barrett's original facades, Adler integrated a similar, but simpler, style of window that points the way to two of his last works--the Illinois Leather Company and the Yondorf Store.⁶³

Adler was not guaranteed that either he or Sullivan would win the commissions to remodel the buildings they had built together. One of their buildings for Martin Ryerson went to Adler's old friend Fritz Foltz and another to Richard Schmidt in 1897. Repeat business of an industrial character tended to go to Adler; the few beautiful commercial jobs went to Sullivan. Sullivan designed Schlesinger & Mayer (Carson, Pirie, Scott & Co.); the Bayard Building (New York), and the Gage Building facade remodeling, while the factories and tanneries went to

Adler. Unfortunately, there weren't enough of them.

Adler's maternal relatives had been tanners in Germany. While tanning was shunned by many because of the stench and the low status, the Eliels made their living doing this essential task. Early Jewish emigrants to Michigan worked in the same trade; some settled in Ann Arbor and Adler knew them. In Chicago, too, Jews were represented in the tanning trade.

Appropriately, some were named Lederer.

The Illinois Leather Co. was a successful enterprise for which Adler & Sullivan had built a four-story tannery on Hooker near Halsted in 1893. Patrick Farrell, the factory foreman, admired their architecture so much that he had the firm design a house and an apartment building in 1888. Neither was built but an addition to the leather factory was.⁶⁴ The job came to Adler in 1898 for a two-story addition and two additional floors for the warehouse, to cost \$23,000 (\$657,000 in 2015), \$6,000 more than the original building. Unlike the Barrett addition, there was no ornament for Adler to adapt to--or to circumvent. The factory was a plain brick box with arched windows, the hallmark of Adler's work in the 1890s, but neither stringcourse nor cornice gussied up the facade. This is what writers called the engineers' aesthetic and what critics who saw American architecture as the precursor of the International Style could point to when they wrote the history of the pre-World War II architecture.⁶⁵

Pared down to the basics, too, was the Yondorf Building (fig.49), a skyscraper on a miniature scale. To compare it with the Wirt Dexter Building is to see the progression from clustered windows to regular fenestration; to compare it with the Guaranty Building is to see a basic module repeated for only five floors. But it could have been 15 or 50, if Yondorf had

wanted an edifice that large. Adler, in fact, provided support for four extra floors but they were never added on. The building at 404-406 South Wells St. is 40 feet x 100 feet' of pressed brick and plate glass--large quantities of plate glass--stone and terra cotta. It has a steel frame and terra cotta fireproofing. The large amount of glass made it an attractive building for tailors and milliners, trades where ample light was necessary.⁶⁶

The Yondorfs operated a chain of clothing stores—"dry goods" in nineteenth century parlance--but did not commission this as a retail store. Instead, it was factory space to be leased out. M. M. Lamm, a clothing manufacturer, was the first tenant. The Yondorf brothers were well known in Chicago and known to the Adler family, especially to Zerlina Picard Adler, Dankmar's stepmother.⁶⁷ Because of these family connections, D. Adler & Company were the architects for this building.

The grid of the Yondorf Building, a steel-framed structure, is reflected in the regularity of the fenestration and also in the speed of construction. The building was announced in June 1898, the permit was issued in August, and it was finished in mid-December at a cost of \$60,000 (\$1.7million in 2015 dollars). Victor Falkenau was again the contractor which explains how it was erected so rapidly. The only decoration on this building is the coffering below the roofline and the paired windows below. Its simplicity was well suited to a district where manufacturing was the preponderant activity.

TEMPLE ISAIAH: JEWISH CHICAGO AT CENTURY'S END

Adler's next building was Temple Isaiah (fig. 51), a welcome change from factories and

warehouses. Jews were moving further south in the late 1890s, and Temple Isaiah, a Reform congregation, decided to build their first home at 45th St. and Vincennes Avenue, a mile and a half south of Kehillath Anshe Maariv. Adler reached far back in his career, to the Central Music Hall design of 1879 to find a motif appropriate to this commission. Isaiah's large windows on the 45th Street side are presaged by those on the Randolph Street side of the Central Music Hall, although they are capped by white stone arches. Much of the ornamentation is in the lunettes, and the portico has a classical form, with four Doric columns, an entablature and a shallow balcony. Two corner blocks with half-round windows are capped with parapets. Temple Isaiah was not stripped down; rather it was dressed up, for as the familiar phrase says, form followed function.⁶⁸

The interior (fig.) of the sanctuary is the most ornamented of Adler's late buildings. The sanctuary is a transverse barrel vault. A balcony surrounds three sides of the hall; the rear balcony was originally the organ loft, the sides were and are seating for worshippers. Since this was a Reform congregation, women were not segregated in the balcony; families sat together. The ceiling is divided by ribs into rectangles with a rosette in the center of each. The faces of the balconies have rosettes of a far simpler design than Sullivan's exuberant but delicate plasterwork of KAM. Adler lacked the skill of Sullivan or Elmslie, (or even of Wright whose ornament is more stilted than Sullivan's or Elmslie's). The ornament would have been more successful had Adler followed Sullivan in integrating the lighting into the decorative scheme as in the Auditorium and KAM.

Temple Isaiah's windows are more successful than KAM's. The upper and lower

windows have identical patterns and coloring, and are stronger and warmer than the pallid palette of the earlier synagogue. The balconies of Isaiah separate the upper windows from the lower and the lunettes of the upper are quite attractive. The *aron kodesh* was set into a half-round apse that the current owners, the Ebenezer Baptist church which bought the building in 1921, replaced with a baptistry. The approbation that Temple Isaiah garnered was as much for its acoustics and distinctive plan as it was for its ornamentation.

The Isaiah plan was appealing to congregants and critics; they especially liked the later annex that contained a social hall, a small auditorium, and classrooms on the second floor. It could be entered from the temple without going outside and has been seen as the prototype of the post-World War II campus plan synagogue. KAM has its social hall on the ground floor, classrooms in the basement and sanctuary upstairs. Isaiah had its ancillary spaces in a separate, but attached building.⁶⁹

Winning this synagogue commission was not a foregone conclusion, although Adler & Sullivan had designed three synagogues by the time they parted. Adler knew Rabbi Joseph Stolz, the founding rabbi of Isaiah Temple; he even joined Isaiah while keeping his membership in KAM.

This congregation represents an interesting chapter in ethnic and social history--the relocation of German Jews from the west to the south side of Chicago. The west side's first Reform congregation, Zion Temple (1885) at Ogden and Washington Streets, attracted mostly acculturated German Jews, although large numbers of Russian and Polish Jews lived not far away.⁷⁰ A small group of Reform Jews began to pray together in 1895, and attracted by this

cohort, Rabbi Stolz followed. The group's first investment was not a building--they could pray in homes or rented halls--but a cemetery. This pattern was characteristic of American Jews since they arrived in New Amsterdam in the seventeenth century, and in Chicago in the nineteenth.

Once the group decided to build a temple, the project proceeded rapidly. They purchased the site in early 1898, engaged Adler in April, and set the cornerstone in September. In March 1899, they dedicated the building.⁷¹ A sanctuary, 90 feet x 80 feet, that seated 1,200, was contained within a 90 x 122 foot complex. Of brown pressed brick with Bedford stone trim, the main building is cruciform in plan. The architect delivered a commodious and attractive sanctuary with the outstanding acoustics for which he was famous, at a cost of about \$70,000 (\$2 million in 2015).⁷²

FINAL COMMISSIONS

The years 1898 and 1899 were dismal. The economy improved but D. Adler & Company's business did not. Sullivan was more fortunate; he had only one client but it was the retailing firm of Schlesinger & Mayer, later Carson, Pirie, Scott & Co. In the seven years after he and Adler broke up, Sullivan designed eight buildings for them, including the flagship store at State and Madison Streets in Chicago which critics laud as Sullivan's best building. Schlesinger & Mayer had been Adler & Sullivan clients, for whom they had designed three buildings or additions between 1890 and 1895.

Mechanical systems were one of Adler's great strengths. Sullivan knew it and was aware

of his own limitations. Schlesinger & Mayer respected Adler's gifts as well. Three Chicago newspapers thought it important enough to announce the commission of Schlesinger & Mayer's "powerhouse" being designed by Dankmar Adler in 1898/9. The term was an oversimplification; three interconnected buildings between State and Wabash were planned. Adler was to put a coal-fired power plant for generating electricity in the Wabash Avenue store; a machinery house on the roof of one of the State Street buildings; and he was to be the engineer of the heating and ventilating equipment in the new building Sullivan designed for State Street, the main store.⁷³

And so Dankmar Adler passed the year with few commissions in Chicago and none in New York, although Manhattan enjoyed such a construction boom in 1899 that there was a shortage of building materials. At the end of 1898, D. Adler & Co. had three unbuilt projects: a roof garden for the Auditorium, a hotel whose backing is impossible to confirm, and an exposition hall on the lakefront. The last would have been logical and lucrative, logical because Adler had designed large halls, starting with the one inside the Interstate Exposition building. He also consulted on several such halls, most recently in St. Louis. It would have been lucrative because the large project on Lake Shore Drive between Grand and Ontario was to be funded with public money. Unbuilt, it was the precursor of Navy Pier, done long after Adler's death.⁷⁴

Adler had no employees to dismiss and no way to cut back on expenses--short of working from home as 1899 dawned. If 1898 had been difficult, 1899 would be more so. He had two remodelings for former clients, the Levi Morton Building at State and Quincy, and the Selz, Schwab headquarters at Wacker and Monroe. The latter building had been erected in 1874 by John Van Osdel as a six-story building on pile foundations. It was later purchased by a Buffalo

businessman, Sherman Jewett, whose estate rented it in the 1890s to Kohn Brothers wholesale clothiers, Dila's uncles. By the time Adler got the commission, Dila's twin sister's husband, Morris Selz, and his partner were the owners. Their shoemaking establishment employed 1,500 workers, most of whom worked in the factory, not in this office building. An earlier alteration had added a seventh floor and Adler made only minor changes—a more impressive entrance and better fireproofing.⁷⁵

Then business improved for D. Adler & Co. Mrs. Emmanuel Mandel and Mrs. M.A. Meyer, two philanthropic women who knew the Adlers, contributed money to build a medical facility for treating indigent Russian and Polish Jews, whose numbers in Chicago were increasing. The site was at 1336 South Morgan, one block from the busy commercial thoroughfare originally known as 12th Street (renamed after Theodore Roosevelt.)⁷⁶ The relocation of the German-Jewish community from the west to the south side underscores the separation that existed between the early arrivals and the post-1880's wave of Jewish immigration. Originally Chicagoans lived on Lake, Randolph, and Washington Streets. The force of a crowded central city coupled with the development of more desirable housing on train lines on the periphery changed that. Wealthy Jewish elites moved further and further south. Julius Rosenwald of Sears, Roebuck and Company, Joan Weil Saltzstein's cousin, built his mansion on Ellis Avenue a mile and a half south of the Adlers.⁷⁷

Meanwhile, newly arrived immigrants of all nationalities, most single, some married with families, clustered close to their near west side siblings, parents, or cousins. They needed jobs, housing, education, social services, health care, and recreational and social facilities. A growing

economy provided the jobs; real estate developers built the housing; Hull House gave language instruction, and offered social services, recreational and social facilities. Established in 1889, this most famous of settlement houses provided adult language classes, civics for immigrants, music and arts and crafts instruction, and theater. A day nursery, women's club, and museum of labor history were also in the complex.⁷⁸

German Jews, although some were personally repelled by the Jewish immigrants, felt a sense of obligation to the newcomers. In the case of Mrs. Mandel and Mrs. Mayer, it took the form of a clinic: the United Hebrew Charities Free Dispensary (fig.), also known as the Mandel Dispensary.⁷⁹ Adler's drawings from June 1899 show a two-story building, 58 feet x 48 feet. The first floor contained the waiting room, three examining rooms, the surgical clinic, and the pharmacy. Upstairs were the kitchen, staff dining room, bathroom, another waiting room and more clinics.⁸⁰

The building was brick with a blue Bedford-stone basement and watercourse. The cornice and decoration above the doors were copper, while the inscription over the entrance was carved into Portage sandstone. The door and corners had quoins, an unusual feature in an Adler building after 1880. Besides the boiler and basement drawings, there is one blueprint of an interior detail: the pharmacy's Dutch door. Mrs. Mandel, wife of one of the Mandel brothers who were retail and wholesale merchants, donated \$10,000 to the project--exactly what the building cost. Mrs. Meyer paid for the furnishings and equipment.⁸¹

FAMILY AND SOCIAL TIES

As these last commissions suggest, Dankmar Adler was able to weather the economic adversities of the 1890s because of the support of his close-knit family and because he measured success as much in personal as professional terms. He was blessed with a happy marriage. From his letters, a picture emerges of his relationship with Dila that combines great affection, friendship, openness, mutual concern, and consideration. He shared with her his impressions of everything and everybody, from Brussels cathedral music--"execrable"--to the Hotel de Ville, which he called "a very fine building." And he noted the "meticulous detail" of Rubens's "The Slaughter of the Innocents."⁸²

Humor and humility permeate his writing. On board ship he enjoyed all manner of food, except Scotch and Irish whiskey which "taste [as if they were] brewed in the cast-off breeches that had made the rounds of three or four generations of Finegans and Patricks." And when he reached Glasgow, where he was to visit steel mills, his arrival went unheralded: "As the Queen has been here for the past three days, my presence has not created quite as great a sensation as it ought."⁸³

He was never able to persuade his wife to travel with him, and he often chided her about it: "Many of the [AIA convention delegates] have their wives with them, among whom are quite a number of nice women and I know you would enjoy yourself if you were here." He would take circuitous routes to meetings or extend business trips to visit relatives. When he went to Denver in 1892, he visited his brother Jake in nearby Colorado Springs and together they climbed Pike's Peak. In October 1891, en route to the AIA convention that Dila declined to attend, he went via Ann Arbor so that his son Abraham, then a student at the University of Michigan, would join

him on the brief train ride to Detroit.⁸⁴

His correspondence with Abe no longer exists but he was close to all his children. When they were young his special pleasures were reading to them and introducing them to nature, showing them insects, snails, and leaves, pointing out structure and function. Abraham, Sidney, and Sara were encouraged to participate in dinner-table conversation, and each child had his or her own desk and locker--"a private and inviolate domain"-- in the basement playroom of the townhouse Adler built on Ellis Avenue.⁸⁵ It was a close family geographically as well as emotionally.

By the mid-1880s Dila and Dankmar Adler needed and could afford a house of their own. The architect's observation--"we are all middle class in our own estimation"⁸⁶--was applicable at to the Adlers and the Kohns as well. Dila and twin-sister Hannah were the eldest, so when their father died in 1872, there were a large number of youngsters yet to raise and educate. As the eldest in their respective families, Dila and Dankmar and Hannah and Morris helped nurture and support the Kohn children. In fact, when Dankmar left his own parents' household, he moved in with Dila and her family on Indiana Avenue near Fourteenth Street. In the aftermath of the Great Fire, many families doubled up, but this couple remained next to Mrs. Kohn permanently. Even their separate residences on Ellis Avenue had connecting doors that could be opened to make a large parlor. Every week Dila and Dankmar had Sabbath dinner at Liebman's house and Sunday dinner with Fannie Kohn.

Although he worked long hours and spent much of his spare time with his family, Adler recognized the personal and professional advantages of belonging to clubs that provided

recreational opportunities and business connections that benefited Adler & Sullivan. Chief among these clubs was the Union League which, after the 1893 fair, swelled its ranks to 2000 members, "ambitious young successful tradesmen and professional men,"⁸⁷ Republicans all. Original members were supporters of the Union cause in the Civil War but the membership rapidly expanded beyond veterans like Adler.

Liebman Adler's values and Dankmar Adler's own sense of responsibility, deepened by his role as surrogate father to his brothers-in-law, combined with a strong social conscience led to his involvement in philanthropic and social service endeavors. Never a wealthy man like the Greenebaums, Bensingers, or Mandels (fig. 37), he nonetheless supported many causes and served on the boards of the Hebrew Relief Association and the Jewish Manual Training School.

¹ Henry Blake Fuller, *With the Procession: A Novel*, (New York: Harper & Bros., 1895): 248.

² Henry H. Stratham quoted in Dudley A. Lewis, "Evaluation of American Architecture by European Critics 1875-1900," (Ph.D. diss., University of Wisconsin, 1962): 416.

³ Edward Garczynski, *The Auditorium* (Chicago: E.S. Hard Publishing Co., 1890): p. 42.

⁴ Dankmar Adler "Letter to the Editor - The First Chicago Elevators," 4 May 1891, [*Chicago*] *Economist* 5 (May 1891): 798.

⁵ Paul Gilbert and Charles Lee Bryson, *Chicago and Its Makers*, (Chicago: Felix Mendelsohn, 1929): 659; S.S. Schoff, *The Glory of Chicago: Her Manufactories* (Chicago: Knight and Leonard Printers, 1873): 12.

Crane Company engineers worked to adapt the Kautsky hydraulic stage mechanism and built passenger and freight elevators in the Auditorium. *Crane Elevator Company: Builders of Passenger and Freight Elevators*, (Chicago: Chicago Historical Society, 1893): p. 3. Buildings with Crane elevators include some Adler & Sullivan works--The Auditorium, Carson Pirie Scott & Company--and the Union Trust Company in St. Louis--and some by other architects--Marshall Field & Company, and the Ames Building in Boston. Crane Elevator Company, "What We Have Done to Promote the Elevator Business," (Chicago, 1895); Joan Saltzstein, "Dankmar Adler, The Man," *Wisconsin Architect* 38 (July/August, 1967):

⁶ By the time his article, "Mechanical Plants of Large Buildings" appeared in the *Western Society of Engineers Journal* (1898), his association of six months duration with the Crane Elevator Company had long been over. Combining his experience gained as an architect/engineer with that of a Crane sales representative enabled him to write competent brochures for professionals. He laid out all the elevator options and commented on each type. His conclusions: steam elevators were reliable but wasteful of resources; horizontal cylinder mechanisms were safe, easy to operate and smooth stopping but not fuel efficient; and the same was true of multi-sheaved electric screw models. Electric elevators were economical to operate and among the most efficient.

Around the time Adler was writing, the horizontal cylinder design was being challenged briefly by the vertically-mounted Sprague-Pratt elevator invented by a New Jersey man and used in New York from 1893, when it was first marketed, to just after the turn of the century when it was superceded by elevators with a drum mechanism. It was never popular in Chicago and not manufactured by Crane. Elevator failures were rare but when disasters happened the ensuing publicity resulted in new regulations being rapidly adopted and improved design stressed by manufacturers. New York's American Tract Society Building had a double-fatality free-fall accident in 1897, apparently the result of human error. Nonetheless the verdict focused on the need for professional operators, trained, like airplane pilots today, to react effectively to equipment malfunction.

What Adler learned from building the Auditorium and his "tall office buildings" he applied to other building types with similar demands of many people going to the same destination at the same time. Thus he tailored his recommendations for vertical transportation. For the tall business building, he advised that elevators be clustered in two or more groups. In very large buildings, the optimal situation was to have both local and express elevators, whatever type was used.

⁷ "The First Elevator" *Economist* 5 (13 June 1891): 798; "Crane Elevator Company," *Economist* 13 (28 June 1895): 803.

An interesting sidelight is that Louis Sullivan, in 1884, designed a bronze elevator car for the Crane Brothers for the Manhattan Bank of New York. *Inland Architect and News Record* 3 (6 July 1884): 82.

⁸ Arthur Woltersdorf, "A Portrait Gallery of Chicago Architects.- II Dankmar Adler," *Western Architect* 33 (July 1924): 75-79.

⁹ Nathan Clifford Ricker conducted a survey that indicating that architects who has experienced both solo and corporate practices preferred solo practice over corporate jobs. Richard Levy, "The Professionalization of American Architects and Civil Engineers, 1865-1917," (Ph.D. diss., University of California at Berkeley, 1980): 115.

¹⁰ Arthur Woltersdorf, "A Portrait Gallery of Chicago Architects.- II Dankmar Adler," *Western Architect* 33 (July 1924): 75-79; Joan Saltzstein, "Dankmar Adler: The Man" *Wisconsin Architect* 38 (July/August 1967): 15-21; Rachel Baron [Heimovics] "Forgotten Facets of Dankmar Adler" *Inland Architect* 7 (April 1964): 14-16.

¹¹ "Adler Himself Again: Architect Returns to Art," *Chicago Times* (3 Jan. 1896): 1.

¹² Leopold Eidlitz, "The Architecture of Fashion," *Architectural Record* 3 (June 1894): 351.

¹³ Dankmar Adler, "What are the Present Tendencies of Architectural Design in America?" *Inland Architect and News Record* 9 (5 Mar. 1887): 24-26. Paul Sprague in J. Saltzstein, "Roots of American Architecture: Richardson, Adler and Sullivan and the Apprenticeship of Frank Lloyd Wright," (Adler Archive, Newberry Library, Milwaukee Art Center Lecture, 20 Nov. 1977).

¹⁴ Edward Garczynski, *The Auditorium* (New York: E.S. Hard Pub. Co., 1890): 159.

¹⁵ Frederick Baumann, "Thoughts on Style," *Inland Architect and News Record* 20 (Nov. 1892): 36.

¹⁶ Bernard M. Boyle, "Architectural Practice in America 1865-1965: Ideal and Reality," in *The Architect: Chapters in the History of the Profession*, ed. Spiro Kostof (New York: Oxford University Press, 1977), p. 334.

¹⁷ William LeBaron Jenney and Sanford Loring, *Principles and Practices of Architecture*, (Cleveland & Chicago: Cobb, Pritchard & Company, 1869): p. 9.

¹⁸ Minnesota architects formed the first professional society outside the AIA when they started the Architectural Association of Minnesota in 1882. Three years later they drafted a architectural certification bill that the legislature tabled with alacrity. Although licensure in Minnesota would not pass until 1921, the events to the north galvanized Adler and others.

Precedent for licensure existed in the medical profession, which was regulated in some form since the seventeenth century, but many states had repealed regulatory statutes in the 1830s and 1840s. In the immediate pre-Civil War period, southern states pioneered a new licensure movement. North Carolina established the Board of Medical Examiners in 1859. In the ensuing decade, other states followed. Illinois's medical licensing board was formed in 1877.

¹⁹ *Inland Architect and Builder* 6 (November 1885): 72.

²⁰ Turpin Bannister, ed. *The Architect at Mid-Century* v. 1 *Evolution and Achievement* (New York: Reinhold Publishing Corp., 1954): 355-356.

²¹ Jean Hebrard, "The Architectural Profession in the Past, Present, and Future," *Journal of the AIA* 7 (January 1947): 45; *Economist* 14 (7 December 1895): 712; *Economist* 15 (25 April 1896): 524.

²² Frederick Baumann, Letter to the Editor, *Economist* 16 (19 December 1896): 632.

²³ The statute that was adopted had nine sections, and it began by outlining the qualifications of the State Board of Examiners of Architects, requiring a faculty member of Illinois State University [sic] and four Illinois architects with at least ten years experience. In this it was identical to the model law of 1885. Travel and other expenses were permitted, but most board members served without compensation. Section 2 covered the election of officers and specified their duties, permitting the secretary a remuneration of \$5 per day of board business if there was enough money from fees. It also dealt with board rules and regulations, promulgating and amending them. By the terms of section 3, examinations were to be held twice a year and a fee of \$15 was set. Those who passed the exam, which covered construction of buildings, strength of materials, practical knowledge, supervisory duties, and sanitation, paid an additional fee of \$5 for the board to thus certify. They also sent \$2 to the secretary of state, who issued the license and kept all records on file.

Section 4 was a grandfather clause that enabled experienced practitioners to pay the same fees and to be licensed automatically. The same section defined the practice of and limits on reciprocity which was readily and inexpensively granted. The board also controlled eligibility of unlicensed out-of-staters supervising single projects in Illinois. Section 6 set out penalties for practicing without a license and subjected civil engineers doing architectural work to the same provisions governing architects. Section 7 dealt with revocation "by unanimous vote of the State Board...for gross incompetency, or recklessness in the construction of buildings, or for dishonest

practices..." and spelled out the procedure for reinstatement. Section 5 concerned the text of licensees' seals; section 8, accountability to the state auditor; and section 9 stated that the act would take effect immediately.

Dankmar Adler, "The General Contractor from the Standpoint of the Architect," *Inland Architect and News Record* 33 (June 1899): 39. Bozdogan, "Towards Professional Legitimacy," p. 47.

Illinois was not only the first state to pass a licensure law, it was the only one to do so in the nineteenth century. Vermont and Wyoming were the last, in 1951. For a chart of all the states and their dates see Bannister, *The Architect at Mid-Century*, p. 357.

²⁴ *Engineering Record* 36 (4 September 1897): 289; Bannister, *The Architect*, p. 356.

²⁵ Jean Kerisel, *Down To Earth: Foundations Past and Present, The Invisible Act of the Builder*. (Boston: A.A. Balkema, 1987): 8.

²⁶ "Licensing Architects," *American Architect and Building News* 67 (18 Sept. 1897): 95-96.

Dankmar Adler did not live to see the licensure of civil engineers, although he certainly would have welcomed it. Long in the shadow of their architect colleagues, civil engineers adopted the successful tactics that Adler and Ricker had employed to get architect certification. At first, engineers tried to expand architectural licensure by modifying the terms of the 1897 Illinois law to cover them. They drafted an amendment to cover their profession, but it did not pass. Undaunted, the engineers came back with a plan for a state building code and a licensure law separate from the architects' act. Their colleagues welcomed this plan, although a few individuals still opposed engineering certification. A committee was formed to codify the laws already on the books, and a bill was approved in the Illinois legislature, only to have it vetoed by the governor.

Two years later, in 1915, the bill passed legislative scrutiny again; this time the governor signed it. He appointed to the Illinois State Engineering Examination Board the state architect and two University of Illinois faculty members, the ubiquitous Nathan Clifford Ricker and Ira O. Baker, plus Richard Schmidt, a Chicago architect, and a little-known downstate engineer named Armstrong. Many engineers, anxious lest the populace believe that architects were qualified for every type of construction and that engineers were a lesser breed, applauded licensure. Supporters hoped that licensing engineers would protect their competitiveness and expand their share of the market.

The law that passed in Illinois was "based on Adler's law." It contained twice as many sections as did the 1897 architects' act, but in its overall framework and in most of the details it was the same. Fees tended to be higher in 1915 than in 1897, but both acts established five-man boards with one slot reserved for a professor and four places for experienced practitioners. Terms were staggered for the sake of continuity, and both boards were governor-appointed. For both, a quorum was three, and both were empowered to make and amend rules and regulations,

and to select officers. Even the test items were largely the same.

One difference in phrasing, however, illustrates a difference between the self-definition of the two groups. The architects' bill describes the exam as covering the "construction of buildings," while the engineers' act says the "construction...according to scientific principles." The turf was thus carved up between the aesthetic and the rational. Both Adler and Ricker advocated admixtures of both in education, insisting on a range of expertise resting on a solid base of mathematical precision. Oddly enough, the architects' test included a section on sanitation while the engineers' exam did not. One would expect the reverse to have been the case.

Both statutes included a grandfather clause for an interim period of six months in which experienced practitioners could waive the exam and get automatic licensure, and both professions extended reciprocity to licensed professionals from other states. The draft of the engineers' law recognized three categories of potential candidates, one being graduates of four-year programs in engineering. But even they were required to have two years of on-the-job experience. Before the adoption of the engineers' licensing law, architects and engineers were prohibited from forming partnerships with each other. That meant that architects had to rely on independent consultants for engineering expertise since they were enjoined from putting civil engineers on their payroll. Abandoning that rule and allowing such partnerships gave impetus to the development of large twentieth-century architecture firms employing a number of specialists.

Illinois was not the pioneering state in the certification of engineers. Despite the clout exemplified by the world engineering congress in 1893 and heavy lobbying by proponents of licensure in Illinois and elsewhere, the movement limped along in the 1890s and early 1900s. The ASCE's leadership did not press for licensure while Adler was doing so. Rather it set high standards for membership in the organization and believed that this alone would separate the competent from the inept. But some issues would not go away. A major impetus was safety--"the people of this country have no legal protection against any incompetent or unscrupulous person who chooses to sign himself with the title of civil engineer." The fears were based on fact: in 1875 alone, 25 bridges failed. One approach was to establish published standards for bridges, which James Eads did in 1879. Another was to support licensure of engineers. Wyoming in 1907 was the first state to do so and, by 1920, a dozen states had followed suit.

William Wisely, *The American Civil Engineer 1852-1974*, (New York: American Society of Civil Engineers, 1974): 119. "Structural Engineers' Licensing Law of the State of Illinois," *Western Society of Engineers' Journal* 20 (June 1915): 530-540. *Journal of the American Society of Civil Engineers* 25-26 (January 1899): 48; Wisely, "Professional Turning Points," pp. 138-139.

²⁷ Sibel Bozdogan, "Towards Professional Legitimacy and Power: An Inquiry into the Struggle, Achievements, and Dilemmas of the Architectural Professional through an Analysis of Chicago 1871-1909 (Ph.D. diss. Univ. of Pennsylvania, 1982): 68.

²⁸ Robert Craik McLean, "Dankmar Adler," *Inland Architect and News Record* 35 (May 1900):

²⁹ Frederick Baumann, "Two Questions Considered: First is Architecture a Living Art: Second can Architecture Again Become a Living Art?" *Inland Architect and News Record* 29 (April 1897): 25-26.

³⁰ Andrew Saint, *The Image of the Architect* (New Haven: Yale University Press, 1983): 92.

³¹ Dankmar Adler, "The Tarsney Act and the American Institute of Architects," *Inland Architect and News Record* 30 (Nov. 1897): 36; Dankmar Adler, "The Architect's Duty Regarding the Enforcement of the Tarsney Law," *Inland Architect and News Record* 30 (Dec. 1897): pp. 46-47.

³² Dankmar Adler, "The Tarsney Act and the American Institute of Architects," *Inland Architect and News Record* 30 (Nov. 1897): 36.

³³ *The Economist* 15 (28 March 1896): 401.

³⁴ *ChicagoTimes* (3 Jan. 1896): 1; *Chicago Inter-Ocean* (22 March 1896): 16; *Chicago Times Herald* (9 August 1896): 24.

³⁵ *Dictionary of American Biography*, s.v. "Elmer Lawrence Corthell," by Edna Yost.

³⁶ The papers of Corthell are in the Special Collections Department of the New-York Historical Society, as well as his published works, diaries and notebooks. The Minutes of the Board of Trustees of the University of Chicago are in Special Collections, Regenstein Library, University of Chicago.

³⁷ Adler had pronounced him "one of the most eminent men in Chicago" long before they established an affiliation. Corthell stayed in Chicago in 1892 because he helped plan the World's Columbian Exposition, chairing the executive committee to hold the World Engineers' Conference. The indefatigable Corthell laid the groundwork for the foreign engineers participating when he had earlier attended a Brussels conference and persuaded European members to come to Chicago in 1893.

³⁸ Dankmar Adler, "Proposed Technological School from the Standpoint of the Architect," *Inland Architect and News Record* 19 (April 1892): 36-37.

³⁹ For a complete list of Corthell's professional and social organizations and his awards and prizes, see the *New York Times* (17 May 1916): 11

⁴⁰ Freitag, *Architectural Engineering*, p. iii.

⁴¹ These buildings are briefly described in *The Complete Architecture of Adler & Sullivan*.

⁴² *Economist* 13 (1 June 1895): 671; *Economist* 14 (28 Dec. 1895): 807. In recent years, the Society for Industrial Archaeology came into existence to promote the study of functional buildings.

⁴³ Interview with Sara Adler Weil, Shoreland Hotel, Chicago, June 1962.

⁴⁴ Dankmar Adler, New York, to Dila Adler, Chicago, 22 February 1896 (Adler Archive, Newberry Library, Letter 26).

⁴⁵ Withey, p. 591; Charles Savage, *Architecture of the Private Streets of St. Louis: The Architects and the Houses They Designed* (Columbia, MO: University of Missouri Press, 1987): 131, 202; George McCue, *The Building Art in Saint Louis of Two Centuries: A Guide to the Architecture of the City and Its Metropolitan Region* (St. Louis: St. Louis Chapter AIA, 1981): 47-83

In the 1880s St. Louis turned to Burnham and Root; Peabody and Stearns; Shepley, Rutan, and Coolidge. Lawrence Lowic, *The Architectural Heritage of St. Louis 1803-1891: From the Louisiana Purchase to the Wainwright Building* (St. Louis: Washington University Gallery of Art, 1982): 129-145, 149.

⁴⁶ *Real Estate and Building Journal* 38 (11 April 1896): 346; *Economist* 15 (28 March 1896): 385; *Chicago Inter-Ocean* (29 March 1896): 16.

Roof gardens were envisioned for many Chicago buildings; Adler designed one for the Auditorium but neither it nor the one atop the Technical Club was built. In fact, it is hard to document any roof gardens in Chicago.

⁴⁷ *Economist*, *ibid*.

There are neither drawings nor photographs of the Technical Club when it was lodged in the former National Hotel and little information in the Richard Nickel archive, save for some magazine squibs. But the commission is less important stylistically than for what it represents, to wit, a vote of confidence in Adler from his fellow professionals.

⁴⁸ Citation missing

⁴⁹ *Economist* 16 (1 Aug. 1896): 131; *Inland Architect and News Record* 27 (Aug. 1896): 10; *Inland Architect and News Record* 28 (Sept. 1896): 10; *Chicago Tribune* (9 Aug. 1896): 31; *Real Estate and Building Journal* 27 (4 July 1896): 633; *Real Estate and Building Journal* 28 (15 Aug. 1896): 779.

⁵⁰ Roula Gerianotis, "German Architects in Nineteenth Century Chicago," (Ph.D. diss., University of Illinois, Champaign-Urbana, 1985): .

⁵¹ *Real Estate and Building Journal* 38 (4 July 1896): 633; *Economist* 16 (1 Aug. 1896): 131; *Chicago Tribune* (9 Aug. 1896): 21.

⁵² The student body by 1895/96 consisted of 115 boys and 43 girls. Due to some apparent difficulties attracting female students and housing them, the formerly coeducational school became boys-only in 1900. This was also due to the influence of eastern prep schools such as Exeter, Andover, and Lawrence which one of the "deans" of the Academy visited around 1899. Letter (author unknown), unsigned carbon to Mr. Baldwin, 9 April 1906. University Presidents' Papers 1889-1925 (Box 3, Folder 7): University of Chicago Archives, Special Collections.

⁵³ Thomas W. Goodspeed, *The Story of the University of Chicago 1890-1925* (Chicago: University of Chicago Press, 1925): 104; *Real Estate and Building Journal* 38 (15 Aug. 1896): 779. For renderings of Cobb Hall, see Park Hall, Henry Ives Cobb, 26 May 1896. Architectural Drawings, Drawer 18 #3. (University of Chicago Archive, Special Collections.)

⁵⁴ Dankmar Adler, Boston, to Dila Adler, Chicago, October 1892 (Adler Archive, Newberry Library, Letter 9).

⁵⁵ Eli B. Felsenthal, Chicago, to President William Rainey Harper, Chicago, 18 July 1896. University of Chicago Presidents' Papers 1889-1925, Box 3, Folder 6.

At this time, Felsenthal was senior partner in the law firm of Felsenthal & D'Ancona with offices in the Chicago Stock Exchange Building.

⁵⁶ Board of Trustees Minutes, Vol. 2, p. 18. (University of Chicago Archive, Special Collections); Dankmar Adler, Chicago, to Eli B. Felsenthal, Chicago, 13 October 1896. Board of Trustees Correspondence, 1890-1913; Box 2, Folder 4. (University of Chicago Archive, Special Collections.)

⁵⁷ It is anachronistic to call Morgan Park the far southwest side, although that is what it is now. In Adler's time, it was a suburb of Chicago about ten miles from the University.

⁵⁸ *Economist* 19 (18 June 1898): 711; *Inland Architect and News Record* (Aug. 1898): 10. Annual Meeting, Board of Trustees, 21 June 1898. Board of Trustees Minute, Vol. 2, p. 163. (University of Chicago Archive, Special Collections)

Four years after it was designed, Wayland Chase, the dean, wrote to President William Rainey Harper complaining of the outmoded illumination in the academic buildings, West and Haskell Halls included. Kerosene fixtures provided inadequate lighting and he concluded,

mindful of fires in Park Hall (1895) and the gymnasium (1897), they constituted a safety hazard. Later the entire campus was wired for electric light. Wayland Chase, Morgan Park, IL, to William Rainey Harper, Chicago, 27 March 1902. University Presidents' Papers 1889-1925, Box 3, Folder 4. (University of Chicago Archive, Special Collections).

⁵⁹ *Economist* 17 (9 Jan. 1897): 39; File 211 (Chicago Dock Company) Richard Nickel Archive; *Chicago Inter-Ocean* (13 Apr. 1897): 20.

⁶⁰ Nickel, *Ibid.*

⁶¹ The description of the site seems convoluted but that is because it is irregular in shape and in an area where the Chicago grid gives way to sites defined by the river bank. To anyone who knows the city, it is easiest to describe it as west of China Town just before the river. The building itself was mostly demolished and the rest is hardly worth a visit.

⁶² *Economist* 17 (13 Feb. 1897): 181; *Economist* 22 (23 Dec. 1899): 748-9.

⁶³ *Economist* 18 (4 Sept 1897): 275; File 210 (M.L. Barrett), Richard Nickel Archive.

⁶⁴ *Real Estate and Building Journal* 27 (8 July 1893): 845; *Economist* 19 (14 May 1898): 569.

⁶⁵ File #213 (Illinois Leather Co.), Richard Nickel Archive.

The Illinois Leather Company remained in the building until 1957 when it was purchased by American Hair and Felt Company.

⁶⁶ *Economist* 19 (25 June 1898): 728; File #214 (Yondorf Store), Richard Nickel Archive.

⁶⁷ Zerlina Picard Adler, "Address Book," (Adler Archive, Newberry Library).

⁶⁸ *Economist* 20 (6 Aug. 1898): 173.

⁶⁹ Rachel Wischnitzer, *Synagogue Architecture in the United States* (Philadelphia: Jewish Publication Society of America, 1955).

⁷⁰ The zone of first settlement for the newly-arrived *Ostjuden* from the Pale of Settlement in Russia and Poland was around Maxwell and Twelfth Street [Roosevelt Road] east of Ashland Avenue. In the next two decades, they relocated further west to Lawndale, while German Jews moved further and further south.

⁷¹ Morton Berman, *Our First Century* (Chicago: Isaiah Temple, 1952): 29; Charles Gregersen, "Dankmar Adler: His Theaters and Auditoriums" (Adler Archive, Newberry Library): 120;

Economist 20 (6 Aug. 1898): 173.

⁷² Berman, *Ibid*, p. 30.

The dedication ceremony was a clergyman's convention. Rabbis from Cincinnati--including leaders of the Reform movement James Heller and Isaac Mayer Wise--and Chicago--Emil Hirsch and Bernhard Felsenthal. Ministers included A.J. Canfield, R.A. White, S.J. McPherson and Percival McIntyre. *Chicago Tribune* (17 March 1899): 8. Joan W. Saltzstein, "Dankmar Adler, the Man and the Architect," College Art Association, Detroit, Jan. 1973 (Adler Archive, Newberry Library).

⁷³ *Chicago Inter-Ocean* (5 June 1898): 20; *Chicago Tribune* (5 June 1898): 38; *Economist* 4 (June 1898): 644; Joseph Siry, *Carson Pirie Scott: Louis Sullivan and the Chicago Department Store* (Chicago: University of Chicago Press, 1988): 95, 205, 266.

⁷⁴ Charles Gregersen, *Dankmar Adler: His Theatres and Auditoriums* (Athens, Ohio: Swallow Press/Ohio University Press, 1990): 91-92, 174.

⁷⁵ File #222 (Richard Nickel Archive); *Economist* 21 (6 May 1899): 552; Frank Randall, *History of the Development of Building Construction in Chicago* (Urbana: University of Illinois Press, 1949): 151, 186; E.F. Selz, Chicago, to Hugh Morrison, Chicago, 18 July 1932 (Adler Archive, Newberry Library.)

⁷⁶ "United Hebrew Charities Free Dispensary," *The Reform Advocate* 23 (1 March 1902): 72.

⁷⁷ Joan Saltzstein, "Growing Up Next Door to Cousin Julius," *Hyde Park Herald* (13 June 1977): 2.

⁷⁸ Polacheck, Hilda Scott, *I Came a Stranger: The Story of a Hull-House Girl* (Urbana: University of Illinois Press, 1991.)

⁷⁹ There were in Chicago two Jewish hospitals, one (of German-Jewish origin) was on the south side, Michael Reese; the other was on the West Side and served the Russian-Polish-Roumanian, etc Jewish population, Mount Sinai. Jewish hospitals were needed because, for the most part, Jewish physicians were denied admitting privileges at other hospitals. Even with hospitals, outpatient facilities for the indigent were still necessary.

⁸⁰ The plat and several technical drawings are in the Architecture Department of the Burnham and Ryerson Libraries of the Art Institute of Chicago.

Hugh Morrison reported the discovery of this building while he was researching his book *Louis Sullivan: Prophet of Modern Architecture*. See Hugh Morrison, Chicago, to Sara Adler Weil, Chicago, 28 Dec. 1932 (Adler Archive, Newberry Library.)

⁸¹ *Economist* 22 (2 Sept. 1899): 265.

The neighborhood deteriorated further so County Hospital was needed to serve the needs of the poor with outpatient care as well. By World War II the Jewish population had moved away. The building was sold and by the 1950s it had become the Odessa Hotel, a not very elegant hostelry.

⁸² Letter to Dila Adler (Chicago),

⁸³ Letter to Dila Adler (Chicago), 29 August 1888.

⁸⁴ Letter to Dila Adler (Chicago), 8 July 1892; Dankmar Adler, Boston, to Dila Adler (Chicago), 29 October 1891.

⁸⁵ Citation missing

⁸⁶ Joan W. Saltzstein, "Dankmar Adler, the Man," *Wisconsin Architect* 38 (July-August 1967): 17.

⁸⁷ Frank Randall, *A History of the Development of Building Construction in Chicago* (Urbana: University of Illinois Press, 1949): 158.

CHAPTER 9: THE END OF A LIFE

FAMILY MATTERS

Dankmar Adler was able to weather the economic adversities of the 1890s because of the support of his close-knit family and because he measured success as much in personal as professional terms. He was blessed with a happy marriage. From his letters, a picture emerges of his relationship with Dila that combines great affection, friendship, openness, mutual concern, and consideration. He shared with her his impressions of everything and everybody, from Brussels cathedral music--"execrable"--to the Hotel de Ville, which he called "a very fine building." And he noted the "meticulous detail" of Rubens's "The Slaughter of the Innocents."¹

Humor and humility permeate his writing. On board ship he enjoyed all manner of food, except Scotch and Irish whiskey which "taste [as if they were] brewed in the cast-off breeches that had made the rounds of three or four generations of Finegans and Patricks." And when he reached Glasgow, where he was to visit steel mills, his arrival went unheralded: "As the Queen has been here for the past three days, my presence has not created quite as great a sensation as it ought."²

He was never able to persuade his wife to travel with him, and he often chided her about this: "Many of the [AIA convention delegates] have their wives with them, among whom are quite a number of nice women and I know you would enjoy yourself if you were here." He would take circuitous routes to meetings or extend business trips to visit relatives. When he

went to Denver in 1892, he visited his brother Jake in nearby Colorado Springs and together they climbed Pike's Peak. In October 1891, en route to the AIA convention that Dila declined to attend, he went via Ann Arbor so that his son Abraham, then a student at the University of Michigan, would join him on the brief train ride to Detroit.³

His correspondence with Abe no longer exists but he was close to all his children. When they were young his special pleasures were reading to them and introducing them to nature, showing them insects, snails, and leaves, pointing out structure and function. Abraham, Sidney, and Sara were encouraged to participate in dinner-table conversation, and each child had his or her own desk and locker--"a private and inviolate domain"-- in the basement playroom of the townhouse Adler built on Ellis Avenue.⁴ It was a close family geographically as well as emotionally.

By the mid-1880s Dila and Dankmar Adler needed and could afford a house of their own. The architect's observation--"we are all middle class in our own estimation,"⁵--was applicable at to the Adlers and the Kohns as well. Dila and twin-sister Hannah were the eldest, so when their father died in 1872, there were a large number of youngsters yet to raise and educate. As the eldest in their respective families, Dila and Dankmar and Hannah and Morris helped nurture and support the Kohn children. In fact, when Dankmar left his own parents' household, he moved in with Dila and her family on Indiana Avenue near Fourteenth Street. In the aftermath of the Great Fire, many families doubled up, but this couple remained next to Mrs. Kohn permanently. Even their separate residences on Ellis Avenue had connecting doors that could be opened to make a large parlor. Every week Dila and Dankmar had sabbath dinner at Liebman's house and Sunday

dinner with Fannie Kohn.

Although he worked long hours and spent much of his spare time with his family, Adler recognized the personal and professional advantages of belonging to clubs that provided recreational opportunities and business connections that benefited Adler & Sullivan. Chief among these clubs was the Union League which, after the 1893 fair, swelled its ranks to 2000 members, "ambitious young successful tradesmen and professional men,"⁶ Republicans all. Original members were supporters of the Union cause in the Civil War but the membership rapidly expanded beyond veterans like Adler.

Liebman Adler's values and Dankmar Adler's own sense of responsibility, deepened by his role as surrogate father to his brothers-in-law and combined with a strong social conscience, led to his involvement in philanthropic and social service endeavors. Never a wealthy man like the Greenebaums, Bensingers, or Mandels (fig. 37), he nonetheless supported many causes and served on the boards of the Hebrew Relief Association and the Jewish Manual Training School.

Dankmar Adler's trips to New York were stressful because of his concern for his family and the difficulty in drumming up business in the East. His wife, Dila (fig. insert double photo), had been always reluctant to leave home, even more so in the 1890s. Her declining health was exacerbated by weight gain, a subject of her husband's concern masked by teasing. Occasionally Dila left her Ellis Avenue townhouse, but only for her health. She and her sister went to North Carolina and to Hot Springs, Arkansas, in 1900. But Dila never saw the offices of D. Adler, E. L. Corthell, and A. K. Adler in New York City--not the first at 71 Broadway, nor the second at 27 Pine, nor the last at 1 Nassau Street.

Adler was not lacking family in New York. With 11 half-brothers and sisters, he had kin from coast to coast. Dila's and Zerlina's relatives and family friends helped make New York a comfortable place. But he did not stay with them or with his son, Abraham, who had more permanent quarters. Other relatives who invited him to dinner would have been willing to put him up.⁷

Dila was "my dear girl," "my darling old girl," "my dear old woman" in the letters up to 1890 because "old" seemed a term of endearment. Tragedy struck in the spring of 1890 when Dila, age 42 and pregnant for the sixth time, had a stillborn infant. To a couple in their forties, another baby one thirteen years younger than their youngest child, was unexpected. So, too, was the loss of this unnamed infant, although there had been earlier miscarriages, stillbirths, and children who died in infancy on both sides of the family.⁸

Both parents were deeply affected and the episode brought them even closer together. By 1895, when Adler went to New York and their letters resumed (or have been preserved), it was not just daily events that interest the reader but the ongoing leitmotif of affection and understanding, a psychological foundation that was a source of Adler's strength and perseverance.

Married at age 25 in 1872, and with three children born in five years, Dila Adler had little time and less inclination for outside pursuits. Less religious than the paternal grandmother for whom she was named, her family, broadly defined, was her major but not her only interest. She read poetry, played the piano when she had the time, and participated in her husband's career, for which she made the time, especially in the mid- to late-1890s when the children were adults or

almost so.⁹

Sara Adler, the golden-haired, blue-eyed child at the Auditorium dedication had become a charming young woman, managerial enough to look after the "boys"--her older brothers--when her parents went to rural New York in 1894. Sara combined elements of her mother and Dankmar's mother, whose namesake she was. According to her father's will, she was to inherit both jewelry and books, showing two elements of her character: a love of literature and a fondness for finery. Her parents missed her seventeenth birthday; they had gone to New York to a friend's cottage so that Dila could recuperate from neuralgia, but guilt and a rapid, reliable mail service enabled the family to keep in touch. In his letter, her father mentioned picking a bouquet of wild flowers for her, and communicated that her parents missed her very much. He promised to send her something from his "gigantic intellect" that would engage and interest her.¹⁰

Dila returned home to stay; Dankmar went back east, not for his health but for their economic survival. While pursuing commissions he would never get, he occupied himself dining with relatives and friends, which he reported to Dila, and walking about Manhattan--11 miles one day, eight the next. He would exercise, view the "giraffe" of a city, and stave off old age.¹¹ Increasingly aware of the passage of time, "*Alte ego*" was the turn of phrase he used to describe himself in a later letter. In his enforced leisure, he continued to study French.¹²

In 1895 Dila wrote a letter, one of two that survive and a rarity in that it was written not to her husband but to a public figure, the then relatively unknown Governor of Ohio, William McKinley. Dila's father, Abraham Kohn, so ardent an admirer of President Lincoln that he journeyed to Indiana to accompany the funeral train, had told his children about the Hebrew-

inscribed flag he had presented to Lincoln before the inauguration. Thirty years later, its whereabouts were unknown. Governor McKinley gave a Chautauqua speech in which he mentioned the episode, so Dila Adler wrote to ask how he learned of it and if he knew the location of the flag.¹³

Governor McKinley responded in early July, but it was a disappointing letter. He had learned the legend of the Hebrew-inscribed flag in a book, *History of the American Flag*, and was so moved by the incident that he incorporated it in his public lectures. But he had no knowledge of the flag's whereabouts, offering the suggestion that she contact the adjutant general of the Army, which she undoubtedly did to no avail. Abraham Kohn's flag and Governor McKinley's letter to Dila Kohn Adler have both disappeared. McKinley counseled "the family of Mr. Kohn should feel very proud of his patriotic act" and that helped compensate for Dila's disappointment.¹⁴

Dila was proud of her father, her husband and their children. Her husband's confidence in her caused him to make her, rather than their attorney, the administrator of his estate. Their son, Sidney Joseph, the middle child about whom the least is known, was to inherit his father's watch. But time was neither on Sidney's side nor Abraham's; both died prematurely, Sidney at age 49, his older brother at 41. Sidney's career was more precarious than Abe's. Gifted with an aptitude for structural engineering, he was usually in his older brother's shadow. In his early twenties, Sidney worked for Selz, Schwab & Co., his uncle's firm. After his father's death, he collaborated on inventions with Alfred S. Alschuler, a young architect who worked in Abraham's office. Alfred and Sidney patented a new type of girder-joist connection in 1904.¹⁵

Sidney's most famous contribution to architecture was the financial and emotional support he gave Louis Sullivan during Sullivan's final years. He more than discharged the family's indebtedness to Sullivan by making sure that the burned-out genius would die with dignity. Fourteen months after Sullivan's demise, Sidney, who never married, was laid to rest beside his parents. He died November 25, 1925, not yet fifty years old.¹⁶

ABRAHAM AND SARA

Architectural dynasties were not unknown in nineteenth-century America. Leopold Eidlitz was succeeded by his son Cyrus; Richard Upjohn's son and grandson, Richard M. and Hobart, entered the profession as well. In Chicago, William Holabird begat John Holabird. If Dankmar Adler harbored such a dream, he never expressed it, and he did not dissuade his eldest son from studying engineering rather than architecture. He must have taken some pride in having the son succeed where the father had failed--in being admitted to the University of Michigan. In the fall of 1891, Abraham Kohn Adler and his cousin Jacob Selz enrolled in the university.

"No person can become a candidate to any of these above courses without presenting satisfactory evidence of unexceptional [sic] character," stated the University of Michigan catalog in Dankmar Adler's day. But a degree candidate also had to be possessed of exceptional ambition in Abraham Adler's time. A bachelor of science in mechanical engineering required 25 courses--from physics to French *and* German--plus a thesis. The course descriptions were formidable, and the faculty displayed impressive credentials. Master's degrees in engineering

were presumed, but the dean had, in addition, a law degree. All the faculty possessed considerable professional experience, but the catalog emphasized that the School of Engineering was no mere technical school.¹⁷

Abraham's father had had a choice of where to send him to school. Dankmar Adler was familiar with the Universities of Illinois and Michigan and both had solid reputations, so why prefer one over the other? The senior Adler believed in an integrated education in which future professionals shared the educational experience with the laity, their future clientele. His proposed technological school of 1892, which the University of Chicago never implemented, was more nearly realized at Ann Arbor than Urbana.¹⁸ Moreover, as a Jewish student, Abraham would find a more congenial environment in Ann Arbor, where Jews had lived for 50 years and there was a functioning congregation, than in Champaign-Urbana.

Dankmar Adler's relationship with Nathan Clifford Ricker, the head of the architecture program at Urbana, was conflicted. They worked closely together at the end of the decade when Adler headed and Ricker served on the Illinois Board of Examiners of Architects, but the collaboration was tempered by some friction. Adler wrote in 1899:

In every vocation, the self-made man [sic] may rise to honors or attainments as high as those reached by beneficiaries of the opportunities afforded by schools and universities.¹⁹

Ricker, in his autobiography, wrote of Adler:

Even the first president of the Illinois Board of Architects believed [architectural education was useless], although a most competent architect, though it is difficult to believe that four years of service as a driver in a battery during the Civil War excelled the same time in study in a good school of architecture.²⁰

The University of Illinois would not have been an agreeable environment for Dankmar's son.

Whether Abraham chose Ann Arbor because it offered five different engineering degrees or whether he chose engineering because he wanted to attend the University of Michigan, clearly he intended to follow in his father's professional footsteps.

After graduation, Abraham Adler joined his father and Elmer Corthell in Chicago and New York, but after Dankmar Adler's death, Abraham permanently resettled in Chicago. He moved back into their Auditorium office and established a connection with Samuel A. Treat, who remained in his office in the new Fisher Building. Abraham left both the Auditorium and Treat not long afterward, and his business card, circa 1902, read "Abraham K. Adler, Architect; 1641 Monadnock Block; Chicago"--a change of buildings and a change of title. A metamorphosis from mechanical engineer to architect had to have been validated by law. Licensure in Illinois was five years old in 1902, and Dankmar Adler's son would hardly be exempted from its provisions.²¹

Abraham Adler's card indicates the fluidity in professional definition at the beginning of the twentieth century. Like his father, he was an architect and an engineer, stressing one or the other depending on what was required. Abraham did not work alone. His brother Sidney worked in his office in the Monadnock Block as did Alfred S. Alschuler who signed a one-year exclusive contract with Abraham Adler in May 1902-- exactly twenty years after Louis Sullivan became junior partner in the elder Adler's firm. Like Sullivan, Alschuler would outshine his employer, but at the beginning, he was draftsman and superintendent/foreman at a salary of \$30

per week plus 10 percent of the net profits.²²

One building by the Abraham Adler firm at this time was a factory described in an article in *Iron Trade Review*. He outlined the process by which the designer must first analyze the requirements of the client and the tasks to be performed to determine the basic parameters: usable floor space, aisles, workflow, storage space, anticipated growth in production, machinery positioning, power requirements, and the type of manufacturing. There would always be commonalities: layout, ventilation, and good lighting. The lighting was not for the benefit of the workers *per se* but for quality control, to spot defects before the product left the shop. One square foot of well-lighted well-laid out floor space was equal to two square feet of cut-up dark space, Abraham Adler stated, in a formulation reminiscent of his father.²³

As an architect, Abraham regularly dealt with buildings that had to support heavy loads. The factory he cited in this two-part article was a woodworking shop and warehouse, but other factories had different requirements--tanneries, steel mills, and, in the near future (though no one knew it yet) automobile plants. The designer--the mastermind of the job--had to synthesize individuation and generalization, to know what formula to apply--"use heavy foundations 3000-4500 pounds per square foot"--and when to ignore the prevailing standard--"the usual stresses can be increased"--without hazard. In support of this assertion, Abraham Adler credited his father with the principle: "decide every question in relation to [the building's] cost." ²⁴

Abraham K. Adler died October 29, 1914. He had never married so what there was of an estate went to his mother.²⁵

Sara Adler was the only child to marry and have children. The granddaughter of a

clothing manufacturer, she married Julius Edward Weil, also a clothing manufacturer. Dankmar Adler, proud father of the bride, wrote of the engagement to his brother Jake in Denver, telling him of the formal announcement of the betrothal the previous evening and expressing the hope that Jake would soon be back in Chicago and could come to the wedding. The letter also expressed the hope that Adler & Sullivan's firm would soon have a rush of orders. They did not.²⁶

Sara's wedding on May 5, 1898, while held at home, was not austere. The Adler townhouse and that of Mrs. Kohn were united by opening the connecting doors like a hotel's adjoining rooms. Eighty guests attended; assorted Selz and Kohn cousins; and siblings of the bride and groom constituted the wedding party. Julius Weil's cousin, Morris Rosenwald, was the best man. The newspapers reported that the bride was beautiful; her gown, magnificent; the floral decorations, gorgeous. The wedding march was from *Lohengrin*, one presumes that the food was delicious, and the couple returned from their honeymoon in to take up residence in the Hotel Lakotah.²⁷

Edward Weil was born to Sara Adler and Julius Weil on June 25, 1899, and when Dankmar Adler was in Chicago, he visited his grandson every day. It was a powerful antidote to the frustrations and disappointments of the last years of his life. His relationship with Sara was very close and on the rare occasions when Dila was away, Sara and Julius invited him to dinner, nurtured and looked after him and "the boys." "Edward Baby" was his grandmother's delight, as well. Although Dila was ill, and her sister, Hannah, seriously ailing, Dila wrote from Hot Springs to Dankmar in March of 1900 expressing the wish that she could "borrow" her nine-

month-old grandson and have him there with her in Arkansas. Her loneliness was palpable. She wished to spare her family concern over her health and to minimize the pain of their separation. She understood the threads that bound her husband to his family and the dedication he had to his work. She comprehended and accepted this and she promised to recover for Dankmar's sake.²⁸

Dila Kohn Adler died on December 3, 1918 at age 71, outliving her husband and son Abraham--but not before meeting, and adoring, her other two grandchildren: Leonard Dankmar Weil (1901-60) and Joan (1910-84) Weil. Their father, Julius Weil, died in 1932, but their mother lived to the age of 86. Sara Adler Weil died in 1963 leaving two children, nine grandchildren, and nine great-grandchildren, none of them architects or engineers.²⁹

Sara Adler Weil was a more public person than her mother had been, but she also lived in a time in which women had a wider role in the community. Her activities on behalf of historic preservation--before it became popular and won government support--and her charitable and educational work, for example with the Girl Scouts, are well documented in the obituaries that, like the article on her wedding 65 years earlier, reveal how newsworthy Dankmar Adler's daughter was.³⁰

THE END

Vigorous and active through the spring of 1900, Adler made his last public appearance in a forum on March 31 when he participated in a panel discussion at the Commercial Club. He was 55 years old and seemingly in good health. To his family, friends, and colleagues, and those who served with him in wartime; on committees; and on architectural and philanthropic projects, he was as solid and lasting as his buildings. He had withstood bullets and overwork, worry and

defeat, financial setbacks and family tragedy, and had survived them all.

Dankmar Adler was still a forward-looking man who thought more about the future, where progress beckoned, than about the past, especially the recent past, which he vigorously critiqued in his writings. Old mechanical systems were crude, wasteful, noisy, unreliable; abandon them and study scientific principles to produce better systems. Forget past history-- concentrate on getting the best new system because it would surely be an improvement.³¹ He was a man of his century and when it ended, he died.

Death came with neither a whimper nor a bang, but with the mute paralysis of a stroke. Dila, ordinarily the sick one, nursed her husband from April 6, 1900, when the cerebral-vascular accident occurred, until April 16 at noon when this sturdy oak of a man was felled. It was the first day of *Pesach*. Irony of ironies, he had always been the healthy one, walking miles at a time, rarely missing a day's work, at his desk the same killing hours as Sullivan, yet never succumbing to illness or breakdown, never taking time for rest and recovery. Hypertension was, and is, a silent killer, so he had no advance notice. Although he lingered for several days, the damage was irreversible. In keeping with the Jewish tradition, the funeral was scheduled as soon as possible after his death, the morning of April 18th.³²

The funeral was at KAM at 9:30, and the turnout was large. Pallbearers included Louis Sullivan, devastated by the death of his former partner. His close relationship to Dankmar Adler and his remaining ties with the family made him a logical person to perform this last act of friendship. He had been like a member of the family except for a very brief period in 1896. Services were conducted by two rabbis, Dr. Joseph Stolz of Isaiah Temple, and Dr. Emil Hirsch

of Sinai Temple. As Edward Burling's partner, Adler had designed Sinai's building at 21st and Indiana, and, with Sullivan, built the addition in 1884. Perhaps Sullivan recalled those palmier days as he sat listening to Dr. Hirsch.³³

Adler's association with Temple Isaiah, a congregation much younger than Sinai, was of shorter duration, but as the architect of Isaiah's first building (1898), he had an intimate relationship with the congregation and its rabbinical and lay leadership. He had maintained memberships in both KAM and Isaiah.

Dankmar Adler's funeral could not have been held anywhere but in the congregation his father-in-law had founded and his father had served for 31 years. His wife's grandmother and namesake had been a spur to the *minyán* that became KAM, and Dila and Dankmar, too, invested themselves in the temple, albeit in different ways. An Adler & Sullivan building with the dignity and beauty of the Auditorium, although on a smaller scale, it possessed such outstanding sight lines and acoustics that when Dr. Hirsch began his eloquent address, everyone could see and hear.³⁴

"Schooled in the discipline of poverty, [Dankmar Adler] had no ancestral wealth or advantages," Hirsch began. Dankmar Adler, he said, inherited instead intelligence and a moral character. He was a *tzaddik ben tsaddik* [a righteous man, son of a righteous man]. He was modest and eschewed public praise but few were more deserving of it than this man who rose to the top of his profession "through thorough-going preparation, unremitting care, and inexorable conscientiousness" in an endeavor that, according to the rabbis of the Talmudic period, God himself engaged in. Adler was bold, strong, and direct, a man who never flattered but spoke

carefully and exactly. Dankmar Adler perfected the architecture of his own life and demanded more of himself than of others. He knew that "success and duty were not asymptotes. . .but that success was duty well and conscientiously done."³⁵

His modesty was spun of golden threads. But he despised the loud methods of the market. He would not trumpet his own achievements, many and noble though they were. Essentially a self-made man he never lapsed into the folly of self-worship...He had sat as a model to the poet of Biblical days who wrote the fifteenth psalm.³⁶

A special train carried the casket and mourners to Mount Maariv Cemetery, KAM's burial ground at 3600 N. Narragansett for the interment.

THE UNEQUIVOCAL JEW

Rabbi Hirsch emphasized Adler's charitable affiliations, such as his service on the Board of the United Hebrew Charities. The encomium that appeared in the Anglo-Jewish weekly *The Reform Advocate*, which Rabbi Hirsch edited, dwelt at length on the prematurity of Adler's demise and his total commitment to Judaism. "The shadows had scarce begun to slope toward the East when the sun of his day was eclipsed," but in contrast with unnamed others who "try to hide their Jewish birth, Dankmar Adler was a Jew without equivocation."³⁷

Without equivocation but also without the dedication to traditional Judaism that marked the lives of his parents. The floral tributes that decorated the "pulpit platform [sic]" at his funeral were absent from the *bimah* in 1892 when KAM marked Liebman Adler's passing--"Chicago's most beloved rabbi," Hirsch had called him.

Liebman Adler's oldest son, in making the decision to pursue a career in architecture, not

only bypassed the rabbinate, he also gave up the more restrictive Jewish regulations: *kashrut* and sabbath observance. The youngster who had noted in his diary that he was absent from school for Pentecost (*Shavuot*) grew up to be the man who traveled and transacted business on holidays and *Shabbat*. Had he not, there might have been less business; and he would have lost out to others who would willingly meet with clients, visit construction sites, travel to distant cities, or simply work on drawings on Saturday, prohibited activities for an observant Jew.³⁸

Limiting himself to kosher food was an impossibility from 1861 on, although eating the rations available during military service was not a violation of Jewish law. His parents' home was kosher as was that of his in-laws but whether his own was is a matter of speculation. When he dined at the Technical Club, the Union League or the Standard Club, or when he traveled throughout the United States or in Europe, he undoubtedly ate what he was served. Dankmar Adler was a *kohen*, a member of the priesthood. He inherited this status from his father who took it seriously and passed it on to his sons, who probably did not. Despite Dankmar Adler's divergence from his father's form of Judaism, Rabbi Hirsch was neither disingenuous nor inaccurate in saying, "He loved ancient [Jewish] rites and customs."³⁹

TRIBUTES

The first obituary to appear in the architectural press was in *American Architect and Building News* where Adler was lauded for "his justness of view, his balance of mind, and the capacity to think quickly when on his feet, and speak cogently in consequence." No hint of a shrinking violet hiding in a boiler room or a man excessively modest colored the view of this eulogist who lauded Dankmar Adler for his contributions to architectural organizations and for

the way he combined a knowledge of engineering and architecture. This writer's recitation of Adler's career highlights was unexceptional, echoing the obituaries that appeared in the Chicago and New York newspapers. *American Architect and Building News* was unique in its stress on Adler's "Hebraic descent" and its importance to his career. Many commissions came to him because of it but there was more than that: "[Adler's] career is but another example of the vast amount of good that has accrued to this country through the advent of a certain class of immigrants."⁴⁰

Samuel Treat and George Beaumont, officers of the Illinois Chapter of the AIA in 1900, signed a statement that appeared in *Inland Architect and News Record* on behalf of the membership. They recalled Dankmar Adler as "earnest, honest, and fearless, possessed of intelligence, cordial, generous, and kind." They credited the strength of the architectural profession in the Mississippi Valley to Dankmar Adler and wrote, "our profession has been much ennobled through his acts of devotion."⁴¹

Peter B. Wight, another long-time friend and associate, wrote the tribute to Adler on behalf of the Illinois State Board of Examiners, which Adler had led and of which Wight was then secretary. Printed directly beneath the AIA chapter memorial cited above, it described Adler's contributions to licensure. But it contained a sentence that Adler would have especially treasured: "[He worked] to raise the art of building to a progressive science."⁴²

The last word--and the longest--was the editor's. Robert Craik McLean had known Adler for more than 20 years, before *Inland Architect and News Record* began to publish, before Adler and Sullivan were full partners. The monthly journal had documented Adler's buildings from the

Hammond Library (1882/3) through the Meyer Building (1896), but it was not Adler's buildings or his writings--though McLean identified him as a "special contributor" to *Inland Architect and News Record*--that occupied this column. It was not even Adler's leadership, however crucial it was to the success of the profession--although McLean was not a detractor.

On the contrary, Dankmar Adler's premature demise was, for McLean, as heavy a blow to architecture as had been the deaths of Richard Morris Hunt and John Wellborn Root, though Adler resembled neither, especially not Root, that "spark of genius." Adler's reputation did not rest on his art alone. His legacy was the work he did on behalf of the public good and on behalf of good architecture--mentoring, consulting, supervising, shaping the building code and licensure law, without thought of remuneration--and often without remuneration. "Adler's place in the annals of the profession was unique," McLean wrote. So, too, was an encomium for an architect who practiced for more than 30 years and was associated with over 150 buildings, yet when the editor of the leading architectural journal of the Midwest wished to honor his memory, he did so without mentioning a single building.⁴³

Louis Sullivan did not write--he drew. The cover of *Inland Architect and News Record* (fig.) was his commemoration of the man he had met twenty years before and with whom he had worked for 14 years, 12 as partner. It has the lyricism and harmony of Sullivan's ornament at its best, and it was his tribute to Dankmar Adler. Sullivan would also write about Adler at length in the book he wrote near the end of his own life.

The Civil War Veterans Association lauded Adler's wartime service and his postwar professional accomplishments, describing him, as "comrade and friend, a shining ornament in his

profession, pillar of strength...purity, steadfastness of purpose...unswerving faithfulness to duty...high sense of honor, steady dauntless courage. He left the priceless heritage of a good name."⁴⁴

Dankmar Adler was a member of the Western Society of Engineers for 21 years and his death was announced at a special meeting in April 1900. Unaccountably the resolution of tribute was not published in the journal for two years. In it the WSE credited Burling and Adler with "practically rebuilding Lake and Randolph Streets." In contrast with *Inland Architect and News Record*, the WSE tribute cited most of Adler & Sullivan's largest commissions, including those outside Chicago. Adler was recognized for his interest in construction and engineering, in the breadth of his consulting, and in the articles he wrote for that publication and others. "Of a generous nature. . .he was willing to advise young or old members of the profession [and his] availability endeared him to all." The profession had lost a man of intelligence, honesty, and excellent judgment and his legacy was his "many material achievements of excellent design."⁴⁵

Dankmar Adler's monument is a red granite column (fig. 55) from the Central Music Hall, which was demolished at the time of his death to make way for the new Marshall Field & Company department store designed by D.H. Burnham & Co. It is appropriate that a part of the building that he believed to have been his most seminal achievement should mark his grave, but his monument is more encompassing than a single column. A few of his buildings still stand; some are known only through photographs, but he influenced a whole generation. He built, he taught, he wrote, and he furthered architecture and engineering. In advancing professional organizations and in fostering regulation of the profession, he made enormous contributions to

American architecture and engineering, as well as to the cityscape.

Sosastrus, builder of the Pharos of Alexandria had his own name cut into each block. He had the monarch's name put into the covering plaster. Kings change-- architecture endures.⁴⁶

¹ Letter to Dila Adler (Chicago),

2. Letter to Dila Adler (Chicago), 29 August 1888; August, 1888.

3. Letter to Dila Adler (Chicago), 8 July 1892; Dankmar Adler, Boston, to Dila Adler, Chicago, October 29, 1891..10

4. Joan W. Saltzstein, "Dankmar Adler, the Man," *Wisconsin Architect* 38 (July-August 1967): 17.

5. Dankmar Adler, "What Are the Present Tendencies of Architectural Design in America?" *Inland Architect and Builder* 9 (March 1887): 26.

6. Frank Randall, *A History of the Development of Building Construction in Chicago* (Urbana: University of Illinois Press, 1949): 158.

⁷ Dankmar Adler, New York, to Dila Adler, Chicago (5 May 1897). (Adler Archive, Newberry Library.) Dankmar's brother Leopold (Lee) Adler resided in New York at various addresses. See Zerlina Adler's "Address Book" (Adler Archive, Newberry Library)

⁸ Burial Book of Mount Maariv Cemetery (Adler Archive, Newberry Library.)

⁹ The degree of religious observance in the Adler family varied greatly. Rabbi Liebman Adler was very tolerant, even (as some people are not) towards his own family. Whatever he was as a role model, it was through tolerance and not coercion. When he died in January of 1892, he opted for a traditional funeral: a plain wooden casket, no flowers, and no eulogy. He left an ethical will in which he acknowledged that his children would depart from the path he chose and indeed many appear to have done so.

¹⁰ Dankmar Adler, New York [?], to Sara Adler, Chicago, 3 Sept. 1894, (Adler Archive, Newberry Library).

¹¹ Comparing Chicago with New York, William Archer said, is like comparing "the elephant (or rather the megatherium) to the giraffe...there is a proportion and dignity in the mammoth

buildings of Chicago which is lacking in most of those which form the jagged sky-line of Manhattan Island." William Archer, *America To-Day: Observations and Reflections* (London, 1900): 88.

¹² A play on words: not "alter ego" (other self) but "*alte* ego" (old me).

Dankmar Adler, New York, to Dila Adler, Chicago, 18 Mar. 1895; Dila Adler, Hot Springs, AR, to Dankmar Adler, Chicago, Mar. 1900. (Adler Archive, Newberry Library, Letters 26, 31).

¹³ Dila Adler, Chicago, to Governor William McKinley, Columbus, Ohio, 1895 (Adler Archive, Newberry Library).

Isaac Markens, "Abraham Lincoln and the Jews," *The Jewish Experience in America* v. 3 *The Emerging Community*, ed. Abraham Karp (Waltham, MA: American Jewish Historical Society, 1969): .

¹⁴ Hyman Meites, *History of the Jews of Chicago* (Chicago: Chicago Jewish Historical Society, 1924): 86.

¹⁵ In addition to income from his professional practice, Dankmar Adler invested in land in Chicago and New York. For example, see *Real Estate and Building Journal* 35 (28 Aug. 1886): 494. [Dankiner Adlay is a misspelling.]

"Liebman Adler, Family Record," (Adler Archive, Newberry Library); [Dankmar Adler Obituary] *Chicago Tribune* (17 April 1900): 7; Alfred S. Alschuler Contract with Sidney J. Adler, 14 Mar. 1904 (Alschuler Archive, Chicago Jewish Archives); Patent #760511, Alfred S. Alschuler and Sidney J. Adler, 24 May 1904, (Alschuler Archive, Chicago Jewish Archives).

¹⁶ Robert Twombly, *Louis Sullivan: His Life and Work* (New York: Viking, 1986): 440-442.

¹⁷ [University of Michigan] "State University of Michigan Catalogue of the Officers and Students for 1860" (Ann Arbor, MI: University of Michigan, 1860) 41; "University of Michigan Course Calendar" (Ann Arbor, MI: University of Michigan, 1891): 75; University of Michigan, "Alumni Catalogue of the University of Michigan, 1837-1921" (Ann Arbor, MI: University, 1922): 14.

¹⁸ Dankmar Adler, "The Proposed Technological School from the Standpoint of the Architect," *Inland Architect and News Record* 19 (April 1892): 36-37.

¹⁹ Dankmar Adler, "The Architect's Duty Regarding the Enforcement of the Tarsney Law," *Inland Architect and News Record* 30 (Dec. 1899): 46.

²⁰ Nathan Clifford Ricker, "The Story of a Life," (Photocopy, Art and Architecture Library,

University of Illinois, Urbana, 1922): 26.

- ²¹ Abraham Adler's card is in the Adler Archive, Newberry Library.
- ²² Contract (Alschuler Collection, Chicago Jewish Archive, 1902.)
- ²³ Abraham K. Adler, "Factory and Warehouse Architecture," *Iron Trade Review* 36 (13 Aug. 1903): 39-40; Dankmar Adler, "Light in Tall Office Buildings," *Engineering Magazine* 4 (Nov. 1892): 171-188.
- ²⁴ Adler, *Ibid.*, (20 Aug. 1903): 46.
- ²⁵ *Economist* 23 (26 May 1900): 641; *Economist* 23 (30 June 1900): 792; Box 1, Folder 3 and Box 2, (Alschuler Archive, Chicago Jewish Archives); Report from Alice Keim to George Freudenthal, June 1988.
- ²⁶ Jacob was Dankmar's younger brother--he was almost exactly Sullivan's age--and he often worked with Dankmar on plumbing and heating installations. Hence he knew about the business and the business worries and they were closer than with their other siblings. Rhea Adler, Wilmette, interview with Rochelle S. Elstein, Wilmette, 1987. Dankmar Adler, Chicago, to Jacob Adler, Denver, 5 Dec. 1897 (Adler Archive, Newberry Library).
- ²⁷ "What Is Going On in Society?" (Adler Archive, Newberry Library).
At the time of the Adler-Weil wedding, March 5, 1898, Julius Rosenwald's name was not a household word in Chicago, although it would become so nationally. Julius Weil was his cousin. Joan Saltzstein, "Growing Up Next Door," *Hyde Park Herald* (13 June 1977): 2.
- ²⁸ Dila K. Adler, Hot Springs AR, to Dankmar Adler, Chicago, 18 March 1900. (Adler Archive, Newberry Library, Letter 31.)
- ²⁹ Although there were no architects in the second or third generations, Leonard Dankmar Weil's daughter Susan married the artist Robert Rauschenberg and her second husband was a sculptor, Bernard Kirschenbaum. I can personally attest to the fact that Mrs. Weil was, as Rabbi Jacob Weinstein mentioned in his eulogy, alert to the end. I interviewed her in the penultimate year of her life, on June 27, 1962 and she was as sharp as she was gracious. She remembered people and events of seventy years before, and kindly provided me--in the days before Xerox machines--documents for me to copy. In picking them up and returning them, I was able to have two long and valuable conversations, alas before the advent of hand-held tape recorders. Most of the information she provided me is included in this book. I remain grateful to Professor Edward Weil Rosenheim for introducing me

to Mrs. Weil in 1962 and for encouraging me to undertake a study of Dankmar Adler.
Jacob Weinstein, "Sara Adler" [Eulogy] KAM Temple, 2 September 1963.

³⁰ xxxx obit.

³¹ Dankmar Adler, "Mechanical Plants of Large Buildings," *Western Society of Engineers Journal* 3 (March-April 1898): 902.

³² "Dankmar Adler Passes Away: Won Renown as an Architect," *Chicago Times Herald* (17 April 1900): 5.

³³ "Looking Back: Items of Interest Reprinted from *Reform Advocate* April 1900," *Reform Advocate* (8 Oct. 1932): 182.

³⁴ If Hirsch was not Adler's rabbi, why was he invited to give the eulogy? Because as an orator and scholar Emil G. Hirsch, Ph.D., LL.D. had no peer in the city of Chicago and perhaps only Judah Magnes in New York had the presence and the fame of Hirsch. Under Hirsch's leadership, Sinai became the largest and most prestigious temple in the Midwest but his influence went beyond his congregation or his community. He was on the faculty of the University of Chicago and he taught in Semitic Languages and Literature, President William Rainey Harper's own department. In 1893 he began to serve on the Administrative Board of the Graduate School and that same year he established a prize for the best thesis in semitics, in the amount of \$150 (which was equal to one year's tuition in the Law School). He gave the convocation address in December 1895 and spent a long career as a scholar at the University of Chicago. His grandson, Edward Levi, became president of the University of Chicago in 1968.

Board of Trustees Minutes 1890-1896, v. 1: pp. 96, 100, 192, 383; v. 2: pp. 106, 175.

³⁵ Emil G. Hirsch, "Dankmar Adler: A Tribute Preached in Temple Kehillat Anshe Maariv, Chicago, at his Funeral," (18 April 1900): 8-9. God as architect is illustrated by his giving the [plans of] the *mishkan* to Moses. *Ibid.*, p. 5; *Ibid.*, pp. 10-12.

³⁶ *Ibid.*, pp. 8-9. The text, unquoted in the eulogy, has recently been translated as follows:

Psalm XV

A psalm of David

Lord, who may sojourn in your tent?

who may dwell on your holy mountain?

He who lives without blame,

who does what is right,

and in his heart acknowledges the truth;

whose tongue is not given to evil;

who has never done harm to his fellow,
or borne reproach for [his acts toward] his neighbor;
for whom a contemptible man is abhorrent,
but who honors those who fear the Lord;
who stands by his oath even to his hurt;
who has never lent money at interest,
or accepted a bribe against the innocent.
The man who acts thus shall never be shaken.

³⁷ "Editorial Notes," *The Reform Advocate* (21 April 1900): 306.

³⁸ "Death of Dankmar Adler" *The Reform Advocate* (21 April 1900): 284; *Ibid.*, 306; Dankmar Adler, "Diary," p. 102; Dankmar Adler, New York, to Dila Adler, Chicago 17 Jan[?] 1890 (Adler Archive, Newberry Library.)

³⁹ Irving I. Katz, "1859 Controversy About a Schohet," "Temple Beth El [Detroit] Bulletin" 52 (14 Oct. 1977); Hirsch, "Dankmar Adler: A Tribute" p. 13.

⁴⁰ *American Architect and Building News* 68 (21 April 1900): 17.

⁴¹ *Inland Architect and News Record* 35 (#4, May 1900): p. 32

⁴² *Ibid.*

⁴³ *Ibid.*, p. 26-27

⁴⁴ Headquarters Battery, First Illinois Light Artillery Veterans Association, "Resolution, [in Memory of Dankmar Adler]" (Adler Archive, Newberry Library).

⁴⁵ "Dankmar Adler," *Western Society of Engineers* 7 (Oct. 1902): 522-23.

⁴⁶ Jean Kerisel, *Down to Earth: Foundations Past and Present, The Invisible Art of the Builder*, (Boston: A.A. Balkema, 1987) p.

CHAPTER 10: ADLER'S WRITINGS

Between 1886, when Adler saw his first piece in print, and July 1895, when he went to work for Crane, he authored 32 articles, some very brief. Another thirteen were published between his leaving Crane and his death. Many were substantial pieces, including his contribution to the most important symposium of the decade. He was working on an encyclopedia article when he died.¹

ON THEATER DESIGN

Adler's published works on concert halls contain much technical information and advice but are not limited to that. For him, as for Louis Sullivan, there were always spiritual and political concerns in cultural and public buildings. In his first public address, Adler included among the prerequisites of good architects "spiritual and moral development." He was exceptionally proud of the Auditorium for providing good visibility and audibility even in the galleries. American music halls had to be self-financing; stockholders, Adler and Sullivan among them, expected a fair return on their investment, but there were non-monetary considerations as well. European opera houses were the playgrounds of royalty and the nobility. From observing them in Europe, Adler concluded that a not-inconsequential function of an opera house was to show off gems and gowns and their wearers to the best advantage. In his writings, he acknowledged the needs of the box holders and the gallery crowd; in his architecture, he accommodated both.²

As it was in Vienna and Paris, so it was with Chicago's "nobility" in the last decades of the nineteenth century. They also wanted spaces for fashion parading. Ample foyers and promenades were almost as essential to the building's success as the hall itself. The Auditorium lobby was designed to accommodate intermission perambulation, and much effort went into the illumination inside the hall that showed off beautiful jewels on beautiful women. This dazzling display had its counterpart in the gorgeous and glittering ambience of the hall, staircases and lounges. Much of what concerned Adler--adequate aisles, comfortable temperatures, solid foundations, reliable elevators--was intended to be unobtrusive, taken for granted by the more than 4200 ticket holders. But each of them was to notice the ornament. The ambience of an opera house was to be festive and social! Immensely proud of the decoration, Adler characterized it as "bold, unconventional and refined." ³

Adler published seven articles on auditoria and convention halls, about the same number that he designed or remodeled during his career. In building as in writing, he refined his ideas based upon the lessons he learned from earlier efforts. For example, the trusses he used with caution in the Central Music Hall (1879) were 50 and 82 feet long. By the time he finished the Garrick theater (1891), the trusses could carry the load of several floors on 120-foot spans.⁴

By comparing three of his articles on theaters, we can see how his concepts evolved and what he wanted to communicate to his colleagues. "Paramount Requirements of a Large Theater" appeared in *Inland Architect and News Record* and again in *American Architect and Building News*, the latter under the title "Theaters." For a different audience he wrote "Theater

Building for American Cities," and the third article, "The Theater," intended for an architectural encyclopedia, was never completed and published posthumously. Although he knew that the readerships differed, he included several fundamental rules in all three articles, including the use of the Scott-Russell curve to generate the best acoustics and sight lines.

As befitted its technical audience, his encyclopedia article provided the most complete description of the physics of sound, including a discussion of sound-wave intensities and reverberation pitches. All three essays stressed the breaking up of wall and ceiling surfaces for acoustical advantage, and in 1894, with the experience of two big buildings--the Auditorium and the Garrick--he advocated a fan-shaped hall as the optimal plan.

Differences as well as similarities exist among these articles. The sizes of the halls described varied. The 1887 articles dealt with a 3000-seat hall, while the 1894 piece assumed a room half that size. And, while only the requirements of the audience occupied him in 1887, Adler later also stressed the needs of the performers, their comfort and ease of movement.

The stage, its plan and appurtenances, evolved over the period of the three articles. In the earliest, he limited his remarks to the situation of a long, narrow proscenium, size unspecified. In the second article, he added dimensions and ratios; and, in the last work, a new element appeared: design precedents. He pointed out that the proscenium was the formal descendant of the Renaissance palazzo entrance. Formerly history had not concerned him, but now, late in his career, he thought it useful to chronicle the precedents of some elements. Past practice was an integral part of his comprehensive but uncompleted article. More space devoted to history and

science supported the synthesis for which he was striving. If he had finished the article, he certainly would have dealt with lighting, heating and ventilating, and stage equipment.

Between 1887 and 1894 his views on lighting changed; initially he championed electric light, but finding it too glaring and prone to cast shadows on the actors' faces, he preferred a system that incorporated incandescent and arc lights.

Safety and comfort concerned him, and he made specific recommendations regarding plumbing, heating and ventilating; and fireproofing in the early articles. By 1900 the innovations had become standard practice and required no mention. The same applied to ample lobbies and promenades. His theater manuscript began with an outline of a model theater based on his travels and extensive reading plus two decades of building experience, and it concluded with a prediction. He foresaw greater advances to come:

When in later years future editions of this work are published, the readers may deem it strange that anyone should have thought it necessary to attack what will then have become obsolete, or at least obsolescent practice.⁵

Clients could take heart from his view that in designing a theater, "no arcane knowledge was required but merely the application of a few principles available to all."⁶ In truth, no one surpassed, and few architects came close to equaling, Adler's brilliance as a theater designer and few engineers had as extensive expertise in theater technology.

With respect to heating, ventilating and even cooling, Dankmar Adler preferred to improve on nature. "Mechanical Plants of Large Buildings" began with a critique of outdated heating systems, and soon the writer was comparing the costs and advantages of buying or

generating electricity and power. A principal requirement of sound architecture and engineering was to provide uniform and comfortable temperatures and a well-regulated airflow. Whether the heat source was steam or electric depended on the size of the building, but the system had to be adequate to the tasks. As for climate control systems, Adler ranked Carnegie Hall as among the best in the world, and perhaps he had a role in planning that aspect of it.⁷

He pointed out that American architects gained access to German heating practices, the world's standard in the late nineteenth century, thanks to English-language translations of their heating manuals, and he praised the heating and ventilation of the German opera houses that he saw on his trip in 1888. For an American example, he chose the Auditorium, where the heating and mechanical ventilation apparatus was cleverly placed to do the maximum work with a minimum of visual intrusiveness. The transverse arches of the ceiling not only served an acoustical function but their soffits also contained heating and ventilating ducts. The stale air was exhausted through ducts in the risers beneath the seats. In winter, air passed over steam coils, and in the summer it was washed in chilled brine. The architect was especially proud of the cooling system that could lower the temperature in the hall by as much as three to five degrees in the summer. He proposed a simple test of ventilating: if one smelled the audience's sweat, the ventilation was inadequate!⁸

As an engineer, Dankmar Adler dealt with the disposal of sewage, a problem in Chicago's sandy soil. In buildings where the subbasement was below the level of the sewers, as was in the Auditorium, wastes had to be pumped up into the sewers, since gravity-propelled drainage, the

prevalent practice, was obviously impossible. A device invented in England was introduced in the Midwest by the Shone Ejector Company headquartered in Chicago. (Adler & Sullivan would build the Shone factory in 1891.) Their experience with the product was in the Auditorium. Ejectors propelled wastes up into the sewer by means of compressed air. Adler briefly considered using two sets of ejectors--redundancy in case of failure--but the Shone ejectors proved to be reliable without a backup system.

In Adler's articles, practical matters of sewage, circulation, illumination, and stability were presented as necessary but not sufficient for an architect's education. Part of every architect's preparation and education must be in American culture. Furthermore, because architects were obliged to educate each other and the public, the truly educated architect must know more than the craft of building or even the science of it. Humanities and the sciences were an essential part of the curriculum because the architect must be able to both comprehend and shape public taste. On occasion, the architect had to bow to the people's taste and build according to their wants, not his own. Just such a situation applied to the design of political convention halls.

As a practical man, Adler knew that political conventions could be housed in existing exhibition or music halls, but as a student of the American character, he understood, too, that clients preferred new buildings, even temporary ones. Convention halls had to be well planned, with many aisles, excellent lighting, and ventilation, and with superb acoustics. He wrote "Americans love big things." Echoing a Gilbert & Sullivan refrain, he knew he had to

accommodate not only the delegates but also “their sisters and their cousins and their aunts.”⁹

ON BUILDING REGULATION

Despite being the son-in-law of the late Abraham Kohn, city clerk early in Chicago’s history, Dankmar Adler was skeptical about city and federal government because both were prone to corruption. He feared political intervention in the procedures for city- and federally-sponsored building competitions. He openly expressed his concerns and disappointment that his city awarded commissions on the basis of partisan politics. If, as a young man, he had been naive about the politicization of professional issues, the Chicago City-County Hall competition of 1873 quickly educated him. He made clear in his writing and speaking that he wanted the rules tightened for all competitions at every governmental level.

The Ulysses S. Grant administration was the most corrupt in nineteenth century American history. As an Illinoisan, Adler must have been well-informed about the scandals that did come to light and also those bruited about in corridors of power, like the Union League Club. Political patronage was ubiquitous. Adler preferred the separation of politics and building by having the federal government rely on competitions among private engineers and architects rather assigning design to government employees or to politically well-connected professionals.

In Chicago, Adler served on a committee to advise the city council on a new building ordinance. Rather than putting the onus on the city government to regulate architecture, which he regarded as undesirable, he would hold owners of property culpable in cases of impropriety or

public hazard. He cited France as the model, since French law held architects responsible for building failure. He preferred using private consultants to provide oversight instead of city-paid building inspectors.¹⁰

Dankmar Adler helped in the fight against height limitation by governmental fiat. It was one of the most controversial issues in the 1890s to be considered by the Chicago City Council and debated in the architectural and general press. Adler opposed height limits but, recognizing there was an underlying issue as protection of public health and safety, he offered architectural licensure as a guarantee that buildings would be designed prudently and constructed carefully. The danger, in his view, was less from the height of buildings than the incompetence of some architects. He participated in the discussion conducted in the pages of the *Economist* and the *Chicago Tribune* and he served as the AIA's representative on the committee that consulted with the city council and offered regulatory guidelines. Although he served on the committee, his position was ambiguous since in principle he resisted a fixed code, charging that it would hamper progress. His philosophical view was that multiplying laws was an evil. Architecture under capitalism was self-policing.

In some early articles on the subject, most published in the [*Chicago*] *Economist*, Adler recapitulated the dire predictions of catastrophe forecast for some of his buildings. The Central Music Hall was truncated unnecessarily due to public anxiety, and the Auditorium tower rose five stories above what prophets of doom regarded as the maximum level sustainable on Chicago soil. It is not necessary to limit height, warned Adler, but if you must inspect, examine for

safety.¹¹

There was little unanimity on the subject. William LeBaron Jenney favored a building inspector and also advocated legal restrictions on architecture. Adler responded that Jenney's viewpoint was socialist and that such a philosophy stood in the way of progress. He reminded Chicagoans of the advances in foundation technology over the decades and predicted that the day was near in which foundations would be devised for buildings of thirty to forty stories. Such skyscrapers, according to Adler, were inevitable. What made such giants unattractive and unfunctional is that they interfered with light entering lower neighboring structures. That could be solved by using setbacks, which Adler & Sullivan were incorporating into designs at the very time he was writing in the [*Chicago*] *Economist*.¹²

Lofty buildings, Adler wrote elsewhere, were not actuated by lofty sentiment, and their owners were not public spirited. Rather, they were motivated by greed, but that is not as harsh as it sounds because "greed" was interpreted as the striving of every man for every advantage. Far from denigrating it, late nineteenth century Americans acknowledged it as part of human nature. To Adler, the inevitable struggle for survival was a challenge and an opportunity. Change was the law of life; it was constructive not destructive, for it was not random, but goal-directed. The actions of the most fit led to the overarching democratic capitalist value: progress for all citizens.

Dankmar Adler, of course, regarded architecture as the keystone of human advancement. "The history of the development and progress of the human race had been coincident with the

development and progress of the art and science of building."¹³ Architecture had evolved. Beginning with ancient man's need for house and hearth, shelter and warmth, it later metamorphosed into a competition for the ideal temple--the religious heart of a civilization and the communal equivalent of the house. The process culminated finally in the competition between urban centers to provide the best setting for the most productive, enlightening, and satisfying lives for all citizens.

The Chicago City Council began to study building regulations and appointed an advisory committee in February 1892. They were following a pattern and a timetable set in Europe and in America; by 1893 there were height limits in Paris, Berlin, and Boston. Two years later Adler reflected back on the experience as a frustrating episode. The committee, in a compromise, finally recommended a height limit of 160 feet, but the limit was lowered to 120 feet before adoption. Adler's advisory committee acknowledged the necessity to prevent fire, regulate density in the center of the city, and mandate up-to-date plumbing. The committee also specified sewers and other suitable provisions in their proposed draft legislation but the city council gutted the committee's proposals. The result was an 1893 ordinance that Adler dismissed, with disgust, as "a dead letter."¹⁴ The law never actually reduced the height of a single proposed building.

That Dankmar Adler believed passionately in progress and that he thought it would come about through private initiative permeates his writing. One would expect him to oppose laws and ordinances imposing restrictions on innovations in architecture and engineering, and in fact, he did. His 1891 "Letter to the Editor" of *American Architect and Building News* pointed out

that before the Auditorium tower, the tallest skyscrapers were eleven to twelve stories high. If a masonry building could rise to sixteen stories, like the Monadnock and Auditorium (the tower was nineteen stories above ground level), *a fortiori* a steel skeleton could be safely built to greater heights.¹⁵

The free market would regulate building height and, since tall business buildings could only be done by the largest and most successful architectural firms, safety was guaranteed. The firms' professional competence plus the expertise of their consultants made height limitation and even building inspection unnecessary. The best solution of all was to license architects and let them apply their expertise to new technologies and new challenges.¹⁶

In the year of Adler & Sullivan's dissolution, a book of building codes, detailing the regulatory mechanisms enacted by many of the largest cities was published in New York and London. "The Chicago building ordinance is certainly far superior to [others] as regards the subject of foundations"¹⁷ Joseph Kendall Freitag wrote as he lauded Chicago for them but ranking its steel structure behind New York and Boston. Freitag approved of Chicago engineers' pilings, both the material and the spacing, and he waxed lyrical on their mastery of soil testing. Less adulatory when he discussed windbracing and height limits, he nonetheless regarded Chicago in the forefront of scientifically-based architecture.

Would Adler have agreed? Perhaps, but he was not a believer in regulation on architects and engineers. He regarded a building code as an irritant rather than an aid. Building inspectors were nuisances. Since professional architects were trained and experienced in solving problems

of height, safety, stability, soil quality, and settling, they needed no bureaucrat looking over their shoulder. Moreover, canny entrepreneurs would patronize only the most skilled builders, and, therefore, market forces rather than building regulation, would eliminate the unworthy and the incompetent. Legislation was not needed. In a reversal of Gresham's Law, good architecture would drive out bad.¹⁸

Louis Sullivan's similar view, also expressed in an article published in 1891, recognized that an owner's aim was to maximize profits while the occupants' concerns were adequate light and air. The solution was a trade-off between light and height so that an owner could add height, almost without limit, if he restricted the area that the building covered. Sullivan wrote that anyone's building "can soar as high as it may please his lot, his purse, and his pride."¹⁹

The earliest statement of Adler's aesthetics was in 1887 at an informal discussion with John Root and others at a meeting of the Western Architectural Association. Beauty was a goal of architectural design, and the "present tendency" of clients was to build beautiful business buildings for a practical reason: A beautiful building was more rentable. Sounding a democratic note, Adler pointed out that there was almost no inherited wealth in the Midwest, and that meant no outdated, restrictive upper-class aesthetic tradition. He believed that the well-to-do would learn to demand the best possible buildings and the middle class, following their lead, would develop good taste along the same lines. His definition of style: having "simplicity and dignity" but "not bald or unpoetic."²⁰

In an uncharacteristically metaphysical vein at a symposium at the Sunset Club, Adler

proposed that art had a spiritual aspect that went beyond simple necessity and the profit motive. Art required ease and grace and was the product of three factors: excellence in workmanship, knowledge of the problem, and command of the tools. On that occasion, he thought it inappropriate to point out the dollar value of a beautiful building and concluded that the only true canon of art was to arouse in the viewer higher emotions. Optimistically, he foresaw the day when all artists could fully communicate with a wider public.²¹

For Dankmar Adler, the naissance of great architecture did not end in ages past; in fact, modern business buildings contributed as much to art as early building had. Adler & Sullivan were not wedded to an earlier time or another place. The nineteenth century provided a wider array of materials and techniques than were available in previous so-called golden ages, and Adler and his colleagues welcomed them. Like alchemists of old, they converted base industrial materials into great architecture. The best architects combined functionalism and beauty, transcending the distinction between science and art.

Adler posited three bases for the practice of architecture--artistic, scientific, and programmatic--with the implication that they were equally important.

"The skyscraper [results from] the conflict between the aspiration of art, the tyrannic ukase of sordid avariciousness, commercial philistinism, the relentlessly accurate dogmatism of the structural engineer and the scientific enthusiasm of mechanical, electrical, sanitary, and other engineering specialists."²²

The architect's role was to integrate these elements into a coherent whole and attract occupants who would otherwise have gone elsewhere--in other words, the spiritual in the service of the profitable. In this he unknowingly echoed an unnamed New York government official whose

comments were quoted in 1888:

Until recently the real estate proprietors have not felt justified by the outlook in investing much in the higher forms of artistic structures. There was not that reliable promise of satisfactory returns upon the money invested in making their buildings artistically beautiful and harmonious in design. But the change has come at last.²³

A partner in another Chicago firm formulated it thusly:

[Beauty is achieved] by a proper proportion and disposal of openings; by a proper treatment of corners and angles; by an artistic handling of the requisite mouldings and stringcourses, by an intelligent use of the roof; and especially, withal, by making the most of the possibilities inherent in...materials.²⁴

Thus Allen Pond stated that beauty was "inherent in materials." Adler believed it, Sullivan validated it, and Frank Lloyd Wright claimed the principle as his own. Adler believed that form and function were one, as were materials and beauty. In the version of a seminal symposium held in Chicago and published in *Inland Architect and News Record* of 1896, he was quoted as having said:

If they [the output of furnace and mill and garish sheet of plate glass] are used where they are wanted and as they are wanted...we shall have taken the first step toward the transmutation of those utterances of scientific prose into the language of poetry and art.²⁵

This was, for Adler, an unusual formulation for, unlike Sullivan, he was not given to lofty language.

ON FOUNDATIONS AND CONSTRUCTION

Dankmar Adler never claimed to have invented the skyscraper as Leroy Buffington

insisted on having done. The "cloudscraper," as it was sometimes called, had many fathers. The Wainwright Building with its soaring beauty was a descendant of the simple and homey grain elevator and the majestic campanile. The skyscraper was the perfect union of art and business, a synthesis of what was generally regarded as opposites.

Adler's national and international reputation rested on his pioneering and modification of new foundations in addition to his acoustical expertise. He wrote widely on foundation technology and also spoke on the subject to various architectural and engineering associations and clubs. These meetings provided valuable interchanges between and among practitioners, bringing together architects, engineers, or both to be apprised of the latest developments. From the start, Adler was involved in organizing annual meetings of professional organizations and arranging colloquia of architectural and engineering societies. And there were other points of contact of which there is no paper record.

Unfortunately the course of these [diffusionary] effects is often difficult to trace in detail since engineers prefer to communicate by word of mouth and by observing each other's work--what Derek de Sola Price has called "the papyrophobic nature of engineers as opposed to their papyrocentric scientific cousins." Thus the influence was doubtless more widespread than the written record reveals.²⁶

Tracing an innovation and mapping its diffusion present many possibilities. Nineteenth-century technology introduced metal framing; improved plumbing; fireproofing; elevators; heating and ventilating; and acoustics. We have addressed metal framing. Acoustics, while essential, are important only with regard to one type of building. And while fireproofing was adopted and adapted by Adler, he was less involved in developing it than he was with

foundations. The development that is fundamental (pun intended) is also the most relevant and interesting. Moreover, the secondary literature on foundation design is scanty, despite the fact that the subject is essential for understanding not just Adler & Sullivan's architecture, not just Chicago architecture, but all of architecture and civil engineering as well.²⁷

The Chinese produced the first treatise on building foundations in 1103 (Sung Dynasty); it contained thirty-four chapters on soil analysis and building techniques but it was based more on experience than on the mathematical sciences.²⁸ Charles Coulomb (1736-1806) devised a rational basis for soil mechanics in 1773 and further developed it at the Ecole Polytechnique, where he taught between 1800 and 1806. William John Maquorn Rankine (1820-1872), a Scotsman, wrote the standard text on civil engineering in 1862. It remained so (with some revisions) until the second decade of the twentieth century, when the leadership passed to Karl Terzaghi. Terzaghi published a seminal article in *Engineering News Record* in 1920, a generation after Adler's death. In his landmark paper on the science of foundations (1927), he warned "The science of foundations cannot be purely mathematical but must be empirical...foundation engineering could be developed into a semiempirical science."²⁹

Dankmar Adler and William Sooy Smith shared the same philosophy.

Many of Adler's ideas and opinions were expressed at meetings of, and published as papers by, the Illinois State Architectural Association. These reports enabled architects to learn from each other's experiences. Foundations were often dealt with because Chicago soil was so problematical. In a general discussion on the subject, Adler acknowledged Frederick Baumann's

influential pamphlet on foundations, "The Art of Preparing Foundations for All Kinds of Buildings." Baumann was among eight architect/engineers in practice in Chicago before the Great Chicago Fire guaranteeing him an authoritative role in matters technical and professional and ensuring that younger practitioners, like Adler, welcomed his counsel. By the time of the World's Columbian Exposition, he was to become the authentic voice of the Chicago's building history as well.³⁰

Adler followed with a cautionary tale--there were always cautionary tales--about a contractor who substituted larger foundation stones than were called for in a center pier. The result was a buckling foundation, as the side walls pressed down and the center pier was pushed up. Of course, the contractor had to replace the offending section, at considerable cost in dollars and reputation. Professional meetings and articles were replete with lessons of failure, and, no wonder! Inadequate foundations or unstable cornices were a threat not only to an architect's career but to the public safety. Professionalism demanded that such mistakes or even tragedies be prevented.³¹ Any person could call himself an architect, occasionally with disastrous results. While building failures might have been infrequent, the lessons they taught were immediate. When buildings "went to China," i.e. settled beyond allowable limits, burned down with a loss of life or property, shed parts on hapless passersby, or collapsed, there was social and political pressure to regulate building practices through legislative intervention. Chicago's first building code, a response to the fire of 1871, prohibited the construction of wooden buildings (which had been outlawed in other cities for over a decade) in Chicago's downtown.³² Codes were modified

over the years, but not until the early 1890s did a great debate over height limitation result in a radically new statute. There was in the 1880s and early 1890s, therefore, the opportunity to build with few prohibitions regarding what, where, how high, and how much to build.

John Root first introduced raft foundations in the Rookery and later under the Montauk block. He had been trained as a civil engineer, but his brother Walter nonetheless wrote of him:

In a technical and narrow sense, John's mathematical and engineering abilities were deficient. He had not time to learn and keep up with the many branches of construction detail. He was rusty in his calculus and trigonometry...but John had such a quick perception that he could suggest to a specialist an idea which would illuminate him and enable him to work out a solution of a hard problem in a new and brilliant manner."³³

Root was not hampered when it came to developing new foundation methods. When the owners of the Montauk Block required basement space to house equipment, Root proposed a concrete-coated steel rail "raft." His brother Walter, obviously a cautious sort, consulted a foundation engineer and discovered that John's proposal was indeed feasible. It turned out that the raft saved space and money and became the next generation of foundations, succeeding isolated piers. In time, there would be improvements and innovations, but in 1881, the Montauk foundations were state-of-the-art.

Adler founded the Auditorium on a similar combination of grillage and concrete. Most of that supported the weight of the Auditorium complex, although caissons were employed under the stage machinery. The caisson technique was immediately seized on by the national architectural and engineering press, and Adler dwelt on it at length when describing the

Auditorium. Years later, scholars lauded his success: “The care with which Dankmar Adler considered the foundations for the Auditorium was representative of the design of the entire building.”³⁴

Adler admitted that he, Edward Burling, and Frederick Baumann, all thoroughly familiar with pile foundations for grain elevators, had failed to see that the same technology could be applied to tall office buildings. One reason was that the Federal building in Chicago, designed by John Van Osdel and Alfred Mullett (the government architect), was famous for its (pile) foundation failure. It might have been prevented since Adler concluded it was the result of bad calculations and could have been rescued by a thicker mat.³⁵ There was nothing intrinsically wrong with the technique.

Pile foundations were used in Chicago before the Civil War in the late 1850s but they did not become popular for commercial buildings until forty years later. The invention of the steam-powered pile driver in 1890 was a major factor since it made piles a more efficient foundation type and a more popular one. S. S. Beman's Northern Pacific Railroad station rested on 50-foot piles, and, as noted earlier, so did the Schiller Building, completed by Adler & Sullivan in 1891.

Of all the techniques, caissons³⁶ and piles proved to be the most reliable and enduring, but pile technology had been perfected under buildings whose functions were so commonplace that the method itself seemed to lack glamour. Adapting piles for skyscrapers was a short step but took a long time. No one individual claimed credit for developing them and no one has ever been identified as their inventor.³⁷ That is not the case with caissons.

Chicago used lagged wells, first under the Auditorium stage and later under the west wall of the Chicago Stock Exchange. Louis Curtiss of Kansas City, Missouri employed the sheeted pit for city hall. But both these variations had been in use elsewhere in the world before the 1890s. For example, in the 1850s a French engineer sank a steel-cased well shaft at Artois and, voila, the eponymous Artesian well was reborn. In Paris, Paul Abadie and Henri Rauline sank them in the marshy soil for Sacre Coeur on Montmartre well before the Auditorium and the Chicago Stock Exchange.³⁸

The Auditorium foundations were Adler's most vexing problem. In a letter to the editor of the *Economist*, Adler detailed the problems he had encountered. One was that, in excavating for the foundations, the trenches immediately filled with water and loose timbers floated about, a problem endemic in the downtown area but soon solved.

Adler credited S. S. Beman for his creativity in solving foundation problems, and he always lauded William Sooy Smith as a foundation specialist, although Adler was regarded by others as a foundation expert. Sooy Smith, like Adler, was a Civil War veteran but whereas Adler went into the army with little expertise, Sooy Smith (born 1830) was trained as a military engineer, graduating from the United States Military Academy at West Point in 1853. By the time Adler consulted him about the Auditorium's special situation, Sooy Smith had already designed tunnels, bridges, and lighthouses.³⁹

Like Adler, Sooy Smith was active in professional circles, having been a founder of the Western Society of Engineers and serving as its president from 1877 to 1880. The two men

worked together during Adler's mid-to-late career. Sooy Smith also helped Louis Sullivan "slip" caissons under the Schlesinger & Mayer Store, doing so even as the store remained open for business.

The history of building foundations is a classic case of adaptation and diffusion of a newly applied technology. Engineers with wide ranging experience, from mining to bridge building to lighthouse erection to office-building foundations, advanced the development of the caisson foundation by observing each other's work, following the detailed accounts in the engineering journals, and reading the published letters between practicing engineers in which technical questions were answered.

A meeting of the Illinois chapter of the AIA featuring a panel discussion on foundations was the best-attended meeting of 1892. William Sooy Smith described the sinking of the wells under the stage of the Auditorium, while Adler sketched the history of pilings from Roman antiquity to the Northern Pacific Railroad Terminal (1891) by S. S. Beman.⁴⁰

ON BUILDING MATERIALS

The concentration of people and equipment in a tall office building raised issues of safety, and the designer needed to be cognizant of the problems from the beginning of a project. Adler was familiar with the improvements in steel, terra-cotta fireproofing, and foundations. By the time Adler and Sullivan went their separate ways, they knew about the technological advances in all these areas.⁴¹

French engineers of the latter part of the century, too, had made commercial/industrial buildings that incorporated the most advanced technologies, notably riveted skeletons. By the 1893 Columbian Exposition hardly a citizen in the world--much less in Chicago--was unfamiliar with a pioneer in that genre, the Eiffel Tower.⁴² The steel skeleton was a new type of architecture, a module that could be repeated as high as the foundations could absorb the weight.

In the decades before and during the Civil War, steel proved to be essential for weapons and railroad trestles and ties. After the war, it continued to be thought of as an ugly duckling, although it supported uniquely beautiful bridges as well as trestles and less prominent structures. It was adapted to all kinds of uses--foundations, architectural beams and trusses. Steel played no role in the Romanesque architecture of Henry Hobson Richardson, but it did in the Brooklyn Bridge.⁴³ And without steel, there would be no Wainwright, Schiller, or Guaranty buildings.

Late in life, Louis Sullivan remembered that well-informed sales agents from steel fabricating factories did visited architects' offices, hammering home the fact that steel was reliable. Some engineers did not immediately concur. William Sooy Smith was one of the early skeptics, "warn[ing] that steel frames might rust or crystallize so that skyscrapers here and there would crumble without warning."⁴⁴

George B. Post, like Adler both an architect and an engineer, was so wary of corrosion from moisture seepage through the cladding to the skeleton behind, that he took special measures so that structural steel could be periodically examined to make certain of its integrity. Nathaniel Roberts, structural engineer on Robert Henderson Robertson's Park Row Building (1896/9)

insisted that samples of each of the 870 carbon steel bars fabricated by the Carnegie Steel Corporation be tested by an independent laboratory for tensile strength and elastic limit. Less than two and one-half percent failed the test. Thirty years after steel had proven its mettle in bridge construction, engineers were still skeptical, perhaps because, as Sarah Landau and Carl Condit note, its quality varied.⁴⁵

The "Chicago system of architecture" was described in the Chicago architectural press as a steel skeleton above a scientifically designed foundation.⁴⁶ The diffusion of this structure was dictated by the laws of economics that mandated lower costs and increased reliability. Simultaneously the materials were subjected to scientific testing at the Watertown, Massachusetts Arsenal of the United States Army by Sooy Smith and others who voiced reservations. Steel passed the tests and remained the material of choice for tall business buildings.

Indeed the price of iron and steel shapes has never been so low in the history of this country as at the present time, and were such prices to continue, they would doubtless prove a tremendous stimulus to steel construction even in dwellings.⁴⁷

Wood-framed balloon construction continued to be adequate for residential buildings but steel was the choice in non-residential buildings.

The tallest of all Adler & Sullivan commissions was never built. Fraternity Temple was the earliest Chicago building designed with setbacks. A willing client and an adequate budget would have produced an impressive, certainly avant-garde skyscraper, but the Odd Fellows were never able to raise the money. Meanwhile, other Chicago architects and engineers were making

headway in solving the related problems of high buildings. Corydon Purdy, the first Chicago engineer to use windbracing in the Old Colony Building in 1893/94. Through study, consultation and travel, architects and engineers learned what was new and, of what was new, what worked.⁴⁸

New materials supplanted the old--iron gave way to steel and blown glass to plate glass. Even stone gave way to other materials that could be mass produced: terra cotta was one, cast stone another. Steel was available in Chicago, but the local foundries had to compete against other manufacturers elsewhere. In the 1880s that meant Carnegie Steel in Pittsburgh, in the early 1900s, United States Steel in Gary, Indiana.

In Adler's professional lifetime, men of more than one nation contributed to the advancement of architectural engineering. George Johnson, later to become the foremost American building contractor, deserves more than just a footnote in architectural history, considering what he achieved by implementing new methods of cooperation among architects and engineers and contractors. Johnson's earlier contribution, together with Balthazar Kreischer, was a terra cotta flooring system for a Chicago granary that became the model for all commercial buildings.

SOURCES OF ADLER'S ARCHITECTURAL THEORIZING

Roula Geraniotis, in an unpublished dissertation written in 1985 and in a chapter of the book *Chicago Architecture 1872-1922: Birth of a Metropolis*, argued for the primacy of German sources in Dankmar Adler's thought. She traced the backgrounds of many Chicago architects to their German heritage and/or education and described the infusion into Chicago culture of many German elements. Primary among theorists were such as the philosophy of Gottfried Semper, with his elaborated theory of architecture and Arthur Schopenhauer, whom she saw as providing the basis for the "form follows function" principle. German thought, she concluded, introduced by German immigrants, became the regnant philosophy of the Chicago School.⁴⁹

Adler's close colleague Frederick Baumann stated that the philosopher behind progressive American architecture was Semper, but "Americans don't know that." Baumann, of course, did know it at first hand. Carl Heinzen, his foreman, had been a student of Semper's. John Root made Semper available to non-German readers by translating his works and publishing them in *Inland Architect and News Record*, and also by chairing sessions on Semper's theory at Western Architectural Association meetings.⁵⁰

Chicago in the 1850s was as much a German city as Boston was an Irish one. Many of its architects German born and educated: Augustus Bauer, Otto Matz, Frederick Foltz and Fritz Waescher. Yet others were American-born of German parents and hence heavily influenced by German culture: Henry Schlacks, Richard Schmid, Richard Schmidt, and Arthur Woltersdorf.

David Van Zanten, Lauren Weingarden, and John Zukowsky stress Chicago's French connection: "French influence was the strongest and most pervasive on Chicago architecture, since it cut across ethnic boundaries and affected many architects regardless of their national origins."⁵¹ Apropos of this was the proposition, expressed in Europe, that the primacy of the engineer over the architect was the wave of the future. Long before John Root's Monadnock Block was admired for its austerity and strength and Eiffel's tower for its symbolism and modernity, French critics speculated on what would later become known as the engineer's aesthetic. "Is architecture destined to disappear before civil engineering--will the engineer someday absorb the architect?"⁵²

There is validity in all of these sources.

Three vectors promoted the powerful cross currents of thought between Europe and America: students sojourning abroad, practitioners traveling abroad, and the exchange of information in published form, the architectural and engineering journal. Architectural magazines in each country informed their own and foreign readers on local developments in architecture and building. While Louis Sullivan's reading is documented in the inventory produced when he declared bankruptcy in 1909, the contents of Adler's library remains unknown. Inasmuch as he published in several publications, he was undoubtedly a subscriber to these American journals. And, being fluent in both languages, he may have kept up with other publications from Britain and Germany. In addition, his trip to Europe gave him a firsthand

acquaintance with buildings he had previously read about.⁵³

Chicago entrepreneurs were Dankmar Adler's heroes--movers and shapers of a better environment--and when they benefited, the entire community benefited. Based on his Jewish reading of the Calvinist work ethic, he fervently believed that American efficiency would in the future produce the best environment for everyone. This necessarily required tall office buildings and centralized business districts. But the urban poor were not neglected. Adler proposed to demolish tenements and replace them with comfortable new, tall, apartment buildings like Le Corbusier's ideal cities fifty years later.⁵⁴

Competition, however, had its shortcomings, and despite championing its cause, Adler acknowledged its limitations. Years of professional experience persuaded him that all craftsmen did not have the same degree of expertise, and that non-monetary considerations could and should be paramount.⁵⁵ At the same time that he valued mature craftsmen with years of experience, he expressed concern for novices who might be frozen out of crafts and professions, either by too restrictive a code or by experience-based selection. Undoubtedly, he was motivated by concern for young men trying to gain entry to an occupation they had long prepared for and that would have included his sons Abraham and Sidney. They, too, needed clients. Adler was widely known by 1897, and like many professionals at the height of their careers, he turned his attention to educating and mentoring the young.

In a time of upheaval in which the relations between government and architecture was being fashioned, Adler's concise statements and principles won him many followers. The goals of architecture were to increase happiness and knowledge and to serve as a protector of wealth and culture. In reaching these goals, success was defined as the greatest comfort, culture, and happiness for the greatest number of people. And if we detect distant applause for this position,

it might be the ghost of John Stuart Mill, or it might be the Auditorium gallery sitters who could enjoy an opera for 25 cents a ticket.

¹ Lewis Mumford, *Roots of Contemporary American Architecture*. New York: (Reinhold, 1952): pp.

² Dankmar Adler, "President's Address, Western Society of Architects," *Inland Architect and Builder* 8, (Dec. 1886): 76. He predicted, in 1891, that the Auditorium profits would increase as the business district moved south, but his optimism was misplaced. Financial woes bedeviled the Auditorium until recently.

³ Dankmar Adler, "Theater Building for American Cities," *Engineering Magazine* 7 (Sept. 1894) p. 815. Using electric lighting, as Adler & Sullivan had exclusively in the Auditorium, created too harsh an effect. He later determined that a mix of incandescent and arc lights was preferable. *Ibid.*, 828. Adler, "The Chicago Auditorium," 420.

⁴ Dankmar Adler, "On Inspection of Buildings," [*Chicago*] *Economist* (May 1891): 946. The smaller trusses spanned Fairbank Hall, the larger the main hall. Adler, "The Theater," p. 27. In his last article, he compared theater building to bridge construction with similarities in foundation design and material testing.

⁵ Dankmar Adler, "Paramount Requirements of a Large Theatre," *Inland Architect and News Record* 10 (Oct., 1887): 45-47; "Theatre Building for American Cities," (Aug. 1894): 717-730; (Sept. 1894): 814-829; Dankmar Adler "The Theater," ed. Rachel Baron *Prairie School Review* 2 (Second quarter, 1965): 27.

⁶ Dankmar Adler, "Are There any Canons of Art?" Minutes of the Sunset Club 64th Meeting, 7 Dec. 1893, p. 54. Adler, "Theatre Building for American Cities," p. 829.

⁷ Dankmar Adler, "Mechanical Plants of Large Buildings: Some of its Engineering Problems," *Western Society of Engineers Journal* 3 (April, 1898): 906-907; Dankmar Adler, "The Tall Business Building," *Cassier's Magazine* 12 (Nov. 1897): 207.

⁸ Adler, "Mechanical Plants," pp. 908; 911-912; 914; Adler, "The Chicago Auditorium" pp. 430-431.

A more elaborate air-conditioning system, using brine and ammonia had been proposed, but was vetoed by the board because of its cost. It was revolutionary for its time and remained untried for many years.

⁹ Adler worked on several convention buildings: for the 1884 Republican National Convention he remodeled existing space in the Interstate Industrial Exposition Hall, an 1873 William LeBaron Jenney building. He worked with Warren C. Hayes on the 1888 Republican Convention that used the as-yet-uncompleted Auditorium. The 1892 Republican Convention met in Minneapolis, again in an Adler & Sullivan building; and, finally Adler served as consulting architect for Isaac Taylor's building for the 1896 Republican Convention in St. Louis. Dankmar Adler, "Convention Halls," *Inland Architect and News Record* 26 (Sept. 1895): 13.

¹⁰ Dankmar Adler, "Municipal Building Laws," *Inland Architect and News Record* 25 (May 1895): 37.

¹¹ Dankmar Adler, "On Inspection of Buildings," *Economist* 5 (30 May 1891): 946-7. See also "Make the High Buildings Safe," *Economist* 5 (30 May 1891): 951.

¹² Dankmar Adler, "Lofty Buildings Again," *Economist* 5 (13 June 1891): 1038; Dankmar Adler, "The Tall Buildings," *Economist* 6 (14 November 1891): 820. Adler suggested that there had been a 12-story height limit early in the decade. Joseph Siry noted that the first height limit in Chicago--135 feet--was enacted in 1891. Siry praised Adler as a sane and imaginative voice in the debate on height restriction. Joseph Siry, "The Carson-Pirie-Scott Building in Chicago," (Ph.D. disser. M.I.T., 1984): 399.

¹³ Dankmar Adler, "The Stimulus of Competition in Architectural Construction," *Engineering Magazine* 12 (14 Nov. 1891): p. 820.

¹⁴ Dankmar Adler, "Municipal Building Laws," *Inland Architect and News Record* 25 (May 1895): 36.

¹⁵ While the popular press and some of his colleagues were advocating a municipal building inspector to ensure the safety of high buildings, Adler countered with a system for examining and licensing architects. It was a cause that he would long support, but in 1891 victory was a long way off. Dankmar Adler, "The Auditorium Tower," p. xxxx; Dankmar Adler, "Make the High Buildings Safe," *Economist* 5 (30 May 1891): p. 951.

¹⁶ Dankmar Adler, "The Tall Buildings" *Economist* 6 (14 Nov. 1891): 820.

¹⁷ Joseph Kendall Freitag, *Architectural Engineering*, New York: John Wiley; London: Chapman and Ward, 1895): 223

¹⁸ Dankmar Adler, "On Inspection of Buildings," *Economist* (May, 1891): 946-7. Reprinted as "Engineering Supervision of Building Operations, *American Architect and Building News* 33 (July 1891): 11-12.

¹⁹ Louis Sullivan, "The High Building Question," *The Graphic* 5 (19 Dec. 1891): p. 405.

²⁰ Dankmar Adler, "Paramount Requirements," p. 47.

²¹ Dankmar Adler, "The Chicago Auditorium," pp. 417-418; Adler, "Are There Any Canons of Art?" The role of art and the canons or philosophy of aesthetics is still a viable issue. Eliot Eisner noted in the Getty Center Newsletter, "Art helps us know what we cannot articulate."

²² Dankmar Adler, "The Tall Business Building: Some of Its Engineering Problems," *Cassier's Magazine* 12 (Nov. 1897): 195.

²³ Dankmar Adler, "The Tall Business Building: Some of Its Engineering Problems," *Cassier's Magazine* 12 (Nov. 1897): 195. Sarah Bradford Landau and Carl C. Condit, *Rise of the New York Skyscraper, 1865-1913*, (New Haven: Yale University Press, 1996): p. 157.

²⁴ Allen P. Pond, "The Evolution of an American Style," *Inland Architect and News Record* 10 (Jan. 1888): 98.

²⁵ Dankmar Adler, "The Influence of Steel Construction and Plate Glass upon the Development of Modern Style." *Inland Architect and News Record* 28 (Nov., 1896): 36. Reprinted in Lewis Mumford, *Roots of Contemporary American Architecture* (New York: Reinhold, 1952). A French formulation, predating Adler or Sullivan, is Leonce Reynaud's: "Just as existence comes first from the hand of God, there exists a rapport between form and function." Leonce Reynaud, *Traite d'Architecture* (Paris: Dalmont & Dunod, 1867-70): 1:4.

²⁶ Nathan Rosenburg and Walter G. Vincenti, *The Britannia Bridge: The Generation and Diffusion of Technological Knowledge*, (Cambridge, MA: MIT Press, 1978): 46.

²⁷ For the latest research on metal framing, see Gerald Larson and Roula Gerianotis, "Towards a Better Understanding of the Evolution of the Iron Skeleton Frame in Chicago," *Journal of the Society of Architectural Historians* 46 (March 1987): 39-48. Acoustics are best covered in Charles Gregersen's *Dankmar Adler: His Theatres and Auditoriums*, (Athens, Ohio: Swallow Press-Ohio University Press, 1990); also Gregersen's "Dankmar Adler's Principles of Acoustics," Adler Archive, Newberry Library. I presented a paper on the antecedents of the Chicago caisson foundation at the annual convention of the Society of Architectural Historians in Washington, D.C. (1986).

²⁸ Jean Kerisel, *Down to Earth: Foundations Past and Present: The Invisible Art of the Builder*, (Boston: A.A. Balkema, 1987) p. 37.

²⁹ A.W. Skempton, "A History of Soil Properties 1717-1927," *Proceedings of the Eleventh International Conference on Soil Mechanics and Foundation Engineering*, (Boston: A.A. Balkema, 1985): 104ff.

³⁰ Continuous footings were actually subterranean walls, uneconomical and, as Frederick Baumann noted in his pamphlet on the "art" [sic] of foundation design, readily replaceable with isolated footings. According to Otto Matz there were seven other architects in practice in Chicago before 1871: John Van Osdel, Edward Burling, Asher Carter, Augustus Bauer, "the elder Wheelock," and Matz himself. Otto Matz, "Architecture and Building in Chicago in the Early Days," *Construction News* 16 (7 Nov. 1903): 320.

³¹ The eight builders of 1871 had grown to 36 offices, most of them partnerships, in a dozen years. *Chicago City Directory*, (Chicago: 1883). Sarah Bradford Landau and Carl C. Condit, *Rise of the New York Skyscraper, 1865-1913*, (New Haven: Yale University Press, 1996): 181.

³² Landau and Condit, *ibid.*, 181.

³³ Harriet Monroe, *John Wellborn Root: A Study of His Life and Work*, (New York: Houghton, Mifflin & Co., 1896. reprint ed. Park Forest, IL: The Prairie School Press, 1966): pp. 117-118.

³⁴ Ralph B. Peck, *History of Building Foundations in Chicago: A Report of an Investigation*, *University of Illinois Bulletin* 45. (Urbana, IL: University of Illinois Press, 1948): p. 40.

³⁵ Dankmar Adler, "Foundations," *Economist* 5 (27 June 1891): 1136-1138; also published as Dankmar Adler, "High Buildings and Their Foundations," *American Architect and Building News* 34 (24 Oct. 1891): 54-55.

³⁶ The term "caisson" covers a wide range of foundation structures, but essentially they are wells that are excavated out, reinforced, and then filled with a material that keeps the superstructure in place. There are two types: the "Chicago" caisson or open well, and the cased hole. The open well is formed by excavating soil and bracing the hole with wooden lagging held in place with iron or steel hoops. Such a foundation is obviously round in section. At its bottom when the well rests on hardpan, the foundation bells out at a 45-degree angle to provide extra stability, and the shaft is filled with brick, rubble, or concrete. The other type--cased hole, or sheeted pit--may be round or square in section, and it is lined with iron or steel which is filled with concrete.

³⁷ Piles are still being used. L. Zeveaert built the Latin American Tower in Mexico City on long piles and his structure survived the 1985 earthquake.

³⁸ (Footnote missing. Ed.)

³⁹ Over the years he registered eight patents, including the excavation system that John Roebling used for the Brooklyn Bridge. He and his son Charles Sooy Smith developed and manufactured the most widely-used cement mixer of their day and later went on to develop pneumatic caissons. *Dictionary of American Biography*, s.v. "Smith William Sooy" by John I. Parcel.

⁴⁰ (Footnote missing. Ed.)

⁴¹ Dankmar Adler, "The Tall Business Building: Some of its Engineering Problems," *Cassier's Magazine* 12 (Nov. 1897): 193-210.

⁴² Larson, "Iron Skeleton" p. 25; 45.

⁴³ Klotz, p. 72; Weatherhead, p. 12; Larson, p. 47.

⁴⁴ Louis H. Sullivan "Development of Construction" *Economist*, 56 (1 July 1916): 40; Henry

Ericsson, *Sixty Years a Builder* (Chicago: A Kroch and Son, 1942): p.370.

⁴⁵ Landau and Condit, *Rise of the New York Skyscraper*, pp. 238, 252, 147.

⁴⁶ *Inland Architect and News Record* 5 1885):

⁴⁷ Joseph Kendall Freitag, *Architectural Engineering* (New York: John Wiley, London: Chapman & Ward, 1895): Note that this book had separate publishers for its British and American readerships, another indicator of the professional network that extended beyond geographical boundaries.

⁴⁸ Turak, 52-53; Elie Brault, *Les Architects* (1892): 433; *Deutsch Bauzeitung* 18 (1894): 37-38; Freitag, *Architectural Engineering*, n.p.

⁴⁹ Roula Mouroudellis Geraniotis, "German Architects in Nineteenth Century Chicago," Ph.D. diss. University of Illinois at Urbana-Champaign, 1985. Roula M. Geraniotis, "An Early German Contribution to Chicago's Modernism," in J. Zukowsky (ed.), *Chicago Architecture 1872-1922*, 91-105. There is no mention of Immanuel Kant nor of Friedrich Nietzsche, although Kantian ethics and aesthetics were widely disseminated during the period she covered, 1850-1900.

⁵⁰ Frederick Baumann, "Chicago: A Sketch of its Development," American Institute of Architects *Proceedings* (1893): 329-330.

⁵¹ John Zukowsky, "Introduction to Internationalism in Chicago Architecture, in J. Zukowsky (ed.), *Chicago Architecture 1872-1922: Birth of a Metropolis*, (Munich: Prestel Verlag, 1987): 22.

⁵² *Revue Generale* 14 (1856):5, quoted in Theodore Turak, *William LeBaron Jenney: A Pioneer of Modern Architecture*, (Ann Arbor: UMI Research Press, 1986): 53, fn 36, p. 338. Margaret Henderson Floyd traced a British link through materials. Terra cotta was crucial in the development of Chicago architecture. While its Greco-Roman antecedents are often noted, British development and dissemination of it in the modern era had been ignored. Terra cotta had a long history, but, like iron, it was a Cinderella material. Plain and ignored, it sat by the fire, good only for fireproofing, roofing, and plumbing. But, transformed by a fairy godfather, it became beautiful, even dazzling, all the while remaining lightweight, easily produced, and cheap.

⁵³ Regrettably, Dankmar Adler's success is our misfortune. Louis Sullivan went bankrupt and the auctioneer who disposed of his property in 1909 published a list of his personal and professional library. There was no such itemization of Adler's property, although one can speculate that the core of his collection was books that he "liberated" from Southern homes during the War Between the States during the 1860s. It would have included Asher Benjamin's *The Builder's Companion* and Batty Langley's *xxxx*. He would also have subscribed to *American Architect and Builders' Journal* and *Inland Architect and Builder/Inland Architect and*

News Record. His actual acquisitions are a matter of conjecture. Abraham inherited his father's library but its subsequent disposition is unknown.

⁵⁴ Adler addressed a topic of considerable interest to the late nineteenth and early twentieth century, although he never laid out a whole model city like Le Corbusier's *Towards a New Architecture* or Frank Lloyd Wright's Broadacre City. Adler certainly believed that cities needed "planning" in the sense that codes and regulations needed to protect public health and safety, but his utopia would come about not as dictated by architects but as molded and shaped by public need and private capital.

⁵⁵ Adler, "Open Letter to Chicago's Mason Builders," [see endnote 1]: pp. 2-3.

CHAPTER 11: EVALUATION

The reputations of Dankmar Adler and of Adler & Sullivan have fluctuated over more than a century. Chauvinistic overtones were more perceptible in the 1890s than in the 1920s, but they reappeared in the 1960s when Chicago's place in the genesis of modern architecture again became an issue. At the beginning, in the 1880s, the work of Adler & Sullivan in Chicago could not be overlooked because it was so big and so centrally located; in the 1980s, after most of it had been demolished, it again attracted attention, although little of it could be seen in Chicago. Their work was part of a movement to create the modern city; its destruction helped spark a movement to preserve the historic one.

At the root of the criticism was Root--John Root, one of Chicago's greatest architects, who, first anonymously and later under his byline, published the earliest critiques of Chicago architects in 1891. He disparaged some buildings and their designers, but Adler was not among them. Root praised Adler's early buildings for their strength, simplicity, refinement, dignity and consistency. He merited the respect of his colleagues. Root, the critic, described the Auditorium as a monument to the combined talents of Adler and Sullivan. Like all writers on the subject of Adler & Sullivan's architecture, he singled out the music halls.¹

Critiques of the Auditorium constitute the major subset of the writing about Adler. The reactions surrounding its opening--some measured, some hyperbolic--touched on everything from the symbolic to the acoustic, from the economic to the chauvinistic. Adelina Patti, the leading diva, pronounced the acoustics perfect and added, "The Met is a beautiful place but one

might as well try to sing in a balloon."² Illinois governor Joseph Fifer used the opportunity to change Chicago's uncouth image: "The diamond of Chicago's civilization has not been lost in the dust of the warehouse, nor trampled beneath the mire of the slaughter-pen."³ Benjamin Harrison, showing the acumen of a practiced politician, said, "The right sort of day...for the opening of Chicago's--I should say America's--greatest building,".⁴

As the fervor diminished with time and other structures rose to contest its superiority, the Auditorium's grandeur was reemphasized in the pages of *Architectural Review* in 1908:

Adler & Sullivan's mighty Auditorium Building, a structure now little appreciated either for its powerful and original facade or for its beautiful auditorium. The auditorium--with a reputation as extensive throughout the world as that of any American building--has about it the same feeling of inevitableness that we realize most keenly in the greatest medieval works of Europe, and its tower is perhaps the most lasting in one's memories of the physical appearance of the city.⁵

By the time Louis Sullivan's close friend, Thomas Tallmadge, wrote this article, the Chicago Symphony Orchestra had moved into a smaller hall on Michigan Avenue, and the Garrick Theater provided a venue for plays and musical productions aimed at a smaller audience. Adler had been dead eight years, and Louis Sullivan's career was plunging into a long decline. For Chicagoans, the Auditorium was a familiar part of the landscape, still the bulkiest but no longer the tallest building, still the largest opera house but no longer the only venue for musical entertainment.⁶

In the critical literature after 1908, Sullivan got most of the credit for its design:

We find Louis H. Sullivan in partnership with Dankmar Adler designing and building in 1889, at 33 years of age, the Auditorium, a building which even at this day is one of the most remarkable structures in the world. The Auditorium, built

almost twenty-five years ago, was so truthfully constructed that no part of it would conflict with present ordinances of the City of New York with respect either to sidewalk obstructions or projecting cornices, for its architect then, even as now, preached and practiced the doctrine of utility and truth. The Auditorium building may be said to be twenty-five years ahead of its time, and yet it is a thoroughly conventional building in all its general details. There is nothing strange or startling about it, and particularly is it notable for the almost complete absence of ornamentation. Utility is there in every line of it.⁷

Theodore Starrett, a building contractor, revealed himself to be a Sullivan admirer, ever aware of Sullivan's ornamental excesses but committed to the view that he was one of the world's great architects, and *a* (if not *the*) creator of a true American style. The Masonic building, the Auditorium, and the Monadnock were Chicago's first statements of functional modernism and the trio remained valid and impressive for Starrett writing in 1912. It does seem odd, however, that what made the Auditorium so noteworthy in the 1890s and worthy of rescue in the 1960s--ornament, acoustics, a festive interior enveloped within a magisterial presence--went unnoticed by this critic.

The *Dictionary of American Biography*, the 1930s American pantheon, contains no entry on Adler. Sullivan's biography, written by his friend and admirer, Tallmadge, is a restatement of his earlier article. Tallmadge wrote that Sullivan's "genius lay in his break with the past," and the Auditorium was "his embarkation on the unknown path of original design...At the time of its building (1886-90), it was the city's greatest architectural monument and the auditorium proper remains the greatest room ever built for the purpose of opera."⁸ In the 1950s, Frank Lloyd Wright, the oracle of architectural criticism in the popular press, reprised Tallmadge: "The Auditorium was the greatest room for music and opera in the world--bar none". Wright was

widely read and helped bring attention and funding to the preservation effort (fig.).⁹

Several Adler & Sullivan buildings were included in Barr Ferree's 1896 article on "The Value of Good Architecture in Cities": the Auditorium, the Garrick Building, and the Stock Exchange, thereby affording the writer the opportunity to pair art and commerce--good architecture as good business. Equal measures of functionalism, civic enhancement, art, and progress were Ferree's recipe for successful architecture, whether the building housed a theater or a trading floor. The Stock Exchange also figured in Joseph Freitag's popular book on architectural engineering, where it was seen as possessing the attributes essential to a modern office building, including electric light and well-appointed toilet rooms. A photograph of the building illustrated how the architectural skin looked when all the elements were properly arranged inside.¹⁰

Darwin Martin of Buffalo, New York, was a businessman and client of Frank Lloyd Wright. Martin mourned the dissolution of Adler & Sullivan's partnership and Adler's demise: "The glory of the firm of Adler & Sullivan has forever departed...Mr. Sullivan's glory is a true artist" but could not succeed without the companionship of a 'business partner'."¹¹ This view of Adler as businessman--"the Burnham of the firm" was Starrett's phrase--was codified shortly after Adler's death. Martin, although not an architect and at some remove from Chicago, shared it.¹²

An article in *The Craftman* by H. A. Caparn at about the same time and coming from the same state, asked "The Riddle of the Tall Building: Has the Skyscraper a Place in American Architecture?" He looked at three buildings: Schlesinger & Mayer, which the author rightly

attributed to Louis Sullivan; the Prudential [sic] Building (for which no architect was given); and the Garrick Theater building, erroneously credited only to Sullivan. Dankmar Adler either disappeared from the credits or became "Adler, the engineering genius of the firm, and Sullivan, the architectural wizard" a view durable enough to last for the next 70 years.¹³

EUROPEAN CRITICISM

Even before the World's Columbian Exposition and the International Congress of Architects brought visitors and reporters to the city, Europeans familiarized themselves with Chicago architecture.

Chicago is the only American city that can claim a distinctive architecture. It is a business architecture, modern in every sense of the word, and the outcome of narrow limitations characteristic of all American cities, but which in Chicago have received fuller, freer, and more satisfactory treatment, both from a constructional and architectural stand point, than elsewhere in America. Chicago architecture, though much talked of, is not appreciated, the public hears more of its height than of any architectural merits it may have, and even the sensible manner in which it meets exacting conditions has scarcely been done justice to.¹⁴

Chicago's business orientation and the height of its business blocks led to its being compared to the Tower of Babel, although Jacques Hermant, who wrote for the *Gazette des Beaux Arts*, admired Chicago for its vigor and experimentation. An anonymous article in the 1886 volume of *L'Architecture* considered Adler & Sullivan's Rothschild building worthy of mention with Richard Upjohn's Trinity Church (1846) and George B. Post's Produce Exchange (1881-85), both in New York. Samuel Bing, a Parisian art dealer, included two structures by Henry Hobson Richardson and the Chicago Auditorium on his list of noteworthy American buildings. The Auditorium appealed to a writer in *Construction Moderne* on the basis of its size

and complexity. He delighted in enumerating the numbers of parts but concluded that the whole lacked artistic merit. Banister Fletcher, British historian and critic, praised the Auditorium especially for its deft subordination of detail to mass.¹⁵

National differences--the French versus the British or the British versus the continentals--were not the important factor. American and European critics grappled with a new definition of architecture. Could radically different buildings be judged by old aesthetic standards? Simplicity, directness, practicality, and efficiency defined the American character; American architecture lacked traditional form and ornament because it was intended for a different society. These merits, however, did not commend it to imitation. Jacques Hermant was unusual in being sympathetic to the underlying American philosophy of design and writing knowledgeably about Adler & Sullivan buildings in several French journals.¹⁶

Zweckmassigkeit, or functionalism, was defended in the German press. Wilhelm Bode explained why some European critics were negatively judgmental about the tall building's absence of style: "The American designer. . .first attended to the problems of the plan and sanitation before concerning himself with artistic elaborations."¹⁷ To their attackers, the new Chicago buildings lacked taste and refinement, but to their defenders "one does not find fault with a warehouse because it does not resemble a church; there is nothing in a church that would make its architectural form of any utility or sense in a warehouse."¹⁸ Adler & Sullivan, who never built outside the United States, garnered an international reputation in 1890 and were still favorably regarded 75 years later.¹⁹

CRITICISM IN RECENT DECADES

After several decades of varying formulations of Adler & Sullivan's architecture and the role of each man--functionalism without beauty; form and function integrated; architecture without engineering; Sullivan as genius, Adler as businessman; Adler as the overall planner, Sullivan as decorator--one must acknowledge the artificiality of these attempts. As with all true collaborations, the seamless union of architecture and engineering is so complete that it is impossible to tell where one leaves off begins and the other begins. Another instance of unified work was the opera *Romeo and Juliet* (1867) which was the first to be performed in the Auditorium in 1889 and brought down the final curtain fifty years later. The contributions of the composer, Charles-Francois Gounod, and of the librettist are impossible to differentiate without destroying this opera. So integrated were the hands of Adler and Sullivan at the firm's maturity.

Carl Condit wrote:

My own view is that Sullivan--something of a madman, the imaginative innovative spirit--had the great spatial geometry, decorative imagination, whereas Adler, the pragmatist, practical solver of practical problems had the genius to translate those ideas into structural-spatial terms.²⁰

Condit's work on Chicago and American architecture explored the subject from the American perspective, as though Europe were more than an ocean away and a place whose influence and interactions with American architecture were negligible. His book on Chicago was a response to Sigfried Giedion's *Space, Time and Architecture* which gave functionalism European roots and ignored what happened concurrently in the United States. Condit, to balance accounts, focused on the United States and more specifically Chicago.

More recent critics weave together European and American strands and explore the sources, published and otherwise, available to and drawn on by Adler and by Sullivan. Roula Geraniotis emphasized their work as a deliberate synthesis--a *gesamtkunstwerk*--of every element into an artistic whole. Adler's genius was "to transform his sources into a new synthesis."²¹

Dankmar Adler's aim was to combine equally design, comfort, function, materials, and equipment, so he sought ideas and material for each from the best sources, whether it be architectural theory as formulated by Gottfried Semper or the solution to acoustical problems derived from visiting other halls. Adler's willingness to experiment enabled him to take the German theater-design tradition and make it into an American expression, based on American society's multivalence, diversity, and receptivity to new ideas. No longer a raw prairie town as it had been when Dankmar Adler's father-in-law arrived, Chicago had matured into a sophisticated and influential city in the 1880s and 1890s, open to new forms and constructs.

Seventy-five years later, the city had matured along with its architecture. Population had stabilized but not yet begun to decline substantially. The urban boundaries had long been fixed, and growth shifted to the suburbs. The architecture of the nineteenth century seemed old and deteriorated to some, quasi-sacred to others. M. W. Newman of the *Chicago Daily News* wrote of "the planned *deseccration* [italics mine] of the Stock Exchange...known around the world as a pivotal work of the Chicago School."²² Its salient features were its fenestration, ornament, and the entrance.²³ The impending demolition prompted a column by Ada Louise Huxtable of the *New York Times* in defense of the Chicago style, "the flowering of a kind of building new to the

world. . . a form developed from the vigorous pursuit of technology and art in the service of commerce." An encomium from New York was welcome in the "Second City." Such an accolade would have pleased Adler greatly and Sullivan, too, whom she referred to as "a master."²⁴

Huxtable's purpose, to save the Stock Exchange, failed; architectural merit was not enough. Demolition is not the severest form of criticism. It is, rather, the triumph of private capitalism over architectural value and civic interest. American society has always championed the absolute right of private property over the public interest. Owners can use, sell, or demolish buildings with few restrictions.²⁵ Having the legal right to do so, what would Chicago do to save the Stock Exchange? Or, as Huxtable phrased it, "What kind of city [does] it wish to be?" The question--save the best of the past or tear it down to make way for the future--was not new. In Chicago--where the skyscraper came of age--the beauty of two of them, Carson, Pirie, Scott & Co. and the Chicago Stock Exchange, endowed with "clarity and power," called the nation's attention to the place where once a small experiment had begun with results unknowable in 1890. By 1970 "it [was] the rare course in art and architectural history that does not mention the Chicago school of architecture. It has become synonymous with the word skyscraper."²⁶

Historic preservation, which was what Huxtable demanded, may not be an unalloyed good. The World's Columbian Exposition was a form of historic preservation, revivifying the forms of the historic past. The negative judgments of both Adler and Sullivan have been quoted; neither had a high opinion of the White City. So if some historic preservation is good and some is not, how can they be distinguished? Can critics successfully judge a work or movement of

their own time? ²⁷

The wide range of systematic ages among different classes at the same moment always makes our own present seem like a complicated and confusing mosaic, which resolves into clear, simple shapes only long after it has receded into the historical past.²⁸

If it is difficult to establish a taxonomy and an order, it is all the harder to make lasting critical assessments. But the past has receded, and the works of Adler & Sullivan have proved their enduring worth.

CODA: WHAT MIGHT HAVE BEEN

The demise of Marxism has made the term "scientific history" suspect, if not obsolete. Laboratory experiments in history are impossible but one can try to hold the time and place constant and vary the architect. Or hold the building type (residential, industrial, commercial) constant and vary the time period and/or geographical area. Dankmar Adler can be looked at in comparison with other architects of his background, having similar skills but different career outcomes. The results are not precise in the quantitative sense; they are qualitative, although no less instructive for all that.

This section examines the careers of two architects younger than Adler: Alfred Alschuler and Albert Kahn. It is an easy task to see his attributes compared with Louis Sullivan's, because works on Sullivan abound. Albert Kahn, on the other hand, has been studied only as an industrial architect; his residences are unpublished and his skyscrapers overlooked outside Detroit. Alschuler has been totally neglected with the exception of the London Guarantee and

Accident Building in Chicago. Kahn is reputed to have been offered a job in the Adler office; Alschuler worked there at the end of Dankmar Adler's life. Both men were a generation younger than Adler, Kahn born in 1869, Alschuler in 1876. Each made his reputation specializing in a different type of building. But all three men, Adler, Kahn and Alschuler, built houses, factory buildings, synagogues, shops, and skyscrapers; like Americans in every period, they lived through economic booms and hard times. To plot their careers against each other is to see what forces can be detected in their lives and work. It is essential to a better understanding of Dankmar Adler and the trends in twentieth century architecture for which Adler and his colleagues laid the foundations in the nineteenth.

ALFRED S. ALSCHULER

Alfred S. Alschuler was born in Chicago November 2, 1876, to Bavarian-born parents, Fanny Guggenheim and Samuel A. Alschuler. Samuel was a photographer and painter whose studio was on 22nd Street. Alfred was educated in the public schools, graduating from South Division High School in 1893. Eager to further his education, he studied architectural construction and freehand drawing at the YMCA Evening College, followed by instruction in architecture at the Chicago School of Architecture, which met at the Art Institute of Chicago. Alschuler earned a Bachelor of Science degree from the Armour Institute (predecessor of the Illinois Institute of Technology--IIT) in 1899 and a Master of Science in 1904. He joined the firm of D. Adler & Company in 1899.²⁹

Alschuler's architectural license, granted on June 29, 1900, signed by Peter B. Wight, was on the letterhead of the Illinois State Board of Architects, with Dankmar Adler's name still at the

top. Alfred Alschuler's association with the Adler firm continued after Dankmar Adler's death in the spring of 1900. He assisted Abraham Adler, did freelance drafting for Pond & Pond, and worked on some inventions with Sidney Adler. Treat & Adler employed him, and from 1904 to 1907 he and Treat were partners. In 1907 Samuel Treat retired, leaving the firm to Alschuler. At the age of 31 he faced a promising future with his new bride Rose Haas; he had progressed to commissions larger than the houses and additions he had done as a novice. By 1913 he had completed several large buildings and was heading an office of 40 people located at 28 West Jackson.³⁰

When profiled in *The Sentinel*, Chicago's Anglo-Jewish magazine, the Alschulers had three children--they would have a total of five, of whom two would become architects--and they lived at 3945 S. Ellis, a half-mile from the residence of Dila and Abraham Adler. Alschuler's career and his affiliations grew in tandem. He headed the Chicago Architectural Club (1905/6), belonged to the Illinois Society of Architects, the AIA, the Standard Club and a masonic lodge. He was known for the many synagogues he built, but his output was dominated by business buildings, especially printing plants, mail order houses, piano factories, food distribution centers, and stores, both wholesale and retail. The office buildings were more stylish, the most famous being the London Guarantee and Accident building (fig.) for which he won an award from the North Michigan Avenue Improvement Association in 1923. By the time he achieved this recognition, he had such a reputation that his articles were published in a variety of trade journals, from *Construction News* to *Inland Printer*.³¹ A busy practice, including many more commissions outside Chicago, enabled him to add a partner in 1921 and another senior architect

two years later.

Alschuler's early achievements included being one of the first in Chicago to use reinforced concrete (1900), which he employed in a building foundation, and he devised a ventilator for factory buildings of the type Kahn built by the dozens. Alschuler's reputation as a mature architect brought him commissions in several cities, for example, St. Louis (Shaare Emeth synagogue) and Buffalo (W. T. Grant Co. store). But work was not his sole activity; he engaged in philanthropy in the Jewish community and at the Hadley School for the Blind in a north-shore Chicago suburb. He invested much time in his alma mater, Armour Institute, and its successor institution, serving on the board of trustees of both. Following in the footsteps of his first mentor, Dankmar Adler, he was on the Illinois Board of Architects from 1934 to 1940.

The Alschulers left Ellis Avenue about 1915, and by 1930 were living in Winnetka, Illinois, a lakeside community of spacious houses on large lots, a bedroom suburb served by a commuter railroad that took business and professional men to the Loop.

Unlike Dankmar Adler in the 1890s, Alschuler managed to survive the Crash of 1929 and the ensuing Great Depression, although in many other ways their lives and careers were similar. They had begun as sons in immigrant families with little money, and they succeeded in preparing for a highly skilled and highly esteemed career, building large and successful architectural practices that employed many people. To Adler's generation fell the task of inventing--inventing the profession of architect; innovating new building types including the skyscraper; and seeking an American form of expression. For Alschuler's generation, the tasks were to learn from the pioneers--to study and gain mastery in an academic setting, to find mentors and to mentor

beginners, and to develop the business of architectural practice.

Adler faced more challenges; Alschuler faced more competition. Dankmar Adler got many synagogue commissions; few other Jewish architects practiced in nineteenth century America. When Alschuler designed Sinai Temple in 1909 and Isaiah in 1922, there were more Jewish architects nationally and locally. As with the buildings of the Central Manufacturing District (fig.), several Chicago firms could have built the buildings instead of Alschuler, and, if not them, why not a Cleveland firm like Walker & Weeks, or Albert Kahn from Detroit? Because Alschuler's firm had proven itself competent in designing this type of building.

Alfred S. Alschuler died in 1940 leaving the legacy of a firm which continued for more than 50 years under the rubric Friedman, Alschuler, and Sincere.

ALBERT KAHN

Albert Kahn, like Dankmar Adler, was born in Germany and was about the same age as Adler had been when the Kahn family moved to Michigan from Luxembourg. Albert, the oldest in a family of eight children, was born in Mainz, March 21st 1869. His father, who had tried his hand at many occupations and succeeded at none, left Germany for a job in Luxembourg and moved his family to America in 1880. Albert was short, wiry, and very energetic. The arts were his first love, especially the piano. Because he showed a talent for drawing, Joseph Kahn took his son, as Liebman Adler had Dankmar, to Julius Melchers for drawing lessons. At the age of 15, Albert Kahn was apprenticed to the firm of Mason & Rice, where his architectural education began, and it was furthered by a four-month sojourn in Europe as the *American Architect and*

Building News traveling fellow in 1890. He met another young traveling designer, Henry Bacon, and the two traveled together. He would later pay tribute to Bacon's most famous work in his own.³²

The year before his engagement to Ernestine Krolik, Kahn visited Chicago, saw the World's Columbian Exposition and later wrote, "The Exposition seemed a fairy land. . .nothing ever done in this country so stimulated our interest in good architecture."³³ He also admired the work of Henry Hobson Richardson but Kahn and Adler were at odds over the fair, which the latter detested. Adler would not have understood why Kahn praised one aesthetic for functional buildings and another one for cultural, civic or residential structures. The more simplified, geometric and pristine Kahn's factories became, the more historicizing and derivative his other works appeared (figs.).

Kahn founded his own office, where he was joined by Ernest Welby, a British-trained architect, and his brother Julius Kahn, a University of Michigan-trained engineer. Albert Kahn Associates was henceforth a family business; brothers Louis and Moritz also entered the firm, which by 1918 numbered 80, 400 in 1929. The tremendous growth of the automotive industry fueled the rapid expansion and diversification of Albert Kahn Associates. Calling themselves architects and engineers, the boss's emphasis was on engineering. From the 1920s through the mid-1930s, Kahn refused to hire degreed architects even though the University of Michigan, barely 30 miles away, was producing graduates for firms around the country. He said he wanted no prima donnas in search of self-expression.³⁴

Albert Kahn's reputation, as Grant Hildebrand's book title *Designing for Industry*

indicates, was in manufacturing and fabrication. He produced factories (fig.) on two continents but occasionally turned his hand to a different type of structure. For the Edsel Ford house (1926/7), he turned to Cotswold precedents and produced an English estate for Henry Ford's sole heir (fig.). His University of Michigan Hill Auditorium looked to Adler & Sullivan's music halls with the trumpet-shaped hall and transverse arches of the Auditorium and Schiller Theater, and even the exterior has the crisp edges and unusual ornament of Adler's Mandel Dispensary and Sullivan's banks. Albert Kahn was more successful in the 1920s than Adler & Sullivan had been in the 1890s. In the eight years before the Crash of 1929, he built more than 50 factories, and by 1929, the Kahn firm was turning out \$1 million worth of construction per week. Harkening back to his musical days, Kahn called himself a symphony conductor and demanded that everyone in the firm watch his baton.

He may have been a conductor, but Kahn was no admirer of dictators. His grave reservations about Communism became relevant when the firm was invited to the Soviet Union to design factories and train Russians in factory design. The increasingly dire economic situation in the United States quashed Kahn's economic, political, and religious qualms, and in 1930 he opened up a Stalingrad office headed by his brother Moritz. By 1932 they had produced 521 plant designs, and 4,000 Russians had attended training classes. But the Soviet Union had little capital, so the Kahn Associates packed up and went home. The next few years were difficult, but, by 1935, the firm had 600 employees (fig.) and, like any complex organism, had divided into specialized divisions. Albert Kahn Associates was determined by the organizational and engineering principles of its large industrial clients, like the Ford Motor Company.

"All [specialists] must work in close touch with each other to gain the desired results expeditiously; wherefore the combination must exist at the outset," said Kahn, articulating a model of coordination in which all architects would concur.³⁵

In the Adler & Sullivan office, specialization had begun when Adler turned the designing over to Sullivan in the 1880s, but Adler did much of what in Kahn's office was divided among several divisions. Later, Adler and his son, Abraham, divided the engineering from the architecture, but the size and complexity of any Adler firm never approached that of Kahn's enterprise. No other architectural firm of the nineteenth and early twentieth century even came close. Neither did they ever handle anything as large as Kahn's Willow Run bomber factory, a mid-twentieth century wartime phenomenon.

An architect who specializes in the design of industrial buildings is not expected to be an expert in process layout. The works manager is best capable of preparing his own process diagram. Being in possession of such a diagram, the architect should confine his efforts to building around that layout a factory which is best suited to the scheme of operation.³⁶

Moritz Kahn's formulation was not Adler's, either Adler--father or son. Abraham Adler's article in *Iron Trade Review* took the view that the architect's role is to elicit the requirements of the manufacturing process from the client, not that the client provides the designer with the information in final form. This was his father's concept of the architect's task as well.³⁷

ADLER, ALSCHULER, AND KAHN

Adler, Alschuler and Kahn shared many characteristics. Michiganians Adler and Kahn lacked a college education and had only some drawing lessons and an apprenticeship. Adler and

Alschuler matured in Jewish Chicago and had sons who followed in their profession. All three men had stable, happy family lives and all three designed many buildings. No one mistakes Adler's for the work of another member of the triumverate. Temples Isaiah and Sinai (figs.) have transverse barrel vaults; Isaiah was the obvious precedent for the Sinai plan but not for the style, which is more fully Renaissance Revival than was Adler's building.³⁸

Beth El in Detroit (figs.) one of two Kahn mature temple designs, is indebted to the Lincoln Memorial design of his traveling companion, Henry Bacon, and resembles nothing Kahn was designing concurrently. Kahn's synagogues differ most from his other work; Alschuler's have a stylistic relationship with his commercial works; and Adler's were a logical step in the stylistic development of Adler & Sullivan and D. Adler & Company.

Adler & Sullivan's last skyscraper, the Guaranty Building, predated Albert Kahn's General Motors building and Alfred Alschuler's London Guaranty and Accident Company building by a quarter century, and there were many changes in that time. Height limitations disappeared, foundations became more sophisticated, and reinforced concrete, the material that Alschuler used in 1900 and that Albert Kahn's brother Julius produced in his factory, took its place beside steel and plate glass. The Beaux Arts business buildings of this generation were not favored by Adler & Sullivan or by Adler's successor firm, D. Adler & Co.

Style is an outward manifestation of an inner vision. The philosophical differences among Dankmar Adler, Alfred Alschuler, and Albert Kahn are expressed in their buildings and in their own words. Alfred Alschuler did not eschew eclectic architecture. Closer to Kahn than to Adler who helped train him, his favorable assessment of the Woolworth building was

antithetical to the kind of functionalism Adler preached.

The Woolworth Building in New York City with which you are no doubt familiar indicates how a type of architecture originally intended for a house of worship could be successfully adapted to a huge skeleton created by the engineer and clothe them with garments suitable to their frame. . . The architect selected clothing originally created for and worn by houses of worship in the middle ages and which originally indicated a spiritual attitude. Nevertheless by careful study and clever adaptation this same style was applied to [a skyscraper].³⁹

Kahn went beyond defending eclectic styles to an attack on modernism:

Is all that has proven of merit in the past to be abandoned and replaced with crude vagaries? Must the grotesque be substituted for the beautiful? To the dyed-in-the-wool modernist, the work of the past is a closed book to be forgotten and never to be referred to. . . Are basic principles, developed through unending experiment and thoroughly proved, to be done away with, untried forms to take their place? Is all that the past has taught us to go for naught? Our ultra-moderns would have it so, but their hypothesis is unsound.⁴⁰

Adler rejected both of these views:

It is [not] only necessary to divide into a few classes the functions to be served by architectural structures and to determine the form best adapted to each. . . We would then have an architecture somewhat more scientific and vastly more practical, but as trite and as devoid of the interest imparted by the creative impulse as is the architecture founded upon the principle *Form follows historic precedent* [italic in original], which stamps as barbaric every structure for which the architect has failed to provide an academically and historically correct mask and costume, and which treats as heresy an attempt to do, not as the Romans did in the year I, but to do as one thinks the Romans might have done in the 1896.⁴¹

The following year he wrote:

Visual progress has been achieved toward the solution of the problem how to reconcile the idea of permanence, stability, monumentalism, with the spirit of skepticism, inquiry, change, and progress, which characterizes our period of the world's history.⁴²

This is what he set out to do, and he left it as his inheritance to future generations

¹ John Root, "The Architects and Architecture of Chicago," *America*, reprinted in *Inland Architect and News Record* 17 (Jan. 1891): 91-92.

² Adelina Patti in *Chicago Tribune* (12 Dec. 1889): 1.

³ *Chicago Tribune* (10 Dec. 1889): p. 2, col. 3.

⁴ *Ibid.*, p. 3, col. 5.

⁵ Thomas E. Tallmadge, "The Chicago School," *Architectural Review* 15 (Apr. 1908): 69. In a 1921 article on Chicago, he labeled the Auditorium Chicago's Palazzo Vecchio. Tallmadge, "Architecture in Chicago," *Art and Archaeology* 12 (Oct. 1921): 117.

⁶ For Theodore Thomas's reaction to the move of the Chicago Symphony Orchestra out of the Auditorium to Orchestra Hall, see Rose Fay Thomas, *Memoirs of Theodore Thomas* (NY: Moffat Yard & Co, 1911): pp. 534ff. Sullivan's 1909 bankruptcy and the aftermath are documented in Robert Twombly, *Louis Sullivan: His Life and Work* (NY: Viking, 1986), Chap. 13.

⁷ Theodore Starrett, "The Architecture of Louis Henri Sullivan," *Architecture and Building* 44 (Dec. 1912): 472.

⁸ *Dictionary of American Biography*, s.v. "Louis Henri Sullivan" by Thomas Tallmadge.

⁹ Frank Lloyd Wright quoted in "Auditorium Notes," *Chicago Daily News* (4 Oct. 1949): 4.

¹⁰ Barr Ferree, "The Value of Good Architecture in Cities," *Engineering Magazine* 10 (Jan. 1896): 696; Joseph A. Freitag, *Architectural Engineering With Specific Reference to High Building Construction Including Many Examples of Chicago Office Buildings* (NY: John Wiley & Sons, 1895): pp. 24ff.

¹¹ Darwin Martin, Buffalo, NY, to Frank Lloyd Wright, March 1903 in Jack Quinan, *Frank Lloyd Wright's Larkin Building* (NY: Architectural History Foundation, 1987): 131.

¹² Darwin was a popular name during the nineteenth century. Dankmar Adler's Civil War mentor was Milo Darwin Burke. Adler himself, to the extent that he had what can be called a philosophy, was a Darwinian who believed in the human struggle, if not for existence, for power,

prestige, and wealth. An admirer of successful capitalists in theory, he nonetheless found it impossible to work for Richard Crane.

¹³ Starrett, "The Architect," p. 427; H.A. Caparn, "The Riddle of the Tall Building: Has the Skyscraper a Place in American Architecture?" *Craftsman* 10 (July, 1906): 480ff; "Famous Chicago Buildings" *Chicago Tribune* (4 Apr. 1959): 6.

¹⁴ "New Business Buildings of Chicago." *The Builder* 63 (9 July 1892): 23.

¹⁵ Dudley Arnold Lewis, "Evaluations of American Architecture by European Critics 1875-1900" (Ph.D. dissertation, University of Wisconsin, 1962): 222-223; Samuel Bing, *La Culture Artistique en Amerique* (Paris: 1896) quoted in Lewis, p. 201; "Les Grandes Constructions Ameriques," *Construction Moderne* 6 (5 Sept. 1891): 569; Banister Fletcher quoted in Lewis, p. 412.

¹⁶ Lewis, p. 217-18.

¹⁷ *Ibid.*, p. 232.

¹⁸ "New Business Buildings of Chicago," *The Builder* 63 (9 July 1892): 25. Claude Bragdon, an architect and writer, believed that the recognition accorded Adler & Sullivan meant that they had a significant effect on European design. But this is not true. European functionalism had other roots and Sullivan's ornament neither influenced nor was influenced by *art nouveau*. Claude Bragdon, *More Lives than One* (NY: Alfred A. Knopf, 1938): 144.

¹⁹ Even many years later the reputation of the firm of Adler & Sullivan was secure in France. The rabbi of KAM, Sara Adler Weil's congregation, reported in 1966 that on his recent trip to Paris, he visited the Bibliotheque Nationale where he got an enthusiastic welcome after the director learned of his connection to Dankmar Adler. The French, Rabbi Jacob Weinstein wrote, would save an Adler & Sullivan building as readily as they would the Elgin Marbles! Beneath the exaggeration is Chicago's own lack of appreciation for the Schiller Theater and the Stock Exchange. Rabbi Jacob K. Weinstein, "KAM News" (6 April 1966): 2.

²⁰ Carl Condit, Chicago, to Joan Saltzstein, Milwaukee, 4 Sept. 1968, (Adler Archive, Newberry Library).

²¹ Roula Geraniotis, "German Design Influence in the Auditorium Theater," in John S. Garner, *The Midwest in American Architecture* (Urbana IL: University of Illinois Press, 1991): pp. 64ff.

²² M.W. Newman, "Chicago: City of Big Tombstones," *Chicago Daily News* (24-25 Jan. 1970): 5.

²³ According to Marian Despres, the building had been desecrated in the mid-1950s when the entrance arch was altered and the elevators grilles removed by architect Daniel Brenner as part of a remodeling program. One result was to prompt Leon Despres, her husband and alderman of the Fifth Ward, to introduce a landmarks preservation ordinance into the City Council. The only positive effect it had was that Louis Sudler & Co. offered several pieces of ornament to the Despres, collectors, museums, and any preservationists who wanted to pay to have them hauled away. Marion Depres, Chicago, to Rochelle S. Elstein, Wilmette, February 19, 1997. I am indebted to her for reading and commenting on the sections dealing with the career of her father, Alfred Alschuler.

Elevator grilles are in the permanent collections of museums in Chicago (Art Institute), East Lansing, Michigan (Kresge Art Museum, Michigan State University), and Washington, DC (Smithsonian Institution). An entire elevator cage was reconstructed for the exhibition, *Louis Sullivan: The Function of Ornament*, curated by Wim de Wit at the Chicago Historical Society (1989) and shown also at the St. Louis Art Museum and the Cooper-Hewitt in New York.

²⁴ Ada Louise Huxtable, "The Chicago Style--on the Way Out?" *New York Times* (29 Nov. 1970): D27. Two buildings were cited: the Stock Exchange and Carson, Pirie, Scott (Schlesinger & Mayer). In a split decision, the former was razed, the latter saved.

²⁵ Sam Bass Warner, Jr., *The Private City: Philadelphia in Three Periods of Its Growth* (Philadelphia: University of Pennsylvania Press, 1968): pp. 3-4; 210-211.

The Historic Preservation Act of 1966 was amended later to require the owner's consent before designation of a property for the National Trust for Historic Preservation register. Once cities like New York and Chicago recognized the economic and cultural value of certain buildings, they established landmark preservation agencies. The tragedy was the some of the best architecture fell before cities realized what treasures had been ignored.

²⁶ Huxtable, "Chicago Style."

²⁷ To have preserved the Stock Exchange for a valid new use, as Buffalo did the Guaranty Building and St. Louis the Wainwright, would have benefitted more than just the city of Chicago. The reputation of architects like Adler & Sullivan and Frank Lloyd Wright, their one-time apprentice, was international, and hence, people beyond Chicago and Illinois had an interest and a stake in maintaining their outstanding works. But there are limits and those set by economic and political interests are often offset by aesthetic and educational ones, resulting in a satisfactory compromise.

²⁸ George Kubler, *The Shape of Time: Remarks on the History of Things* (New Haven: Yale University Press, 1962): p. 117.

²⁹ *National Cyclopedia of American Biography* s.v. Alfred Samuel Alschuler; Business card of

Samuel Alschuler, Box I (Alschuler Archive, Chicago Jewish Archives). The archive even contains Alschuler's grades from the YMCA college.

"Alfred Samuel Alschuler - third year architectural student; 2112 S. Michigan Avenue," "Art Institute of Chicago Circular of Instruction" (Chicago: Art Institute [1898]): 139; See also "Chicago School of Architecture. Thumb Tack Club - 1st Annual Banquet, Leland Hotel, 28 May 1898 (Alschuler Archive, Chicago Jewish Archives). *Armour Engineer and Alumnus* (6 Dec. 1940): 16.

³⁰ Unless otherwise indicated, all primary and secondary materials relating to Alschuler's life and work are from the Alschuler Collection, Chicago Jewish Archive. Alschuler, "Daily calendar, 1901," *National Cyclopaedia*. His commission book includes a residence at 22nd and Calumet, a stable at Randolph and Jefferson, and addition to Temple Isaiah, and a well-house at Ravisloe Country Club. "Commission Book;" "Who's Who Among Us," *Sentinel* 9 (14 March 1913): 12.

³¹ "Many Structural Improvements Introduced by A.S. Alschuler," *Chicago Daily News* (23 Jan. 1937): ; Alfred S. Alschuler, "Sinai Temple and Social Center," *Construction News* (9 Mar. 1912): 11-15; Alfred S. Alschuler, "Isaiah Temple, Chicago, Illinois," *The American Architect* 126 (31 Dec. 1924): 623-26; *Inland Printer* (Aug. 1923): 677-78; (Sept. 1923): 857-59; (Oct. 1923): 131-33.

³² The honor was mitigated by his being the only applicant that year, but he made good use of the experience. Grant Hildebrand, *Designing for Industry: The Architecture of Albert Kahn* (Cambridge: MIT Press, 1974): 9.

Compare Temple Beth El (1922) with the Lincoln Memorial. See Rochelle Elstein, "Synagogue Architecture in Michigan and the Midwest: Material Culture and the Dynamics of Jewish Accommodation, 1865-1945." PhD dissertation, 3 vols., Michigan State University, 1986, p. 525.

³³ *Journal of the Maryland Academy of Sciences* 2 (April 1931): 106.

³⁴ Hildebrand, *Designing*, pp. 126ff.

³⁵ *Architectural Forum* 173 (Dec. 1960): 501.

³⁶ Moritz Kahn, "Planning of Industrial Buildings" *Architectural Forum* 51 (Sept. 1929): 272.

³⁷ In the last three years of Albert Kahn's life, his company had more business than a half dozen firms could handle. The nation was coming out of the Great Depression and was beginning to gear up for war. Automobile manufacturing was rapidly converted for military vehicle production, civilian aircraft made way for military planes, and between 1939 and 1942, the Kahn

office had \$200 million worth of government contracts. Kahn did not live to see the Allied victory. He died on December 8, 1942, but not before his achievements in architecture were recognized by his fellow professionals. In 1933 he had returned to Paris, a city he had visited often, to accept a gold medal from the International Exposition of Arts & Sciences and to become a Chevalier of the Legion d'Honneur. Kahn received the 1942 AIA Award and an honorary degree from Syracuse University. Albert Kahn Associates, still in Detroit, survived the death of the firm's principals and continues to design buildings.

³⁸ Alfred S. Alschuler, "Sinai Temple and Social Center," *Construction News* (9 March 1912): 12.

³⁹ Alfred S. Alschuler, [History of Chicago Building Construction], n.d. (Holographic manuscript, Alfred S. Alschuler Collection, Chicago Jewish Archive, Box 1, Folder 6): p. 4,6.

⁴⁰ "Architectural Trends," quoted in W. Hawkins Ferry, *The Buildings of Detroit: A History* (Detroit: Wayne State University Press, 1968): p. 332.

⁴¹ Dankmar Adler, "The Influence of Steel Construction and Plate Glass Upon the Development of the Modern Style," *Inland Architect and News Record* 28 (Nov. 1896): 34.

⁴² Dankmar Adler, "The Stimulus of Competition in Architectural Construction," *Engineering Magazine* 12 (Jan. 1897): 647.

Appendix A

CORPUS OF ADLER BUILDINGS

Sources

(August 18, 1992)

1. Florek, Greg, and Kamioka, Greg, "The Chicago Buildings of Dankmar Adler and Louis Sullivan," (Chicago, typescript, 1977)
2. Elstein, Rochelle, "The Architectural Style of Dankmar Adler," (M.A. Thesis, Univ. of Chicago, 1963)
3. Twombly, Robert, *Louis Sullivan His Life and Work*, (New York: Viking Books, 1986)
4. Morrison, Hugh, *Louis Sullivan: Prophet of Modern Architecture* (New York: W.W. Norton & Co., 1935)
5. Gregersen, Charles et al, *Dankmar Adler: His Theaters and Auditoriums*. (Athens Ohio: Ohio University Press, 1990).
6. Richard Nickel Archive, in Office of John Vinci. "A Photographic Documenting of the Architecture of Adler & Sullivan." IIT, 1957.
7. Randall, John D. *The Wainwright Building: A Public Appeal for Preservation*. Edwardsville, IL, 1967. (demolition dates)
8. Elstein, R. Thesis cards
9. Randall, Frank. *History of the Development of Building Construction in Chicago*. Urbana, UI-UC Press, 1949.
10. Condit, Carl, *The Chicago School of Architecture: A History of Commercial and Public Building in the Chicago Area, 1875-1925*. Chicago: University of Chicago Press, 1964.
11. Louis H. Sullivan, "Development of Construction," *Economist* 56 (July, 1916): p.40.
12. Chicago Historical Society, Prints and Photographs Department

KEY

p Picture or slide

Ext=Extant building *Adlerdesign

Dem = Demolished

D+date = Demolished/date

Rem = Remodeled "A,B,C. etc = unbuilt project #'s= building

Appendix A

<u>Date</u>	<u>Building</u>	<u>Address</u>	<u>Sources/Ext</u>
1869 Kinney & Adler			
p 1.	1st Meth. Epis. Church	Rose & Lovell Kalamazoo, MI	5,D1926
p 2.	2nd Presbyterian Church	n.e. c. Main & Harrison LaPorte, IN	5,D1968
p 3.	Wilcoxon Opera House	Stephenson & Van Buren Freeport, IL	2,5,D19
1870			
p 4.	Wooster Coll. Kauke Chapel	Wooster, Ohio	Ext. 5
1871 Burling & Adler (Jan. 1871?)			
p 5.	1st National Bank*	s.w. c State & Wash	2,8,Dem
p 6.	Garrett Bldg.	s.e. c Wacker & Lake	2,8,Dem
1872			
p 8.	Wm. Blair & Co. Store	166-168 W. Lake St.	2,8,D1941
p 9.	Greenebaum Bldg.*	126-128 N. Wells	2,8,Dem
p 10.	C.M. Henderson & Co. Block	s.e. c Franklin & Mad.	Dem 2,8
p 11.	Kingsbury Hall (Music Hall)	66-72 W. Randolph	2,8,D1949
p 12.	Mechanics Nat'l Bank	154 W. Lake St.	2,8,Dem
p 13.	Methodist Church Block*	s.e. c Clark & Wash.	2,8,D1922
p 14.	Prairie State Bank	83 W. Washington	2,8,Dem
p 15.	Tribune Bldg.	s.e. c Dearb & Madison	2,8,D1901
	16. Edward Waller res.	S. Ashland	
1873			
p A.	City Hall Competition		
p 18.	Dickey Bldg.	s.w. c Dearborn & Lake	2,8,D1922
p 19.	Hadduck Block	n.e. c Wabash & Monroe	2,8,D1893?
p 20.	Lunt & Kean Bank Bldg.*	67-73 W. Washington	2,8,Dem
p 21.	Mercantile Bldg.	24-28 N. LaSalle	2,,8,Dem
	22. Frank Pardee res.	1333 N. LaSalle	Dem
? 23.	Unity Church	s.e. c Dearborn & Walton	Ext 2,8
1874			
p 24.	Bates, Eli res	1304 N. Dearborn	8,Dem
p 25.	John DeKoven res.	1148 N. Dearborn	Ext
26.	First Cong. Church	Kenilworth & Lake Oak Park, IL	5,D1916

Appendix A

<u>Date</u>	<u>Building</u>	<u>Address</u>	<u>Sources/Ext</u>
p 27.	IL Eye & Ear Infirmary	n.w. c Adams & Peoria	2,8,D1970s
p 28.	Marine Bank Bldg.	n.e. c LaSalle & Lake	2,8,Dem
	29.OgdenBuilding	s.w. c Clark &Lake	2,8,D1885
p 30.	Scoville Bldg.	Madison e. of Franklin	2,8,Dem
? 31.	Wrenn & Meeker Bldg.	W. Washington	2,8,Dem
1875			
? 32.	Grace Methodist Church	LaSalle & Delaware	Dem. 2,8
	33. Edward Hempstead res.	1036 N. Dearborn	Dem.
	34. Loeb-Lackner Store		8
	37. George Rumsey res. Cranford	702 N. Rush at Huron	8,Dbef.1953
p 38.	St. James Episcopal Church	s.e. c. Wabash & Huron	Ext. 2,8
	39. Edwin Sheldon res.	N. Michigan at Huron	Dem.
p 39.	Ullman Bldg.	s.w. c Wacker & Lake	2,8,Dem
1876			
p 41.	Manierre Bldg.	1-17 N. Dearb at Mad	2,8,D1905
p 42.	Sinai Temple*	s.w.c Indiana & 21st	1,2,3,8,Dem
	43 Hempstead Washburn res.	912 N. LaSalle	Dem
	44 James B. Sullivan res.	27-29 E. Pearson	
1879 D. Adler & Company			
p 45.	Central Music Hall	s.e. c Randolph & State	1,2,3,4,6(1),8,10,D1900
1880			
p 46.	Borden Block	50-56 W. Randolph at Dearb	1,2,3,4,6(5),8,10,D1916
p 47.	\Borden, John res.	3949 S. Lake Park	3,46(6),8,D1955
p 48.	Crilly & Blair Complex	Halsted betw. Madison & Monroe	2,6(2),8,D1970s
p 49.	Grand Opera House (remod)	119-121 N. Clark	2,3,4,6(3),8,D1958
	[Newberry Building]	[site was Bryan's Hall]	
	50. Union Mutual store & apts.	ne c Sangamon & Harrison	6(4)-D1970s
1881			
p 52.	Brunswick & Balke	Orleans, Huron,Superior & Sedgwick	1,2,3,4,6(12),8,10,D1989
	53. Chicago Rubber Works	sw c Grand & Rockwell	6(8)-D/Beth
p 54.	Jewelers Bldg.	15-19 S. Wabash	Ext.1,2,3,4*,6(10),10p
p 55.	Revell Bldg.	131 S.Wab at Adams	1,3*,4,6(11),8,10,1968
p 56.	Rosenfeld Bldg.	s.e. c Wash & Halsted	1,2,3,4,6(9) D1958,8,10

Appendix A

p 57. Rothschild, E.& Bros Store 210 W. Monroe 1,2,3,4,6*(7),8,10D1972

<u>Date</u>	<u>Building</u>	<u>Address</u>	<u>Sources/Ext</u>
1882 D. Adler & Co. [Louis Sullivan=junior partner in firm]			
p 58.	Academy of Music	141 S. Rose Kalamazoo, MI	3,6(13),D1967
p 59.	Brunswick (addn)	See # 52.	
p 60.	M.C. Bullock Mfg. Co. Machine shop	223-227 N. Talman	6(22)D/Beth
p 61.	Chicago Opera Fest (remod)	Interstate Expos. Bldg.	6(16),8
	62. Frankenthal Bldg.	141 S. Wells	1,2,3,4,6(15),8,10D1940s
p 63.	Hammond Library	44 N. Ashland	2,3,4,6(19),8,D1963
p 64.	Hookey's Theater (remod)	ne c. Rand & LaSalle	3,5,6(18),8,D1925
	65. Hyman, Sigmund res.	2624 S. Wabash	1,3*,4,8,D1930s
	66. Jones, J. Russell res.(rem)	2108 S. Michigan	6(20)D
p 67.	Chas. P. Kimball res.	22 E. Ontario	1,3*,4,6(24),8,D1964
68.	Leopold, Henry res.	2516 S. Indiana	1,3*,4,8,D1930s
	69. Nicholson, Thos. 5 res.	3354 S. Vernon	6(14)D/Beth
p 70.	Rothschild, J.A. res	2633 S. Michigan	6(21) D1960s
p 71.	Rothschild, apt. bldg.	3200 S. Prairie	??Ext. 1,3,4,6(23),8,10??
???	Ryerson, Arthur res.	2909 S. Mich.	Dem.
p 73.	Wineman, Marx res.	2544 S. Michigan	3 ,6(17),8
1883 Adler & Sullivan			
B Design for a Double House			
p 74.	Aurora Watch Co.	603 S. LaSalle1989 Aurora, IL	Dem. 2,3,6(37)
p 75.	Sol. Bloomfield res.	8 W. Chicago	1,3*,4,6(39) D1963,8
	76. E.L. Brand Bldg.	Jackson bet Dearborn & Plymouth Ct.	1,3,4(2),6(38) D1940s
? 77.	Chgo & NW RR w/hse	W. Bank Chgo River N. of Kinzie	6(32)D/Beth
p 78.	Halsted, Ann "	440 W. Belden	Ext. 1,3,4,6(27),8,
p 79.	F. Kaufmann Co. Store/apts	2310-16N. Lincoln	1,3,4,6(33),8,D1980s
	80. F.A.Kennedy Bakery	27-33 N. DesPlaines	1,2,3,4,6(34),8,10,D/1970s
p 81.	Richard Knisely Store	2147 W. Lake St.	1,3,4,6(29),8,10,D1970?
p 82.	Forrest School	n.w. c Grant & Second Marengo, IL	2,3,4,6(28),D/1990
	83. Rosenfeld addn	se c Wash & Halsted	1,2,3,4,6(9),D1958,8,10
	84. Roster, Jos. Store & flats	3202 S. State	6(26)D/Beth
p 86.	Rothschild, Max rowhses	3201-05 S. Indiana	1,3,4(2),6(30),8,D1960s
	87. Rubel Store & apts.	309 S. Clark	1,3,4,6(35),8,D1940s
p 88.	Charles H. Schwab res.	1715 S. Michigan	1,3,4, D a/1963
p 89.	Morris Selz res.	1717 S. Michigan	1,3,4,6(36),8,D a/1963

Appendix A

p 90. Wright & Lawther Oil & Lead Stewart & Polk

2,3,4,6(31),8,D1940s\

Date Building

Address

Sources/Extp 95.

1884

p 91. Barbe, Martin res	3157 S. Prairie	1,3,4,6(44),8,D1963
92. Chicago Opera Fest. remod	Michigan & Adams	3,6(62)
p 93. Frank, Louis E. res.	3219 S. Michigan	1,3,6(43),8, Dem
p 94. Halsted, Ann 3 hses for	1826-34 Lincoln Pk. W	Ext. 1,3,4,6(45),8
95. Haverly's Thea. (remod)	57 W. Monroe	1,2,3,6(53),8, Dem
96. Kleiner, Maria res	3525 S. Vincennes	6(56)D/Beth
p 97. Knisely Bldg.	551-557 W. Monroe	1,2,3,4,6(42) D1958,8
98. Mandel Bros. Stable	14th betw. Mich & Wab	1,2,3,6(41),8,D1936
99. Mannheimer, Leon res.	2147 N. Cleveland	Ext.3,6(55),8
p100. Morgenthau, Bauland & Co st	108-112 S. State	6(40)Dpt/Beth
101. Peoples' Theater	527-29 S. State	2,6(46),8,D1930s
p102. Rothschild, Max 3 res.	3200 S. Indiana	6 (50),8,D1960s
p103. Ryerson Bldg.	16-20 E. Randolph	1,2,3,4,6(49),8,10,D1939 (?)
104. Schoeneman Bldg. [same as Silverman Bldg.]	Betw. Ply & Db nr Van Bur	2,3,6(47),8, Dem
p105. J.W. Scoville Bldg. (rem)	619-631 W. Washington	1,2,4,6(60),10,1970s?
p107. Sinai Temple (remod)	Indiana & 21st St	3
p108. Strauss, Abraham res.	3337 S. Wabash	1,3,4,6(52),8,D1953
109. Strauss, Leopold res.	1838 S. Michigan	1,3 D1940s,
p110. Troescher Bldg.	15-19 S. Wacker	1,2,3,4R,6(54),8,10,a/1978

1885

Peck residences		6(61)
Lakeside Clubhouse		6(59)
D. Brand, E.L. w/hse		6(77)
p111. Adler, Dankmar res.	3543 S. Ellis	1,3,4,6(73),8,D1961
112. Chicago Opera Fest. remod	Interstate Expos. Bldg	1,6(62),8
p113. Felsenthal, Eli res.	3545 S. Ellis	1,3,46(73),8,D1961
p114. Goodman, Hugo res.	3333 S. Wabash	1,3*,4,6(80),8,D1940s
p115. Kohn, Mrs. Abraham res.	3541 S. Ellis	1,3,4,6(73),8,D1961
116. Kuh, Abraham res.	3141 S. Michigan	1,3,4,6(72),8,D1940s
p117. Lindauer, Benjamin res.	3312 S. Wabash	1,3,4,6(70) D1958
p118. McVickers Thea. (rem)	25 W. Madison	1,3,4,6(67),10,D1922
[Power plant in rear]		
119. Milwaukee Expos. Hall (rem)	6th & Wells Milwaukee, WI	2,3,6(74),8
p120. Rubel, Ruben res.	320 S. Ashland	6(57) D1957,8
121. Schlesinger, Leopold res.	2805 S. Michigan	Dem. 1,3,6(58),8
122. Schlesinger & Mayer addn.	s.e. c State & Madison	1,2,3,10, Dem
123. Stearns, Marcus C. res.	35th & Lake Park	1,3,4,6(65-66),8,D b/1935
p124. Stern, Henry res.	2915 S. Prairie	1,3,4,6(64),8,D1960s

Appendix A

p125. Stern, Samuel res.	2963 S. Prairie	1,3,4,6(71) D1959,8
?126. Watson warehouse	125-131 W. Hubbard	Dem. 2,3,6(63),9(1888)
p127. Zion Temple	s.e. c Ogden & Wash	1,2,3,4,6(68),8,D1950s

<u>Date</u>	<u>Building</u>	<u>Address</u>	<u>Sources/Extp 95.</u>
1886			
128	E. Jones, Frances res.		6(84)
p129.	Arthur Block (remod)	2131 S. Wabash	1,2,3,6(76),8,D1960s
p130.	Cheltenham Beach Pavilion	7 9th on the Lake	1,2,3,6(69),8, Dem
p131.	Crane Co. Pipe Mill	W. 12th Pl. nr Canal	1,3,6(88),8, Dem
p132.	Desenberg Block	251 E. Michigan Kalamazoo, MI	Ext. 2,3,6(86),8
p133.	Eliel, Gustav res.	4122 S. Ellis	Ext. 1,3,4,6(89),8
p134.	Eliel, Levi res.	3538 S. Ellis	3,6(91) D1940s,8
	123 Holzheimer, Mrs. Eda res.	3538 S. Ellis	1,4,D1961,8
	135. Horner, Mrs. Henry res.	1705 S. Michigan	1,3,6*(81), Dem
p136.	ICRR Suburban Stations	39th St.	1,2,3,4,6(83)10,D1934
p137.	" " "	43rd St.	1,2,3*,4,6(83),8,10,D1942
p138.	Pauling, Edward flats	n.w. c Scott & Astor	1,2,6(90),8,D1913
	139. Peck Warehouse	s.e. c LaSalle & S. Wacker	1,2,3,4,6(82),8,D1940s
p140.	Ryerson Charities Trust	318 W. Adams	1,2,3,4,6(6(79) D1930s
	141. Wahl Bros. Brick factory	232-238 W. Randolph	6(85)
p142.	West Chicago Club (rem)	112 S. Throop	1,2,3,4,6(75)D1953
1887			
F.	Diemal, Rudolph res.		
p143.	Auditorium Bldg.	n.w. c Congress & Mich	Ext. 1,2,3,4,6(92),8,10
	144. Chgo Nursery & Half Orphan	1939 N. Halsted &	2,6(99),8, Dem
	Asylum addn.	1936 N. Burling	
p145.	Wirt Dexter Bldg.	630 S. Wabash (remod)	Ext. 1,2,3,4,6(94),8,10
	146. Diemal, Joseph res.	3143 S. Calumet	1,3*,4,6(87) 8
p147.	Kranz & Springer Bldg. (rem)	s.w. c State & Randolph Ext. [112 S. State rear wall only extant]	1,2,3,4,6(95),8
	148. Lively Mary res.	E. 26th (Rhodes & Vin.)	1,3,4,6(96),8,D1940s
	149. Schoeneman Bldg. addn	Plymouth Ct. nr Van	
?150.	Selz,, Schwab & Co. factory	n.e. c Superior & Larrabee	1,2,3,4,6(93),8,D1960s
p151.	Standard Club	s.w. c 24th & Mich	1,2,3,4,6(98),8,10D/1933
1888			
	G. Farrell, Patrick flats		
	H. Farrell, Patrick res.		
p153.	Falkenau, Victor 3 hses	3420-24 S. Wabash	1,3,4,6(103),8,D1958
p154.	Harvey, George M. res.	600 W. Stratford	Ext. 3,6(104),8
	155. Kuhn's European Hotel	33 S. Clark	6(101)D1940s
	156. Loeb Factory	111 W. Hubbard	2,3*,6(100),8,D1949 part.

Appendix A

<u>Date Building</u>	<u>Address</u>	<u>Sources/Ext</u>
1888 continued		
p157 Martin Ryerson Tomb	Graceland Cemetery	Ext. 1,3*,4,6(106),8
158. Silverman, Bldg.(remod)	Ply. Ct. near. Van Buren	2,3,6(105) D1925
[Same as Schoeneman see #104]		
p159. Walker Warehouse	00-214 S. Wacker Dr.	1,2,3,4,6(97),8,10,D1953 pt
1889		
161. Blatchford Warehse (rebldg)	230 N. Clinton	2,3,6(107),Dem
p162. Carnegie Hall (consul)	57th & Seventh Ave. New York	Ext. 2,3,6(110)
163. Dexter, Wirt res. (addn.)	232 Bell Ave.	1,3,6(111),8,Dem
164. Felsenthal,Eli Bldg.	63-71N.Canal	1,2,3,4,6(108),8,D1908
165. Heath, Ira res.	3132 S. Prairie	1,3,4,8
p166. Inter-Ocean Pub. Co. addn.	n.w. c Dearb. & Madison	1,3,6(109),8,D19 41
p167.Jewish Manual Tr School	554 W. 12th Pl.	1,2,3?,4,6(112),8,D1953
168. Superintendent. res.	1214 S. Clinton	H.M ltr
p169. Pueblo Opera House	Fourth & Main Pueblo, Colorado	2,3,4,6(102),8,D1922
1890		
J. Denver Opera House		6(114)
K. Ontario Hotel		6(120)
L. Seattle Opera House		6(117)
M. Selz,Schwab Bldg.		Ext.3,6(121),reblt
p171. Charnley, James C.	Ocean Springs, MS	1,3,4,8, D1940s
p172. Crane Co. Factory addn	12th& Canal [Judd St]	2,3,4,6(115)
173. Deutsches Stadt Thea.(rem)	Milwaukee, WI	
p174. Dooly Block	113-119 W. Second St S. Salt Lake City, U	2,3*,4,6(122) D1964,8
p175. Getty, Carrie Eliza Tomb	Graceland Cemetery	Ext. 1,3,4,6(119)
p176. McVickers Thea. (rem)	25 W. Madison	1,4,6(123),Dem
177. Schlesinger & Mayer addn.	s.e. c State & Madison	1,2,3,10,Dem
p178. Sullivan, Louis cott.	Ocean Springs, MS	Ext. 3,4,6(121)
p179. Wright & Hills Linseed Oil Factory (addn)	22nd & Lumber St.	2,3,6(118),8,Dem
1891		
N. Design for Tall Office Bldg.		
O. Apartment Hotel		
P. Hotel		
Q. Hotel	Chattanooga	6(125)
R. Fraternity Temple		6(129)
S. Mercantile Club		6(127)

Appendix A

<u>Date</u>	<u>Building</u>	<u>Address</u>	<u>Sources/Ext</u>
1891	Continued		
	T. Nashville Linoleum		6(140)
	180. Berry, Charles. res.	4632 Beacon St.	3,6(132),8,D/Beth
	p181. Brunswick, Balke	Superior & Orleans	,2,3,4,6(12),8,10,D1989
	p182. Chgo Cold Stor.Exch W/hse	Chgo River bet. Rand, Wash. & N. Wacker	1,2,3*,4,6*(113),8,D1902
	p183. ICRR Station	Rampart & DeLord New Orleans	2,3,4*,6(138) D1954,8
	p184. Kehilath Anshe Ma'ariv	s.e. c Indiana & 33rd	xt. 1,2,3,4,6(116),8
	p185. Schiller Theater Bldg.	64 W.Randolph	1,2*,3,4,6(130),8,D1961
	186. Shone Ejector co. Factory	se c. 46th & Stewart	3,6(141),D/Beth
	p187. Standard Elevator Co. Fac.	1515 W. 15th	Ext. 3,6(126) vacant
	p188. Transportation Bldg.	Worlds Columbian Expo- sition, Jackson Park	1,2,3*,4,6(133), 8,D1893
	p189. Wainwright Bldg.	Seventh & Chestnut St. Louis, MO	Ext. 2,3*,4,6(124),10.
	p190. Lottie D.Wainwright Tomb	Bellefontaine Cemetery St. Louis, MO	Ext. 3,4*,6(139)
	191. Walker & Oakley Tannery	Elston & Blackhawk	3,6(137)
1892			
	U. Tall Office Building	St. Louis, MO	6(146)
	V. Tall Office Building		6(147)
	W. Chemical Building		6(144)
	X. Portland Building		6(143)
	Y. Trust and Savings Bank		6(145)
	Z. Denver Auditorium [see letter in Chap. IV.]		
	p193. Auditorium Annex	Rear of 520 S. Mich.	11
	p194. Charnley, James res.	1365 Astor	Ext. 1,3*,4,6(131),8
	p195. Loeb, Adolph & Wm. apts.	n.e. c Ran & Eliz	Ext.(Part),1,2,3*, 6(128),8 196.
	196. Mayer, William Warehouse	sw c State & Quincy	Dem. 3
	197. Minnea. Conven Hall	Minneapolis.	5,6(142)
	p198. Oakley, J.W. Bldg.	141-143 W. Hubbard St.	1,2,3*,4,6(135),8, D/Beth
	p199. St. Nicholas Hotel	Eighth & Locust St. Louis, MO	3,4,6(151) D1973
	?200. Schlesinger & Mayer addn.	Wabash Ave.	3
	p201. Sinai Temple (addn) s	.w. c Indiana & 21st	Dem.1,3,4,6(136)
	p202. Sullivan, Albert res.	4575 S. Lake Park	1,3*,4,6(134),D/1970
	p203. Standard Club addn	S. Mich. & 24th St	3,D/1933
	p204. Union Trust Co.	705 Olive St. Louis	Ext. 2,3,4,6(148),8
	p205. Victoria Hotel	69 Illinois St. Chicago Heights	3,4,6(149),8,10,D1961

Appendix A

<u>Date</u>	<u>Building</u>	<u>Address</u>	<u>Sources/Ext</u>
1893			
p206.	1st Regiment Armory (remod)	Grant Park at Monroe	3,6(156),Dem
p207.	Ill. Eye & Ear Infir. addn.	n.w. c Adams & Peoria	3,6(154),D1970s
?208.	Illinois Leather Co.	sw c Hooker & Halsted	2,6(153),8D/Beth
209.	Mandel Bros. Stable/Store	14th betw Wab & Mich	2,6(158-59),8,D1936
p210.	Meyer Bldg. II	311 W. Van Buren	1,2,4,6(150),8,10,D1968
p211.	Wolf, Sayer & Heller W/hse.	310-312 N.Peoria	Ext.(part.),2,3,6(152),8
1894			
	AA. Apartment Building		6(162)
	BB. Burnett House Hotel	Cincinnati, O	6(161)
	CC. Chemical National Bank		
	DD. Levi Eliel Flats		
	EE. Store		
213	J.T. Ball & Co. warehouse	ne c Wells & Taylor	3,6(155),Dem 1970s?
214	Braunstein, H.store/flats	1621 N. Larrabee	3,6(163),D1980s ?
p215.	Chicago Dock warehouse	Taylor St. & Chgo River	3,6(164),D1915
p216.	Chgo Stock Exchange	30N. LaSalle	1,2,3*,4,6(157),8,10,D1972

1895			
Adler & Sullivan were partners until July			
p218.	Guaranty Bldg.	Buffalo, N.Y.	Ext. 2,3,4,6(160),8
p219.	National Linseed Oil Fac.	77th & ICRR tracks	6(166),D/Beth
	Sullivan only = ?		
p220.	National Tube Works	868 N. Clark	6(165),D/Beth
1896 D. Adler & Company			
p222.	St.L.Conven. Hall (consul.)	Clark Av betw.12th & 13thSt.Louis,MO.	3,6(209),Dem
p223.	Meyer, M.A. Estate bldg.	413-421 S. Wacker Dr.	2,6(207),8,D1963
p224.	Morgan Pk Aca. West Dorm	2153 W. 111th St.	2,3,6(208),8,D1973
225.	Technical Club (rem)	220 S. Clark	2,6(206),8,D1926
1897			
p227.	M.L. Barrett Co. addn.	233 W. Lake-183 W. Franklin	Ext. 3,6(210)
p228.	Chgo Dock Co. w/hse addn	322-334 W. Taylor	3,6(211),Dem
p229.	Wright & Hills Linseed Oil 2	231-37 Lumber St.	3,6(212),Dem (part.)

Appendix A

<u>Date</u>	<u>Building</u>	<u>Address</u>	<u>Sources/Ext</u>
1898			
	FF. Auditorium Roof Garden		6(217)
	GG. LaCrosse Hotel		6(215)
	HH. Lakefront Exposition Hall		
p231.	Il. Leather Co. addn.	sw c Halsted nr Div.St	. 3,6(213),8
p232.	Isaiah Temple	45th & Vincennes	Ext. 2,3*,6(216),8
p233.	Morgan Park Aca. East dorm	2153 W. 111th	3,8
	234. Schlesinger & Mayer Powerhse	Wabash Ave.	3
p235.	Yondorf Bldg.	404-406 S. Wells	2,6(214),8,D?
1899			
	JJ.Ira Cook Hotel [may be Cecil Hotel]	18-22 E. Van Buren	6(219)-xxxx [extant in 1977.
236.	Levi Morgan bldg. (remod)	sw c State & Quincy	3, 6/M.A.,6(218)
237.	Selz, Schwab H.Q.Bld.(remod)	nw c Wacker & Monroe	3,6(222),Dem.
p238.	United Hebrew Charities Dispen.	1336 S. Morgan	3,6(220),Dem
	239 University of Chicago Powerhouse		6(221)
	may be Morgan Park power house=?		
1900	D. Adler & Co. (died April 16, 1900)		
	240 Otis Elevator Shop & Bldg.	457-463 S. Laflin	6(223),Dem

Appendix A

<u>Projects</u>		<u>Source</u>
p A. 1873 City Hall Competition		8
B. 1883 Design for a double hse.		6(25)
C. 1884 Lakeside Clubhouse		3,6(59),8
D. 1885 Brand, E.L. warehse.		6(77)
E. 1886 Jones, Frances. res.		3,6(84),8
F. 1887 Diemal, Rudolph res.		3,6(87),8
G. 1888 Farrell, Patrick flats & barn		3
H. Farrell, Patrick res.	2523 S. Wabash	3
J. 1890 Denver Opera House		2,8
K. Ontario Hotel	Salt Lake City,Utah	2,4,8
p L. Seattle Opera House	Seattle, Wash.	2,3,4,6(120),8
M. Selz, Schwab Bldg. II	nw c Wacker & Monroe	6(117)
N. 1891 Design for tall ofc bldg		6(141b)
O. Apt. Hotel	S. Michigan Ave.	4
P. Hotel	Chicago	4
Q. Hotel	Chattanooga, TN	2,6(125),8
R. Fraternity Temple		3,4,6(129)
S. Mercantile Club Bldg.	St. Louis MO	3,4,6(127)
T. Nashville Linoleum Co.	Chicago?	3,6(140),8
U. 1892 Tall bldg.	St. Louis,MO	6(146)
V. Tall bldg.		6(147)
W. Chemical bldg.		3,6(144)
X. Portland Building	St. Louis, MO	2,3,6(143),8
Y. Trust & Savings Bldg.	St. Louis, MO	3,4,6(145)
AA.1894 Apartment bldg.		6(162)
p BB. Burnet Hse.Hotel	Cincinnati, O.	3,6(161)
CC. Chemical Nat'l Bank	St. Louis,MO	3
DD. Eliel, Levi apt. bldg.		3
EE. Store Bldg.	St. Louis, MO	3
FF.1898 Auditorium roof garden		3
GG. LaCrosse Hotel	LaCrosse, WI	3,6(217)
HH. Lakefront Exposition Hall	Ontario, St. Clair, Grand & Lake Shore Dr.	2,6(215)
JJ.1899 Ira B. Cook hotel	Van Buren St.	3,6(219)

Appendix A

Alternate Names

Source

Elstein	Nickel-Vinci	
Cheltenham Beach	World's Pastime Bldg.	6(69)
Chicago Opera Festival Audit.	Interstate Industrial Expos.	
Dexter, Wirt Building	R. Deimal & Bros. fac	
First Regiment Armory	Trocadero	
Fraternity Temple	Odd Fellows Hall	
Grand Opera House	Hamlin's Opera Hse.	
Kranz & Springer	Bee-Hive Store	
" " "	Morgenthau Bauland	
Jewelers Building	S.A. Maxwell & Co. Store	
Levi Morgan Building	Mayer w/hse remodel	
Revell Building	A.S. Gage Co. Store	
Ryerson Building	Gray, Kingman & Collins store	
Ryerson Charities Trust	Keith, Edson bldg.	
Schwab, Charles residence	see Selz	
Selz, Schwab Headquarters	Jewett bldg.	
Selz, Morris residence	Anna McCormick residence	
Silverman Bldg. addn	Schoeneman Bldg (1884)	
Watson Warehouse	Hemlock Building	
Yondorf Building	Lamm & Co.	

Questionable buildings:

Ira Heath House 3132 S. Prairie
 Jewish Manual Training School Superintendent's house
 1214 S. Clinton
 Ira Cook Hotel [may be Hotel Cecil]

Questionable projects:

Denver Opera House
 Ira Cook Hotel

APPENDIX B: AUTOBIOGRAPHY

Copied from Sara Adler Weil
June 27, 1962

I was born at Stadt Lengsfeld, near Eisenach, in Germany on July 3rd, 1844, where my father was teacher in the Communal Public School and cantor in the Synagogue. He emigrated to America, arriving at New York on July 1st, 1854, and soon after settled at Detroit, Michigan as rabbi and cantor of the Jewish Congregation Bethel [sic]. In May 1861, he went to Chicago to become the rabbi of the Congregation Anshe Maariv, in whose service he remained and served with rare distinction until the time of his death, in 1892.

During my father's residence at Detroit I attended the public schools of that city, as also the Detroit and Ann Arbor High Schools. I failed to pass entrance examination to the University of Michigan, possibly because I undertook to prove to Professor De Volson Wood, that his use of fractional and negative exponents was altogether erroneous and not in accordance with my mature ideas of the mathematical proprieties.

Having next, after a short and unsatisfactory apprenticeship in the banking, exchange and shipping business of Mr. Edward Kanter succeeded in proving my unfitness for mercantile pursuits, my father employed Mr. John Schaefer, an architect of Detroit, to introduce me to the mysteries of his art. He took this step because I had shown much inclination and some aptitude during a course of instruction in free-hand drawings from Mr. Jules Melchers, a very clever modeler and sculptor, and the father of Gari Melchers.

Mr. Schaefer, my new master, gave me quite a thorough training in "The Orders" and in architectural ornament chiefly Romanesque and Byzantine in tendency, and undertook to teach me the origin and history of architectural styles. Among his teachings was one to the effect that our ancestors in

erecting buildings devoted to the worship of God, designed them in a manner or style intended to illustrate by an upward tendency of lines of structure and ornament, their aspirations toward God, and that the style so developed was therefore called "Goddik." He also favored me with continuous series of conversational lectures upon the ethics of the architectural profession as understood and practiced by him, and I fear by many of his contemporaries. This code may be summarized as a glorification of self, and a general and indiscriminate denunciation and vituperation of every other claimant for professional honor or position.

Having grown tired of this sort of thing, I withdrew from the office of Mr. Schaefer and entered that of Mr. E. Willard Smith, whom I found an architect who would have been an honor to his profession in its palmy days. By him and by his able assistant, Mr. John M. Bancroft, now of Brooklyn and then just graduated from Dartmouth, I was introduced to a systematic study of architectural history and of the philosophy of architectural design, as also to neatness and finish of rendering of drawings and water colors. Under their guidance I worked indefatigably, often twelve and sixteen hours per day, and laid the foundation of whatever actual knowledge of my profession I may have acquired.

My father's removal to Chicago put an end to my apprenticeship with Mr. Smith. Arrived at Chicago in the spring of 1861, I found absolute stagnation of business in the offices of all of the architects of the city, and no one was willing at first to receive me either as draughtsman or as student. I therefore occupied myself for a few months in mercantile pursuits and then found employment in the office of Mr. Augustus Bauer. With Mr. Bauer I enjoyed great opportunities for observing the highest possible development of the economics of office management, but regret to confess, that I never profited by what his example should have taught me. I did however learn however learn to appreciate directness of method in design and thoroughness in construction.

In July 1862 my stay with Mr. Bauer was cut short by my enlistment in Company M, 1st

Regiment Illinois Light Artillery. I served to the end of the war and participated in the campaigns of 1862, 1863, and 1864 in Kentucky, Tennessee and Georgia, doing the duty and undergoing the dangers, fatigues, and hardships incident to the life of a private soldier. Although I participated in some of the hardest fought battles of the war, I was never seriously injured and escaped all serious illness. Being an artillery man, I enjoyed opportunities for stealthily carrying extra baggage in ammunition chests, etc, and availed myself of the opportunity thus afforded me for carrying quite a number of scientific and historical books, the unrighteous spoil of various Southern homes, which books I studied as diligently as circumstances permitted.

During the last nine months of my military career I was detailed as draughtsman to the Topographical Engineers' Office of the Military Division of the Tennessee, and spent the greater part of that time upon special duty at Chattanooga in company with Milo D. Burke, now an eminent civil engineer at Cincinnati, whose intimate companionship assisted in giving impetus and direction to my further mental and professional development.

Immediately after my discharge from the army I re-entered the area of Mr. Bauer, but he hurt my patriotic amour propre by what I construed into sneers at my military career which appeared to him as a waste of precious time. I therefore left his office for the service of Mr. O.S. Kinney who had quite a large practice as architect of churches, school-houses and court-houses, chiefly in the Western Reserve, in Northern Indiana, and in Central and Northern Illinois.

Here I soon felt the good effect of the studies I had pursued in the field and at Chattanooga as well as the value of the knowledge of men which my army life had given me, and perhaps also the influence of Mr. Bauer's hard-headed, practical way of looking at things. Although there were in Mr. Kinney's office several draughtsmen who have since risen to very good standing in the professions of architecture and engineering, I soon became foreman of the office, and when Mr. Kinney died in 1869,

his son and I finished his incomplete buildings and held the goodwill of many of his clients.

During this period I designed nothing worthy of note of remembrance. The incident most firmly fixed in my memory is the coming into our office of the Chairman of the Building Committee of the University of Wooster (Ohio) in quest of information as to what was to be done with one end of a wooden truss of 60 foot span, carrying several stories of rooms over a lecture hall, for the support of which truss two chimney flues had been shown on our drawings. We arranged the matter somehow, and I believe that the truss is still doing its work.

In January 1871 I severed my connection with young Kinney and formed a partnership with Mr. Edward Burling then an architect of very high standing at Chicago. This connection continued until 1879, under the firm names of E. Burling & Co., Burling & Adler, and for a short time Burling, Adler & Co.-- the third member of our firm being Mr. W.H. Willcox.

We were soon called upon to take part in the reconstruction of Chicago after the great fire. Our office took a very prominent part in the work of this storm and stress period. For two years we, with a few other offices, counted our work by the miles of frontage. The more prominent of our buildings were the Tribune Building, the First National, German National, Mechanics' National, Marine, Prairie State, and Lunt and Kean bank buildings, the Methodist Church Block, the Ogden, the Dickey, the Scoville, the Manierre, the Garrett, the Kingsbury, the Ullman, the Hadduck, the Wrenn & Meeker, the Newberry and many other office and mercantile buildings, such churches as Grace (Methodist), Unity (Unitarian), St. James (Episcopal), Oak Park (Congregational) and Sinai Temple; among other most noteworthy residence buildings were those of Messrs. Pardee, De Koven, Bates, Ryerson, Waller, Washburne, Ogden, Hempstead, Sheldon and many others.

I was in charge of the drawing room during this busy period, but was so much occupied with outdoor work that only the Methodist Church Block, Greenebaum Building, First National Bank, Wrenn

& Meeker Building, the Mercantile Building, the Lunt & Kean building, Sinai Temple and a few others were actually drawn by me. Four of these have since been demolished and replaced by modern “sky-scrapers,” two of them by myself, one by Mr. Henry Ives Cobb and one by Mr. Burnham. The others will probably follow in the course of the next one or two decades.

I had the highest possible regard for Mr. Burling. As an architect and as a man, he was on a very high plane and his influence upon my professional development was of the best. He had a way of occasionally apparently shirking important responsibilities and of unloading them upon me, a course which at the time seemed to warrant my resentment, but in the light of subsequent events I learned to appreciate how much the responsibilities then thrown upon me afforded new experiences and developed a degree of self-reliance and of fertility of resource which I should otherwise have been many years of acquiring. Mr. Burling’s clients saw in these acts an indication of his confidence in me and respected and trusted me accordingly.

In 1879 my business connection with Mr. Burling ended and during the succeeding two years I devoted myself to the design and erection of Central Music Hall Block, which has proved in many respects one of the most successful buildings ever erected in Chicago, and which I shall always consider the foundation of whatever professional standing I may have acquired. It is but just that I should acknowledge my obligations for the success of this building to the innumerable valuable suggestions of my dear friend Geo. B. Carpenter the organizer of Central Music Hall. Nor shall I ever cease to regret that he did not live to enjoy the triumphant success of his work.

Soon after the completion of Central Music Hall I found myself so overcrowded with work, as to be unable to discharge my duties to clients alone. Then began my business connection with Mr. Louis H. Sullivan, who entering my office as chief draughtsman has been for the past twelve years my partner and in conjunction with whom I have had professional charge of such work as the Ryerson buildings, the

Borden Block, the Hammond Library, the Grand Opera House, Hooley's and McVickers's Theatres, the Auditorium, the Schiller building, the Stock Exchange Building. The Standard Club house, the Zion and Anshe Maariv Synagogues, at Chicago, as also the Transportation building of the Columbian Exposition, as well as the Wainwright and Union Trust Buildings and the St. Nicholas Hotel at St. Louis, the Dooly Block at Salt Lake City, the Opera House at Pueblo, Colo., and have acted as consulting architect for the Carnegie Music Hall at New York and other buildings.

Of late years, owing to the preeminence in the artistic field of my partner Mr. Sullivan, I have devoted my efforts to the study and solution of the engineering problems which are so important an incident in the design of modern buildings. Among the results of these studies is a heat, light and power plant constructed for the joint use of The Auditorium, the Auditorium Hotel and the Auditorium Annex, in which 22 elevators, 14 ventilating fans, 16,000 electric lights, the machinery of the kitchens and laundries of two large hotels, the heating and ventilating apparatus of 750 hotel rooms, 125 bathrooms, 13 stores, 160 offices, the public rooms of two hotels, the Auditorium and the "Recital Hall" the two containing over 5,000 seats, the hydraulic stage mechanism of The Auditorium and the lighting of some adjacent smaller buildings, are all operated from a boiler and machinery plant occupying but 50 x 95 feet on the ground and with a saving of \$49,000 per annum in operating expenses compared with actual cost of operating the same buildings from three ordinary independent plants.

The Illinois State Historical Society's 26th Annual Illinois History Symposium,

"Religion and Society,"

will be held in downtown Springfield, December 1-3, 2005.

Headquarters for the symposium will be the Abraham Lincoln Home National Historic Site, with presentations at the Old State Capitol, the Abraham Lincoln Public Library, Grace Lutheran Church, and other locations.

The 2nd Annual Illinois History Video Fair,

held in conjunction with the symposium, will feature recent film and video productions relating to the history of the Prairie State.

Online registration for the Symposium will be available August 1 at www.historyillinois.org. For more information call 217-525-2781.



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MR. WILLIAM H. HERNDON
LAW PARTNER OF ABRAHAM LINCOLN

Adler & Sullivan: The End of the Partnership And Its Aftermath

Rochelle Berger Elstein

The firm of Adler & Sullivan, combining the talents of Dankmar Adler (1844-1900) and Louis Sullivan (1856-1924), is well known in the history of nineteenth century American architecture. Most scholarly accounts of the firm emphasize Adler's engineering and acoustical skill; and praise—and illustrate—Sullivan's great talents as a designer. Adler is also regarded as the businessman while Sullivan is always depicted as the artist. The partners themselves acknowledged their mutual strengths, as Adler wrote in his autobiography, which is in his archive at the Newberry Library in Chicago:

Of late years, owing to the preeminence in the artistic field of my partner Mr. Sullivan, I have devoted my efforts to the study and solution of the engineering problems which are so important an incident in the design of modern building.¹

That they joined their abilities and flourished in the early 1880s through the early 1890s and dissolved their association in 1895 is indisputable. So are the facts that both Dankmar Adler and Louis Sullivan continued their careers alone, with much less success than during their years as partners. The historical record supports this accepted wisdom, and it provides evidence that the economic conditions in the 1890s strained firms in both Chicago, where Adler & Sullivan did almost all of their work, and in New York, where they built their last building together.

The story of the firm of Adler & Sullivan begins with promise and ends in tragedy. Two men, born a decade apart, from very different backgrounds, and with distinctive abilities, lives, and temperaments, joined forces to produce some of the most memorable buildings in this country's history. One was trained by apprenticeship, the other had some formal education. Adler needed a partner in the boom decade of the 1880s, when the city's leaders were determined to become the equal of New York; and their answer to the Metropolitan Opera House was the Auditorium. With its superb sound and beautiful ornament, it was the



Dankmar Adler, ca. 1880.

*Photo reproduced courtesy of the Newberry Library,
Department of Special Collections.*

first of Adler & Sullivan's many commissions in and outside of Chicago that expanded the firm's size and reputation.

Adler & Sullivan joined the ranks of noteworthy Chicago architectural firms, building skyscrapers, concert halls, warehouses, and factories. In 1893, the World's Columbian Exposition focused the eyes of the world on Chicago, with its impressive lakefront site, and a burgeoning downtown. The visitors wrote home about the Fair, particularly the pristine classicism of its Court of Honor. Two innovations also attracted attention—Adler & Sullivan's distinctive polychromatic Transportation Building and George Ferris's enormous wheel.²

Economic depression followed in the wake of the fair, and the only building on their drawing board in 1894 was the Guaranty Building in Buffalo, New York, which came to Adler & Sullivan as a result of the Auditorium's fame. It was their final commission; and Dankmar Adler and Louis Sullivan parted company. Adler briefly left the practice of architecture, but when he returned, there was no reconciliation.

Adler's practice in the early 1880s had consisted largely of small factories and office buildings (many for the entrepreneur and real estate developer Martin Ryerson) and houses for successful German Jewish merchants. All the designs were competently done and a few commercial buildings showed Sullivan's early spiky ornament. And the buildings came in within budget, which was very important to Adler who oversaw the business side of the firm. As jobs increased in size, cost, and complexity, the roles of Dankmar Adler and Louis Sullivan diverged, with Adler taking on the engineering tasks and Sullivan producing gorgeous ornament. Adler was responsible for Louis Sullivan's making the transition from decorator to architect; Sullivan made Adler & Sullivan's architecture unique.

At its height, Adler & Sullivan was one of the most creative, productive, and influential of Chicago's architectural firms—busy and exceptionally prosperous. The firm was extraordinarily successful and influential because of the partners' individual talents and their collaboration on architectural projects; and because the men they trained carried their memories into the twentieth century. Their buildings left an indelible, but now ghostly, mark on the city, with only the Auditorium restored to its original splendor.

There are conflicting accounts of the birth date of the partnership. Adler's version, as stated in his autobiography, was that

"[Sullivan] entering my office as chief draughtsman has been for the past twelve years my partner." The unspecified date was probably May, 1881 and Sullivan was a junior partner. Adler's first solo commission, the Central Music Hall in Chicago, dedicated in 1879, gained him a reputation for concert halls and multi-purpose buildings. It was the first project for which he employed Sullivan, who did the organ grilles. Sullivan was identified as a "draughtsman" in the city directory of 1880; Adler, an architect with an office in the Borden Block.

Sullivan's contribution to the Borden Block, Adler's first elevator office building, is incontrovertible evidence of his active participation in the design process as early as 1879/80. By that time he identified himself as a "designer," and it is evident that he influenced both the planarity of the façade and the character and placement of the ornament. The Guaranty Building in Buffalo, New York, their final collaboration, is a taller version of the Borden, as was its Chicago neighbor, the Schiller Building. All three are capped with ornamented cornices that crown rounded lunettes echoing arched first floors. Over the years that separated the Borden Block from the Guaranty Building, ornament and surface became so intertwined as to be inseparable.

Adler and Sullivan must have become full partners after the beginning of 1883, because, in the premiere issue of *Inland Architect and News Builder* that came out in February 1883, "D.Addler [sic]" was credited with the design of the Hammond Library. Given the probable date of Adler penning his autobiography, 1895, and Sullivan's anonymity in the design of this Library, Sullivan likely became junior partner in 1882 and full partner in mid-1883.

Dankmar Adler became the foremost acoustician in the country as a result of his widely regarded Auditorium Building in Chicago, begun in 1886 and completed in 1889. The future looked promising. But however high the social status of being an architect, it has always been a riskier profession than medicine or law, inescapably subject to the highs and lows of the business cycle, a few "fat" years generally followed by threateningly lean ones. Some firms flourished, some floundered and failed.

Adler and Sullivan had taken different paths to the profession. Dankmar Adler was a "graduate of the boards," that is, the apprenticeship of the drafting room, which, he later reflected in an 1892 article was a disappearing phenomenon: "the architect graduated from the drawing board ... almost belongs to the past."³ Like many men of his



The Borden Block, D. Adler & Co., 1880/81 (demolished).

Photo reproduced courtesy of the Newberry Library,
Department of Special Collections.

generation, he got his engineering education in the Civil War; as he wrote in his autobiography,

Being an artillery man, I enjoyed opportunities for stealthily carrying extra baggage in ammunition chests, et. [sic], and availed myself of the opportunity thus afforded me for carrying quite a number of scientific and historical books, the unrighteous spoil of various Southern homes, which books I studied as diligently as circumstances permitted.

His postwar education was in the offices of three architects, learning drafting, construction, budgeting, and management.

With Mr. [Augustus] Bauer I enjoyed great opportunities for observing the highest possible development of the economics of office management. ... I soon became foreman of the office, and when Mr. [Ozias] Kinney died in 1869, his son and I finished his incomplete buildings and held the goodwill of many of his clients. ... In January 1871 I severed my connection with young Kinney and formed a partnership with Mr. Edward Burling then an architect of very high standing at Chicago.

Years later he explained the reason for his leaving Augustus Bauer:

Immediately after my discharge from the army I re-entered the [practice] of Mr. Bauer, but he hurt my patriotic *amour propre* by what I construed into sneers at my military career which appeared to him as a waste of precious time.⁴

After leaving Burling and "a Mr. Willcox" in 1879 he opened his own office, D. Adler & Co.

He would have pursued a degree before launching his career, but the University of Michigan, for which he prepared, was not impressed with his mathematical aptitude:

I failed to pass the entrance examination to the University of Michigan, possibly because I undertook to prove to Professor De Volson Wood, that his use of fractional and negative exponents was altogether erroneous and not in accordance with my mature ideas of the mathematical proprieties.⁵

He did prove sufficiently adept when he was transferred to an engineering battalion in the later years of the Civil War. There he gained theoretical and practical experience as an architect and engineer, (the boundaries between the professions was much more fluid in the mid-1860s than they would later become).

Louis Sullivan was a native of New England, born in 1856. His formal education was as a non-degree student at the Massachusetts Institute of Technology, the first to offer a curriculum in architecture, and at *L'École des Beaux-Arts* and its ateliers in Paris. He did not remain long enough to garner a diploma from either institution, but that was not an impediment. There were architects centuries before there were schools of architecture, and fortifications predated degrees in civil engineering by even longer. Education by apprenticeship was common in the nineteenth century and there were fewer than half a dozen schools of architecture when Adler and Sullivan's full partnership was established in 1883.

Characteristically the most ambitious and skilled draftsmen in any office advanced to junior and then senior partner. Some began their own practices, as had Adler in 1879; and as complex architecture increasingly required oversight to manage every step of the building from conception to completion, experts multiplied. But as Adler wrote in an English engineering journal in 1897, "only a master mind can conceive a general plan," and was, therefore, responsible for the final realization."⁶

Large projects were the work of many hands and multiple plans that were seen by many pairs of eyes before the senior member(s) of the firm gave their final approval. Collaboration was the norm, even before the danger inherent in skyscrapers required highly trained individuals with professional expertise built on the foundation of a university degree.

Adler and Sullivan met in the late 1870s and they worked together from 1879 through 1895, severing their partnership permanently in 1896. Professional estrangement later followed this break-up, but familial ties were renewed, and lasted until Sullivan's death more

than two decades after Adler's demise in 1900. Adler's autobiography provides a brief professional account of his career and a small collection of letters to his wife and daughter, and his sisters-in-law adumbrates his family life.

Sullivan wrote four books and several articles; and Frank Lloyd Wright, who trained in the Adler & Sullivan office when it was at its greatest strength, added to the narrative and shaped a myth, largely about himself, writing that "Sullivan's efflorescence [Adler] adored because it went beyond him to a realm he coveted."⁷ But Adler was content to work in other aspects of architecture and engineering and Wright was envious. Books about Sullivan are many; there is one on Adler, a catalogue of his theaters and auditoriums.⁸

The history of Adler & Sullivan is incomplete without considering the firm in the history of American architecture and its place in the development of Chicago. Why did Adler & Sullivan "divorce" and never professionally reconcile, when other firms, subjected to similar economic conditions, continued to work together? As Tolstoy wrote in *Anna Karenina*, "all happy families resemble one another, each unhappy family is unhappy in its own way."⁹ Adler and Sullivan had once had a happy relationship; what happened to make it so unhappy?

There are no paradigms of American architecture—although there are models of architectural practice—so the firm of Adler & Sullivan is not a paradigm, but it is a fascinating story. Not only does it appeal to the romantic sensibility with its picture of an uncompromising artist succeeding brilliantly, only to fail with great rapidity in the marketplace, but Adler & Sullivan's architectural achievements, even those known only through photographs, are still remembered. Theirs is an important chapter in the history of American architecture and engineering because of their achievement of making "high buildings" appear high and because they solved some of the structural problems, like foundations, that made skyscrapers practical. The reputation Adler & Sullivan established in 1889 with the Auditorium Building in Chicago grew to international proportions, and ultimately earned enduring fame. The Auditorium building alone makes the firm an extraordinary part of the last two decades of the nineteenth century, a formative period in American architecture and urban life.

Dankmar Adler's generation came of age in the 1850s and 1860s—not all graduates of an institute, *École*, or *Bauakademie*—and learned

to build railroads, bridges, and roads by building them. They would later put their skills to civilian use, especially on projects that required complex coordination and new materials. "Fearless" Frank Furness, like Adler, was a Civil War veteran—indeed, winner of the Congressional Medal of Honor—who erected audacious buildings in Philadelphia. His architecture and his views on architectural education were equally emphatic, and he left a life long impression on young Sullivan, who knew him briefly: "All schools are bad," he said. He continued, "they destroy the power of creative thought. Put [a young man] in an architect's office and let him work out his own salvation. Give him a chance to upset the rules."¹⁰

William LeBaron Jenney, one of Chicago's few early architects with a European education, rose to the rank of major in the Union Army, and was addressed by that title for the rest of his life. While maintaining his practice in Chicago, he commuted to the University of Michigan for a few years where he taught architecture, the only one of his cohort to have been a university professor, although most, like Adler, mentored young draftsmen and new graduates.

Peace is beneficial for a nation, but war is better for its architecture and engineering, since war requires total mobilization of resources and population, and provides the funds to develop them. The victor remains capable of resuming production and commerce; the vanquished loses a way of life and decades of development. In war, the side with greater scientific and technical sophistication is advantaged.

War, which is a horrific barbarism for kings, is just for a people who take up their rights and liberties. War has become . . . a joyous occasion to develop all the powers of the [mechanical] arts . . . and to consecrate their utility with ingenious applications."

The Crystal Palace Exhibit in London in 1851 was the first of the modern exhibitions, and the demonstration that had the most enduring consequences was mass production. Two American gun makers gave a practical demonstration of the standardization and interchangeability of parts. Samuel Colt put the idea into production with Civil War pistols. In collaboration with Eli Whitney, moreover, Colt designed an assembly line suitable to other fabrication. Assembly lines had broader

application, among them the skyscraper. Conceptually erecting a high building is a vertical assembly line. The iron (later steel) skeleton skyscraper combines interchangeable parts and repetitive small acts of combination to manufacture in a huge construction.

In the educational domain, a mandated curriculum ensured the same degree of "reliability" "interchangeability," and coordination. During the Civil War, in which manufacturing and transportation had decisive roles, the federal government was brought into higher education by the Land Grant Act of 1862. It would create a system of state educational institutions where students would learn agriculture and the mechanical arts, including architecture.¹²

The University of Illinois at Urbana-Champaign was the first land grant institution to offer a course of study in architecture (1873) and was the most influenced by the German curriculum that emphasized construction over design. No more was architecture the avocation of the upper class men who had made the Grand Tour of Europe and could amass a private library of art and travel books. Public education at universities put it within reach even of first generation Americans. Land grant colleges most benefited the Midwest, where engineering and architectural schools graduated students who were prepared to build America's cities; and agricultural experiment stations advised farmers on producing the surpluses that fed the country and the export market.

The aphorism "an army advances on its stomach," is attributed to Napoleon, and Chicago provided the meat that filled the stomachs of the Union Army, as well as the uniforms that clothed the soldiers. The demand for meat induced meat packers to devise a method of assembly line killing that accelerated the process. Large companies consolidated smaller enterprises into the Union Stock Yards. And the city's nascent clothing industry manufactured uniforms and army blankets. As a result of the need for labor, the population, based on census figures, nearly tripled to 309,000 between 1860 and 1870.

The Civil War refashioned the country. Formerly, trade had been between north and south, with the latter supplying the raw materials; and the north doing manufacturing and distribution. The new economic axis was between east and "west"—keeping in mind that the west was dominated by the cities of Chicago, Milwaukee, St. Louis, and Minneapolis. The destruction of the Confederacy forced many of its sons to move west to land newly opened to homesteading.

The prairies grew the grain, Chicago built the Stock Yards, and a rail network spread out to feed the East and the West. Chicagoans made millions of dollars in land speculation and development, in transportation and retailing, in lumber and grain trading, livestock slaughtering and meat distribution. An Italian immigrant wrote: "In ancient times, all roads led to Rome; and in modern times, all roads lead to Chicago."¹³

As cities exploded in size and both unskilled and skilled immigrants swelled the ranks of workers, the number of people who could afford private homes and yards greatly increased. Everywhere city dwellers eagerly moved from crowded apartment blocks in the core to newly built neighborhoods of houses with standard plans and lot sizes, dictated by a regular rectangular grid, like Chicago's. The concentration of many newly-arriving Europeans and the advent of the "tall business building" in cities such as New York, Boston, and Chicago dramatically changed the landscape. Natural boundaries such as rivers that impeded urban growth were bridged by technology. Steel bridges made rivers crossable, and safety elevators resulted in taller buildings.¹⁴

Maximizing rentable space was every developer's goal—Dankmar Adler wrote in *Cassier's* that "[the] sky-scraper cannot be considered monumental of anything but human greed and of man's desire for gain."¹⁵ By the third quarter of the nineteenth century, Chicago had been transformed by ambitious civil engineering projects, thousands of immigrants, and a diversified and rapidly growing economy. C. H. Blackall, a fellow architect described a visit to Chicago in 1887 as a sort of intellectual tonic, and photographs of the period show the hustle and bustle of a vibrant downtown. People and high buildings, crowded sidewalks and advertising signs everywhere, well stocked store windows and packed streetcars clanging for pedestrians to move out of their way proved that Chicago was a busy place.

Chicago's reputation beyond America's borders was that of a vulgar, jostling, greed-driven, and crude metropolis. Two European observers, performers themselves, characterized the city as a center for butchering animals, and their views would have horrified the city's proud founders who had established cultural facilities that reflected Chicago's high aspirations. The city charter had hardly been signed when a historical society and a theater company were organized. Bringing the railroad to Chicago and settling thousands of immigrants manifested the founders' zeal and enthusiasm. Their aim was to make

Chicago the equal of Paris or Vienna and of New York, its major rival.¹⁶ Illinois's governor distanced the diamond of Chicago's civilization from the mire of the slaughter-pen, and the nation's leading diva, Adelina Patti pronounced the acoustics of the Auditorium perfect and called singing in New York's Metropolitan Opera "like singing in a balloon."¹⁷

European music houses were as stratified as the societies that built them, while the Auditorium broke with that tradition. The visionaries and the architects were as concerned for the comfort and safety of the people in the gallery as they were for the box-holders. And the hall was to be as democratic and accessible as it was perfectly fashioned to its purpose. It integrated the values of both architects: adaptability to multiple uses, which was Adler's primary concern; and democracy, which was Sullivan's. The backers wanted these and more—social cohesion and peace.

The trajectory of the firm of Adler & Sullivan began in 1886 with the design of the Auditorium Building. It was a commission handed to Adler without a competition, thereby validating his high standing in the minds of Chicago's cultural leaders. His prior experience with his first concert hall, the Central Music Hall, provided the basis for his acoustical knowledge, and the Auditorium was the full flowering of that ability. It was a large hall, but one that could be made smaller with a reducing curtain; and acoustical considerations determined its form. The arches were integral to both its excellent sound and its elegant decoration. As part of a larger complex, it was designed to be financially self sufficient, with revenues from an office building and hotel underwriting the high costs of a hall that in order to keep the seats at a reasonable price.

Sullivan's contributions were significant, although, at the time, his reputation was only beginning to develop. He had shown his skill when remodeling some smaller theatres, and his partner gave him free reign to develop his ornament on a grand scale. He did so with panache! Sullivan masterfully combined color and lighting on the interior, integrating the light bulbs into the ornament and using gold leaf abundantly, but never gaudily. The firm went on to design with similar brilliance other buildings: the Schiller Theatre and the Chicago Stock Exchange, the Wainwright Building and St. Nicholas Hotel in St. Louis, the Pueblo, Colorado Opera House.

When the Auditorium tower was completed, the firm moved from the Borden Block, in the north loop, to offices at the top floors of the

tower, just south of the loop. It was the beginning of five years of growth and accomplishment. To meet the demands of a growing practice, Adler & Sullivan took on additional draftsmen, of whom the most famous was Frank Lloyd Wright. The firm reached its peak size in the period between the start of the Auditorium design—with sixty projects, about one-third commercial ones and some unbuilt, on the drawing boards—and the doldrums of the Depression of 1892/93.¹⁸ These commissions were not the single-family residences and factories that had been the backbone of the business when Dankmar Adler and Louis Sullivan first worked together, but substantial and more lucrative commercial buildings.

The office branched into a number of separate departments. Architecture and engineering diverged, and the accounting and marketing activities came under a new business department. Larger buildings and more challenging jobs came into the office and the talents available to clients multiplied. Adler worked on sightlines and acoustics, foundations and ventilation systems—until the time came to turn to specialists who were university-educated engineers—while Louis Sullivan turned base materials into golden decoration, making interiors into experiences of sublime beauty. Their talents were as complementary as their temperaments were dissimilar. The older man brought in the clients, the younger one ensorcelled them. Adler was the down-to-earth planner, Sullivan was the poet.

Adler supervised construction, sometimes with the participation of an experienced engineer, Paul Mueller. His reputation was that of a tough, independent, and no-nonsense architect who maintained watch over every aspect of the job. More than two decades after Adler's death, a colleague recollected that, "if we only had more architects like Adler to work for; he was never cowed by an owner and a contractor was assured justice at his hand."¹⁹

Louis Sullivan worked with a single assistant with whom he maintained a close and intense relationship. That person supervised the draftsmen and did detailing of the ornament. Frank Lloyd Wright was the first to hold the job; George G. Elmslie was the last, and the most extraordinarily loyal assistant for which an architect could wish. Artistry took time and came at a cost. Custom designed terra cotta and iron could be manufactured, but it was Louis Sullivan's pencil that created it and it was up to him to approve it. He demanded perfection of himself,

his assistant, and the companies that produced the terra cotta and ironwork.

The ever-present problem of structure and ornament and their integration in any design was philosophical, as described by architectural critic, Barr Ferree:

Architects, especially those that considered themselves artists, should be carefully watched so as not to be given a chance to create a structure poorly adapted for its utilitarian purposes.²⁰

When ornament was part of a contract, negotiated for a definite price and with a fixed date, it became an economic factor with important consequences. Cost overruns were a problem for many firms. In this partnership, they were Adler's headache. "If terra cotta is used for an external facing material, the repetitions of detail will reduce cost and expedite progress," Adler noted in his *Cassier's* article.

But Sullivan insisted on different designs for each story because decorative terra cotta emphasized the verticality of skyscrapers, and because it was his unique signature. His ornament is the most visible manifestation of his temperament. His moods fluctuated between highs and lows. He went from great bursts of creativity to periods of deep depression. Capable of sustained and exceptional focus on a design project, he was overwhelmed with exhaustion when it was over. His writing expresses it. Hypomaniac, even florid at times, his style was intended—and perceived—to be poetic, but in its extravagant energy and grandiose scope, it encompassed the world of nature, art, culture, and values in one perfervid outpouring.

Adler's family, like most people of their time, attributed Sullivan's moodiness to bromine addiction, which, his daughter, Sara Adler Weil, believed, had originally been prescribed for intractable pain. According to Wright, a dissipated lifestyle originating in Paris, compounded by bromine and excessive caffeine was the problem. Alcoholism is cited by others. Alcohol, drugs, and neglect were but complicating factors.²¹ The underlying condition was bipolar disorder, common to many artistic geniuses who paid a price for their episodes of surging energy. Large projects took an especially heavy toll on Sullivan. After the extensive exertion of the Auditorium, he suffered from a long

bout of depression and required a quiet, unpressured environment in which to recover. Later, his retreat at Ocean Springs, Mississippi, provided that quiet setting, but for financial reasons, he could not hold on to it. His ability to energize himself for a period of unequalled creativity was legendary, but this little-understood disease sometimes overcame his talents.²²

The World's Columbian Exposition was an emphatic declaration that Chicago had arrived! It was a city of global consequence, a center of culture and architecture as well as moneymaking. Daniel Burnham, later to become a successful urban planner and his partner, John Root, one of Chicago's most creative architects, planned along with New Yorker Richard Morris Hunt—who was trained at *L'École des Beaux-Arts*. Root died within days of starting the project, and when the buildings were allocated, East Coast architects were assigned five, as were Chicagoans; and one went to Howe & Van Brunt from Kansas City.

The fair got a late start, having been planned for the four-hundredth anniversary of Columbus's voyage of discovery, and it did not open until mid-1893. The ceremonial dedication took place on 21 October 1892, with a parade led by the Vice-President of the United States, Levi Morton. It started out from the Auditorium Building, and ended at the site of the fair in Jackson Park. The World's Columbian Exposition opened its gates in May, 1893. The Exposition was urban life in microcosm, from the flammable elegance of the Court of Honor (it burned down after the closing), to the honest hucksterism of the Midway. George W. G. Ferris's wheel, 250 foot in diameter, was awesome with its great circle suspended in the air between two 140 foot towers. At its apex, sixty viewers in each of thirty-six cars were 264 feet off the ground. With its huge dimensions and three thousand incandescent bulbs, it challenged the Eiffel Tower and the Paris Exposition.²³ The Ferris wheel became a regular fixture of fair architecture and it made a substantial profit in Chicago.

Adler & Sullivan's assignment was the Transportation Building. They designed it by turning the Auditorium inside out. They fashioned a multi-colored exterior with an entrance of gilded arches that could not have differed more from the array of pure white classical revival buildings that formed the court of honor around the lagoon. Located at a distance from them, the Transportation Building incorporated neither the classical references nor the uniformity of color, and this building,

more than anything else, expressed Adler & Sullivan's disdain as a firm for Classical Revival architecture; it belonged to the past.²⁴

Coverage of the fair in the architectural and popular press everywhere broadcast the reputations of Chicago, and of Adler & Sullivan and all the other architects, as well, to a huge public in the United States and abroad. The Transportation Building won a gold medal from the *Musée des Arts Decoratifs*, but it was outshone by electric lighting, and, despite Adler & Sullivan's opinion, the classical revival architectural style. The White City captured popular taste, which preferred buildings in pristine white unsullied by city smoke, dirt, or daily life, and so it became the pole star—a stage set grouped around an artificial pond—dazzlingly illuminated by electric light.

Adler was quoted in the *Chicago Tribune* as saying,

The immediate effect of the example of the Fair buildings will be a general and indiscriminate use of the classic in American architecture. Efforts will be made to force into the garb of the classic Renaissance structures of every kind and quality devoted to every conceivable purpose ... in palace and cottage, in residence and out-house, in sky-scraping temple of Mammon on city streets, and in humble chapel and schoolhouse of the country roadside.²⁵

Sullivan agreed with Adler's assessment; his first biographer, Hugh Morrison, characterized his criticism as "vitriolic:"

The White City was a dream of beauty, it was a dangerous and spurious kind of beauty, spurious because it appropriated the forms of a culture not its own, dangerous because it seemed to do this so successfully. It represented the acme of all that Sullivan had fought against during his whole life.²⁶

The Transportation Building was suitably ornate because it was for a festive and proud celebration. But Adler and Sullivan's belief that beautiful buildings were good business was an opinion not widely held in the world of commerce. The most financially successful architectural

firms saw, as Louis Sullivan did not, that most businessmen were conservative in their taste and careful in their expenditures. Consequently, commissions went to Cass Gilbert and McKim, Mead and White in New York and to Holabird & Root or Daniel Burnham's firm in Chicago.

The once vibrant Adler & Sullivan office began to shrink even before the World Columbian Exposition came to a close in 1893. The enthusiastic young draftsmen and newly-educated engineers left to pursue other lucrative opportunities in Chicago and in the East. Where once they had studied and worked, and learned from their mentors, the office fell eerily silent. Novices often formed partnerships that were severed as the economy and a proliferation of professionals made the practice of architecture in a city difficult, or as other cities promised opportunity for one man and not the other, but the diminution of Adler & Sullivan in the early 1890s was precipitous. After the recovery, in the late 1890s, the firm of Adler & Sullivan had ceased to exist.

"Lieber Meister," (Louis Sullivan), the "Big Chief" (Dankmar Adler) and Paul Mueller no longer supervised fifty men, or even ten. Mueller was gone and Sullivan precipitously fired Wright for violating his contract. Although the draftsman had paid off the money he had borrowed to buy a house, Sullivan refused to turn over the deed because Wright had designed houses for outside clients. Even Adler's intervention did not sway him.²⁷

Architectural and real estate magazines surveyed the scene and bleakly noted that architects had little new work to report. Adler & Sullivan was no exception. Their projects of 1893/94 were few and cheap, and the firm fared badly. Even after the reduction in staff, there was insufficient income to pay them, and Adler had to turn to friends to meet the summer payroll. By midsummer of 1893 there were only three people left in the firm, including the principals themselves.

With little other work to distract them, Adler & Sullivan focused their efforts on Hascal Taylor's project for Buffalo, New York. An oil millionaire who aspired to elevate the cultural life of his city, he contacted them for an acoustically advanced and aesthetically important design. By 1890 he had assembled enough land around Church and Pearl Streets for the first phase, an office building. (Plans for an opera house and hotel, added later, were abandoned.) Buffalo was receptive to progress—some major inventions of the nineteenth century, like the steam-powered grain elevator, were first produced by Buffalo citizens.

Hascal Taylor died in early November 1894 but the building was too good an idea to die with him, and the Guaranty Construction Company of Chicago bought the plans and the site.

Ground breaking took place in February 1895, and by July, Adler had the foundations down and the steelwork up. Completing the building rapidly was essential because the Chicago firm of Daniel Burnham & Company was putting up the Ellicott Square Building simultaneously, and, to the victor belonged the tenants. The Guaranty won, but it was a pyrrhic victory. The Prudential Insurance Company bought the building outright in 1900, and changed its name to the Prudential Building, but it was not a prudent investment. In fact it never showed a profit. But it was and is great architecture

Sullivan envisioned for Buffalo a building, not lithic and rugged like the Auditorium, but inseparable from its elegant and lacy skin. Admirers of the Guaranty Building see it as the pinnacle of skyscraper design. Sullivan's talents as a designer of ornament were praised by his contemporaries, and have enraptured a multitude of visitors, critics, architectural historians, and writers. To nineteenth century architectural critic Montgomery Schuyler, the Guaranty was the highest logical and aesthetic development of the steel-framed skyscraper and nothing he saw later altered that judgment. Ada Louise Huxtable, architecture critic of the *New York Times* in the mid-twentieth century, was "stunned" when she visited it; and New York Senator Daniel Patrick Moynihan said of its potential demise: "I'd rather see Mount Vernon torn down, or the White House." Joseph Siry concluded his essay by emphasizing that "[it is] total integration of building's systems—spatial, structural, mechanical and ornamental ... [with] an underlying geometry."²⁸

This enthusiastically received but only partially realized commission proved to be too great a strain on the firm. Adler, who always disliked leaving his wife, Dila, was tired out by the trips he made to the site and to New York City to solicit new business. He wrote to her from New York City as the Guaranty commission got underway:

If the Burgess matter goes, we shall have to spend the greater part of summer here ... I hardly think anyway that the Burgess job alone [a \$250,000 theatre building] is big enough for a division with anyone else.²⁹



The Guaranty Building[®], Church and Pearl Street, (extant), Buffalo, New York, 1894/95.

Photo reproduced courtesy of the author.

Burgess's plans did not lead to a contract, and the Guaranty Building's budget could not accommodate a supervising architect, so Adler oversaw the initial planning, foundations, and steel structure, which he inspected in the spring of 1895. Nonetheless, the owner regarded it as Sullivan's building. Adler's name was removed from the drawings and photographs—Adler thought it was at Sullivan's behest—and the work was credited to Sullivan alone. The leading architectural journal of the time, credited Sullivan as the designer and builder: "Although [the Guaranty] Building was put through its preparatory stages before the dissolution of the partnership between Messrs. Adler & Sullivan, the building itself has been erected as well as designed by Mr. Sullivan."³⁰

The Guaranty Building exemplified synergy and artistic creativity that made it a work of sublime poetry, harmony made visible, a total work of art, what German art historians call *kunstgesamptwerk*. Chicago architect William LeBaron Jenney had said, "Structure and function were primary in determining the character of a building. Ornament enhanced it and added an element of poetry."³¹

The Guaranty Building was the denouement in the drama of the Adler & Sullivan demise. They began projects for other cities, Salt Lake City and Seattle, but those remained only plans on paper. What had seemed to offer the promise of great rewards—money and a reputation in a part of the country where they had never before worked—did not lead to other commissions for the firm. When the Auditorium was built in 1887/89, Chicago was expanding along with the national economy. But in the 1890s, what little work there was in Chicago went to other firms. Although Sullivan would later design the Bayard Building in lower Manhattan, and Adler would work from an office in New York City, that city was never "their oyster" (to borrow a phrase popular at the time). Their glory days were over. The prosperity that lay ahead, as economic growth resumed, came too late for the firm of Adler & Sullivan.

Dissolution of their partnership severed the seamless connection between artist and builder, and the tragedy was compounded by their inability to reestablish the firm after six months of separation. Young architects lost a training laboratory and few acoustically distinguished and outstandingly beautiful buildings were designed or erected in the United States for decades—indeed never. Dankmar Adler left the partnership reluctantly in the summer of 1895, and only for a phenomenal salary offered to him by Richard Crane. He became the sales manager

and technical consultant of Crane Elevator Company, and it meant that any original architectural work be sacrificed to sales.

Dankmar Adler was fifty-two years old and, as he considered the situation, there was no work ahead, nor did any seem likely. So concerned was he about his family's financial future that he drafted a last will and testament, a brief six sentence directive containing little that was unusual. The state of his career was due to the major stress, but other factors included his wife's declining health and his family responsibilities, including two sons whose careers were barely launched, and an unmarried daughter. He tried to provide for them as best he could. Abraham, as heir apparent to the D. Adler & Company mantle, was to inherit his father's professional library. Sydney got the gold watch. Sara, who was named for his mother whom he never knew, could choose from among her father's poetry and fiction collection. She was also to get his pearl studs. Everything else went to his wife, Dila, who was named "sole executrix" of the will and "Administratrix [sic] of [the] Estate."³²

The contents of Adler's real and personal property, as described in this document, was meager, considering the success and fame of the firm of Adler & Sullivan.³³ It confirmed his status as a successful architect and engineer in terms of his contributions to the professions, but not his financial success. While the Auditorium paid the largest commission, it did not prove to be a successful investment because it did not initiate substantial investment in the area south of Congress Street as the backers anticipated. The Adlers continued to reside in the same townhouse on Ellis Avenue during his entire career, a measure of his moderate income and of the family's lack of geographic mobility. But Adler's will, dated 24 August 1895, is crucial because of what it reveals about Adler and Sullivan's relationship in the latter half of 1895, after Adler had left the firm. Louis Sullivan's hope that they would remain friends is borne out by Adler's will. One of the two witnesses was Louis H. Sullivan. Adler had a wide circle of colleagues, relatives, and friends, any one of whom would have done this small task, yet he chose his partner above everyone else.

When Adler returned to the practice of architecture at the beginning of 1896, after being the employee of Crane, another strong-willed man accustomed to being the boss, *The Chicago Times* announced that he moved back into a smaller office in the Auditorium Building. He chose

to work in very compact quarters because he did everything he could to avoid debt. Moreover, his reputation was significant enough not to need an impressive and expensive suite of offices.

Many factors had made it impossible for him and Sullivan to work together. Sullivan had had six months experience in running his own firm, which better prepared him to continue in solo practice. The firm had always been Adler & Sullivan, but Sullivan may have believed that, in leaving the practice, Adler forfeited the right to be the senior partner. Sullivan & Adler would be more accurate, in his view. Sullivan was correct in valuing his unique abilities; any client wanting an Adler & Sullivan building would not be satisfied with anything less.

Louis Sullivan was never one to compromise; even in lean times he was not a flexible man. Working side by side again was untenable because Sullivan demanded complete and total loyalty to architecture by himself and by his partner. He could never imagine doing anything but designing. At the end of his life, he had no buildings to build, but still he continued to draw. According to one biographer,

[he designed] a hermetic city suggested in the strange selfcontainedness of Sullivan's ornament as year by year it burgeoned in richness and effectiveness while his own economic and physical powers waned, an ornament that became an entity in itself and ultimately—spread out in the end only as broad mazes of pencil lines—evoked miniature fantasy-cities.²⁴

Adler could never have accepted this subordination from someone his junior in age and experience. Sullivan had to return to him because Sullivan's success had always been as a member of their partnership, whereas his own independent career dated back to 1879. Philosophically they differed: Adler was certain that structure was supreme; for Sullivan ornament was sublime. To the extent that he saw Sullivan as a designer of ornament, Adler believed that Louis Sullivan would always need a partner to find clients and to plan and engineer buildings. Adler himself could sacrifice ornament, and still satisfy clients, while saving the expense that Sullivan's genius added.

Sullivan, on his side, could not excuse Adler for the six-month hiatus, especially for a job not as an architect, as Sullivan defined it, but

as a businessman. Without a family to support, he did not see Adler's necessity to survive hard times by taking a job solely because it paid very well. Adler expected Sullivan to forgive what his partner unjustly regarded as desertion. Adler's experience working at the Crane Company proved to be untenable, and he left the elevator company somber and pragmatic. Having always seen architecture as encompassing architectural engineering, Adler did not see himself as having left his profession.

The senior man was insulted, the younger one stubborn.

Frank Lloyd Wright described his futile efforts to bridge the schism between the man he called "the architect" and the other, the "design partner." While paying a social call on Adler at the Union League Club, Wright listened to his despondency, anger, and concern. Adler blamed Sullivan for the rumors of ongoing engineering problems in the Auditorium, but his greatest disappointment was Sullivan's failure to properly credit his contribution to the Guaranty Building, saying without him, it could never have been built.

Adler counseled the young man to maintain a solo practice, eliminate unnecessary expenses like impressive offices, and earn more from a higher return on small commissions than a small return on large projects. According to Wright, Adler advised him to "take this from me, you do the same. Keep your office in your hat so far as you can. No architect on that individual basis needs a partner" Wright reported that "worry and disappointment had already done something to the grand old chief."²⁵ Since Wright was too junior a person to have mediated this quarrel, separation turned into estrangement.

In November of 1896, after Adler had returned to a small office in the Auditorium Building, there was a discussion at the American Institute of Architects convention on the use of new materials in architecture, especially steel and glass. *The Inland Architect and News Record* printed responses from architects from various cities on the subject, including a lengthy statement by Dankmar Adler. He took it as an opportunity to excoriate his former partner, who had published his philosophy in *Lippincott's Magazine*, written for a general readership.

Sullivan's fully-developed architectural philosophy appeared as "The Tall Office Building Artistically Considered." In it, Sullivan separated the work of "material necessity," meaning the "speculator, engineer, and builder" from the "man who designs in this spirit and

with the sense of responsibility to the generation he lives in. ... He must live of his life and for his life in the fullest, most consummate sense." The latter is the artist, not in need of excessive book learning but able to express the "dominant chord of the tall office building," that "it is lofty." Art was not an added element but as in nature, it was the complementarity of the thing with its purpose—"form following function." The result would be democratic architecture "of the people, for the people, and by the people," and because it would be an American architecture, it would not imitate past styles but it would innovate that which is appropriate to democracy.³⁶

By contrast with Sullivan's exalted rhetoric, Dankmar Adler's concerns with regard to "The Tall Business Building" were evident in the subtitle of his own article "Some of Its Engineering Problems," in *Cassier's Magazine*. Its readers were engineers, and it is to be expected that Adler would focus on elevators and boilers in great detail. But he rarely mentioned engineers without joining the term to architects, which he saw separable only in theory, but necessarily linked. Sullivan, on the other hand, distinguished the architect from the "speculator-engineer-builder." Where Sullivan saw architects giving speculators designs with more aesthetic qualities than they paid for, Adler thought that the skyscraper, itself, was the product of greed—the drive to maximize return for the investor, the most compelling, but not negative, of concerns.

Two technological inventions made tall buildings possible, safe, and economical—the hydraulic elevator and the steel skeleton, and one thing made them necessary: capitalism. Although Adler described corporate capitalism in terms such as "dogmatic" and "philistine," it had a saving grace. Beauty—"a luxurious interior and a charming façade"—brought tenants. Good design was good business. Sullivan believed that architecture ennobled civic life. Adler agreed that the best of tall buildings enhanced urban life and work. Dankmar Adler looked at skyscrapers and deemed them successful when they integrated "a work of art, and a realization of the best in the science and practice of structural, mechanical, electric and sanitary engineering."³⁷

Describing his former partner as "the clear thinker and brilliant writer" of the article in *Lippincott's Magazine* that boldly eschewed historic precedent, Adler amended Sullivan's "'form follows function'" to include form plus environment. "The architect is not only an artist, but also an engineer, a man of science and a man of affairs, [one] who not

[be] allowed to wait until, seized by an irresistible impulse from within, he gives the world the fruit of his studies and musings. He is of the world as well as in it." Pointing to Michelangelo—not coincidentally the artist/architect whom Sullivan most admired—he noted that,

an important factor in his greatness ... was his familiarity with the technique of auxiliary and subsidiary arts, sciences and crafts, the command of which devolves upon the architect. The great Buonarrotti did not disdain to learn the metal founder's, the quarry worker's and other crafts in order to be the better able to carry out the plans which his great mind had conceived.³⁸

His rebuke concluded, Adler exhorted his colleagues to "let us then welcome the prosaic output of furnace and mill, and even the unpromising and garish sheet of plate glass."³⁹

The division of Adler & Sullivan into two independent architectural practices was neither inevitable; nor is it attributable to a single factor. The explanation that satisfied Adler's daughter, Sara Adler Weil, and granddaughter, Joan Weil Saltzstein, was that Louis Sullivan and Dankmar Adler never reconciled because of Adler's desire to work with his son Abraham, after his graduation from the University of Michigan. But "Abe" was a mechanical engineer and hardly a replacement for Sullivan who need not have severed his connection to the firm.

The tragedy was that reconciliation came too late for Sullivan to renew professional ties with his partner and deprived architecture of their synergistic creativity. After the argument cooled, however, Sullivan did reintegrate into the Adler family life. It is evident from the role he played at the end of Adler's life. The friendship, which was exemplified by Sullivan's signature on Adler's will, was reinforced at Adler's funeral at which Louis Sullivan was one of the pallbearers. And it would be evident much later when Adler's family supported and sustained Louis Sullivan.

Between the break-up of the firm in 1895/96 and his death in 1900, Adler had few commissions and he never collected his consulting fees for the New York building that is synonymous with excellent sound, the Carnegie Music Hall. An old claim of \$1800 was never paid. After the breakup of the partnership, their mutual dependence became

evident. Without Adler to impose limitations that forced Louis Sullivan to stay within the client's budget, his ornament became an expendable luxury. His exquisite attention to design was never matched by a similar regard for budget considerations. Moreover, Sullivan lacked the ease with which Adler negotiated business—and personal—relationships. He lived with a degree of intensity that made him a great artist, but a difficult and mercurial personality. A chain smoker who did not relish small talk and was not a raconteur, his work was his life and his life was his work. Only music and poetry diverted him from the drawing board. Estranged from his brother, and once unhappily married with no children of his own, the Adlers provided the only family life he had.

The World's Columbian Exposition in 1893 in Chicago had elevated the city to a new plane and Adler & Sullivan's Transportation Building confirmed their status in the first tier of American architects. Other large projects, which came into the office in 1892 and afterwards, went unbuilt, with the exception of the Guaranty Building in Buffalo. The nation-wide depression of 1891, which hit Chicago the hardest in 1893, was the major factor in the firm's demise but it is not enough to account for the failure of the partners to reunite in 1896. That has the character of a Greek tragedy.

The talents and skills that led to the rise of the firm of Adler & Sullivan also led to its dissolution. That Dankmar Adler and Louis Sullivan could not reunite was not only economic, it was a matter of personalities. No more antithetical temperaments could be imagined. Their talents were complementary, but their emotional, work, and family lives were dissimilar in every respect.

Sullivan strove to be an architect whose works were the embodiment of democratic and artistic ideals. He resisted the shift in taste in his architecture and in his philosophy, which, in the absence of commissions, he had opportunity to define. Dankmar Adler's attitude toward life, as reflected in his autobiography and personal letters, was self-mocking and humorous; but his approach to architecture was business-like. He understood the values of the businessmen for whom he worked. He admired them for their "very prosaic notions as to the generally intensely selfish and not at all altruistic purposes for which he wants his money expended."⁴⁰

In his late years, Adler contented himself with utilitarian warehouses and factories, but his late commissions—a temple and two

dormitories for the University of Chicago—were classical in detail. By contrast Sullivan's last works, small banks in small towns, are magnificent.

Possessing no university degree, Adler was, nonetheless, an educator. In addition to mentoring the young men in his own office, he traveled to the University of Illinois, at the invitation of Nathan Clifford Ricker, to lecture on engineering problems. And Adler was elected the first chairman of the five-member Illinois State Board of Architects, a group representing overlapping constituencies: four architects and engineers, and one faculty member from the University of Illinois at Urbana-Champaign.

Nathan Clifford Ricker was the obvious choice for the faculty representative, since he was the founding dean of the school of architecture. Adler was selected because he was an early and vigorous proponent of licensure in print and in person, spreading the idea among his fellow professionals, advocating it at organizations, and lobbying for it in the Illinois legislature. Together the two men devised the first set of examination questions, and thus, Illinois became the first state in the country to license architects.⁴¹

The initial legislation grandfathered in the existing practitioners, without examination. Provisional status allowed graduates of the drafting room, which is what Adler, himself, had been, to work under the supervision of board-certified architects. Sullivan and Wright both lacked academic credentials. As the potential safety hazards of tall buildings grew, degree programs in architectural engineering or consultation with an expert became prerequisite. A state wide certification ensured uniformity across all programs at all accredited universities.

Dankmar Adler published his philosophy of education, less an ideal curriculum than his own statement on the goals of education. He believed that the superior architect does not passively accept tasks; he shows the way to "new wants" and he fulfills them. History's greatest architects were also gifted painters, sculptors, engineers, or musicians. He emphasized that architectural education fails precisely to the extent that is narrow preparation for practice. If designers are to know their times and their fellows—some potential colleagues, some clients—they cannot be segregated from other students in their education. The best technological school is not separate from, but integrated into the university. "This is my argument for the formation of a technological school as

part [italics mine] of the new University of Chicago." His argument did not persuade the Board of Trustees.⁴²

Although he had led of the Western Association of Architects in the mid-1880s, he resisted nomination to the presidency of the American Institute of Architects, the unified organization which resulted from a merger of the W.A.A. and the A.I.A. "I have had quite a time already this morning trying to convince the chairman of one of the nominating committees that I want to be Secretary and not President," he wrote to his wife from the A.I.A. conference in Boston in 1891. The following day he expressed relief: "I had a close call as to the Presidency ... [Edward H.] Kendall accepted it] so the matter is all right."⁴³

Dankmar Adler's early and post-Sullivan buildings are proof that genius is not a prerequisite for producing competent buildings that come in at or under budget. And Sullivan, working alone, demonstrated that genius alone does not guarantee success. Adler had learned early in his career that beauty added economic value, but only if it was kept in check. Most businessmen would not pay extra for art. Adler had always done, and could continue to do factories and warehouses, and an occasional office building in an again prosperous city.

Louis Sullivan's late career showed that genius alone was no guarantee of success. He was a visionary, a philosopher, and a very harsh judge—once a man had transgressed, there was no second chance. After he and Adler went their separate ways, Sullivan made no overtures to reconstitute the firm. He was a loner, with no family and a small coterie of friends. In contrast to Adler, Sullivan did not appreciate life's essential irony but lived it with high seriousness. He channeled all his energies into his art and ended his career with outstanding buildings, but too few to assure him a livelihood. Sullivan was never a good money manager—not his own money, or his clients. Broke and broken, Louis Sullivan's support in his final months came from his colleagues, and Adler's surviving son, Sidney. Sullivan's architectural heir was first and foremost Frank Lloyd Wright. The successor architectural practice of Adler & Sullivan was Alfred Alschuler's, who had worked for Adler & Sullivan, and employed Abe after his father's demise.

When Dankmar Adler died suddenly in April of 1900, services were held in the Kehillath Anshe Maariv (KAM) synagogue building that he and Sullivan had built. It must have been an evocative and piercing experience for Sullivan as he helped carry the body of his

mentor, critic, and friend of a lifetime. The Chicago Jewish newspaper reported that Adler was buried in the KAM cemetery, with a column from his first successful independent commission—the Central Music Hall—to mark his grave.⁴⁴ Sullivan was bereft.

Notes

1 The complete text of Adler's autobiography is in the Adler Archive in the Newberry Library, as are his personal letters and papers. The autobiography was excerpted in the article on Adler & Sullivan in *Great American Architect*, Series 2, "The Chicago Auditorium," *Architectural Record* 1 (1895): 19ff.

2 <http://users.vnet.net/schulman/Columbian/columbian.html>.

3 *Inland Architect and News Record* 19 (1892), 36-7.

4 *Ibid.*, 3-4.

5 *Ibid.*

6 Dankmar Adler, "The Tall Business Building: Some of its Engineering Problems," *Cassier's Magazine* 12 (1897): 194.

7 Frank Lloyd Wright, "Form Follows Function," *Saturday Review of Literature* (14 Dec. 1935): 6.

8 Louis H. Sullivan, *The Autobiography of an Idea* (New York: American Institute of Architects Press, 1924); (*Inspiration*) (Chicago, 1886); *Kindergarten Chats on Architecture, Education and Democracy* (Washington, D.C.: Scarab Fraternity Press, 1934); *A System of Architectural Ornament According with a Philosophy of Man's Powers* (New York: Press of the American Institute of Architects, 1924); Hugh Morrison, *Louis Sullivan: Prophet of Modern Architecture* (New York: W.W. Norton & Co., 1935); Morrison, *Louis Sullivan: Introduction and Revised List of Buildings by Timothy J. Samuelson* (reprint 1998); Robert Twombly, *Louis Sullivan: His Life and his Work* (New York: Viking, 1986); Twombly, *Louis Sullivan: The Public Papers* (Chicago: University of Chicago Press, 1988); Twombly and Narciso Menocal, *Louis Sullivan: the Poetry of Architecture* (New York: W.W. Norton, 2000); Joseph Siry, "Adler & Sullivan's Guaranty Building in Buffalo," *Journal of the Society of Architectural Historians* 55 (Mar. 1996): 6-37; Siry, "Chicago's Auditorium Building," *Journal of the Society of Architectural Historians* 57 (June, 1998): 128-59; Siry, *The Chicago Auditorium Building: Adler and Sullivan's Architecture and the City* (Chicago: University of Chicago Press, 2002); Charles E. Gregersen, *Dankmar Adler: His Theatres and Auditoriums* (Athens, OH: Swallow Press, 1989); Rochelle Berger Elstein, "The Architectural Style of Dankmar Adler," (M.A. Thesis, University of Chicago, 1963); "The Architecture

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9 Leo Tolstoy, *Anna Karenina* (Indianapolis: Bobbs-Merrill, 1978), 1.

10 George E. Thomas, et al, *Frank Furness: The Complete Works*. (New York: Princeton Architectural Press, 1991), 362.

11 A.-F. Fourcroy, in Ken Alder, *Engineering the Revolution: Arms and the Enlightenment in France 1763 - 1815* (Princeton: Princeton University Press, 1997), 251.

12 Justin Smith Morrill, Republican from Vermont, served in the United States Congress, first in the House, 1855-1867, then in the Senate, 1867-98.

On the 14th of December 1857, Morrill introduced in the house a bill "donating public lands to the several states and Territories which may provide colleges for the benefit of agriculture and the mechanic arts." The bill did not pass, however, until 1861, under the sponsorship of Senator Benjamin Wade of Ohio.

The "Second Morrill Act," passed in 1890, an additional \$25,000 per annum to every land grant college. http://17.1911encyclopedia.org/M/MO/MORRILL_JUSTIN_SMITH.htm.

13 Giuseppe Giacosa, quoted in William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991), 42.

14 http://www.library.northwestern.edu/exhibits/elevator/tour_front.html. Jason Goodwin, *Otis: Giving Rise to the Modern City* (Chicago: Ivan R. Dee, 2001).

15 Cassiers," 193.

16 Siry, *The Chicago Auditorium Building*, 4, 200.

17 *Chicago Tribune* (10 Dec. 1889): 2.; (12 Dec. 1889): 1.

18 Partial list of Adler & Sullivan's commissions, Burnham and Ryerson Libraries, Art Institute of Chicago.

19 Arthur Woltersdorf, "A Portrait Gallery of Chicago Architects: Dankmar Adler" *Western Architect* 33 (July 1924): 79.

20 Barr Ferree, "Architecture," *Engineering Magazine* 7 (1894), quoted in Richard M Levy, "The Professionalization of American Architects and Civil Engineers, 1865-1917," (Ph.D. diss., University of California, Berkeley, 1980), 39.

21 Interview with Sara Adler Weil, Chicago, 21 June, 1962; Wright, *Genius and the Mobocracy* (New York: Duell, Sloan and Pearce, 1949), 72.

22 Kay Redfield Jamison, *Touched with Fire: Manic-Depressive Illness and the Artistic Temperament* (New York: Free Press, 1993).

23 <http://users.vnet.net/schulman/Columbian/columbian.html#BACK-GROUND>.

24 <http://users.vnet.net/schulman/Columbian/arch.html#TRANSPORTATION>.

25 *Chicago Tribune*, 29 October 1893, 37.

26 Morrison. *Louis Sullivan: Prophet of Modern Architecture*, 2nd ed., 153.

27 The nicknames were of Frank Lloyd Wright's devising but he was out of the firm well before the breakup. Frank Lloyd Wright, *Autobiography* (New York: Duell, Sloan and Pearce, 1943), 110-11.

28 Thomas J. Dolan, "Something to Make Us Proud," *The Buffalo News Magazine*, (11 Dec. 1983); Jean Reeves, "The Fight to Save a Sullivan Legacy," *Buffalo Evening News* (1 Feb. 1975): 8; Siry, "Adler & Sullivan's Guaranty," 30.

29 Letter to Dila, New York City, 21 Feb. 1895.

30 *American Architect and Building News*. 53 (1896): 2.

31 Theodore Turak, *William LeBaron Jenney: A Pioneer of Modern Architecture*, (Ann Arbor, UMI Research Press, 1986), 125.

32 Dankmar Adler, "Last Will and Testament," information provided by Rachel Baron Heimovics of Maitland Florida and New York to whom I am very indebted for her assistance and friendship.

33 Adler's shares in the firm's buildings did not produce a large return. After 1891, unbuilt projects increased; they required time and staff to design them but they paid little income, nor did remodelings and residences. After 1891, it was only an exceptionally large commission—over \$500,000—that offset the unbuilt buildings. Each year provided one: 1892: Union Trust Building (St. Louis), \$630,000; 1893: Chicago Stock Exchange, \$1,300,000. Morrison, *Louis Sullivan*, 2nd ed. 276-9.

34 David Van Zanten, *Sullivan's City: the Meaning of Ornament for Louis Sullivan* (New York, W.W. Norton, 2000), ix.

35 Wright, *Genius*. 69-70.

36 "The Influence of Steel Construction and Plate Glass Upon the Development of Modern Style." *The Inland Architect and News Record* 28 (Nov. 1896): 347; Sullivan "The Tall Office Building Artistically Considered." *Lippincott's Magazine* 57 (March 1896): 4039.

37 Adler, "Tall Business Building" *Cassier's*, 210.

38 "Influence of Steel Construction," 35.

39 Ibid.

40 Adler, "Proposed Technological School the Standpoint of the Architect," *Inland Architect and News Record* (19 April 1892), 37.

41 *Laws of the State of Illinois Enacted by the 40th General Assembly, 1897.*, 81-6.

42 Ibid., 36.

43 Letters to Dila, Boston, Letter 16, 29 October, 1891; 17. 3 October, 1891.

44 *The Reform Advocate*, 21 April 1900, 37.

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