POLITEKNIK MALAYSIA

KEMENTERIAN PENGAJIAN TINGGI

KOLEJ KOMUNITI MALAYSIA

HISTORY OF ARCHITECTURE

NOOR FARHANA ALIAS

MOHD YUSRI HJ YUNUS

HISTORY OF ARCHITECTURE

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PREFACE

The History of Architecture traces the changes in architecture through various traditions, regions, overarching stylistic trends, and dates. The beginnings of all these traditions is thought to be humans satisfying the very basic need of shelter and protection. History of Architecture provides primary knowledge on styles and characteristics of modern architecture style generally, as well as to bring about awareness of how Malaysian Architecture evolves through dynamic cultures and values.

Keywords:
tradition, style, characteristics, modern architecture, Malaysian architecture

CONTENT

1.0
INTRODUCTION TO HISTORY OF ARCHITECTURE

HISTORY OF ARCHITECTURE

Buildings are the vessels of our stories; they are our cultural artifacts and contain the stories of who we are, where we have come from, and where we will be going to.

Architectural history is **the study of building through the ages.** It comprises architecture and architectural styles ranging from pre-ancient civilizations to contemporary architecture.

Architectural history records and studies the forms, purpose, and evolution of buildings and also interprets architecture.

As George Santayana once said,

“Those who do not remember the past are condemned to repeat it”.

IMPORTANCE OF HISTORY OF ARCHITECTURE

- to acquire more than just the history of buildings, but also the outside philosophies, revolutionary ideas, and technologies

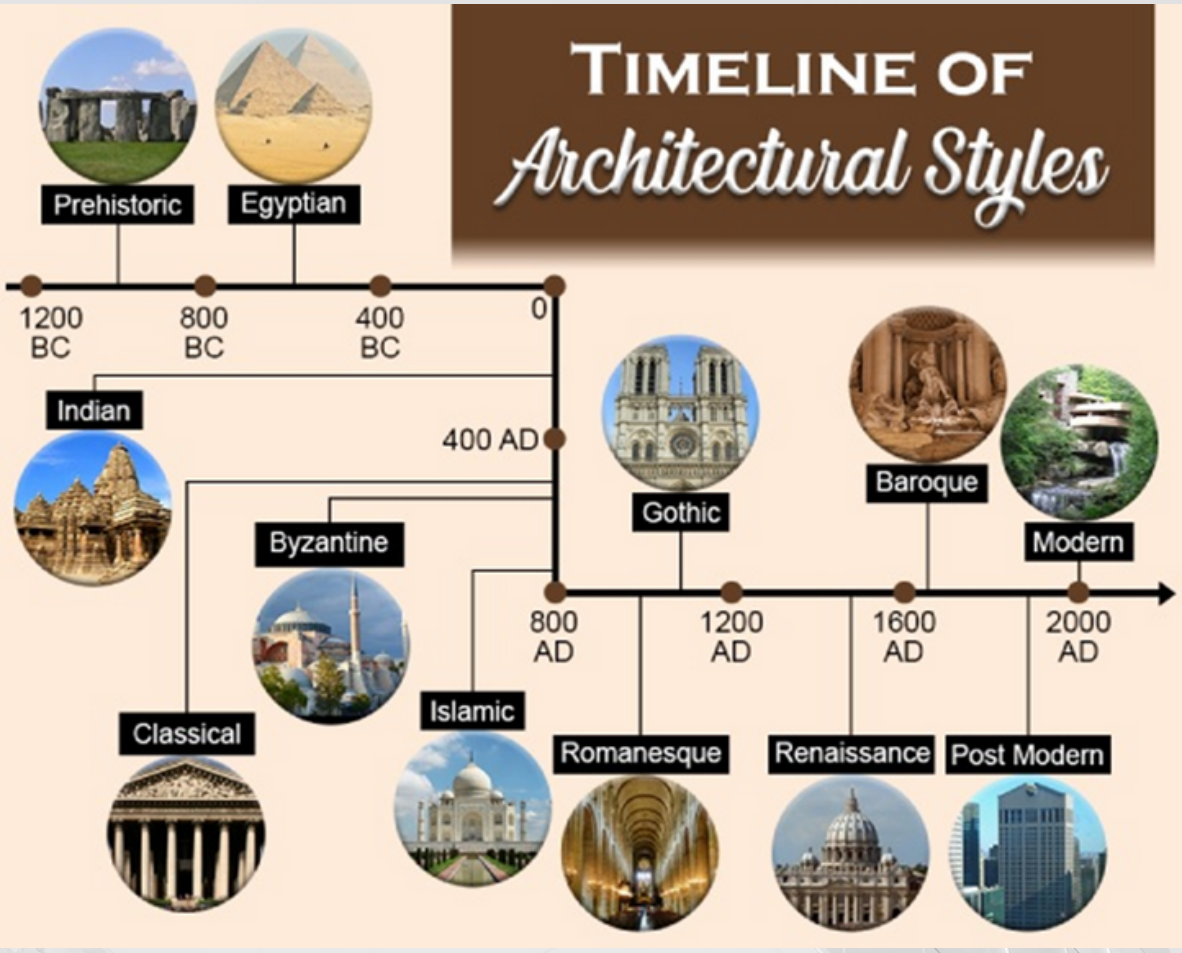
- to understand how architecture influences society and its culture which is very useful when working as a contemporary architect

- to stimulate the creative juices in the minds of the students and this will make for more creative and flexible architects overall

- to inspire modern day architects into trying new forms of design

ARCHITECTURAL STYLES

Architectural style is the expression of an art form in architecture, which makes its characteristics and structure historically recognizable. According to different architectural styles, there are different characteristics and genres. The style talks about materials, regionality, modeling, production methods and other aspects. A complete chronology of buildings and styles over time. Usually due to changes in beliefs, religions, fashions, and of course, innovations in technology, new materials and construction tools, architecture is always exploring new horizons.



Source: https://gharpedia.com/

ARCHITECTURAL STYLES

Different years of style are listed in architectural history. Based on this period's style, architects contribute to the new adaptation of ideas. However, these architectural styles have seen a gradual development over the passage of time with different turns based on the area where it spreads. The resurrection of new and ancient genres in architecture is quite common. For example, neoclassical finally revived classicism.

Vernacular architecture has also found its own way in modern architecture and is generally considered a different part. However, vernacular architecture varies from state to state. For instance. it also gave rise to national and international styles. From prehistoric times to modern and postmodern architecture seem to thrive at all times. From west to east, all countries prospered thanks to outstanding architecture.

Einstein Tower in Postdam, Germany

source: https://gharpedia.com/

ARCHITECTURAL STYLES

Factors influencing styles and characteristics of modern architecture.

source: https://www.weather.gov

Climate

To dictate how building should be as to provide the most suitable and comfortable built environment according to different climatic requirement.

source: https://www.gsa.pe

Material

The envelope of a building can be made of all kinds of building materials – brick, stone, concrete, wood, glass, steel, plastic,...etc. the choice of materials of the building depend on a certain propriety, e.g. climate and surrounding.

source: http://www.caringenieriainstalaciones.com.mx

Technology

It helps to provide the structural logic of form. Having a building automation system is one obvious sign that technology helped in making structures systematized and functioning to their full capacity.

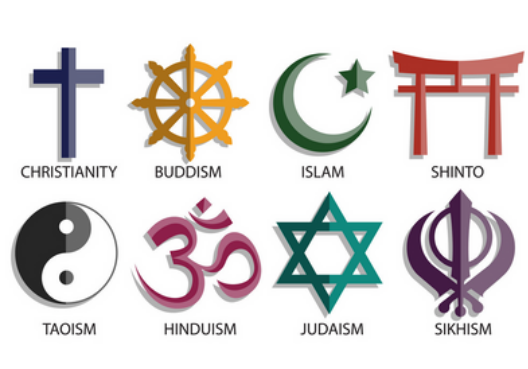
ARCHITECTURAL STYLES

Factors influencing styles and characteristics of modern architecture.

source: http://www.slideserve.com

Social & Culture

Culture is defined as the ideas, customs and social behavior of particular people or society. The behaviors we are accustomed to and have been taught are the factors determining the kind of spaces we need to live in.



source: https://enote.edudelight.com/ religion-and-religious-beliefs/

Beliefs & Religion

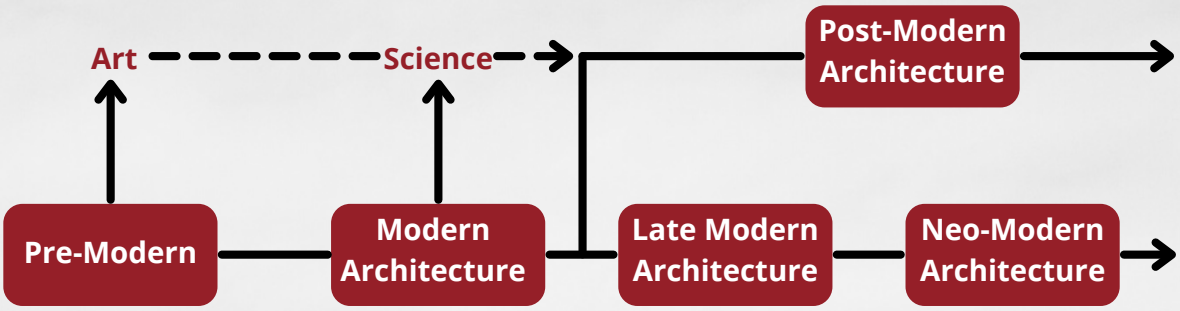
Religion as a way of life influence the work of architecture. The architecture is the art of organizing space. An architecture that has a source of holy tradition spread this poetry from material space to explain metaphysical poetry; therefore, the goal of this type of architecture is replacing human in presence of God in the way of making holy of space. (Amineddin Salimi et. al, 2016.)

Modern architecture was based upon new and innovative technologies of construction, particularly the use of glass, steel and reinforced concrete; the idea that form should follow function; an embrace of minimalism and a rejection of ornament. It emerged in the first half of the 20th Century and became dominant after World War II until the 1980s, when it was gradually replaced as the principal style for institutional and corporate buildings by postmodern architecture

"Modern architecture does not mean the use of immature new materials; the main thing is to refine materials in a more human direction"

- Alvar Aalto

Along the way, post-modern architectural styles developed from the 1980s to the 1990s. Architects who are famous as figures of post modern architecture are Charles Jenks, Venturi, Philip Johnson, and Michael Graves.



Greek
Roman
Byzantine
Romanesque
Gothic
Renaissance
Baroque
Rococo
Neoclassical

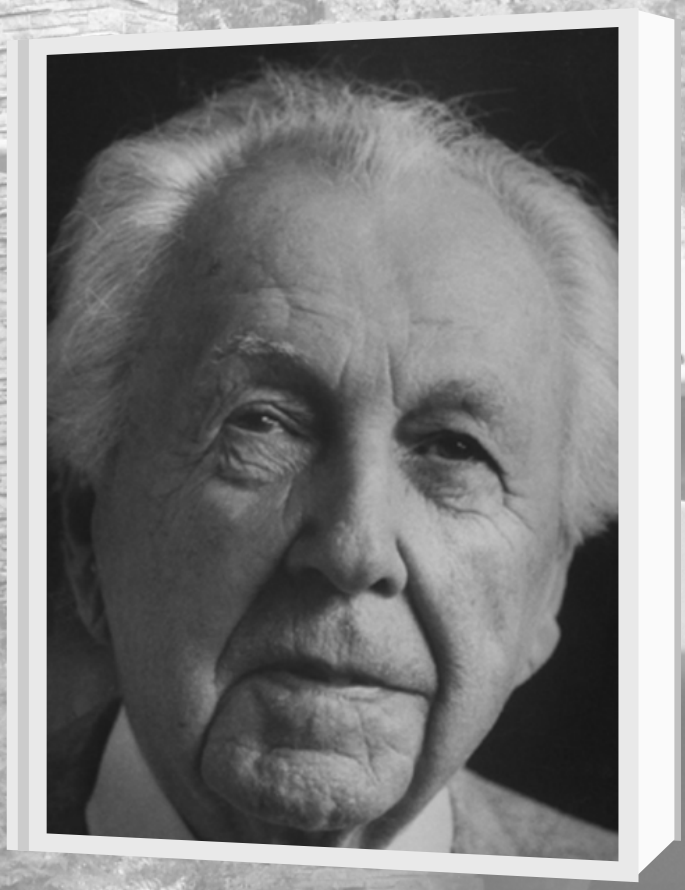
Modernism / Modern Architecture – 20th Century (1900s)

THE MASTER BUILDERS

Le Corbusier gave to modern design a sure and brilliant sense of form; **Mies** brought an almost Gothic discipline of structure; and **Wright** heralded a new and dramatic concept of space and freedom.

THE MASTER BUILDERS

FRANK LLOYD WRIGHT
Master of Space



source: https://www.biography.com/

FRANK LLOYD WRIGHT
Biography

American Architect

Frank Lloyd Wright (June 8, 1867 – April 9, 1959) was an American architect, interior designer, writer, educator, and philosopher from Oak Park, Illinois. He designed more than 1,000 projects, of which more than 500 resulted in completed works.

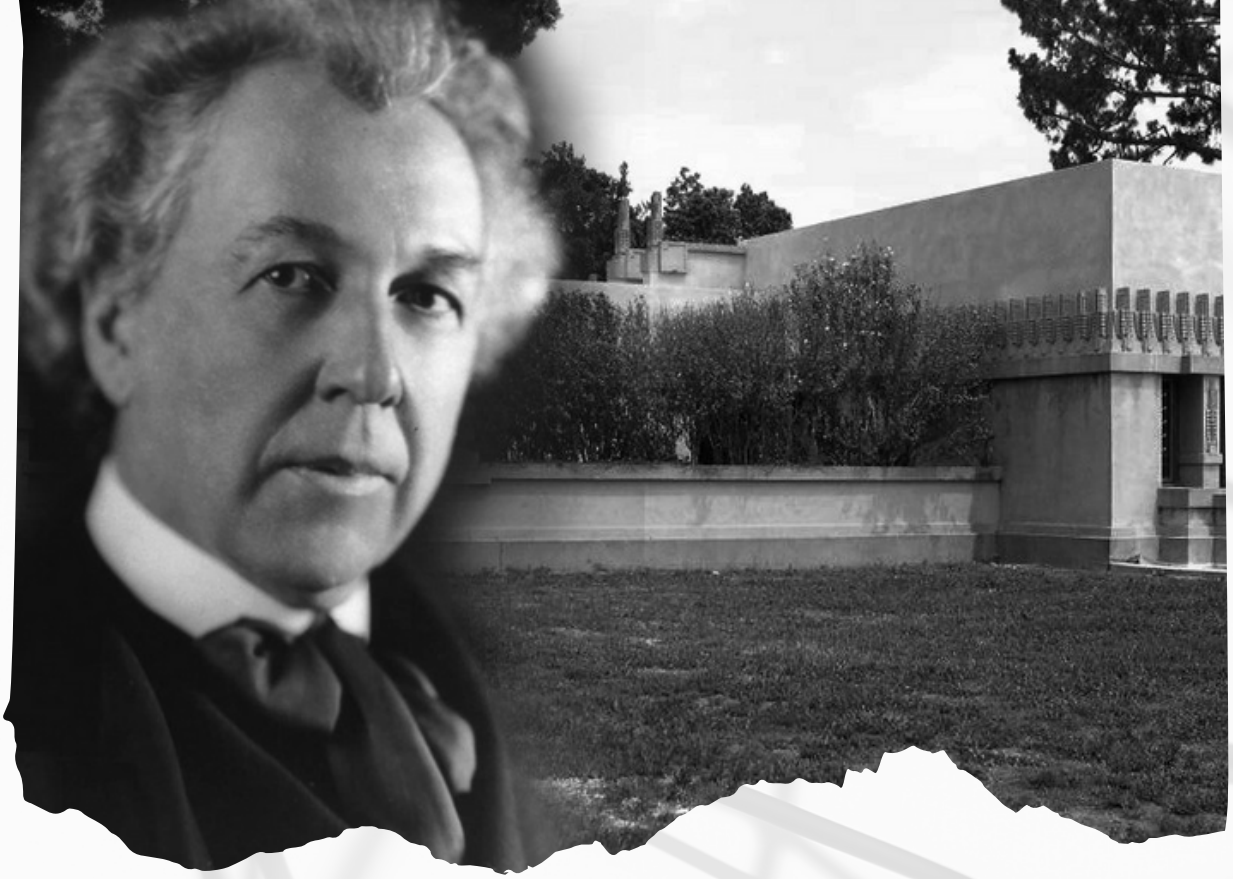
Wright promoted organic architecture (exemplified by Fallingwater), originated the Prairie School of architecture (exemplified by the Robie House), and developed the concept of the Usonian home (exemplified by the Rosenbaum House). His work includes original and innovative examples of many different building types, including offices, churches, schools, hotels, and museums. Wright also often designed many of the interior elements of his buildings, such as the furniture and stained glass.

"The greatest American architect of all time"

Wright authored twenty books and numerous articles and was a popular lecturer in the United States and in Europe. His colourful personal life frequently made headlines, most notably for the failure of his first two marriages and for the 1914 fire and murders at his Taliesin studio.

source: https://www.interestingengineering.com/

SCAN HERE
to watch video of
Frank LLoyd Wright's architecture
https://youtu.be/qLbSkYOgoEQ



Hollyhock House
source: https://6sqft.com/

The Early Years

While construction was underway on the Hillside Home School, Wright went to work for the Chicago firm of Dankmar Adler and Louis Sullivan, working as a draftsman o the Auditorium Building, Which, at the time of completion in 1890, was the largest building in Chicago. He remained with that firm until 1893, during which time he absorbed, including one for himself in Oak Park Illinois that was constructed with Sullivan's Financial assistance.

"Moonlighting" on his own commissions led to a break with Sullivan in 1893, and Wright set up a separate practice. His First commissions were primarily for the design of private homes in the W.H. Winslow house of 1893-94 in river Forest, Illinois- considered by Wright to be his "first." Unfortunately, many of the buildings he designed around the turn of the century have not survived.

Frank Lloyd Wright was born on June 8, 1867 in Richland Center, Wisconsin. He spent a few semester in Engineering school at the University of Wisconsin before leaving for Chicago 1887. At the age of twenty, he was hired as an apprentice in the office of J Lyman Silsbee who design All Souls Unitarian Church where Wright's uncle was minister. The young architect's first work was nominally a Silsbee commission the Hillside Home School built for his aunts in 1888 near Spring Green, Wisconsin.

Fallingwater

Fallingwater is a house designed by architect Frank Lloyd Wright in 1935 in rural Southwestern Pennsylvania, 43 miles (69 km) southeast of Pittsburgh. The house was built partly over a waterfall on Bear Run in the Mill Run located in the Laurel Highlands of the Alleghany Mountains. The house was designed as a weekend home for the family of Liliane and Edgar J.Kaufmann, owner of Kaufmann's Department

Architectural Style

- Modern architecture
- Organic architecture

Design concept

- In close to the glen, trees, foliage and wild nature.
- Brought the glory of natural surrounding.
- Spaces are designed to bring nature into four walls.
- Horizontal and Vertical lines are distinctive features of the building.

Fallingwater has became an icon at modern architecture and more naturalistic architecture into a nature surrounding. Unlike other nature buildings, Fallingwater was placed right on the waterfall.

A timeline of the actions leading up to the famous Fallingwater

1934
Wright been introduced to Kaufmann

1935
Design process

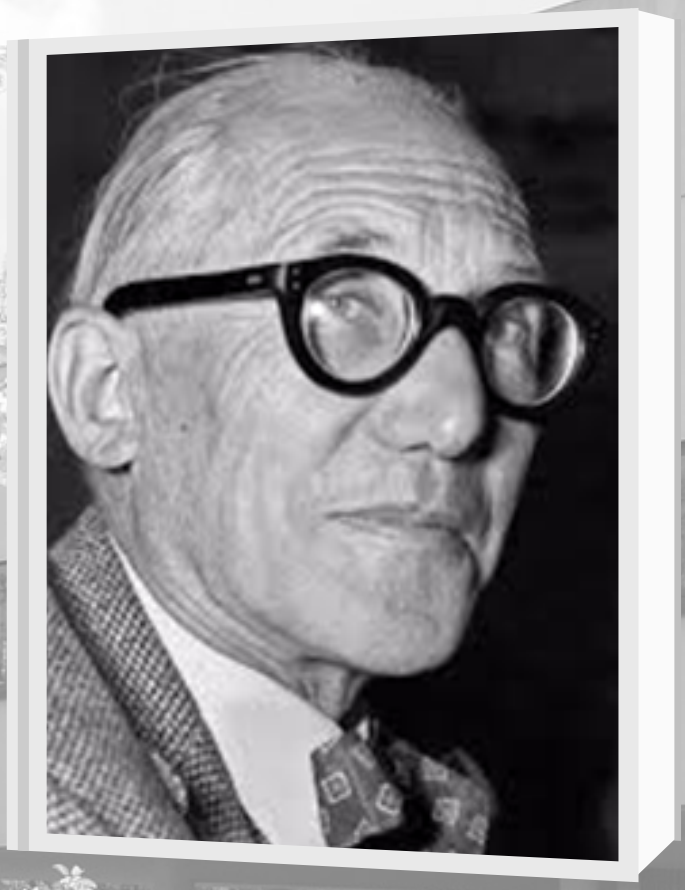
1936
Construction began

1937
Fallingwater was mainly complete

1938-1939
Featured on Times magazine and visitors are welcomed.

THE MASTER BUILDERS

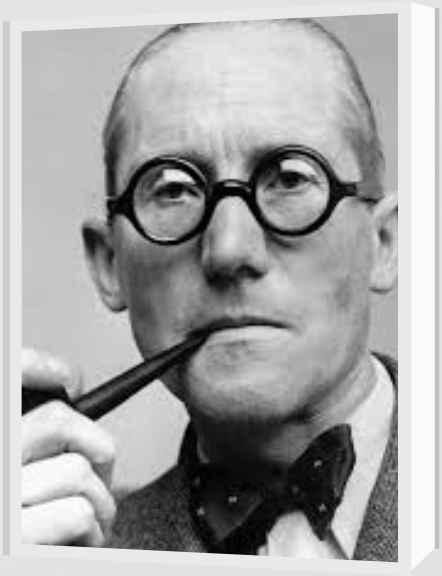
LE CORBUSIER
Master of Form



source: https://www.stylepark.com/

LE CORBUSIER
Biography

Swiss born architect, theorist and designer Le Corbusier (1887-1965) worked and wrote with a unique vision, energy and clarity that made him one of the most influential figures shaping the international style during the early 1900s. Born Charles Edouard Jeanneret, he rechristened himself Le Corbusier in Paris in 1920, around the time he started his journal L'Esprit Nouveau. An active member of the Parisian art scene and co-founder of the Congrès Internationaux d'Architecture Moderne (CIAM), he championed a minimalist modernism built around the idea of the home as a "machine for living."



Swiss-French architect
source: https://www. pinterest.co.uk/

Le Corbusier originally trained as a watch engraver in his hometown of La Chaux de Fonds at the vocational arts college. He began a successful career as an engraver, in 1902 he was awarded a prize at the Turin Exhibition for a watch engraving, but he soon turned his attention to architecture. In 1905 he worked on his first project, the Villa Fallet, and in 1907 he left for Italy and Paris to study different architectural styles. He worked at the architectural offices of Auguste Perret in Paris and apprenticed himself to Peter Behrens in Berlin for a year in 1910. In 1912 he returned to close the circle of his training years by working as an architecture teacher in La Chaux de Fonds until 1914.

The Domino House of 1914 represented an emergence of the free-flowing interior plan that would dominate his architectural style. The structural frame of this building was made of reinforced concrete supported by steel pillars. The lack of supporting walls turned the domestic space into an open, industrially elegant environment. In 1917 he moved to Paris where the contagious immediacy of the art scene inspired him to produce a number of paintings. Along with painter Amédée Ozenfant he wrote the manifesto, "Après le Cubisme" championing a new post-cubist purism. Le Corbusier designed Ozenfant's home in 1922.

The Domino House
source: https://www. afasiaarchzine.com/

Throughout the 1920s Le Corbusier solidified his philosophies about design and began publishing books and journals. In 1923 he came out with his book, Towards a New Architecture which was followed, in 1926, by Five Points of a New Architecture wherein he outlined architectural guidelines such as the necessity of a roof terrace, an unrestricted interior space, expansive windows, a plain exterior and columns for structural support. In 1928 he began creating furnishings for his buildings as part of a collaboration with Pierre Jeanneret and Charlotte Perriand. The three created a series of tubular steel furniture that they exhibited at the 1929 Salon d'Automne in Paris and from which emerged some of the most lasting icons of the International Style

"Equipment for Living," was designed in rich leather or cowhide upholstery and featured the "B 302" swivel chair, the "B301" armchair and the "B 306" chaise longue, which Le Corbusier referred to as the "relaxing machine." Thonet originally manufactured these pieces and many have been reissued in recent years by Cassina as part of their line of classics. Le Corbusier, Jeanneret and Perriand also designed the "Grand Confort" furniture, which was a plump, upholstered answer to the lean art deco shapes of the other series.

source: https://www.archdaily.com/

SCAN HERE
to watch video of Le Corbusier's architecture
https://youtu.be/-sT1f1Se_9g

The Villa Savoye is considered by many to be the seminal work of the Swiss architect Le Corbusier. Situated at Poissy, outside of Paris, it is one of the most recognisable architectural presentations of the International Style. Construction was substantially completed ca. 1929

The Villa Savoye was designed as a weekend country house and is situated just outside of the small village of Poissy in a meadow which was originally surrounded by trees. The polychromatic interior contrasts with the primarily white exterior. Vertical circulation is facilitated by ramps as well as stairs. The house fell into ruin during World War II but has since been restored and is open for viewing.

Corbusier designed the building to use a flat roof, a move he said was for functionality, though may have been partly due to way it looked for him. Indeed the roof failed its functionality, as the roof leaked, causing the owners to attempt to take Corbusier to court. However at the same time WW2 broke out, and Corbusier left the area, leaving the building in a state of disrepair.

Villa Savoye

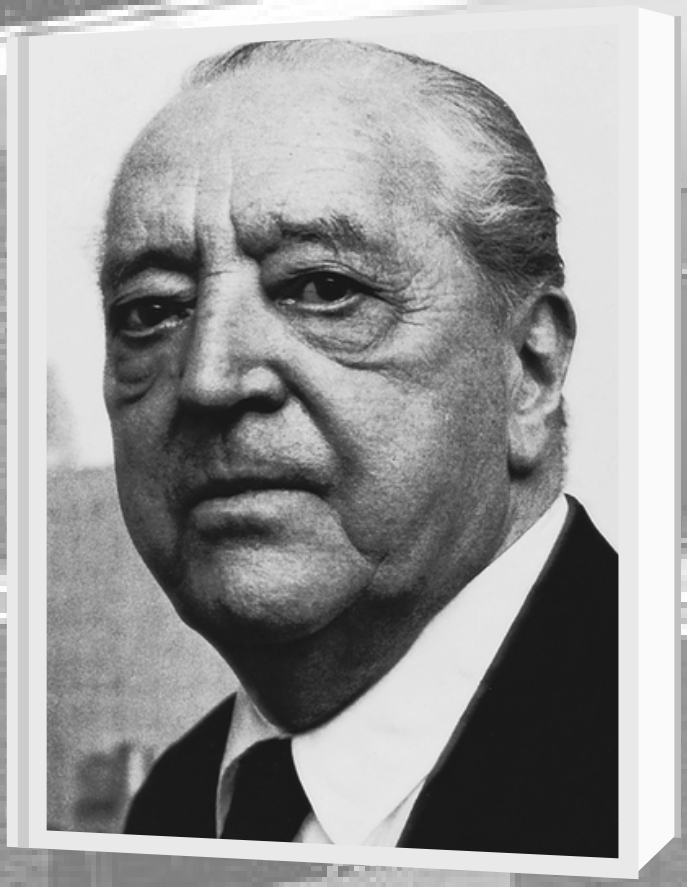
The house was emblematic of Le Corbusier work in that it addressed "The Five Points", his basic tenets of a new aesthetic of architecture constructed in reinforced concrete:

- The pilotis, or ground-level supporting columns, elevate the building from the damp earth and allow the garden to flow beneath.
- A flat roof terrace reclaims the area of the building site for domestic purposes, including a garden area.
- The free plan, made possible by the elimination of load-bearing walls, consists of partitions placed where they are needed without regard for those on adjoining levels.
- Horizontal windows provide even illumination and ventilation.
- The freely-designed facade, unconstrained by load-bearing considerations, consists of a thin skin of wall and windows.

Interior Garden at 2nd floor, the left window is on a rail and can totally open in the summer.

THE MASTER BUILDERS

LUDWIG MIES VAN DER ROHE
Master of Structure



source: https://www.gordonisgood.com/

LUDWIG MIES VAN DER ROHE
Biography

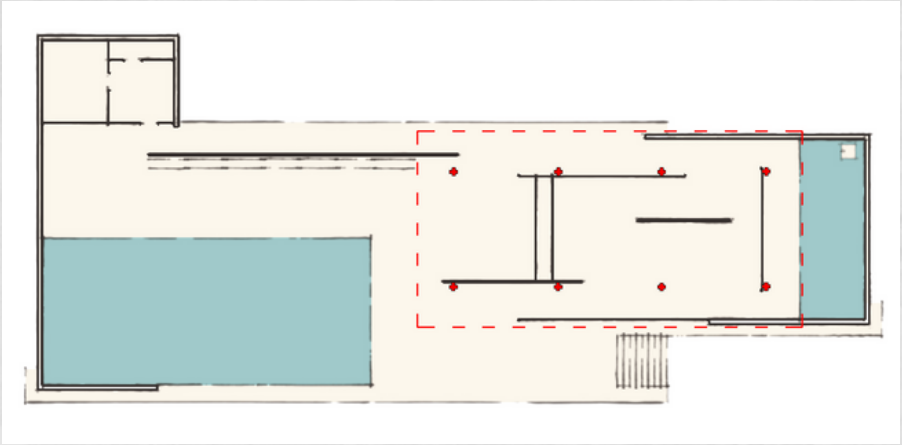
Architect, born in Aachen, Germany. As a young architect and designer in Berlin, he foreshadowed modern architecture with innovative designs for tubular-steel furniture, such as the cantilevered ‘Barcelona chair’ (1929), and steel and glass skyscrapers. He directed the Bauhaus, Dessau (1930–3), which he closed after Nazi threats. Though he had built only 19 buildings, he was internationally famous when he went to the USA (1937), where he founded and directed the architecture department at the Armour Institute, Chicago (later Illinois Institute of Technology) (1938–58), and designed the institute's master plan and a number of campus buildings.

His starkly simple German Pavilion at the International Exposition in Barcelona (1929) crystallized public acceptance of modern architecture. His buildings include the glass Lake Shore Drive Apartments, Chicago (1948–51), the Seagram Building, New York (1956–8, with Philip Johnson), and the Museum of Fine Arts, Houston (1958, 1973).

German Architect
source:
https://www.grandtourofmodernism.com/

The Barcelona Pavilion

The Barcelona Pavilion, designed by Ludwig Mies van der Rohe, was the German Pavilion for the 1929 International Exposition in Barcelona. It was an important building in the history of modern architecture, known for its simple form and extravagant materials, such as marble and travertine.



The building stood on a large podium alongside a pool. The structure itself consisted of eight steel posts supporting a flat roof, with curtain glass walling and a handful of partition walls. The overall impression is of perpendicular planes in three dimensions forming a cool, luxurious space.

The Materials

Glass, steel and four different kinds of marble (Roman travertine, green Alpine marble, ancient green marble from Greece and golden onyx from the Atlas Mountains) were used for the reconstruction, all of the same characteristics and provenance as the ones originally employed by Mies in 1929.

Mies van der Rohe's originality in the use of materials lay not so much in novelty as in the ideal of modernity they expressed through the rigour of their geometry, the precision of the pieces and the clarity of their assembly.

The Barcelona Chair

Mies van der Rohe designed a chair, especially for the Pavilion, consisting of a leather upholstered metallic profile that over the years has become an icon of modern design. To such an extent, in fact, that the Barcelona chair is still manufactured and marketed today.

Georg Kolbe's Sculpture

The sculpture is a bronze reproduction of the piece entitled Alba (Dawn) by Georg Kolbe, a contemporary of Mies van der Rohe's. Masterfully placed at one end of the small pond, the sculpture is reflected not only in the water but also in the marble and glass, thereby creating the sensation that it is multiplied in space, while its curves contrast with the geometrical purity of the building.

CHOOSE ONE (1) CORRECT ANSWER.

CLO1: Identify factors influencing styles and characteristics of modern architecture during the 20th Century.

Click link below to answer the questions:
https://tinyurl.com/DCA40172EOC1

or
SCAN HERE

END OF CHAPTER 1

THE ERA OF POSTMODERN ARCHITECTURE

Post-Modern architecture emerged as a celebration to the Classical vocabularies as opposed to the Classicism and Neo-classicism,

Post-Modernism modified the use of those elements into new meaning of decoration and function.

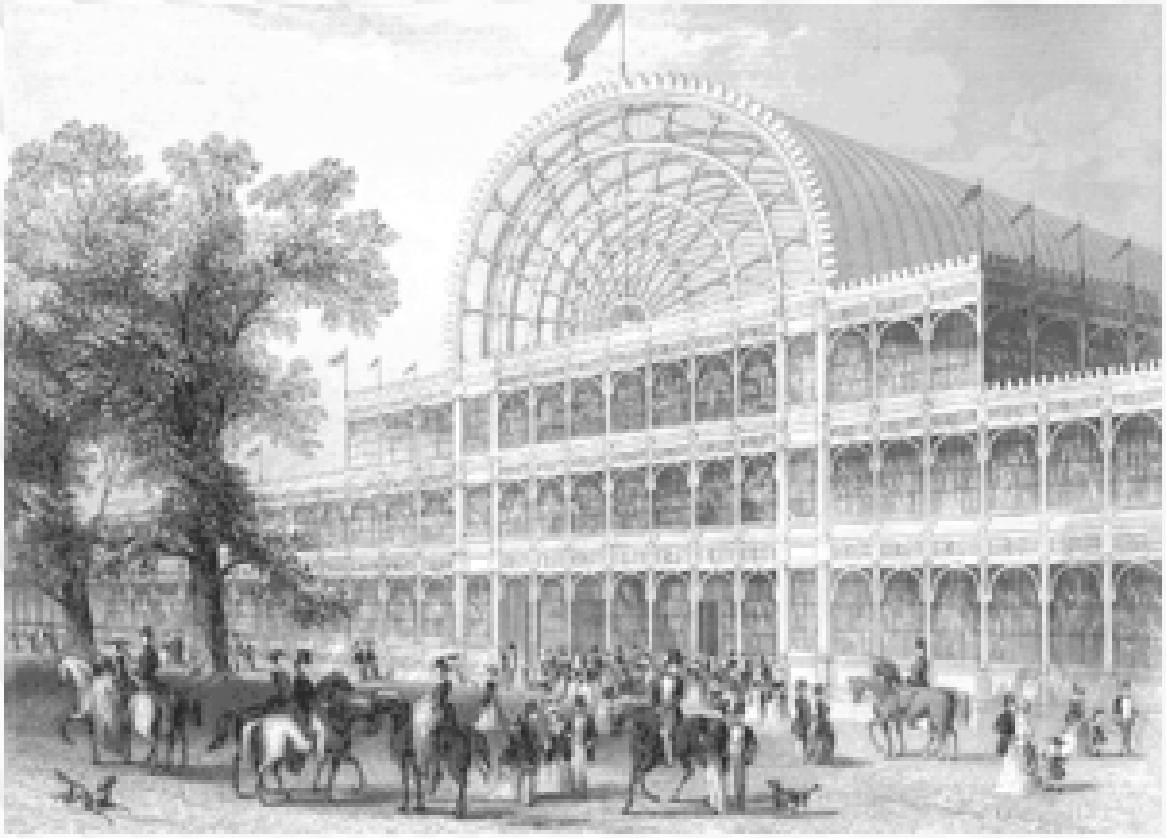
POST MODERN ARCHITECTURE
High-tech Architecture

POST MODERN ARCHITECTURE
High-tech Architecture

High Tech architecture is the term used since 1980 to describe the idea of buildings as a technically organized work of art.

Exposed pipes, wiring, and ventilation ducts became the trademark of high-tech aesthetics.

Historically, high-tech architecture is rooted back to the Crystal Palace designed by Joseph Paxton in 1851 and other 19th Century industrial buildings.



source: https://en.wikipedia.org/wiki/The_Crystal_Palace

Since that, the realization of the glass external wall remained a dominant topic in high-tech architecture.

High-tech architects also developed the use of other modern materials and structures such as membrane structures, tent-like roof structure, and spider-web roof structure.

Famous architects who are related to high-tech architecture are:

Renzo Piano
Richard Rogers
Norman Foster

RENZO PIANO

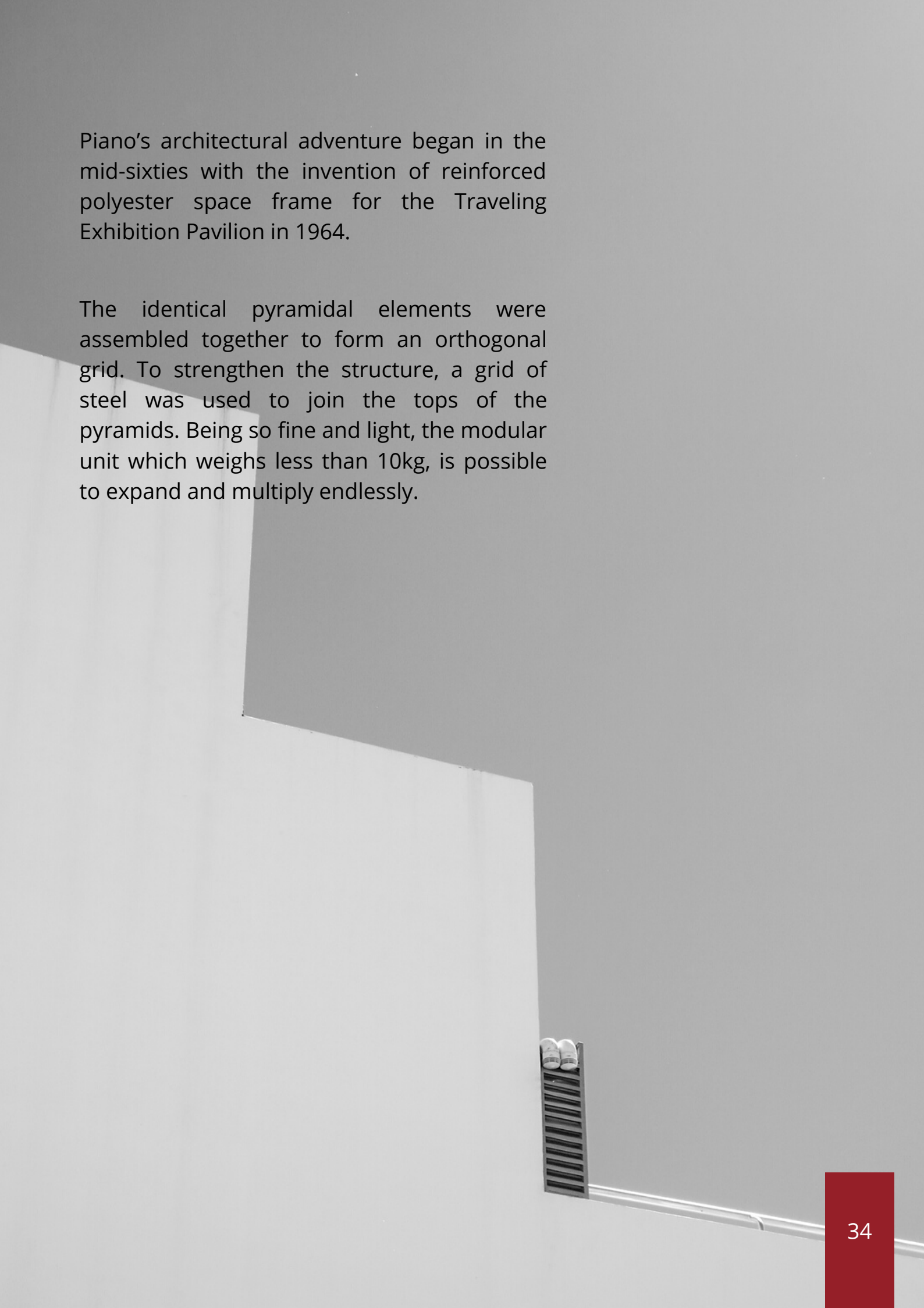
Renzo Piano is an Italian architect, born in 1937. His buildings are user-friendly and technology oriented. Through creativity and scientific development, Renzo Piano was not only involved in designing museums, workshops and exhibition complexes but also inventing a car for the nineties. He mastered himself both in architectural design and in engineering.

Renzo Piano explores new materials in his designs. Before any projects went into construction, he usually made structural tests to verify the weight, stress and strength of the structures and materials proposed.

source: https://www.architecturaldigest.com

Piano’s architectural adventure began in the mid-sixties with the invention of reinforced polyester space frame for the Traveling Exhibition Pavilion in 1964.

The identical pyramidal elements were assembled together to form an orthogonal grid. To strengthen the structure, a grid of steel was used to join the tops of the pyramids. Being so fine and light, the modular unit which weighs less than 10kg, is possible to expand and multiply endlessly.



Not only he is an architect, Renzo Piano is also involved in designing cars. In 1978 to 1980, Nicola Tufarelli, the managing director of Fiat, called upon Piano to design the car of the nineties. The challenge was to reduce the car weight as well as to get it fuel savings.

In 1982 Renzo Piano designed the IBM traveling exhibition. The structure consists of a sequence of arches set one beside the other. When the structure is detached, the individual pieces retain their formal properties and shapes.

The space frame system is used for the structure, and the materials are of polycarbonate for the pyramidal modules, laminated wood for the masts and aluminium for the joints.

As a conclusion, the innovative works of Renzo Piano triggers the modern world. He explores modern materials and modern technologies to create light but strong structures for his buildings. His magnificent and brave innovations inspire modern architects.

As scientists in the sixties competed to reach outer space, so was Renzo Piano, devoting his life to experiments and innovations in architectural design as well as engineering.

‘Architecture must commit itself fully to technological understanding, to experimenting with instruments, and it must also take the pulse of people’s real needs’.

Renzo Piano
source:https://www.architecturaldigest.com

RICHARD ROGERS

Richard Rogers was born in 1933 in Florence, Italy. He studied in boarding schools and spent his childhood in Britain. He had dyslexia, which his teachers misunderstood as laziness and recommended him to be a policeman.

source:https://www.archdaily.com

Rogers met Norman Foster, one of the leading British architects. Both were studying at Yale University in the United States. On their return to Britain, Rogers and his wife, Sue worked in a partnership with Norman and his wife Wendy Foster. They called themselves “TEAM FOUR”.

Their designs which emphasized on a technological future, earned them the label of “High-Tech” architects. After four years of working together, Team Four was dissolved in 1967. Although Rogers and Foster went their separate ways, they both began to explore new technologies in their work.

POMPIDOU CENTER

In 1970, Rogers established a partnership with the famous Italian architect Renzo Piano. Together they formed the Richard Rogers Partnership and designed the Pompidou Center in Paris.

The buildings which was completed in 1977, expresses the art of engineering and industrial design. Everything is visible on the outside of the structure, including the lifts to the sewage pipes. This inside-out style was called “Bowellism” by the critics.

source:https://www.klook.com

Using the same principles, Richard Rogers Partnership designed Lloyds Building (1978-86), the new headquarters of the insurance group Llyods of London.

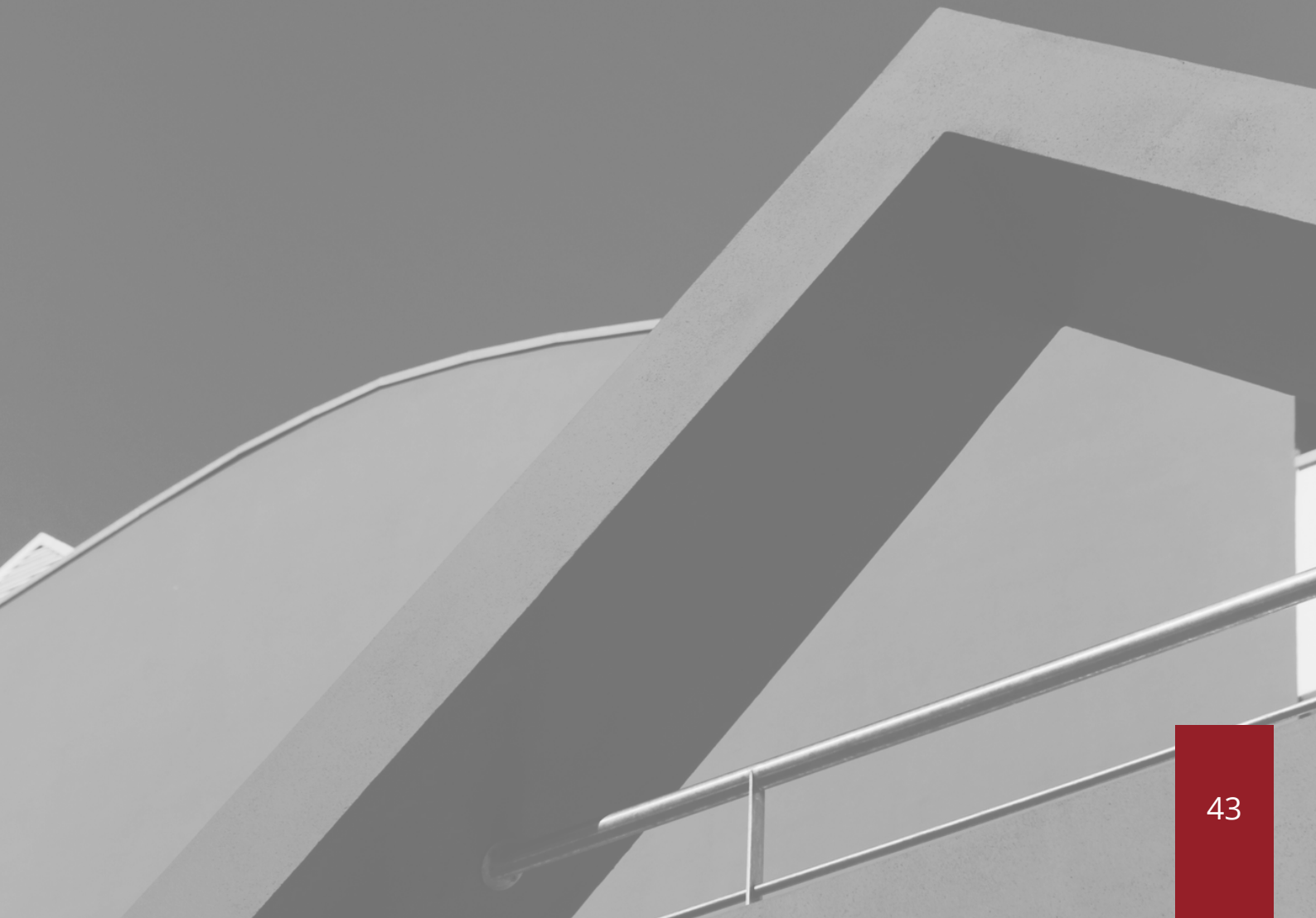
Like the Pompidou Center, the building features engineering aesthetics. The elevators were located on the exterior in stainless steel towers. Besides maximizing the interior spaces, the outside position of the service elements also facilitates any future changes in usage of the building.

source:https://www.pinterest.com

The Llyods building also consists of open-plan offices with glass partitions and the central atrium, giving the impression that workers are constantly aware of their fellow workers everywhere in the building.

Although Richard Rogers stressed on technological beauty in his design, he also solved existing social and ecological problems. The Llyods building, located in one of the oldest districts of London, was designed to curve and bend with the street pattern of the site. The earlier 1928 entrance of the building is left standing.

Like other Modernists, elements of the past are valued and reincorporated into the new design.



“Buildings are not idiosyncratic private institutions: they give public performances both to the user and the passerby. Thus the architect’s responsibility must go beyond the client’s program and into the broader public realm. Though the client’s program offers the architect a point of departure, it must be questioned, as the architectural solution lies in the complex and often contradictory

Interpretation of the needs of the individual, the institution, the place and history. The recognition of history as a principal constituent of the program and an ultimate model of legitimacy is a radical addition to the theories of the Modern Movement.”
-RICHARD ROGERS

POST MODERN ARCHITECTURE
Deconstructivism

The motto for Deconstruction, ‘form follows fantasy’, was coined by a famous architect, Bernhard Tschumi. The principle of exaggeration of familiar motifs and a concept of ‘disturbed perfection’ was developed. The image often looks like somebody has been playing with building bricks, an extremely varied model construction kit or match sticks that accidentally bumped into the table. Everything that is slipped and shifted, becomes the concept of Deconstructivism.

Among the famous architects involved in Deconstructivism are:

Zaha Hadid
Frank O' Gehry
Coop Himmelblau

ZAHA HADID

Zaha Hadid is a British architect who was born in 1950 in Iraq. She studied architecture at the Architectural Association School (AA) in London from 1972 to 1977. After graduation, she became a member of the Office for Metropolitan Architecture (OMA) and became a partner in 1977.

She lectured at the Architectural Association (AA) with Rem Koolhaas and Elia Zenghelis, the also famous modern architect before she opened her own studio at the AA until 1984.

She has also been a visiting professor at Columbia and Harvard Universities, and conducts a series of Master classes and lectures at various institutions around the world.

Architectural Association
School of Architecture
36 Bedford Square
London WC1B 3ES

Hadid began her own practice in architecture with the design of the apartment in Eaton Place, London. The work was awarded the Architectural Design Gold Medal in 1982.

Other projects include furniture and interiors for Bitar, London (1985), a Folly in Osaka (1990) and several other buildings in Tokyo.

The most famous work of Zaha Hadid is the Vitra Fire Station in Weil am Rhein, built in 1993. The building sheds the fire engines of the Vitra furniture factory, as well as the canteen, sanitary areas and a fitness room.

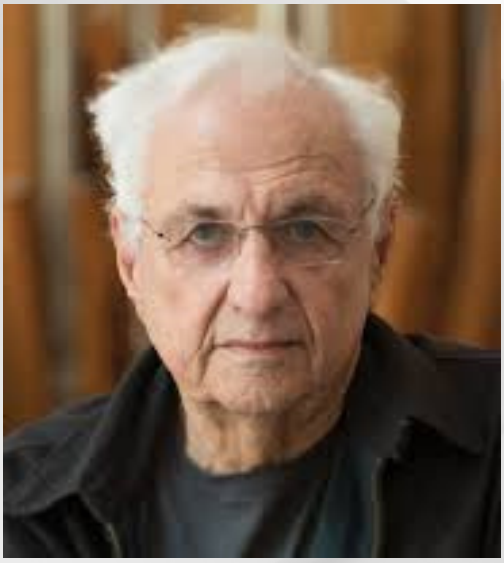
'Tension' is the key word that describes the building's concept. As the fire service is always in the state of tension, especially in the events of fire, tension is also the keynote of the building's design. The pointed slab of concrete that plunges like an arrow into the landscape makes the canopy seems to float. Like a monument, or a sculpture, the canopy of the complex rests on thin, straight, and sloping pillars that defy the logic of construction. Slanting walls and interlocking planes add to the expressive look of the building. From a bird's eye view, the building looks like a paper airplane, elegant and aerodynamic. From some point, the slanted walls invoke the image of a ship.

The building is made of several materials, from aluminum and smooth concrete to the sealed sheet of glass and the strip windows.

Besides being an architect, she is also a famous painter and an interior decorator. Hadid's paintings and drawings have been shown internationally. Other major exhibitions include the Guggenheim Museum, New York (1978); the GA Gallery, Tokyo (1985); the Museum of Modern Art in New York (1988); The Graduate School of Design at Harvard University (1944), and The Waiting Room at Grand Central Station New York (1995).

Hadid's works have also become the permanent collection of various institutions including the Museum of Modern Art, New York, and the Deutsches Architektur Museum in Frankfurt.

FRANK O' GEHRY



Frank O. Gehry was born in Toronto, Canada in 1929. In 1947 at the age of seventeen, he moved to Los Angeles with his family. He received a degree Architecture degree from the University of Southern California. In 1956 to 1957 he entered Harvard University's Graduate School of Design to study City Planning. After working with several architects in Los Angeles and Paris he then established the firm Frank O. Gehry and Associates, Inc. in Los Angeles in 1962.

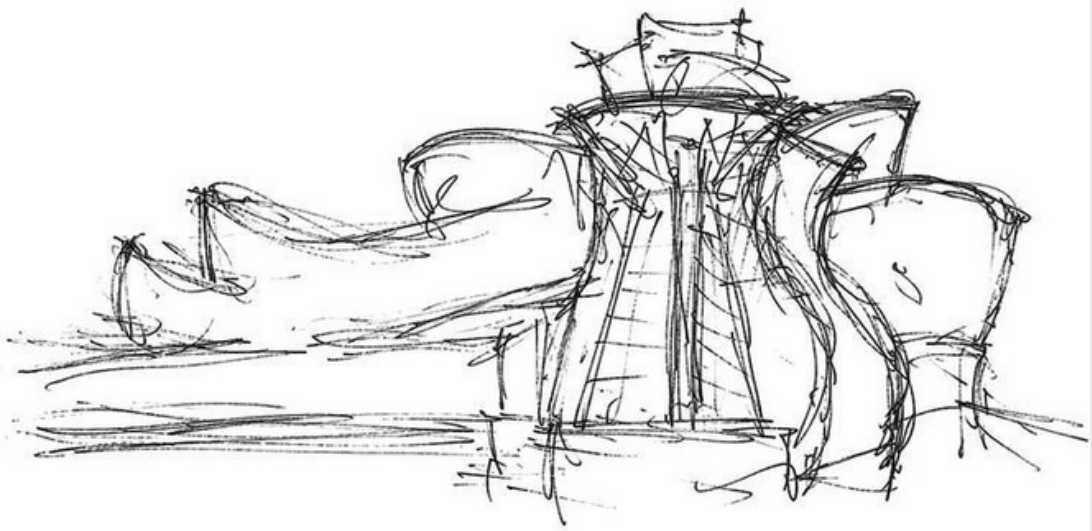
Gehry's works have received worldwide recognition. He was awarded the Pritzker Prize in 1989. In 1992, the Japan Art Association awarded him the Imperial Award in Architecture.

In 1994, he became the first recipient of the Dorothy and Lillian Gish Award for lifetime contribution to the arts. In 1998, he received the National Medal of Arts, the Lotos Medal of Merit from the Lotos Club and the Gold Medal from the American Institute of Architects were received in 1999. In 2000, he was awarded the Lifetime Achievement Award from Americans for the Arts. His buildings have received over 100 national and regional A.I.A awards.

Besides architecture, Gehry was also involved in designing cardboard and bentwood furniture. In the early 1970s, he introduced the easy edge chair series constructed from laminated cardboard.

In architecture, Frank O. Gehry is famous for his creation of habitable sculpture. His early works started in his own home in 1978. He bought an ordinary house and transferred it into a ‘collage’, believing that architecture is art. The house was remodeled to look like it has been hit and distorted in an accident. Elements like raw plywood, corrugated metal, exposed studs, and a kitchen floor paved with asphalt gave the house the unfinished look.

According to Gehry, his concerns are ‘cheapness, destruction, distortion, illusion, layering, and surrealism’.



The Nationale-Nederlanden Building

It is popularly known as the “Ginger and Fred” building because the two towers of the building, one glass and one stone, press and link together like a dancing couple.

The nickname was given after the stars of the Hollywood musicals, Ginger Rogers and Fred Astaire. The design of the building evokes a feeling of movement. Besides the shapes of the two towers, movements are also expressed in the arrangement of up and down windows on the stone tower.

Guggenheim Museum, Bilbao,Spain

The most famous building designed by Frank O. Gehry is the Guggenheim Museum in Bilbao, Spain built in 1997.

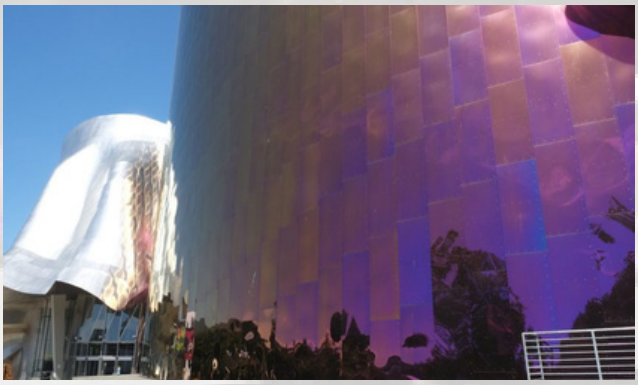
According to Gehry, the design is not just about a space, it is a kind of sculpture. The design process is made possible with the use of CATIA computer modeling program. CATIA is a 3-dimensional computer program originally designed for the aerospace industry. This program is supplemented by 2-dimensional CAD program. With the aid of these two computer programs, Frank O. Gerry designed an asymmetrical curve museum.

The steel structure of the building is sheathed with glass, limestone and thin titanium. The beautiful effects of reflected light on the titanium walls and the beautiful curving shape turns the building into a great sculpture by the River Nervion.

Other works designed by Frank O' Gehry

Disney Concert Hall, Los Angeles

Lou Ruvo Center for Brain Health, Cleveland



Pop Culture Museum, Seattle

Louis Vuitton Foundation, Paris

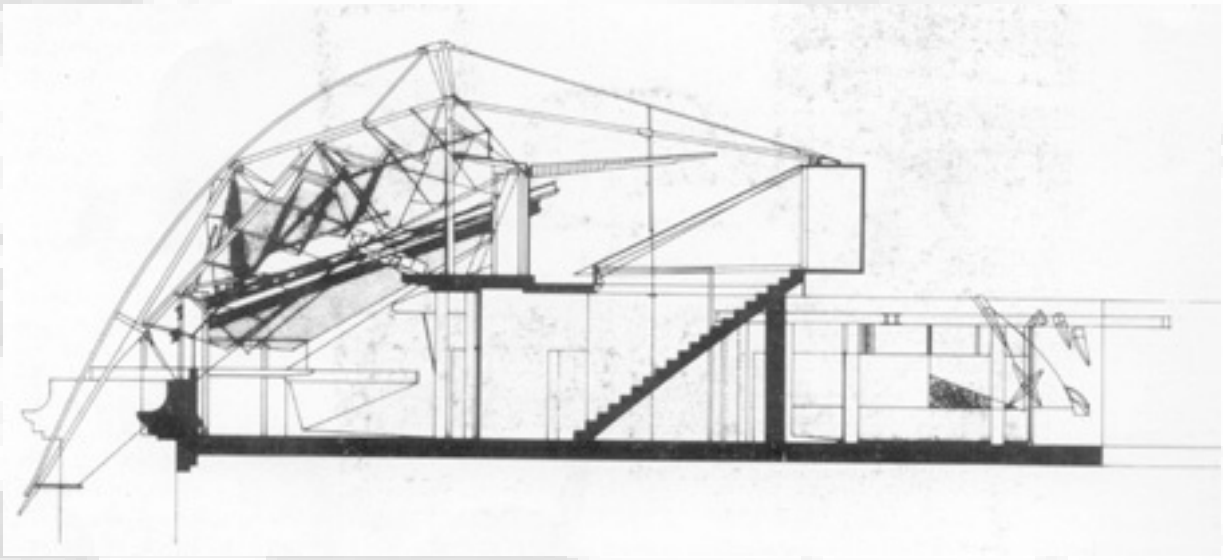
COOP HIMMELBLAU

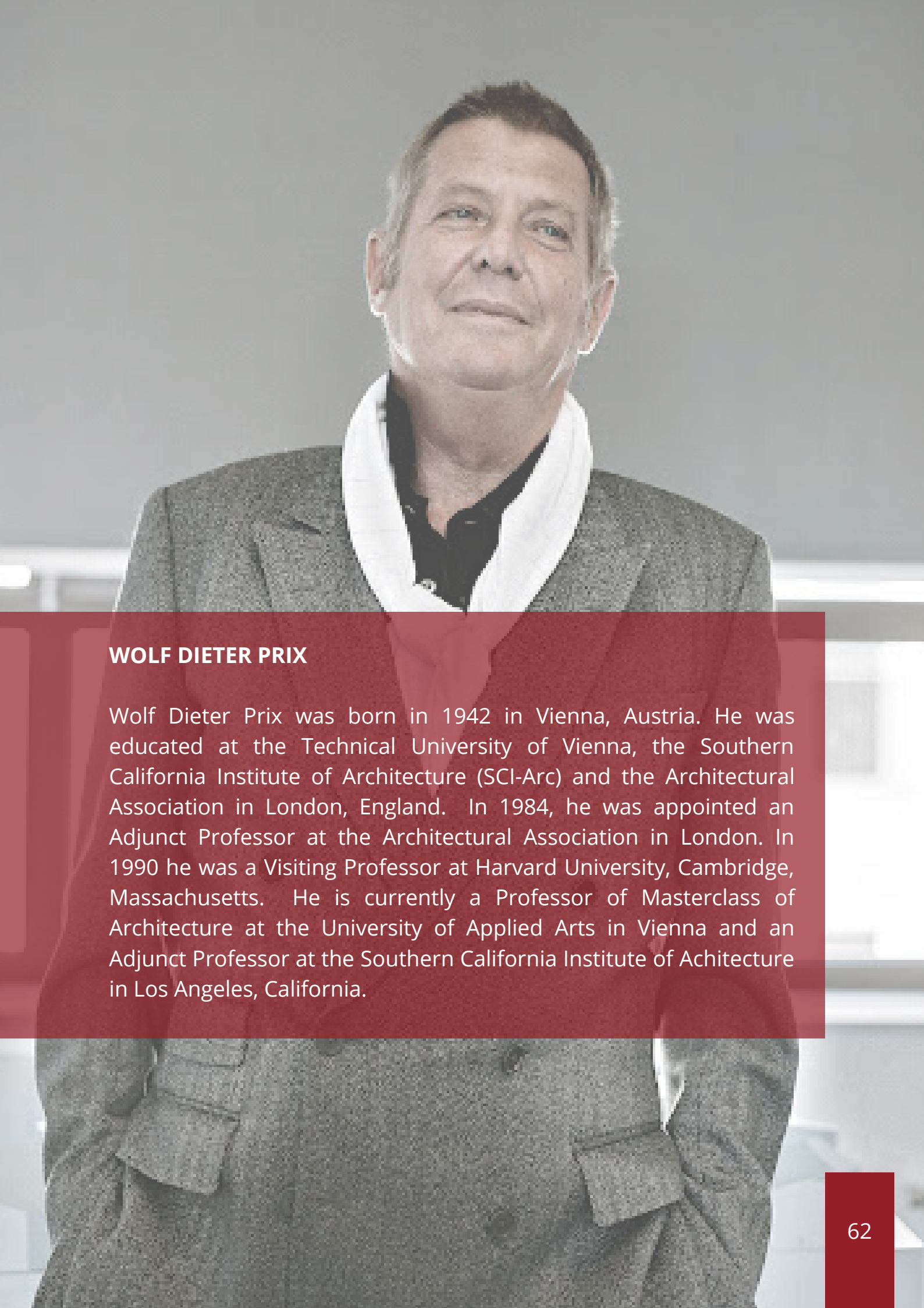
Coop Himmelblau is the name of architectural practice founded by Wolf Dieter Prix and Helmut Swiczinsky in 1968 in Vienna, Austria.

Coop Himmelblau is a member of the European Academy of Sciences and Arts. The group has received numerous awards in International competitions.

The design trademark of Coop Himmelblau consists of exciting, heady architectural projects that presents aggressive to the standard approach to urban design.

Asymmetrical structures are often generated to strive freedom from a given formal style.





WOLF DIETER PRIX

Wolf Dieter Prix was born in 1942 in Vienna, Austria. He was educated at the Technical University of Vienna, the Southern California Institute of Architecture (SCI-Arc) and the Architectural Association in London, England. In 1984, he was appointed an Adjunct Professor at the Architectural Association in London. In 1990 he was a Visiting Professor at Harvard University, Cambridge, Massachusetts. He is currently a Professor of Masterclass of Architecture at the University of Applied Arts in Vienna and an Adjunct Professor at the Southern California Institute of Achitecture in Los Angeles, California.

Helmut Swiczinsky was born in 1944 in Poznan, Poland. He was raised in Vienna, Austria and educated at Technical University in Vienna, Austria and the Architectural Association in London. In 1973 he became a Visiting Professor at the Architectural Association in London, EnglandWolf Dieter Prix and Helmut Swiczinsky formed COOP HIMMELBLAU in 1968 in Vienna, Austria. Since then they continue to work in the fields of architecture, design, and art. In 1988, Coop Himmelblau opened a second office in Los Angeles, California.

In 1983, Coop Himmelblau designed a new roof structure for the Schuppich legal practice in Vienna. The project is to convert a 400 square meter attic into an attorney's office, with a conference room being the central element. The context of this project is the relation between roof and street. That is the reason why the arch steel backbone of the roof structure points down to the street.

The design stressed on a balance of open and close surfaces. Natural light that enters the space is controlled, and so is the view. The architects gave careful considerations of what views to facilitate and what views to block. For example, from the balcony that extends into the conference room, there is a view not only of the interior but also down to the street.

Open House Malibu, California was also designed in 1983. The design intention of Coop Hammelblau was to build a house that reflects feelings; the feelings that one would have when one enters the house. In the beginning, the forms, the colors, and the details were not important and emphasized as the feelings of height and the expansiveness of the space.

ANSWER THE QUESTIONS

CLO1: Identify factors influencing styles and characteristics of modern architecture during the 20th Century.

Click link below to answer the questions:
https://tinyurl.com/DCA40172EOC2

or
SCAN HERE

END OF CHAPTER 2

2.0
REGIONAL ARCHITECTURE

VERNACULAR ARCHITECTURE
STYLES AND CHARACTERISTICS

WHAT IS VERNACULAR ARCHITECTURE?

Introduction

- Vernacular architecture is a modest style of building that is specific to a region and period.
- While most architecture styles follow strict design rules, Vernacular architecture is more flexible. The design depends mostly on local builders and the materials they can access at the time.
- The majority of older homes you see are likely vernacular structures.
- In theory, a vernacular house is built without an architect. Local builders used what was available to them and pulled from a variety of design styles to create simple homes that became distinct to a specific area.
- It's difficult to define exact specifications for all Vernacular architecture. Much of what you see is dependent on each area's culture and resources.

HISTORICAL CONTEXT

- As a concept, the term ‘vernacular’ became commonly used in the 1800s, at a time when western colonial powers were exploring the new worlds that were being discovered. It is sometimes used as a derogatory term, suggesting something that may be quaint, but is derivative and has not been ‘properly’ designed by a professional.

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- During the first quarter of the 20th century, high profile architects such as Adolf Loos, Frank Lloyd Wright and Le Corbusier began to extol the virtues of vernacular architecture. However, it wasn’t until 1964 that a successful exhibition by Bernard Rudofsky called ‘Architecture without Architects’ that the form became popularized.

STYLES & CHARACTERISTICS

Vernacular architecture is characterized by its reliance on needs, construction materials and traditions specific to its particular locality. It is a type of architecture which is indigenous to a specific time and place and not replicated from elsewhere.

Historically, vernacular architecture has incorporated the skills and expertise of local builders as opposed to formally-trained architects.

STYLES & CHARACTERISTICS

Whilst often synonymous with primitive, nomadic or traditional architecture, can also apply to certain types or architecture in developed countries and urban societies.

The development of vernacular architecture centers on the functions that the building type is required to perform.

THE DESIGN THEN GENERALLY EVOLVES OVER TIME, BECOMING MORE REFINED AND TAILORED TO THE CONTEXTS IN WHICH IT EXISTS, INCLUDING:

1

The availability of resources, skilled workforce, and so on.

2

Local Technology.

3

Climate

The amount of sunshine, humidity, rain, wind, temperature profiles, and so on.

4

Local Culture

The way of life of the occupiers greatly influences the building form. This can include the size of families, the way the building is used, social conditions, local customs, religious values, and so on.

THE DESIGN THEN GENERALLY EVOLVES OVER TIME, BECOMING MORE REFINED AND TAILORED TO THE CONTEXTS IN WHICH IT EXISTS, INCLUDING:

5

Environment

Whether it is located near water, woodland, desert or mountainous terrain, and so on

6

Economic Conditions

7

Historical Influences

Since vernacular architecture is built by the people for the people, the homes tend to be simpler and less definitive than other forms of architecture.

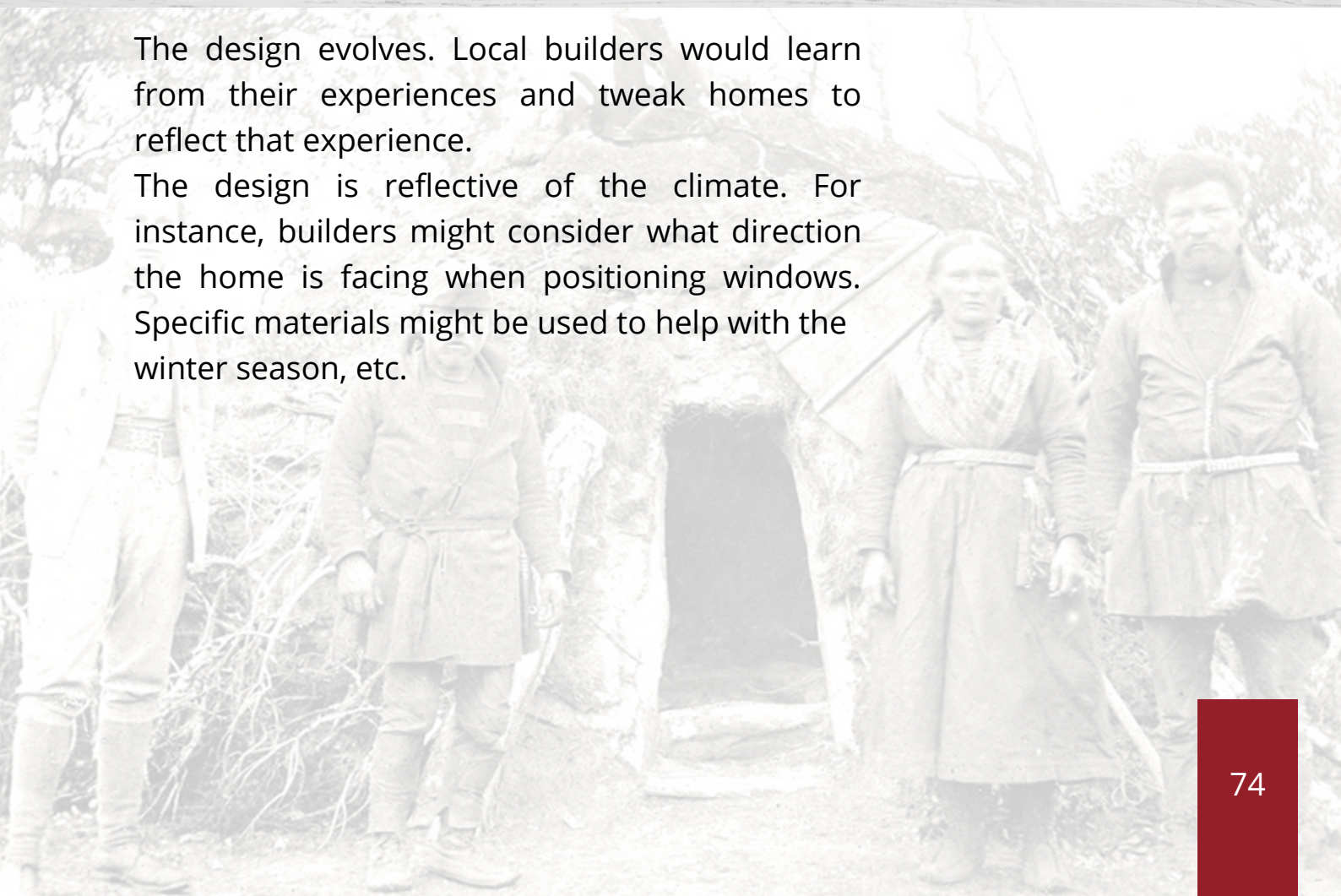
Other types of architecture use a deliberate set of rules and materials. Here, there is less emphasis on rules or aesthetics and more on creating something easy and effective without needing to travel far for building supplies.

Here are some ways you can distinguish Vernacular

Builders use inexpensive materials and utilitarian design. Materials were generally affordable and locally sourced. The design was intended to focus on function over beauty.

The design evolves. Local builders would learn from their experiences and tweak homes to reflect that experience.

The design is reflective of the climate. For instance, builders might consider what direction the home is facing when positioning windows. Specific materials might be used to help with the winter season, etc.



•Homes often embody local technology, social conditions, and culture. You will see some common themes among vernacular architecture in a given area. The theme might mean similar materials used or similar design styles that can be a hodgepodge of other more worldly styles.

You might also see homes grouped closer together or apartment complexes in areas with a dense population. Some homes might feature religious customs. Homes with poorer residents would be smaller and less elaborate.

TYPES OF VERNACULAR ARCHITECTURE

Since most homes built today are under the guidance of an architect, it's challenging to construct an authentic vernacular house now. However, you can opt to build a home that is in a vernacular style that's true to your location.

There are dozens of subsets of vernacular architecture in the world. These are some of the more common examples that have popped up over the past couple of centuries.

6 TYPES OF VERNACULAR ARCHITECTURE IN MALAYSIA

Like many culturally rich countries in the world, Malaysia is abuzz with culinary surprises, beautiful art forms, and architecture. Malaysian architecture draws inspiration from influences from the region, such as colonial and Islamic design and Asian styles, to create something unique.

Just in time for Independence Day this year, we think it is a great time to visit the different types of regional architecture in Malaysia and how they make vernacular Malaysian buildings so beautiful.

1 | THE MALAY KAMPUNG HOUSE

The traditional Malay kampung house or "rumah kampung" was built by the indigenous Malays of Sumatra, Borneo and the Malay Peninsula. These houses not only represent a home, but are designed to reflect aspects of a strong community, such as opening your home to others and living in harmony with nature.

5 Unique Types

a. Rumah Bumbung Panjang

b. Rumah Negeri Sembilan

c. Rumah Perabung Lima

d. Rumah Limas

e. Rumah Kutai

1 | THE MALAY KAMPUNG HOUSE

a. Rumah Bumbung Panjang

Rumah Bumbung Panjang', translated to "house with long roofs", can be considered one of the original iterations of the Malay house. This Malay house style predates even the arrival of the Dutch to these shores. These houses are characterised by the tall and long slopes that the roof is shaped in.

1 | THE MALAY KAMPUNG HOUSE

b. Rumah Negeri Sembilan

It's clear where this style originated from. The Rumah Negeri Sembilan style is considered one of the more unique designs for Malay houses. The main feature of this Malay house type is the curved shape of the roof design which bears a strong resemblance to the Rumah Minangkabau. This is due to the ancestral history of the Malay people in Negeri Sembilan, many of whom migrated from Sumatra. The Rumah Negeri Sembilan also features elaborate woodcarvings on doors and window.

1 | THE MALAY KAMPUNG HOUSE

c. Rumah Perabung Lima

Rumah Perabung Lima got its name due to its distinct roof design that resembles a five-sided pyramid. The design borrows a lot from 'Belanda' (Dutch) house architecture style. This style of Malay house can be found more commonly in states such as Kelantan, Terengganu and Perak and this design style was favoured by royal families for their palaces in those parts of Malaysia. A good example of this is the Istana Kenangan in Kuala Kangsar..

1 | THE MALAY KAMPUNG HOUSE
d. Rumah Limas

Rumah Limas, or sometimes known as Rumah Potong Belanda is predominantly found in Johor, where it is also known as Rumah Muar. Malay houses built using this style uses stone piers instead of wooden stilts and features a Dutch-style roof that resembles a pyramid. This roof style is commonly used in government buildings and famous landmarks in Malaysia, most notably Muzium Negara..

1 | THE MALAY KAMPUNG HOUSE
e. Rumah Kutai

Rumah Kutai is also known as Rumah Tua ('Kutai means 'old' in the local Perakian dialect. This style of Malay house is mostly found in Perak, specifically near Kuala Kangsar where the royal family was located. That is why this luxurious style is characterised by the elaborate and complex carvings on the door, porch, awnings, and windows.

1 | THE MALAY KAMPUNG HOUSE
e. Rumah Kutai

These are just some of the types of Malay house designs you can find across Malaysia but there are plenty more, each of them influenced by its own unique history. Malay or 'kampong' houses are a testament of a rich architectural heritage here in this country and we should not allow it to fade away with modernisation.

2 | PRE-WAR SHOPHOUSE

Pre-war shophouses can still be seen in many places in the larger cities of Malaysia, such as Kuala Lumpur, especially Jalan Pudu, Jalan Tuanku Abdul Rahman, Jalan Ipoh, etc.; but they can also be seen in smaller cities such as Malacca and Penang.

Built from the 19th to 20th century, shop houses or 'Rumah Kedai' were built for shared use of space with commercial businesses occupying the ground floor while multi-generational living spaces on the upper floors. Over the last 200 years, these shophouses have started including features that are a reflection of the multi-cultural society, with Chinese, Malay and even British colonial influences being incorporated.

2 | PRE-WAR SHOPHOUSE

They were originally built with wood and ‘atap’ but after several fires and storms in the early 1880s, the then British Resident of Selangor, Frank Swettenham, required that all buildings be built from brick and tile.

In recent years, businesses such as cafes and offices have started seeing the charm and value in converting these pre-war shophouses into modern spaces to suit contemporary lifestyles but at the same time preserving the architectural history of the area.

3 | THE LONGHOUSE

The longhouse or ‘rumah panjang’ remains an important communal symbol for the indigenous tribes in Sabah and Sarawak.

The element that distinguishes the longhouse has less to do with its architectural merits and more to do with how life was built around it in older times. Longhouses have been known to house hundreds of individual families under a single roof. There is always a unifying veranda where these families will commune and spend time socialising with one another.

Originally built with bamboo and wood, the longhouses have over the years started incorporating more modern furnishings and materials such as brick and mortar so that they last longer.

4 | BAJAU LAUT SEA HOME

The Bajau or sea gipsy community that resides in the coastal regions around Sabah have existed mostly at the fringes of the sea for centuries. Traditionally, the Bajau are known to live on seaboats known as 'Lepa'.

4 | BAJAU LAUT SEA HOME

These days, the Bajau has abandoned their exclusive sea-living so that they can build their home (Bajau homes) on stilts out in the sea and even on land on rare occasions. Some of these houses on stilts are built a little far from the shore and can only be accessed by boats. The Bajau community have been known to be 'landsick', preferring to spend most of their time at sea.

The layout of Bajau homes varies depending on the usage of the home. Some are built intentionally for the raising of children while others are built to reflect other practical uses such as basic shelter and economic activities. The materials used to build these houses are based on wood materials that can be found in the surrounding area of the village.

5 | COLONIAL HOMES

The colonial homes are remnants of the British's colonisation of Malaya. During those times, the British would establish living stations across the cooler climate highlands in this country. These were mostly built as holiday retreats for them to escape the heat and be reminded of their homes back in England.

6 | PERANAKAN HOUSE

One of the most colourful and eclectic styles of traditional houses is probably the Peranakan house. This is mainly due to the strong blend of two distinct cultures – Chinese and Malay. These houses were built by wealthy Baba-Nyonya communities in Malacca and Penang.

The style incorporates architectural influences from both cultures, such as a large indoor courtyard, which is a distinct feature for Chinese-style homes, carved wooden panels that are reminiscent of the Malay kampung houses and even the colourful English-style tiles are a nod to colonial influences.

In vernacular architecture, users design and build at the same place. So, vernacular houses are more cost-effective as compared to contemporary-style houses. An affordable home design methodology is used to minimize cost and environmental impacts.

It's truly important that Malaysia starts recognising its rich architectural heritage and do absolutely what it can to preserve these important pieces of history. These homes and architectural designs give us huge clues and notes about what life was like back then here in this country and how it has evolved over the years.

BENEFITS OF VERNACULAR ARCHITECTURE

- Capitalizing on local knowledge and traditions.
- Taking advantage of local materials and resources, meaning that they are relatively energy efficient and sustainable.
- Providing a vital connection between humans and the environment in which they live.
- They can be designed specifically with the local climatic conditions in mind, and often perform well.

EXAMPLES OF STUDENTS' PRESENTATION WORK

CLO2: EXPLAIN MALAYSIAN VERNACULAR ARCHITECTURE THROUGH LEADERSHIP SKILL AND TEAMWORK

VERNACULAR ARCHITECTURE

1. **https://youtu.be/WK_kHm96pJs**

★★★★★

2. **https://youtu.be/bjxGmj3Kqk8**

★★★★★

THE INFLUENCE OF VERNACULAR ARCHITECTURE ON MODERN SUSTAINABLE ARCHITECTURE IN MALAYSIA

In the modern world, vernacular strategies must be applied to modern architecture where the architectural design for homes is incorporated as a vernacular style in the contemporary forms. Many of the sustainable architecture and its design principles depend on the references to vernacular architecture.

Vernacular architecture is the built environment (city, architecture, and interior spaces) created based on the society needs.

It is built in accordance with the natural environment (geography, topography, site, climate, local building materials, labor experience, and building techniques) fulfilling people's physical, economic, social, and cultural norms.

Vernacular architecture is a sign of identity; it is the "mirror" of nations that reflects place, time, and culture. Architecture is built by people to people; it has developed through time and modified itself through trial and error to fulfill society's needs in harmony with the ambient environment.

SUSTAINABLE ARCHITECTURE

Is a form of architecture that incorporates a design that is environmentally friendly and built to be sustainable.

The buildings are created to help decrease the impact that they have on the landscape and the environment and the materials that are used to build them are also derived from economically friendly sources.

It emphasizes sustainability and includes the basic green architectural principles of energy efficiency and uses materials in the proximity of the site

Sustainable architecture is the use of design strategies that reduce the negative environmental impact of buildings by efficiency and moderation in the use of materials, energy, development space and the ecosystem at large.

Sustainably designed buildings aim to lessen their impact on our environment through energy and resource efficiency by minimising non-renewable resource consumption.

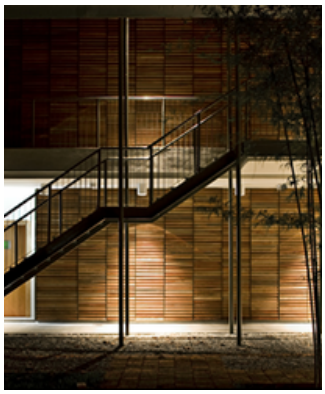
INNOVATIVE SUSTAINABLE BUILDINGS IN MALAYSIA

Most of today many architect had design many green building because the design of the built environment on human health with to reduce to the overall impact and the environment have an efficiently using energy, water and other resources. After that, it also reducing waste, pollution and environmental degradation and the last is protecting occupant health and improving employee productivity. Green building practices aim to reduce the environmental impact of building.



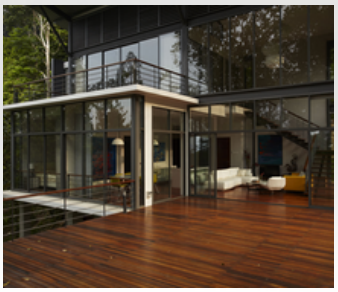
The Pulau Banding Rainforest Research Centre, Gerik, Perak

There are a lot of eco-friendly and tropical elements in this building. broad, wide open terraces for hanging out or lounging, open gardens and bathrooms and safari roofs.



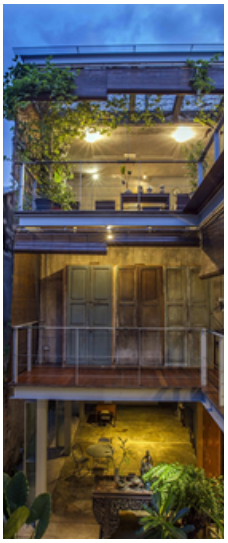

The Deck House,
Janda Baik, Pahang

It is built with modern materials such as lightweight steel and glass to merge with the natural surroundings seamlessly. In terms of the design principles of Malay Vernacular house, firstly it is elevated on stilts. This highlights the considerations of cooperating with the climatic to cool the building effectively without the needs of technological systems.

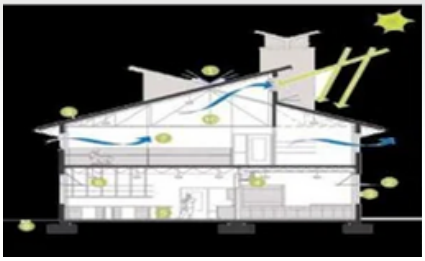


Sinkeh, Gerik,
Georgetown, Penang

Sinkeh is a multi-purpose arts space /guesthouse.

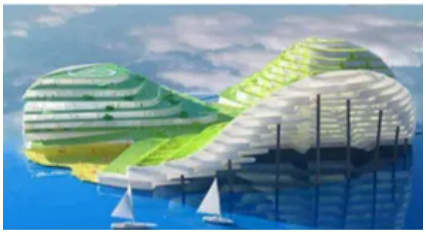


GREEN VS. SUSTAINABLE



Green Design

Green design focuses on reducing the environmetal impacts of energy, water and material usage



Sustainable Design

Sustainability is defined as meeting the needs of the current generations without impairing the future generations

ARCHITECTS
Malaysia

Jimmy Lim Design, KL

Professor Dr. Jimmy Lim

- Educated at University of New South Wales, Australia.

- A past-President of PAM {Malaysian Institute of Architects}, Founder Member and First Vice President of the Heritage of Malaysia Trust, Past-President of Friends of Heritage, Founding Member and Executive Council Member WACA {World Association of Chinese Architects}, and Past Convenor of Arcasia {Architects' Regional Council of Asia} Fellowship.

- Received many awards including the coveted Aga Khan Award.

- Lectures extensively at conferences/seminars and teaches at Universities; was Adjunct Professor Curtin University, Western Australia, Advisor to Alfa College of Design, Malaysia and invited Adjunct Professor University of Tasmania, Australia.

Work is renown and recognised for its uncompromising and unconventional sustainable equatorial tropical architecture which is renewable.

He practise the architecture of humility, which involves culture, history, tradition, environment and people. Subsequently, he engage in the tai chi of architecture, which provides the solutions.

Jimmy Lim believes that architects should study a site in its natural state and using the knowledge to design. For example it is important to understand the direction of prevailing winds, the sunset and sunrise, the rains and the flow of rivers.

Salinger Residence, Jalan PJS2, Petaling Jaya

The Aga Khan Award
for Architecture Excellence 1998

The Walian House

Utilizing passive design, the Walian House is oriented in a way that reduces the internal heat absorption. Designed with an open floor plan, the interior of the house captures the north west and south east winds which help it remain cool in the tropical weather.

Commonwealth Association of Architects Award 1985 &
PAM Honorary Mention 1991

Jimmy Lim Design, KL

Building blends into the nature and
become parts of the landscape

Hawkers Center (Coolie Lines)
Penang Hill

ARCHITECTS
Malaysia

T. R. Hamzah & Yeang Sdn. Bhd

Dato' Dr. Ar. Ken Yeang

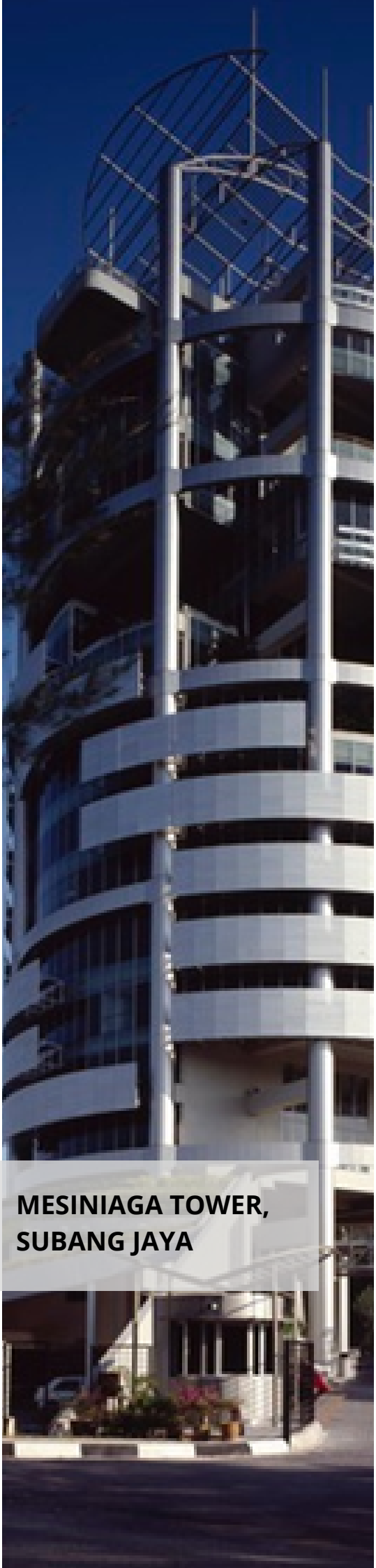
He is an architect, ecologist, planner and author known for his ecological architecture and eco-masterplans that have distinctive green aesthetics.

Since 1971, Dr. Yeang pioneered ecology-based architecture–working on theories to improve the field while practicing sustainable design globally. In 2008, The Guardian named him "one of the 50 people who could save the planet." He has been in the forefront of pushing green buildings.

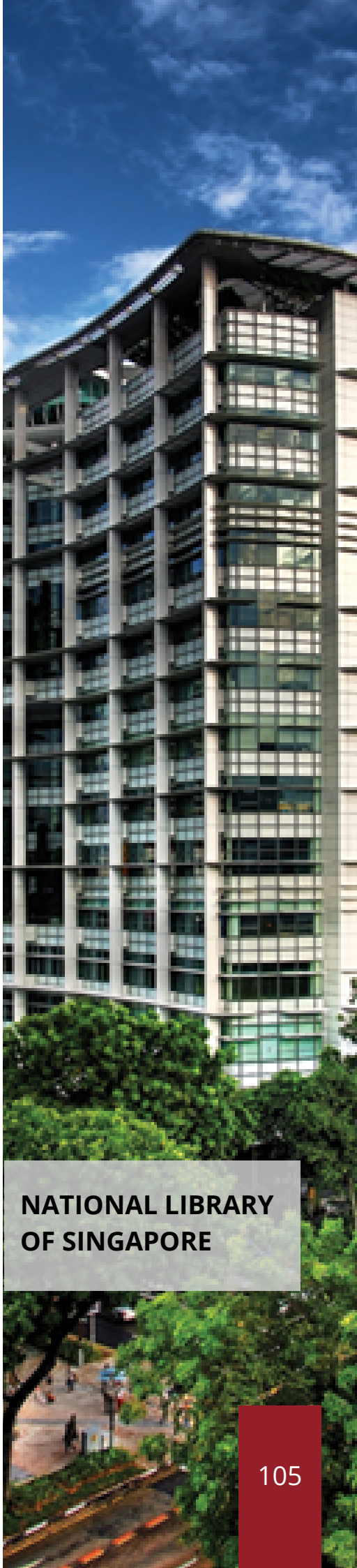
He trained at the Architectural Association School (UK). His doctorate is from Cambridge University on ecological architecture and planning. He has authored over 12 books on green architecture.

Awards received include the Aga Khan Award, Malaysian Institute of Architects Gold Medal, Malaysian Government's Merdeka Award.
He holds the Distinguished Plym Professorship (Illinois University).

MBF TOWER, PENANG



MESINIAGA TOWER, SUBANG JAYA



NATIONAL LIBRARY OF SINGAPORE

Solaris, Singapore

To describe the beauty and the uniqueness of Ken Yeang's works is to describe his bioclimatic design concept.

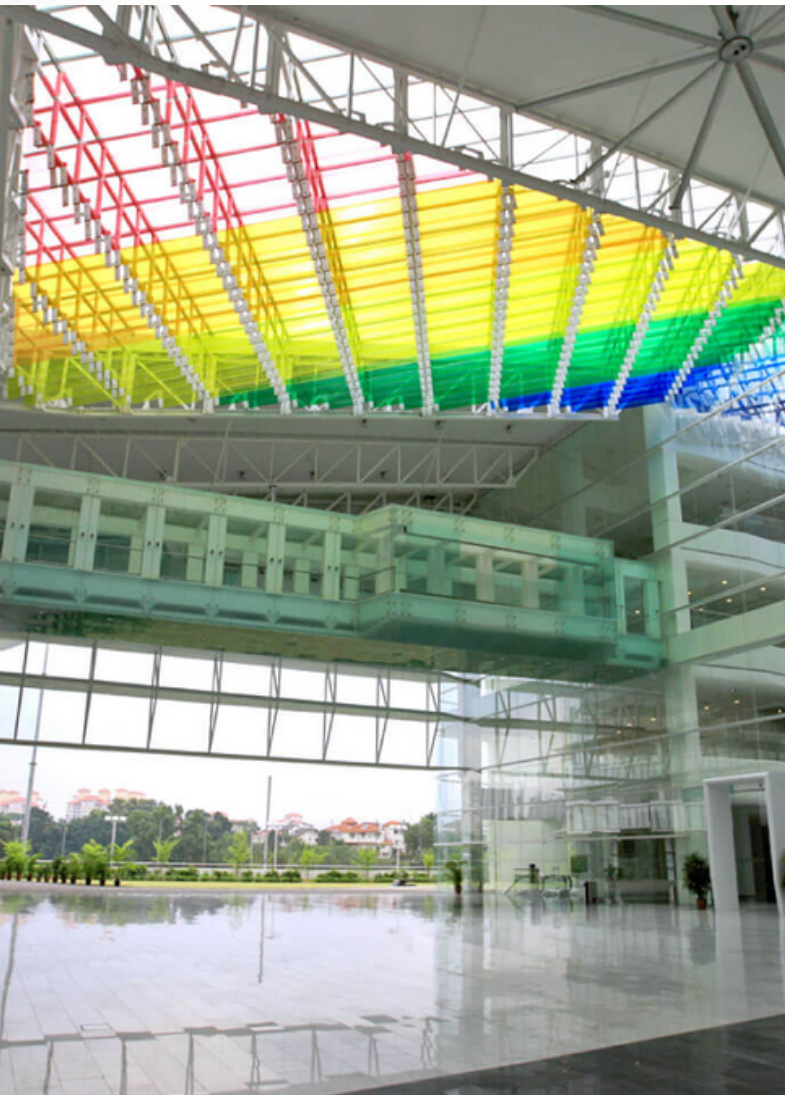
Bioclimatic is the term referred to Ken Yeang's ideas of designing buildings that are sensitive to the tropical climate.

He is a man with a vision that combines a commitment to stunning architecture with a passion for environmental and eco-focused solutions.

The use of natural devices such as louvers and fins on the windows facing the east and west would minimize the glare and the heat of the sun.

Ganendra Art House, KL

CALVARY CONVENTION CENTER, KL



ARCHITECTS
Malaysia

Hijjas Kasturi Associates Sdn.

Ar. Hijjas Kasturi

Born in Singapore in 1936, Hijjas received his secondary education at Raffles Institution, after which he became a draughtsman at the Singapore Housing Trust. The Australian government awarded him a Colombo Plan grant to study in Adelaide and then Melbourne, Australia, where he graduated in Architecture and Town Planning in 1965.

He returned to Singapore the following year and moved to Malaysia in 1967, where he founded the School of Art and Architecture at Mara Institute of Technology. He went into partnership in 1969, and set up his own practice — Hijjas Kasturi Associates — in 1977.

Rimbun Dahan

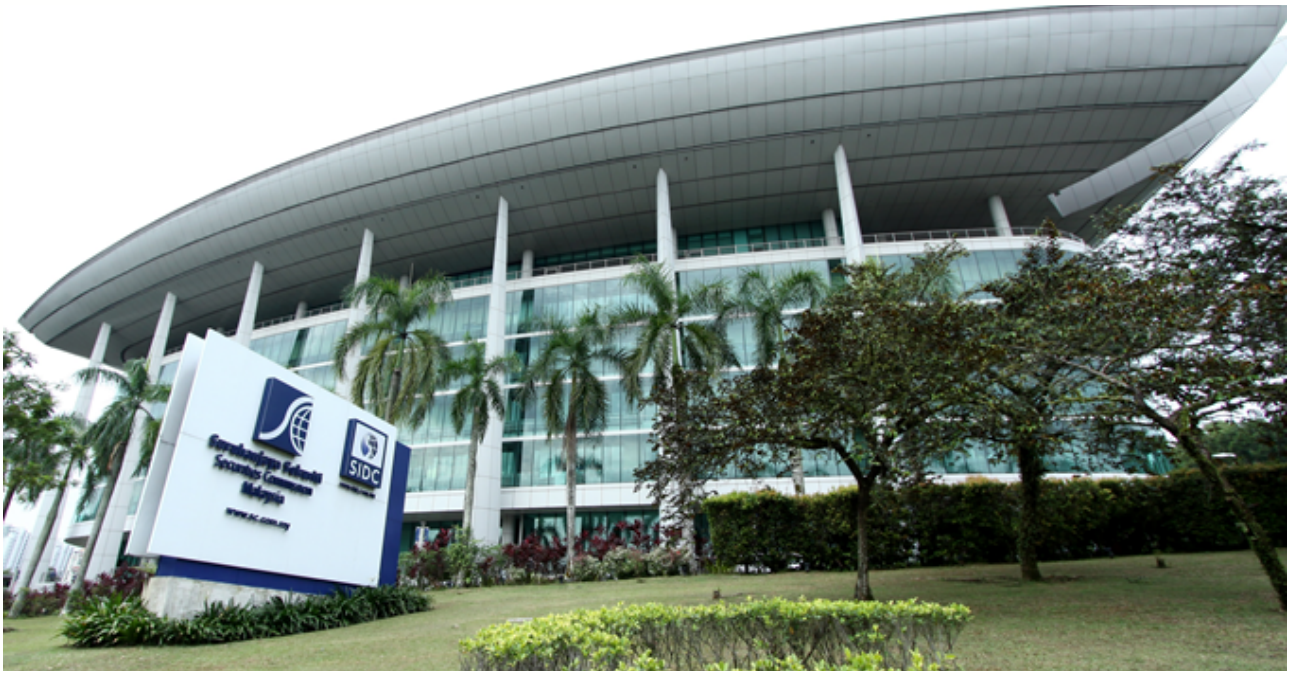
The design of Hijjas's home relates to traditional Malay architecture. Although it was built of concrete and steel, some features of the house are directly translated from traditional Malay architectural vocabularies such as the pitched roof and deep overhangs

Putrajaya International Convention Centre (PICC)

'The first convention centre to be awarded the Energy Efficiency and Conservation Best Practices Award by ASEAN in 2007'

Building Characteristics

Hijjas Kasturi's design concept is characterized by reconciliation of contemporary space and function with a modern aesthetics quality and images of the past. His recent designs introduce 'intelligent' features to temper and conserve energy. Based on traditional ideas, he uses organic form and detail to express the metaphoric concept of his designs.



The building constructed with double skin facades that comprises of two layers of glass to create a comfortable internal environment. The exhaust air from the interiors is expelled into the double skin and rises out through the thermal flue.

A series of horizontal louvers, grills with fixed low level vertical blinds, and automatic vertical screen act to moderate the direct heat and glare from the sun.

The atrium, which is located at the central area of the building, is designed to filter and at the same time deliver natural internal lighting to the offices. At the base of the atrium, the cool air moves up the six levels to the perimeter of the atrium roof. The cool air is also circulated at the balcony floors around the atrium.

Securities Commission Building, Bukit Kiara, KL

"Won the ASEAN Energy Award in 2001"

THE POD EXHIBITION HALL

ARCHITECTS
Malaysia

Eleena Jamil Architect (EJA)

Ar. Dr. Eleena Jamil

Eleena Jamil trained at the Welsh School of Architecture, Cardiff University in the United Kingdom.

After a short working stint, she joined the architecture faculty at Cardiff as a teaching assistant while completing her MPhil and PhD postgraduate research.

Eleena set up her own architectural practice in Kuala Lumpur in 2005 and it has since been growing steadily with an expanding portfolio of work that has won international accolades.

Working within the context of South-East Asia and beyond, her work has been founded on research into specific social and climatic imperatives of each brief within a broader cultural framework.

Projects developed within her practice have been widely published in international press and have been shortlisted for awards such as the World Architecture Festival Award, the Italian Plan Award, the LEAF Award and the American Architecture Prize.

SEPANG HOUSE

BAMBOO PLAYHOUSE

THE BUZZ.AR COMMUNITY CENTER

BAMBOO PAVILION

GARDEN LIBRARY

EXAMPLES OF STUDENTS' PRESENTATION WORK

Course Learning Outcome 2

Explain **Malaysian vernacular architecture** through leadership skill and teamwork.

SCAN QR CODE

Malaysia's Leading Architects

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CLICK THE LINK
https://youtu.be/O_OXR-Mvpso

"**Good architecture** has many elements of art. It all depends on how you approach of building, whether you look at it as a mechanical box or as a piece of sculpture." **- Hijjas Kasturi**

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