“From Modern Movement to Organic Architecture”

Match the words with the right definition.

Modernism, Rationalism, Romanticism, Functionalism.

- Rationalism began as a 17th century ideology that led to the Enlightenment, a period in history where reason was the primary instrument for justifying and understanding the “how” and “why” of things and circumstances. The Enlightenment was a time where concrete evidence through scientific research flourished and Rationalism influenced all field of endeavors and even simple daily tasks. In layman terms, to be rational is to be understandable, measurable or definite. Using this as premise, Rationalism in architecture therefore pertains to accuracy in designing and building the height, breadth or depth of a structure. Architectural Rationalism was a solid evidence of the Enlightenment influence in the field of architecture. It continues to persist in the modern world as an independent art movement though much of the modern Rationalist designs have little resemblance to Enlightenment architecture.

- Modernism : dominant ideology throughout western industrialized world in art, design, architecture, for large part of 20th century. In design, a specific term called ‘functionalism’ is used.

- Use should determine the form of an object. If an object is made to function well it will by the definition be beautiful.

- Standardized
- Machine-made
- Reasonably priced
- Expressive of their structures and materials
Warm-up activity.
Answer.
- Have you ever seen these pictures? If so, where did you see them?
- What's particular about them?
- What do they communicate to you?
- Which one do you prefer? Why?
Modern architecture or modernist architecture is a term applied to an overarching movement, with its exact definition and scope varying widely. The term is often applied to modernist movements at the turn of the 20th century, with efforts to reconcile the principles underlying architectural design with rapid technological advancement and the modernization of society. It would take the form of numerous movements, schools of design, and architectural styles, some in tension with one another, and often equally defying such classification. The term Modern architecture may be used to differentiate from Classical architecture following Vitruvian ideals, while it is also applied to various contemporary architecture styles such as Postmodern, High-tech or even New Classical, depending on the context. In art history, the revolutionary and neoclassical styles that evolved around 1800 are also called modern.

The concept of modernism is a central theme in the efforts of 20th century modern architecture. Gaining global popularity especially after the Second World War, architectural modernism was adopted by many architects and architectural educators, and continued as a dominant architectural style for institutional and corporate buildings into the 21st century. Modernism eventually generated reactions, most notably Postmodernism which sought to preserve pre-modern elements, while "Neo-modernism" has emerged as a reaction to Post-modernism.

Notable architects important to the history and development of the modernist movement include Ludwig Mies van der Rohe, Le Corbusier, Walter Gropius, Erich Mendelsohn, Frank Lloyd Wright, Louis Sullivan, Gerrit Rietveld, Bruno Taut, Arne Jacobsen, Oscar Niemeyer and Alvar Aalto.
Answer in pairs.

- Why are the architectural movements of the early 20th called “Modern Architecture”? 
- What did Modern Architecture think about the architectural traditions? 
- Which are the most important architect of Modern Movement?
Organic architecture is a philosophy of architecture which promotes harmony between human habitation and the natural world through design approaches so sympathetic and well integrated with its site, that buildings, furnishings, and surroundings become part of a unified, interrelated composition.

History

The term organic architecture was coined by Frank Lloyd Wright (1867–1959), though never so articulated by his cryptic style of writing:

"So here I stand before you preaching organic architecture: declaring organic architecture to be the modern ideal and the teaching so much needed if we are to see the whole of life, and to now serve the whole of life, holding no traditions essential to the great TRADITION. Nor cherishing any preconceived form fixing upon us either past, present or future, but instead exalting the simple laws of common sense or of super-sense if you prefer determining form by way of the nature of materials."

Organic architecture is also translated into the nature of Frank Lloyd Wright's design process. Materials, motifs, and basic ordering principles continue to repeat themselves throughout the building as a whole. The idea of organic architecture refers not only to the buildings' literal relationship to the natural surroundings, but how the buildings' design is carefully thought about as if it were a unified organism. Geometries throughout Wright's buildings build a central mood and theme. Essentially organic architecture is also the literal design of every element of a building: From the windows, to the floors, to the individual chairs intended to fill the space. Everything relates to one another, reflecting the symbiotic ordering systems of nature.

Other modernist architects in the U.S., Europe, and elsewhere held complementary and often competing views of how architecture could best emulate nature. Key figures in the U.S. included Louis Sullivan and Claude Bragdon, while among European modernists Hugo Häring and Hans Scharoun stand out. Following World War II, organic architecture often reflected cybernetic and informatics models of life, as is reflected in the later work of futurist architect Buckminster Fuller.

Architect and planner David Pearson proposed a list of rules towards the design of organic architecture. These rules are known as the Gaia Charter for organic architecture and design. " The design must:

- be inspired by nature and be sustainable, healthy, conserving, and diverse.
- unfold, like an organism, from the seed within.
- exist in the "continuous present" and "begin again and again".
- follow the flows and be flexible and adaptable.
satisfy social, physical, and spiritual needs.
"grow out of the site" and be unique.
celebrate the spirit of youth, play and surprise.
express the rhythm of music and the power of dance."

Eric Corey Freed takes a more seminal approach in making his description:
"Using Nature as our basis for design, a building or design must grow, as Nature grows, from the inside out. Most architects design their buildings as a shell and force their way inside. Nature grows from the idea of a seed and reaches out to its surroundings. A building thus, is akin to an organism and mirrors the beauty and complexity of Nature."

A well-known example of organic architecture is Fallingwater, the residence Frank Lloyd Wright designed for the Kaufmann family in rural Pennsylvania. Wright had many choices to locate a home on this large site, but chose to place the home directly over the waterfall and creek creating a close, yet noisy dialog with the rushing water and the steep site. The horizontal striations of stone masonry with daring cantilevers of colored beige concrete blend with native rock outcroppings and the wooded environment. Architects: Louis Sullivan, Frank Lloyd Wright, Lloyd Wright (Frank Lloyd Wright, Jr.), Alvar Aalto, Hans Scharoun, Eero Saarinen, Eric Lloyd Wright, Toyo Ito.
Architecture and language

What does the term Organic Architecture mean?
Choose the correct answers to arrive at the term definition.

Organic Architecture

- 1. is based on the equivalence between human-organism and building.
- 2. is based on the study of the form/function relationship.
- 3. brings the relationship between man-nature to the fore.
- 4. posits that the building should develop freely from a central core.
- 5. assigns a central role to the environmental or urban context in which the building is erected.
- 6. studies and give value to the historical place in which the building is erected.
- 7. introduces the use of “pilotis” to free the plan from the pre-constituted and stylistically uniform models.
- 8. elaborates ideal standardized and modular forms that can be repeated quickly and at low cost.
- 9. aims at limiting construction costs by being accessible to the masses.
- 10. uses mostly straight lines for the design since they are a perfect synthesis between beauty and practically.
FRANK LLOYD WRIGHT

Frank Lloyd Wright (1869-1959) is considered the most important architect of the twentieth century. He wrote a number of theoretical texts and he had a particularly strong technical training: he studied engineering and for six years worked in the Chicago studio of the great skyscraper designer Louis Sullivan. He also read John Ruskin and Eugene Viollet-le Duc, two Romantic masters who opened his eyes to European culture.

The legacy of Art Nouveau, a style well-represented in the American arts, and his studies of Romantic architecture did not, however, lead Wright to embrace historical eclecticism. Rather he was distinguished by his great compositional freedom.

Wright is considered the father of so-called Organic Architecture, which is based on the idea that from a central core the building must freely develop outwards towards nature without obeying the rigid geometric schemes of the parallelepiped volume.

The organic project’s orientation and his materials are directed by axes established by the context with its colours, features (roads, rivers, etc.) and even his history.

Wright presented an opposing view to the Functionalists who followed a design process that began with the form/function relationship; instead he posited a direct relationship of man-nature and the love for nature, which is shared by a large part of American culture.

In his early Prairie Houses he drew inspiration from the individual homes that the Illinois pioneers had built in the countryside. The intimate character of the building was reinforced by the way the sloping roofs overhung the windows which were set low and recessed from the view.

His residential forms are freely arranged along a geometrical axis that often coincides with a large chimney. For instance in the Robie House a single block includes the chimney and the stairs which connect the elegant residence’s three storeys.

Wright’s use of asymmetry and flexibility derived from his passion for Japanese culture. In fact, in 1916 he moved his studio to Tokyo for six years of activity, which culminated in the realisation of the Imperial Tokyo Hotel (1916-1922, demolished in 1968).
In the Johnson Wax Factory (1936-1939) in Racine, Wisconsin, shows a marked differentiation of his external volumes, the offices contain mushroom-shaped columns that fare open towards the top and resolve the problem of interior lightening as they interact with the transparent ceiling.
If Wright houses establish an organic relationship with nature, the Guggenheim Museum forms a tight bond to the city environment. Situated in a rectangular lot surrounded by the skyscrapers in the heart of New York, it stretches out with spiral curves, towards the surroundings.

Indoors the museum itinerary unwinds along the spiral ramps that grow wider in diameter as the visitor moves upwards towards the top of the building. There is a perfect coherence between the perceived form outdoors and the indoor experience of space. The spiral is a form that is represented and repeated in nature, from the vortexes of wind and water to shells.
The light unwraps like a long snake leading the visitor along the museum path; it also enter from above the central stairwell and since the ramps gradually widen towards the top, the skylight plays a fundamental role in the building’s quality and fruition.

Read and Recognize

Frank Lloyd Right: the man and his work.

Decide which of the following sentences are true (T) or false (F).

T F
- 1. Wright's architecture originates in polemics with the Romantic stances of Ruskin and Viollet Le-Duc.
- 2. Wright’s production is very homogeneous, based on the repetition of a single model that is proposed independently of the context.
- 3. The forms of the Prairie Houses are freely placed in space with volumes that face outwards, arranged on a geometrical axis which is often lined up with the chimney.
- 4. The indoor spaces of Guggenheim Museum are organic because they are based on a regular grid.
In 1935, Edgar Kaufmann commissioned Wright to design a house at Bear Run, Pennsylvania, as his family's country home. The building is also known as *Fallingwater* because it overhangs a small cascading creek.

In 1930s Wright was influenced by European rationalism but his treatment of that style's novelties was completely personal. If, on the one hand, the architect highlighted the continuity between interior and exterior space by clearly distinguishing the volumes (via the contrast between the white plaster and exposed stonework), he assimilated formal principles deduced from the surrounding nature in a way that no one in Europe was willing to do. In fact, in the Kaufmann house the protrusions seems to imitate tree fronds or the rocks standing over the stream. The building itself seems to have grown out of the very rocks on which it rises via a reinforced platform.
Wright designs round horizontal edges on the reinforced concrete to emphasize the poured quality. The engineers were utterly confused by Wright's architecture which uses parapets at the edges of the concrete slabs as carrying beams, not as dead weights. There is no main front view and no distinctions between load bearing and infilling structure. According to the principle already used in the prairie-style houses, everything is organized around the presence of the chimney which is situated, however, in a corner thus allowing a wide-open living room space. *Fallingwater* stands as one of Wright's greatest masterpieces both for its dynamism and for its integration with the striking natural surroundings. *Fallingwater* has been described as an architectural *tour de force* of Wright's organic philosophy. Wright's passion for Japanese architecture was strongly reflected in the design of *Fallingwater*, particularly in the importance of interpenetrating exterior and interior spaces and the strong emphasis placed on harmony between man and nature. Contemporary Japanese architect Tadao Ando has stated: "I think Wright learned the most important aspect of architecture, the treatment of space, from Japanese architecture. When I visited *Fallingwater* in Pennsylvania, I found that same sensibility of space. But there was the additional sounds of nature that appealed to me".
This organically designed private residence was intended to be a nature retreat for its owners. The house is well known for its connection to the site; it is built on top of an active waterfall which flows beneath the house.

The fireplace hearth in the living room integrates boulders found on the site and upon which the house was built — ledge rock which protrudes up to a foot through the living room floor was left in place to demonstrably link the outside with the inside. Wright had initially intended that the ledge be cut flush with the floor, but this had been one of the Kaufmann family’s favorite sunning spots, so Mr. Kaufmann suggested that it be left as it was. The stone floors are waxed, while the hearth is left plain, giving the impression of dry rocks protruding from a stream.

Integration with the setting extends even to small details. For example, where glass meets stone walls there is no metal frame; rather, the glass and its horizontal dividers were run into a caulked recess in the stonework so that the stone walls appear uninterrupted by glazing. From the cantilevered living room, a stairway leads directly down to the stream below, and in a connecting space which connects the main house with the guest and servant level, a natural spring drips water inside, which is then channeled back out.

Bedrooms are small, some with low ceilings to encourage people outward toward the open social areas, decks, and outdoors.
Bear Run and the sound of its water permeate the house, especially during the spring when the snow is melting, and locally quarried stone walls and cantilevered terraces resembling the nearby rock formations are meant to be in harmony. The design incorporates broad expanses of windows and balconies which reach out into their surroundings. The staircase leading down from the living room to the stream is accessed via movable horizontal glass panes. In conformance with Wright's views, the main entry door is away from the falls.

On the hillside above the main house stands a four-bay carport, servants' quarters, and a guest house. These attached outbuildings were built two years later using the same quality of materials and attention to detail as the main house. The guest quarters feature a spring-fed swimming pool which overflows and drains to the river below.

Wright had planned in the beginning to have the house blend in to its natural settings in rural Pennsylvania. In doing this he limited his color choices to two colors. The colors he chose were light ochre for the concrete and his signature Cherokee red for the steel.
Answer the following questions.

1. Why is the Kaufmann House best known as *Fallingwater*?
2. What are most important compositional features of the building exterior?
3. Describe how stone material is used both indoors and outdoors?
4. What role does the chimney play in the design?
5. How are the Kaufmann House’s organic qualities shown?

Art vocabulary.

Architecture and nature. Find the English equivalent for the following terms.

1. Pianta ______________________
2. Corpo principale _____________
3. Piano terra _________________
4. Ingresso _________________
5. Facciata _______________
6. Facciata spiovente ____________
7. Facciata principale __________
8. Facciata secondaria __________
9. Pilastro ______________
10. Camino _______________
11. Tetto _______________
12. Cascata _______________

Key Art Concept: Nature

Imagine your ideal family’s home. Describe it to the other students of your class and show them some pictures of drawings of the plan and the materials which you would like to use.