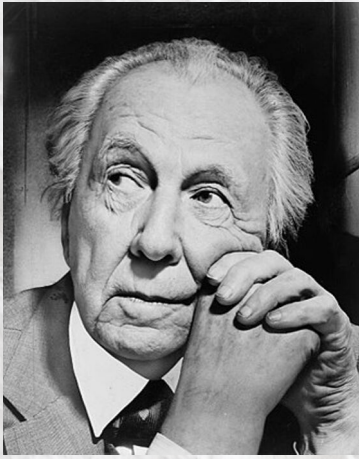


# Winslow House



## About the Architect

Name: Frank Lincoln Wright (June 8,1867- April 9, 1959)  
Nationality: American  
Alma Mater: University of Wisconsin-Madison  
Occupation: Architect, interior designer, a writer and educator  
Buildings: Winslow House, Fallingwater, Solomon R. Guggenheim Museum, Robie House and etc.  
Awards: RIBA Gold Medal, AIA Gold Medal, Twenty-five Year Award, Order of the Star of Italian Solidarity

## Philosophy: Organic Architecture

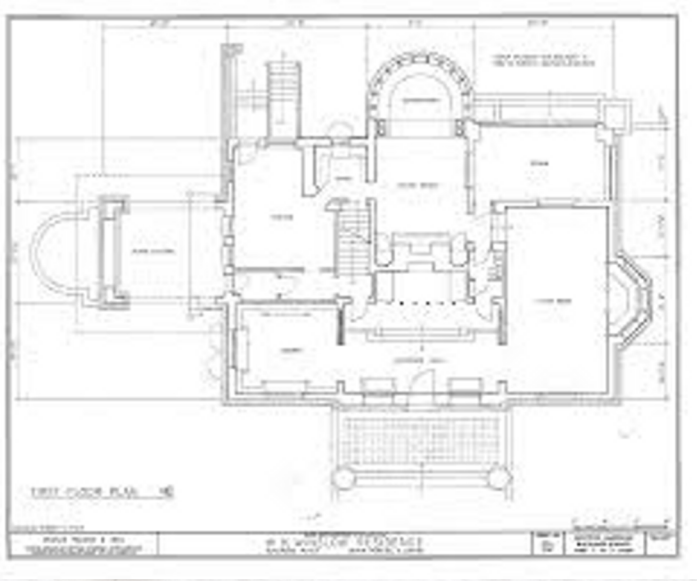
"Organic architecture seeks superior sense of use and a finer sense of comfort, expressed in organic simplicity"

Frank Lloyd Wright

## Architectural Style: Prairie Style

Marked by its integration with the surrounding landscape, horizontal lines, flat or hipped roofs with broad eaves, windows assembled in horizontal bands, solid construction, craftsmanship, and restraint in the use of decoration.

## Winslow House: About the Building



Name: Winslow House  
Location: River Forest, Illinois  
Architect: Frank Lloyd Wright  
Construction Year: 1893-1894  
Built For: William Winslow, a manufacturer of decorative iron work  
Honourable title: The home of the 17 works selected by the AIA as examples of Wright's contribution to American culture

As their friendship bloomed since the business dealings with Adler and Sullivan, William Winslow turned to Wright for help since Adler and Sullivan were not interested in handling residential architectural projects. Sheltered beneath a low-pitched roof with its irregular geometric rear contrasting to the calm and balanced front facade, the masterpiece itself sets as an important landmark building in Wright's career. The interior reflects both Wright's own home and the Charnley House, with the fireplace at the center facing the entry with rooms on either side and a hidden main staircase.

## Structural Materials

Structural materials are materials that are used or studied primarily for their mechanical properties, as opposed to their electronic, magnetic, chemical or optical characteristics. This can include a materials response to an applied force, whether this response is elastic or plastic, its hardness, and its strength.

### Concrete



Concrete is a composite material composed of fine and coarse aggregate bonded together with a fluid cement (cement paste) that hardens over time—most frequently in the past a lime-based cement binder, such as lime putty, but sometimes with other hydraulic cements, such as a calcium aluminate cement or Portland cement.

Why is Concrete used for slabs and columns?

- 1.It is inexpensive and widely available around the globe
- 2.Has the ability to be cast into shape as fresh liquid concrete can be poured in various frameworks to form desired shapes and sizes
- 3.Excellent Water Resistance so rain splashes would not be a concern
- 4.Can withstand high temperatures better than wood and steel as it is a bad conductor of heat
- 5.Low or Zero Maintenance required as they do not require coating or painting
- 6.Does not feed rot and mildew and provides excellent indoor air quality

### Steel Frame



Steel frame is a building technique with a "skeleton frame" of vertical steel columns and horizontal I-beams, constructed in a rectangular grid to support the floors, roof and walls of a building which are all attached to the frame. The development of this technique made the construction of the skyscraper possible.

Why is steel frame used for columns and beams?

- 1.Easy to install as it does not require huge manpower
- 2.Cost effective as the steel is durable, requires little maintenance
- 3.Safe and resistant to bugs, termites and rodents and need not to be treated with chemicals
- 4.Can be shaped perfectly into non-conventional roof lines and innovative designs, thus enabling unique, industrialised homes like Winslow House.
- 5.Has the ability to withstand high winds, heavy snow loads, fire and seismic activities

## Architectural Materials

Architectural Materials is more in functional purpose for user experience instead of providing structural supports to the building. It focuses more on aesthetic values and enhancing a space so that users can not only seek comfort from it, but also find a visually attractive functional space.

### Stained Glass- Art Panels



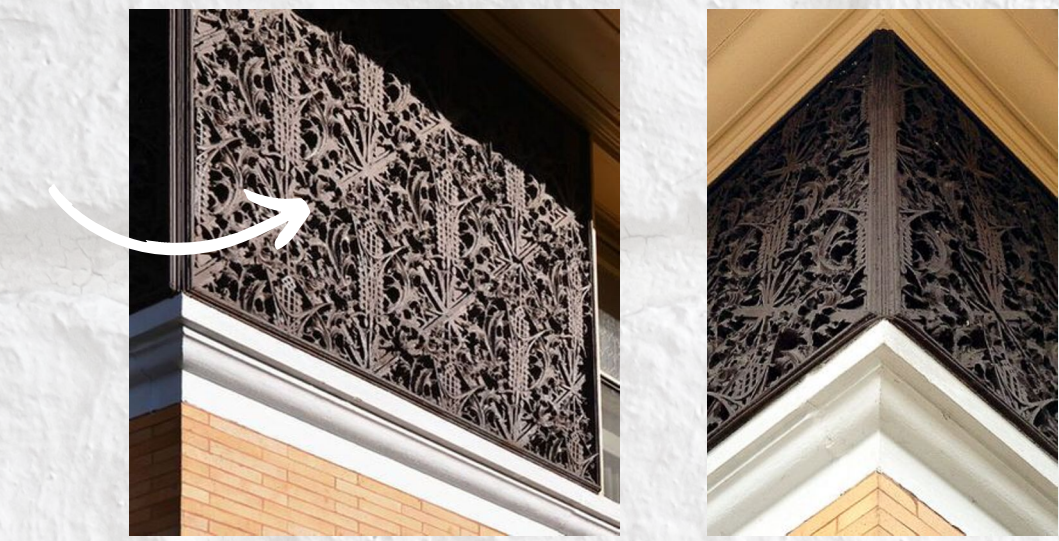
Stained glass is a glass that has been coloured by adding metallic salts during its manufacture. The coloured glass is crafted into stained glass windows in which small pieces of glass are arranged to form patterns or pictures, held together (traditionally) by strips of lead and supported by a rigid frame.

Why is Stained Glass used as art panels?

- 1.The glass patterns in the Winslow House derive from two sources, that in the entry ball and the second-floor windows seemingly metamorphosed from two Egyptian designs found in a German pattern book once owned by Wright.
- 2.The second floor has four sizable bedrooms and a sitting room—all with windows in this scarab-beetle pattern
- 3.Art Nouveau: typically depict birds and flowers in small panels, they are pale-coloured and textured because Wright stood for clean lines and simplicity
- 4.Allowed for interaction and viewing of the outdoors while still protecting from the elements



Plaster- Terracotta Frieze



The most common types of plaster mainly contain either gypsum, lime, or cement. The plaster is manufactured as a dry powder and is mixed with water to form a stiff but workable paste immediately before it is applied to the surface. The reaction with water liberates heat through crystallization and the hydrated plaster then hardens.

- Why is plaster used for terracotta frieze?
- 1.Used for the protective or decorative coating of walls and ceilings and for moulding and casting decorative elements, which is the ornately floral relief
  - 2.Can be relatively easily worked with metal tools or even sandpaper, and can be moulded, either on site or to make pre-formed sections in advance, which are put in place with adhesive. -often used to simulate wood or stone detailing found in more substantial buildings
  - 3.Provides some insulation to retard heat flow into structural steel elements from losing strength and collapse in a fire.

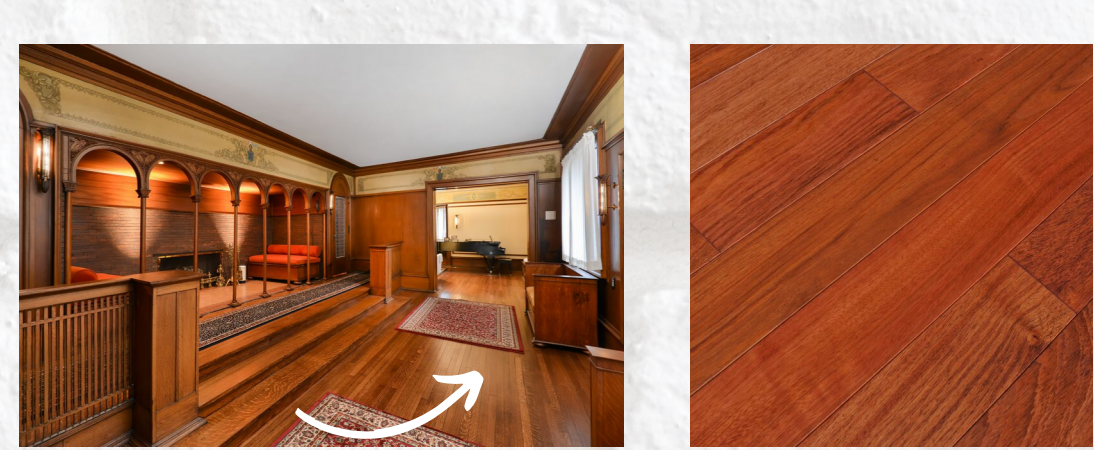
Golden Roman Brick-Fireplace



Roman brick can refer either to a type of brick used in Ancient Roman architecture and spread by the Romans to the lands they conquered; or to a modern type inspired by the ancient prototypes. In both cases, it characteristically has longer and flatter dimensions than those of standard modern bricks. Its dimension is 295mm X 92mm X 41mm.

- Why is Golden Roman Brick used for fireplace?
- 1.Lesser height than modern brick
  - 2.Its long, rectangular, horizontal shape of the bricks,subtly emphasized the horizontal lines common to much of his Prairie style work-energy efficient: the natural density and thermal insulating qualities of clay moderate building temperature and reduce energy consumption rates, to provide year round comfort and savings.
  - 3.Weatherproof: able to withstand the test of time, even under the harshest environmental conditions.
  4. Create striking façade contrasts

Brazilian Cherry Hardwood- Flooring



In reality, this wood is not a member of the cherry family at all but is instead a legume species, Hymenaea courbaril. It is also known as jatoba, locust, or courbaril. The common name Brazilian cherry was a marketing ploy used to play off the wood's blazing deep red color. Dimension: 3/4-inch thick and 3 1/4-inches wide, lengths ranging from a few inches to 6 or 7 feet.

- Why is Brazilian Cherry used for flooring?
- 1.It's twice as strong as Oak, very strong and durable flooring material
  - 2.Its blazing deep red color, has attractive streaks of darker strips
  - 3.Accepts stains and finishes very well
  4. Have great dent, fire,termites, insects, rot and scratch resistance
  - 5.Brings warmth to residential homes & enhance the room's vibrancy
  - 6.Has natural resistance to heat, ideal choice for installation over a radiant flooring base
  - 7.Available in several forms, ranging from solid hardwood planks to look-alike plastic laminates.

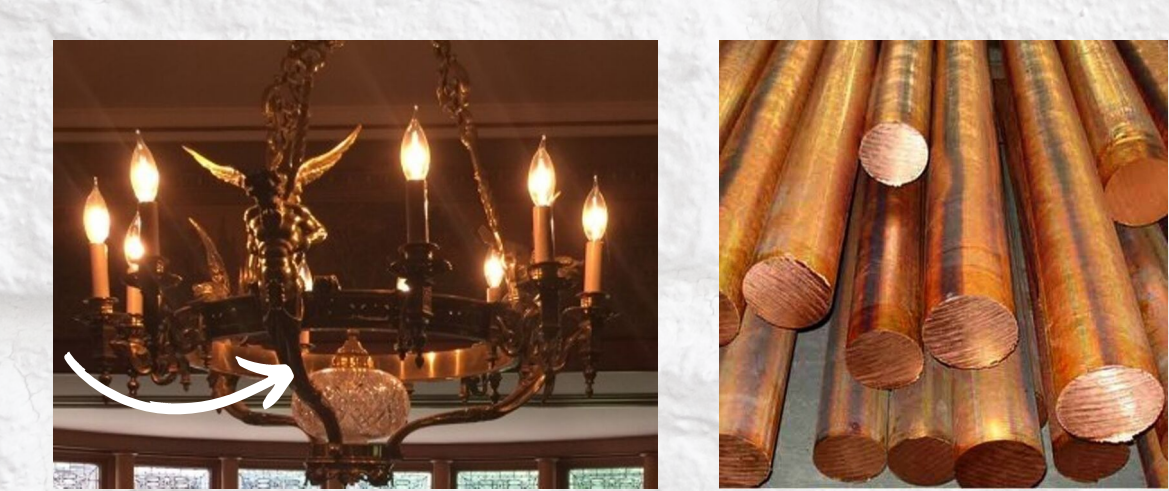
Cast Iron



Cast iron is a group of iron-carbon alloys with a carbon content greater than 2%.[1] Its usefulness derives from its relatively low melting temperature. The alloy constituents affect its colour when fractured: white cast iron has carbide impurities which allow cracks to pass straight through. grey cast iron has graphite flakes which deflect a passing crack and initiate countless new cracks as the material breaks, and ductile cast iron has spherical graphite "nodules" which stop the crack from further progressing.

- Why is cast iron used for cast iron sconces and gutters?
1. -Resistant to abrasion and indentation
  - 2.Absorb energy and deform without fractureand can bear greatest longitudinal stress without tearing apart
  - 3.It is available in large quantities, hence produced in mass scale. Tools required for casting process are relatively cheap, resulting in low cost of its products.
  - 4.It has excellent anti-vibration (or damping) properties hence it is used to make machine frames and can be given any complex shape and size without using costly machining operations

Bronze- Light Fixture



Bronze is an alloy consisting primarily of copper, commonly with about 12–12.5% tin and often with the addition of other metals (such as aluminium, manganese, nickel or zinc) and sometimes non-metals or metalloids such as arsenic, phosphorus or silicon. These additions produce a range of alloys that may be harder than copper alone, or have other useful properties, such as stiffness, ductility, or machinability.

- Why is Bronze used for Light Fixtures ?
- 1.Low metal on metal friction
  - 2.Has nautical applications because of its resistance to corrosion.
  - 3.Dull-gold color: Adds depth to a more colorful decor palette that grounds the space
  - 4.Less brittle than cast iron
  - 5.Adds interest to an otherwise mild color palette

Conclusion

Winslow House was mainly constructed of the Golden Roman Bricks that clearly shows the Prairie Style which emphasises on horizontal lines, restraint in the use of decoration and windows assembled in horizontal bands. Corresponding to Wright's concept of organic architecture', the horizontal lines of the layout of the bricks makes the whole architecture look as if it belongs with the nature, complementing the landscape there. Stained glasses was fully embraced in Winslow House's design as it was found well fitted into his philosophy and still allowed for interaction and viewing of the outdoors while still protecting from the elements.Its Interior was dominated by wood and bronze fittings that gives out an aura of warmth, antique and elegance equipped with Sullivan-esque style carvings, also, made by plaster. In addition, the use of concrete and steel frame represents a wise choice to enhance the architecture's solitary to withstand such a long period of time until the present.

Reference

1. Heinz, T. A. (2002). Frank Lloyd Wright's Interiors. New York, NY: Scribner.
2. Copplestone, T. (2001). Frank Lloyd Wright: A Retrospective View. Rochester: Kingsnorth Industrial Estate Hoo.
- 3.Betsky, A. (2016). Frank Lloyd Wright's Winslow House and the Ideal Suburban Model. Reterieved from: [https://www.architectmagazine.com/design/buildings/frank-lloyd-wrights-winslow-house-and-the-ideal-suburban-model\\_o](https://www.architectmagazine.com/design/buildings/frank-lloyd-wrights-winslow-house-and-the-ideal-suburban-model_o)
4. Bentley, C. (2013). Frank Lloyd Wright's William Winslow House Up For Sale in Suburban Chicago. Retrieved from: <https://archpaper.com/2013/12/frank-lloyd-wrights-william-winslow-house-up-for-sale-in-suburban-chicago/>
- 5.<https://en.wikiarquitectura.com/building/winslow-house/>
6. Hertzbeg, M. (2016) The Winslow House. Retrieved from: <https://wrightinracine.wordpress.com/2016/12/08/the-winslow-house/>