

Famous Chicago Architects

How can reading about architects give us clues about their work?

Theme

This lesson introduces five architects and their most well-known Chicago buildings. Through photographs and short biographies, students will gather clues about the buildings and will practice their observation and descriptive writing skills.

Student Objectives

- observe and record information from photographs
- read descriptive text for meaning and information and demonstrate understanding by selecting an image to match text
- write descriptive paragraphs that clearly connect words to the images

Activities

- study photographs of five buildings and generate questions about them
- read five short architect biographies and building descriptions, then match text with photographs
- write descriptive paragraphs based on an aspect of one of the five buildings

Type

indoor, desktop activities

Timeframe

five class sessions of 30 minutes each, plus time for optional writing activities

Materials

- **Handout A** - Home Insurance Building
- **Handout B** - Carson Pirie Scott Building
- **Handout C** - Woman's Building
- **Handout D** - 860–880 North Lake Shore Drive apartments
- **Handout E** - 333 West Wacker Drive building
- **Handout F** - William Le Baron Jenney biography and building information
- **Handout G** - Louis Sullivan biography and building information
- **Handout H** - Sophia Hayden biography and building information
- **Handout I** - Ludwig Mies van der Rohe biography and building information
- **Handout J** - William Pedersen biography and building information
- a “viewer” cut from white paper (*one per student*)
- writing paper, pencils

Teacher Prep

- photocopy or scan **Handouts A–E** for display or projection
- photocopy **Handouts A–J** (*one set per student, student pair, or small group of students*)
- for each “viewer” cut a 2" square hole in the center of an 8-1/2" x 11" sheet of white paper



Vocabulary

architect a person who designs, draws, and oversees construction of buildings

architecture the design and style of buildings

architecture firm an office and business where architects work

engineering a scientific profession; engineers design bridges, roads, and the structure of buildings

skyscraper a very tall building

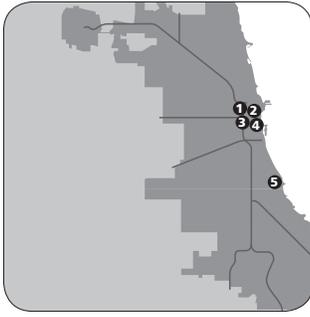
terra cotta Latin words for “cooked earth”; a building material made from moist clays from the ground, that are formed in molds, then fired at a very high temperature

ornamentation any decoration added to a building (painted, carved, molded, etc.)

skeleton frame system of construction erecting a structure by creating a frame of steel to support the building and then hanging a “skin” of glass, steel, or stone panels from it

World’s Columbian Exposition of 1893 (also called “The Fair” or “The World’s Fair”) a World’s Fair to celebrate the 400th anniversary of Christopher Columbus’ journey to the New World; it was held a year late, from May 1, 1893 to October 30, 1893

column a vertical structural element that supports a load



Location Information

- ❶ **333 West Wacker Drive**
Chicago, Illinois
- ❷ **860 and 880 North Lake Shore Drive**
Chicago, Illinois
- ❸ **The Carson Pirie Scott Building**
1 South State Street
Chicago, Illinois
- ❹ **The Home Insurance Building**
(now demolished) northeast corner
of LaSalle and Adams Streets
Chicago, Illinois
- ❺ **Woman's Building at the World's
Columbian Exposition**
(now demolished) east corner of
59th Street and Stony Island Avenue
Chicago, Illinois

Discussion Points

Day One

- What is an architect? (a person who designs, draws, and oversees construction of buildings)
- What is architecture? (the design and style of buildings)
- Can both men and women become architects? (Yes!)
- Clearly describe how each building looks. Be as specific as you can.
- Which of these buildings do you think is the oldest? Newest? What clues does the building give you?
- What other information can you gather from the photograph?
- Do you think the same person designed all five of these buildings? Why do you think that?
- What else would you like to know?

Background Information for Teacher

This lesson includes five Chicago buildings (two now demolished), five short biographies of the architects, and five short readings about the buildings. Students are to match the buildings with their architects, based upon the readings. Students will act as detectives by reading for information, collecting clues, asking questions, and then supporting their answers with the text and their own observations.

All five of these architects share something in common. None of them was born in Chicago (although some stayed and made their homes here), but all came here at one time to design buildings for Chicago.

William Le Baron Jenney (1832 Fairhaven, MA–1907 Los Angeles, CA) The Home Insurance Building at the northeast corner of LaSalle and Adams Streets was completed in 1885 and demolished in 1931. It is one of the world's earliest skyscrapers.

Jenney also designed the Second Leiter Building (1891) at 403 South State Street and the Manhattan Building (1891) at 431 South Dearborn Street.



Louis Sullivan (1856 Boston, MA–1924 Chicago, IL) The Sullivan Center (originally the Carson Pirie Scott Building) at 1 South State Street was built over several stages from 1889–1906 and in 1961.

Sullivan worked with architect Dankmar Adler and also designed the Chicago Auditorium (1889) at 430 South Michigan Avenue and the Chicago Stock Exchange (1894, demolished 1972) at 30 North LaSalle Street.



Sophia Hayden (1868 Santiago, Chile–1953 Winthrop, MA) The Woman's Building was located at the east corner of 59th Street and Stony Island Avenue. It was part of the World's Columbian Exposition, and like most of the other structures at The Fair, it was completed in 1892 and demolished only a year later.

Unfortunately, after winning the competition for the Woman's Building at age 21, Hayden retired from architecture and was later married in Massachusetts. Sadly, none of her other designs was ever built.



Ludwig Mies van der Rohe (1886 Aachen, Germany–1969 Chicago, IL) The two apartment buildings (1949–1951) are referred to by their addresses at 860 and 880 North Lake Shore Drive.

Mies van der Rohe also designed Crown Hall at Illinois Institute of Technology (1956) at 3360 South State Street and the Chicago Federal Center (1964-1974) on the block bounded by Dearborn, Adams, Clark, and Jackson Streets.



William Pedersen of Kohn Pedersen Fox Associates (1938–) This office building (1979–1983) is referred to by its address at 333 West Wacker Drive. William Pedersen is the head designer for the architecture firm of Kohn Pedersen Fox Associates (KPF), based in New York City.

KPF has also designed 900 North Michigan Avenue (1989) and the Chicago Title and Trust Center (1992) located at 161 North Clark Street.



Discussion Points (continued)

Day Two and Day Three

- What is a biography?
- Why do we read biographies?
- What information can we find in a biography?

Interdisciplinary Connections

Fine Arts

Students can design their own building for a specific site in the city or within their own neighborhood. After they have finished, have them write a short autobiography and explain why they designed the building in that style and in that particular place.

Mathematics

Create several simple story problems for your students based on the ages of the architects and the ages of the buildings. Examples from **Handouts F–J**: How many years did the Home Insurance Building stand before it was torn down? (46 years) How old was Ludwig Mies van der Rohe when William Pedersen was born? (52 years old)

Mathematics

The Woman's Building at the World's Columbian Exposition of 1893 was never meant to be a permanent structure. It had an iron and steel framework covered in a material similar to plaster of paris. However, the building was grand, measuring 388 feet by 193 feet. Take your class out to the playground or large parking lot and use a measuring tape and chalk to lay out the perimeter of Sophia Hayden's building.

Social Sciences

Using a world map, locate the birthplace of each architect.



Resources

AIA Guide to Chicago, 2nd ed., Alice Sinkevitch, ed. San Diego: Harcourt, 2004. A comprehensive guide to the city's architecture.

A Concise History of American Architecture, Leland M. Roth. New York: Harper & Row, 1979.

Discover America's Favorite Architects, Patricia Brown Glenn, Joe Stites, illust. New York: Preservation Press, 1996. An excellent book for children.

Modern Architecture since 1900, 3rd ed., William J. R. Curtis. Upper Saddle River, NJ: Prentice-Hall, 1996.

Under Every Roof: A Kids' Style and Field Guide to the Architecture of American Houses, Patricia Brown Glenn, Joe Stites, illust. New York: John Wiley & Sons, Inc., 1995. Another excellent book for children.

Illinois Learning Standards and Benchmarks

1B Apply reading strategies to improve understanding and fluency.

1.B.1c Continuously check and clarify for understanding (e.g., reread, read ahead, use visual and context clues, ask questions, retell, use meaningful substitutions).

1.B.1d Read age-appropriate materials aloud with fluency and accuracy.

3A Use correct grammar, spelling, punctuation, capitalization and structure.

3.A.1a Construct complete sentences which demonstrate subject/verb agreement; appropriate capitalization and punctuation; correct spelling of appropriate high-frequency words; and the appropriate use of the eight parts of speech.

Activity Procedures

DAY ONE

Introduction

1 Display the photographs on **Handouts A–E** and also distribute one set of the handouts to each student, student pair, or small group of students. Save these handouts for activities in Day Two, Day Three, and Day Four.

2 Use the Discussion Points to start a dialogue about the buildings. Try to get students to generate questions and answers based solely on how the building looks. They should become comfortable in using words to clearly describe the buildings they see.

DAY TWO and DAY THREE

Matching photographs with descriptions and biographies

3 Distribute copies of the short biographies and building descriptions on **Handouts F–J** to each student, student pair, or small group of students. Either the teacher or one student should read each text aloud in front of the class, while others follow along. Use the vocabulary and definitions provided to help students with unfamiliar words. After each reading, students should hold up one of the five buildings from **Handouts A–E** that they think the reader has described. Discuss their choices as well as the correct answers. Encourage the students to clearly articulate why they made their choice. What specific words in the text led them to choose the building they did? Underline these words or phrases. Which information in the text was not as important in identifying the photographs?

DAY FOUR

Descriptive writing about a building's features.

4 Tell the students to choose one of the buildings shown on **Handouts A–E** to write about, but to keep their choice a secret. Distribute the paper “viewers” to students. Model the process of moving the viewer around on the photograph in order to focus attention on certain areas of the building. Assign (or have them choose) one part of the building for them to concentrate on as they write one or several descriptive expository paragraphs.

Suggestions for focus:

- shape of the building
- windows
- doors
- building materials (stone, brick, glass, metal, etc.)
- amount of ornamentation applied to the building
- site / location / setting
- people and or activities happening in the photograph

DAY FIVE

Reading and sharing student writings

5 Play “what building am I?": One student reads what they wrote and classmates guess which building was being described. Alternatively, have students write their paragraphs and then trade with a partner for reading and guessing.

Extensions

Suggestions for extended writing, reading, and speaking activities using the buildings and architects from this lesson

Have students:

- Write about a building from the architect’s first-person perspective.
- Pretend that buildings can talk. What would the building say about its architect? About its own history? Write an interview with the building that includes your questions and the building’s “answers.” Then, exchange papers with another student and read each paper as it would be heard on a radio or television interview program.
- Imagine that these buildings haven’t been built yet. Create a “Coming Soon On This Site” billboard to announce what one of the buildings will be like. What words will students use to get people excited about this new building?
- Create a Venn diagram to compare and contrast two buildings or two architects. Perhaps you may want to have the students compare only the windows, or only the doors, etc. to narrow their focus and make this a bit easier.
- Create a postcard to send to a friend or relative. Draw a picture of one of the five buildings on the front. Write a message on the back, pretending that they have just visited the building. What have they seen there?
- Create a short quiz from what they have learned about one of the five buildings. Then, exchange quizzes with another student.
- Research and report on other buildings designed by these five architects. Where are these buildings located? What types of buildings are they? (*Note: Sophia Hayden never had any of her other designs built.*)
- Show the five architects in chronological order through a graphic timeline or a written timeline.

BUILDING PHOTO CREDITS Home Insurance Building built in 1885 and designed by William Le Baron Jenney, Chicago. (CAF COLLECTION); Carson Pirie Scott Building built in 1899–1906, 1961 and designed by Louis Sullivan, Chicago. (CAF COLLECTION, CIRCA 1965 AND CAF, 2002); The Woman’s Building built in 1893 and designed by Sophia Hayden, Chicago. (REPRODUCED FROM *THE BOOK OF THE FAIR*, 1893. COURTESY ILLINOIS INSTITUTE OF TECHNOLOGY, PAUL V. GALVIN LIBRARY); 860–880 North Lake Shore Drive Apartments built in 1949–1951 and designed by Ludwig Mies van der Rohe, Chicago. (HEDRICH BLESSING, CHICAGO HISTORICAL SOCIETY, HB-13809-L4 AND HB-13809-O6); 333 West Wacker Drive built in 1979–1983 and designed by Kohn Pedersen Fox Architects, Chicago. (© KPF ARCHITECTS, PHOTO BY BARBARA KARANT. USED WITH PERMISSION.)



Illinois Learning Standards and Benchmarks (continued)

3B Compose well-organized and coherent writing for specific purposes and audiences.

3.B.1b Demonstrate focus, organization, elaboration and integration in written compositions.

3C Communicate ideas in writing to accomplish a variety of purposes.

3.C.1a Write for a variety of purposes including description, information, explanation, persuasion and narration.

5C Apply acquired information, concepts and ideas to communicate in a variety of formats.

5.C.1b Use print, nonprint, human, and technological resources to acquire and use information.

16A Apply the skills of historical analysis and interpretation.

16.A.1b Ask historical questions and seek out answers from historical resources (e.g., myths, biographies, stories, old photographs, artwork, other visual or electronic sources).

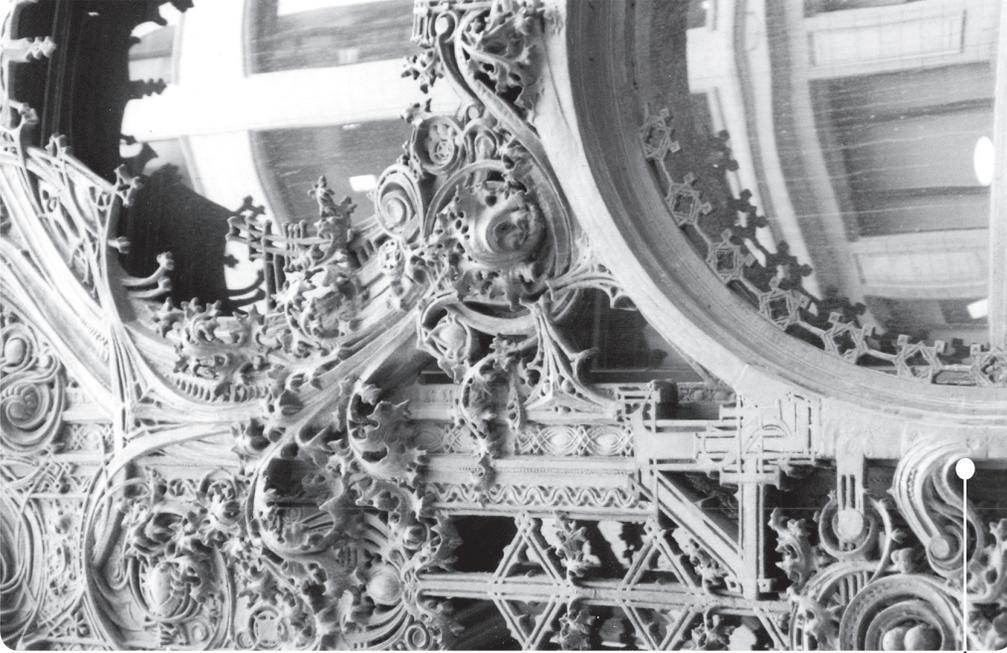
16D Understand Illinois, United States and world social history.

16.D.1 (US) Describe key figures and organizations in the social history of the local community.

Handout A



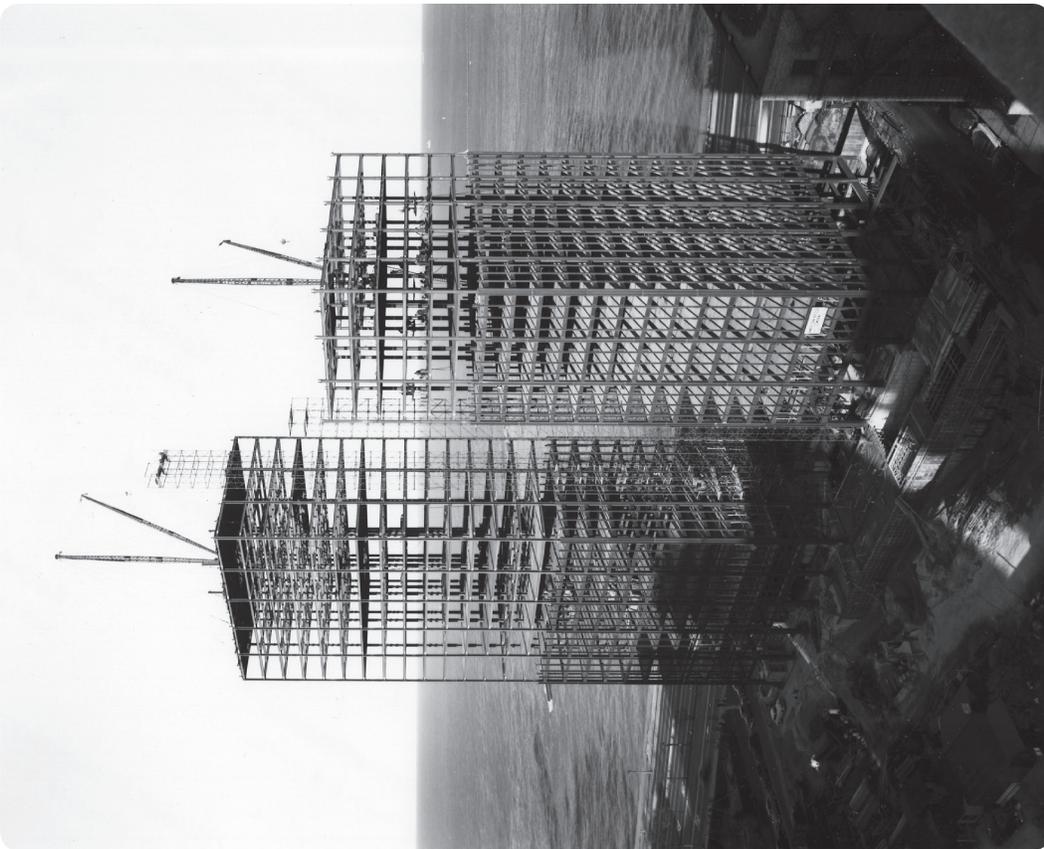
Handout B



Handout C



Handout D



Handout E



Handout F



(CAF COLLECTION)

William Le Baron Jenney

born in Fairhaven, Massachusetts in 1832

died in Los Angeles, California in 1907

When architects design buildings, they need to think about two important ideas: art and technology. We remember some architects because their designs are very artistic, while others are known for the new building technologies that they invented. Today in Chicago, we remember William Le Baron Jenney for his creative ideas about how tall buildings stand up.

William Le Baron Jenney was born in 1832 in a small Massachusetts town on the Atlantic Ocean. Most of his family owned sailing ships. He studied engineering at Harvard University in Boston. Later he studied at the Central School of Art and Manufacturing in Paris, France.

He moved to Chicago in 1865 to begin work as an architect. While he worked here he designed several office buildings and parks, and he helped landscape architects design the town plan for Riverside, Illinois. He is most famous for the Home Insurance Building in downtown Chicago.

Home Insurance Building

The Home Insurance Building, which was built in Chicago in 1885, was one of the first skyscrapers in the world. It was located at the corner of LaSalle and Adams Streets and was 10 stories high when it was first built. Although America had taller buildings at that time, the Home Insurance Building was different and special because of how it stood up. Other tall office buildings were built by stacking one brick on top of another. The Home Insurance Building had bricks and stone on the outside, but it stood up because part of the building had a skeleton frame of iron and steel hiding on the inside.

After William Le Baron Jenney's building was finished, most other architects started to design buildings using a skeleton frame of iron and steel. Many people call him the "father of the skyscraper." Today we still construct buildings using his method. Unfortunately, the Home Insurance Building was torn down in 1931.

Handout G



(SULLIVANIANA COLLECTION, PHOTO BY HESLER, THE ART INSTITUTE OF CHICAGO. ALL RIGHTS RESERVED.)

Louis Sullivan

born in Boston, Massachusetts in 1856
died in Chicago, Illinois in 1924

Some architects want their buildings to be very simple and plain, while other architects want their buildings to have lots of beautiful ornamentation. Louis Sullivan was both an artist and an architect, and we can see both of his talents in the way he designed buildings.

Louis Sullivan was born in Boston, Massachusetts in 1856. He studied architecture at the Massachusetts Institute of Technology in Boston and at the School of Fine Arts in Paris. In 1875, he came to Chicago to make his home and start an architecture office here. For several years he worked with another architect named Dankmar Adler. Together, Mr. Adler and Mr. Sullivan designed more than 30 buildings in the Chicago area.

Nature was very important to Mr. Sullivan. The ornamentation on many of his buildings included shapes and patterns that looked like plants and flowers, but the ornamentation was made from iron. He felt strongly that these designs of plants and flowers should not look like they were just “stuck on” the outside of the building. Instead, he thought that the ornamentation should look like it was a natural part of the building.

Sullivan Center

The Sullivan Center (originally the Carson Pirie Scott Building) is a large department store located in downtown Chicago at 1 South State Street. Although it is a tall building with 12 stories, the rectangular windows make your eyes want to look from side to side instead of up and down. The upper floors of the building are covered in white terra cotta tiles. The corner of the building where shoppers enter is rounded. When the building’s corner was completed in 1903, people in Chicago had never seen anything like it before.

Louis Sullivan designed the Carson Pirie Scott Building with lots of ornamentation. When people walk along the street, they see fancy designs that look similar to leaves, branches, and flowers. These are not real plants, however. Instead, they are made from iron. All of these natural symbols surround the front windows and doors of the store and frame the things that are sold inside the building.

Handout H



Sophia Hayden

born in Santiago, Chile in 1868

died in Winthrop, Massachusetts in 1953

(REPRODUCED FROM THE BOOK OF THE FAIR, 1893,
COURTESY ILLINOIS INSTITUTE OF TECHNOLOGY,
PAUL V. GALVIN LIBRARY.)

Have you ever entered a competition? Imagine that you won an important competition with plans to build a new building in Chicago. This is exactly what Sophia Hayden did.

Sophia Hayden was born in Santiago, Chile in 1868. When she was in elementary school, she moved to Massachusetts to live with her grandparents and to go to school. When she was 18 years old, she started studying architecture in Boston at the Massachusetts Institute of Technology. In many of her classes, she was the only female in a room filled with male students and teachers. At that time in history, most people thought that only men were creative enough and strong enough to be architects, but she did not give up. In 1890, she became the first woman to graduate from that school, and she was the first woman in the country with a four-year diploma in architecture.

After graduation she tried to get a job in an architecture office, but no one would hire her. Two years later, she heard about a design competition in Chicago. The project rules asked people to design a Woman's Building for the World's Columbian Exposition that was going to be held in 1893. Ms. Hayden entered and won this competition. Her design was built, and she also won more than \$1,000 as a prize.

Woman's Building at the World's Columbian Exposition

This building at the World's Columbian Exposition was used to show literature and artwork created by women. Like the other buildings at The Fair, this building was not designed for Chicago's cold temperatures or to last for a long time. On the inside, iron and steel supported it, but the outside was only a thin layer of wood and plaster covered in white paint. After The Fair was over, the building was torn down from the east corner of 59th Street and Stony Island Avenue

Some newspaper articles written about Sophia Hayden's design called her building "graceful," "elegant," and "gentle." It had many details that reminded people of ancient buildings by the Romans and Greeks. It included steps that led down to the water. The building also was designed with arches, columns, skylights, and balconies.

Handout I



(HEDRICH BLESSING, CHICAGO HISTORICAL SOCIETY, HB-23200)

Ludwig Mies van der Rohe

born in Aachen, Germany in 1886

died in Chicago, Illinois in 1969

Did you move to Chicago from another city or country? Many architects from other cities in the United States and around the world have moved to Chicago to design buildings. They brought with them many new thoughts about how buildings should look and be constructed. Their ideas often changed the ways that future architects designed buildings.

Ludwig Mies van der Rohe was often called Mies by other architects. (Mies rhymes with “please.” Rohe rhymes with “so.”) He came to Chicago from Germany in 1938. He lived here, taught architecture, and designed furniture and buildings until he died in 1969.

Mies thought that the rectangle was the most basic shape for a building’s design. He had very strong ideas about architecture and thought that a building’s materials and structure should be simple. He didn’t want to add any ornamentation because he thought the building’s structure was beautiful enough without it.

860 and 880 North Lake Shore Drive

860 and 880 North Lake Shore Drive are tall apartment buildings along Lake Michigan built between 1949–1951. They were constructed of black steel and clear glass, and they look like glass rectangles or boxes. Long black columns hold up the structures. These columns remind some people of stilts, fingers, or legs of an insect. The buildings have lots of open space at the bottom.

After Mies designed these apartment buildings, many other architects liked his ideas. Other architects planned new structures that looked very similar to the 860 and 880 North Lake Shore Drive apartments. However, most historians agree that the original buildings Mies designed are better than the copies that other architects made later.

Some people have used adjectives such as “cold” and “unfriendly” to describe his buildings. On the other hand, his buildings have careful details, structure, and materials, which showed people in Chicago that a skyscraper could be beautiful without any extra decoration.

Handout J



(© KPF ARCHITECTS, LEFT PHOTO BY ROBERT SCHULMAN. USED WITH PERMISSION.)

William Pedersen and the architecture firm of Kohn Pedersen Fox

born in 1938, Mr. Pedersen lives in New York City

A large group of people is required to plan, design, draw, organize, and construct a tall skyscraper. In 1976, three architects named Mr. A. Eugene Kohn, Mr. William Pedersen, and Mr. Sheldon Fox joined together in New York City to form one architecture firm. Although large architecture firms have many people working together on one project, each person has a special job to do. There is usually one person who is in charge of the design. In this firm, William Pedersen is the main designer. The firm he helped start has grown big. There are 350 people working in their offices in New York City, in London, and in Tokyo. These architects have designed many types of buildings located all over the world, including several buildings in Chicago.

333 West Wacker Drive

Sometimes Chicago skyscrapers are designed by Chicago architecture firms. At other times, an architect is hired from another city. This is what happened for one of Chicago's most exciting skyscrapers. The name of the building is the address of the building, 333 West Wacker Drive. The architecture firm of Kohn Pedersen Fox Associates of New York City was hired to design an office building that stands downtown next to the Chicago River. It was built between 1979–1983.

The front side of the building curves to match the curve of the Chicago River, while the back side of the building is square to match the city streets. The bottom of the building is made of stone to make the building look like it is firmly attached to the ground. The rest of the building is made from steel and smooth green glass. This glass acts like a mirror and reflects nearby buildings. The glass also reflects the river and sky as they change colors each day.

