

# Masa Arsitektur Modern

*(The Modern Age)*

▶▶ Modernisme dalam Arsitektur

*(Modern Movement in Architecture)*

▶▶ Gaya Arsitektur dan Tokoh

## **Sumber:**

Lucy Peel (et.al), *An Introduction to 20th – Century Architecture*,  
Chartwell Books. Inc., New Jersey, 1989

Eppi P. Suriawidjaja (dkk.), *Persepsi Bentuk dan Konsep Arsitektur*,  
Penerbit Djambatan, Jakarta, 1986

# LATAR BUDAYA

Revolusi Industri mulai di Inggris, abad XVIII

James Watt menemukan mesin uap yang lebih baik: 1764, 1769, 1782 dan seperangkat gerigi mesin untuk gerak memutar: 1781

Adam Smith menulis *The Wealth of Nations*: 1776

Immanuel Kant

Coulomb menemukan hukum elektrostatik

Antoine Laurent Lavoisier menemukan pokok dasar kimia: 1789

Volta menemukan baterai listrik: 1800-an

Jalan Kereta Api menjadi penting: 1830-an

Michael Faraday dengan hukum tentang elektromagnetik: 1831

Telegraf: 1830-an

Daguerre menemukan fotografi

Linoir menemukan motor pembakaran 2 langkah: 1850-an

Gatling menemukan senapan mesin

James Clerk Maxwell menemukan teori tentang cahaya: 1860-an

Louis Pasteur menemukan penyuntikan pencegah penyakit: 1870-an

Nikolaus August Otto menemukan motor pembakaran 4 langkah: 1870-an

Thomas Edison menemukan lampu listrik: 1879

Mobil mulai dijual komersial: 1890-an

Guglielmo Marconi menemukan radio: 1900

Orville Wright – Wilbur Wright menemukan pesawat terbang: 1903

# 1900 – 1918

Sejak peralihan menuju abad XX ada dorongan untuk terbentuknya gaya modern:

- Industrialisasi
- Populasi di perkotaan
- Reformasi politik dan sosial
- Ketersediaan bahan dan teknologi

Awal abad XX ada perubahan dlm berarsitektur:

- Memutuskan dengan historisism dan penyederhanaan arsitektur vernakuler oleh Britain's Art dan Crafts Movement
- Memasuki skala internasional karena didukung teknologi komunikasi; contoh pada Art Nouveau
- Bentang lebar misalnya pada hangar pesawat udara di Orly (1916)

# Art Nouveau

**Art Nouveau** was an international reaction against the backward-looking historicism that had passed for 19th-century architecture. Inspired by the imagery of organic structures like plant-forms and marine life.

Art Nouveau was characterized by sinuous, curving, lines that appeared in various undulating and interlaced patterns. It was a style that was readily adopted in many branches of design including textiles, glassware and jewelry.

To its supporters, art nouveau represented a daring challenge to the architecture establishment's sterile practice of endlessly reviving Renaissance and Classical styles.

To its detractors, art nouveau seldom overcame the charge of being mere surface decoration, and was unworthy of the status of a truly architectural movement.

In Germany and Scandinavia, art nouveau became known as 'Jugendstil' (*gaya muda*)

Maison et Atelier Horta, Brussels, Victor Horta, 1898-1900.

Horta built himself a house and studio adjacent to each other. Of the two, the house has the more remarkable exterior, with its elaborate ironwork balconies. Inside the studio, Horta demonstrated his ability at staircases with a typically elegant but fragile banister rail

Castel Beranger, Paris, Hector Guimard, 1895-8.

Guimard readily adopted the whiplash line pioneered by Horta, and in this Paris apartment block he used cast plaster as well as iron for decoration

# FRANK LLOYD WRIGHT

His genius sprang not just from his ability to design buildings that were pleasing to the eye and to the environment, nor from his ability to create an interesting interior ground plan, but predominantly from his intuitive skill in combining all these elements into organically unified buildings.

Falsafahnya tentang arsitektur menjelaskan bahwa setiap permasalahan arsitektur pemecahannya selalu berhubungan dengan alam atau lingkungan.

Makna bangunan secara obyektif harus terlihat nyata, sehingga dalam seni membangun tidak hanya mementingkan efisiensi saja, tetapi juga ketenangan, keselarasan, kebijaksanaan, kekuatan bangunan dan kegunaannya sesuai dengan tujuan.

Gaya arsitekturnya dinamakan organik; estetika dan konstruksi sama pentingnya, lahir dan tumbuh dari situasi yang alamiah.

Rumah Willits, Highland Park, Chicago, FL Wright, 1902  
Menjadi teladan dan acuan arsitektur perumahan secara meluas.  
Rasional tetapi masih romantis.

Wright dianggap sebagai "pujangga terakhir" dari jaman Revolusi Industri tahap pertama

Solomon R Guggenheim Museum,  
New York, FL Wright, 1943-59.

The façade of this building emphasizes the spiral ramp of the gallery within. The mildly irritating fact that one foot is always lower than the other when viewing a picture is negligible beside the sheer drama of the interior space

Kaufmann house, Bear Run  
Pennsylvania, FL Wright, 1935-39.  
Known as Falling Water, this house successfully combined a sensitivity to the landscape with an interest in abstract forms. Vertical sections are made from stone whereas horizontal elements are constructed out of reinforced concrete

Price Tower, Bartlesville,  
Oklahoma, FL Wright,  
1955.

Tampak bahwa selera  
romantisnya belum  
serba sudut  $90^0$

Interior of Unirry Church, Oak Park  
Chicago, FL Wright, 1906.

Wright designed the interiors,  
including furniture and light fittings,  
for many of his buildings. The  
'graphic' quality of this interior is  
heightend by the decorative lines

# 1918 – 1945

## Bangunan-bangunan pasca PD I:

- Pabrik dan bangunan komersial untuk menghidupkan perekonomian
- Bangunan komersial dengan gaya Art Deco dan Art Moderne untuk perbaikan tampak
- Rumah-rumah untuk pasukan perang dan rakyat dalam skala massal
- Bangunan pencakar langit di pusat kota seperti di Chicago dan New York
- Merebaknya bangunan di pinggiran kota di AS dan Inggris ditunjang kemajuan sarana transportasi terutama KA

Masih 1918 – 1945 ...

## Formalisasi *Modern Movement*:

- Arsitek secara sendiri atau berkelompok menyajikan penafsiran gaya bangunan untuk masa depan (*Cubist, Seni Abstract, Machine Aesthetic, spatial relationship*). Muncul Gaya Internasional sebagai dasar format awal tentang Modernism.
- Di Eksibisi Weissenhof (1927) banyak arsitek mengungkapkan persamaan pendekatan dan makna terhadap arsitektur.
- *Congrès Internationaux d'Architecture Moderne* (CIAM) diselenggarakan oleh Hélène de Mandrot, Le Corbusier, Giedion Sigfried: "ini kesempatan menderivasikan arsitektur", meskipun organisasi ini awalnya memberi perhatian pada perencanaan kota dan 'habitasi'

Materi Kuliah: 24 September 2007

# EXPRESSIONISM

EXPRESSIONISM IN ARCHITECTURE Characterized by the free use of abstract form, which is considered to take precedence over considerations of function or historical precedent. By the early 1920s, though, Expressionism came to seem escapist, and it was quickly superseded by the Neue Sachlichkeit – or New Objectivity.

Antoni Gaudi was the pioneer by the two apartment blocks, the Casa Batló (1907) and the Casa Milá (1910) – he created an organic quality of undulating masonry that was closely linked to the Art Nouveau style. In 1921, Erich Mendelson built an observatory and astrophysical laboratory at Postdam, named in honour of Albert Einstein.

Mendelson saw 'Einstein House' as a chance to realize his ideas about the sculptural qualities of concrete, but he was forced to resort to plastered brickwork in some parts of its construction.

## **Chilehaus**, Hamburg, Fritz Hoyer, 1923

Although a minnow by American standards, the 10 storey Chilehaus was one of the first substantial office buildings to be constructed in the centre of a European town

## **Theatre Project**, Walter Gropius, 1926.

was designed in response to the idea that Theatre itself was a political, and therefore participatory, act. Gropius attempted to meet this demand by technical means as well as aesthetic; the theatre had an inbuilt flexibility that allowed three acting areas as well as film projection on the ceiling and walls to give the audience the illusion of total involvement.

Einstein House, Postdam, Erich Mendelson, 1919 - 21.  
The plastic quality of the finished Einstein House can be seen in Mendelsohn's highly stylized sketch

To symbolize in architectural terms Einstein's Theory and to be the workshop in which the theory practically. The building was originally conceived - plastic quality – as a completely reinforced concrete structure. Unfortunately, it was completed in brick and rendered to simulate that effect. Einstein described the building as 'organic'.

# DE STIJL

DE STIJL Magazine, 1917, espousing abstraction and the unity of the arts, as well as the artists, designers and architects supporting its philosophy, the latter group forming a bridge between pre-WW I Expressionists and 1920s Modernists.

The name comprised a like-minded group of confident painters, sculptors, architects who loosely believed in the application of geometric abstraction and maybe pure color and form. Architects: Piet Mondrian, JJP Oud, Theo van Doesburg, and Gerrit Rietveld.

Housing scheme, Hook of Holland, JJP Oud, 1924-27

This scheme comprised two terraces of cheap housing with shops at the end of each block. The apparent simplicity of the houses with their white-painted rendered facades and horizontal bands of windows looks forward to the full-blown International Style

The Schroeder house, Utrecht, Gerrit Rietveld, 1923-24  
Rietveld used a lightweight steel frame for this house so that the walls were no longer load bearing. This meant that internal walls could be positioned where desired rather than where necessary. Panels of reinforced concrete were used to create balconies and overhangs

**The Town Hall**, Hilversum, Willemm Dudok, 1930

Dudok was an individualist who pursued a middle-of-the-road line between the romantic ideas of Amsterdam and the rational notions of De Stijl. His aesthetic ideas were based on the use of plain surfaces of brickwork built up into cubic masses relieved by the occasional window opening

# BAUHAUS

BAUHAUS German design school with arts & crafts, reorganized in 1919 under Walter Gropius; the word has come to epitomize the design philosophy of the 1925-32 period of the Dessau Bauhaus.

'Bauhaus' connotes austere Functionalism, the use of industrial materials, concrete, glass and stainless steel, the absence of ornament and, typically, flat roofs. Architects: Walter Gropius, etc.

## **The Bauhaus, Dessau, Walter Gropius, 1919**

The main entrance has the glazed workshop block on its right. The diagram show the competent grouping of the irregular blocks  
Here the curtain-walls is at last fully developed, and forms a transparent screen, completely exposing the structure within

## **Fagus Works, Alfeldan-der-Leine, Walter Gropius, 1911**

One of the first truly modern building, it was essentially a cubic block incorporating glass curtain-walling that extended around the corners with no need for additional support

## **Siemensstadt Housing, Berlin, Walter Gropius, 1929-30.**

The third in a series of housing projects Gropius undertook after leaving the Bauhaus. Siemensstadt was a development of low-cost flats fitted with modern conveniences, constructed with the techniques of prefabrication Gropius had pioneered at Dessau

# CONSTRUCTIVISM

CONSTRUCTIVISM Russian art movement which emerged after the 1917 revolution. For inspiration, Constructivist looked to industrial methods and materials, and were interested in the dynamic, often abstract, aspects of composition and design.

Architects: Konstantin Melnikov, Kasimir Malevich, Vladimir Tatlin, El Lissitzky.

**Rusakov Workers' Club**, Moscow, Konstantin Melnikov, 1927-8

The giant projection which overhang the facade of this building contain the uppermost seats of the auditorium.

The arrangement of sculptural volumes reflects an interest in contemporary Constructivist abstract painting

**Reconstruction of the Monument to the Third International**, VE Tatlin, 1920

The original scheme envisaged by Tatin comprised a 990 ft (300 m) high steel frame from which hung the glass assembly rooms.

Not surprisingly, the scheme was more a vehicle of political propaganda than a practical building project

# LE CORBUSIER

LE CORBUSIER Charles-Edouard Jeanneret , an architect who was most responsible for formalizing international Modernism. From Auguste Perret he was able to comprehend the possibilities of reinforced concrete and from Peter Behrens to learn the positive implication of combining design with large-scale mechanization from which he hope to provide quick, cheap dwellings.

Le Corbusier's sketches for the Maison Citrohan (1919-22) reveals the hallmarks of his own style – a geometric white block constructed out of concrete, raised on slender columns (*pilotis*), a flat roof, and lots of windows set flush with the wall and terraces.

Each element of the house has been reduced to its bare functional essentials, geometric expressed – thus it has become (in Le Corbusier's much-quoted phrase) a 'machine for living in'. Creating The Villa Savoye, Poissy, near Paris (1928-9) – Le Corbusier's self-proclaimed: 'Five Points of a New Architecture – a free plan, a free facade, *pilotis*, a terrace and ribbon windows.

The modernist architecture was looked to the more 'sculptural' concrete architecture of Le Corbusier and was looked to the 'steel and glass' architecture of Mies van der Rohe.

Falsafahnya tentang arsitektur adalah menciptakan perasaan aman, keramah-tamahan, kebahagiaan, serta kesatuan yang harmonis dari bentuk-bentuk yang ada di bumi dan hubungannya dengan skala manusia.

Selain itu desainnya dipengaruhi oleh bentuk geometris, beton ekspos, dan permainan bayangan.

## **The Villa Savoye, Poissy, Le Corbusier, 1928-29**

displayed Le Corbusier's 'Five Points of a New Architecture: a roof terrace, pilotis, a free plan, strip windows and free composition of the façade.

Le Corbusier deliberately undermined the 'reading' of separate internal and external spaces by creating large picture windows which fell to the floor and ramps and staircases that were easily 'at home' either within the house or on the terrace outside

Unite d'Habitation, Marseilles, Le Corbusier's mass-housing scheme was to influence a generation of architects. He became increasingly occupied with the sculptural properties of concrete.

## **La Ville Radieuse, Le Corbusier, 1935**

A symmetrical scheme, in which rows of identical skyscrapers were positioned on geometric grids.

Utopian in scale and intention, these totalitarian schemes were not surprisingly never built

# LUDWIG MIES VAN DER ROHE

LUDWIG MIES VAN DER ROHE and the functionalism.

Mies van der Rohe's choice of materials was expected, that his father ran a stonemason's office in which he himself had actually worked.

Having worked for Peter Behrens (like Le Corbusier), Mies van der Rohe's early influences included the work of Karl-Friedrich Schinkel, the creator of 19th-century neo-Classical Berlin, and Berlage.

His plans for an office block of 1922 utilizes glass to divide the building into vast horizontal slabs; the building is supported 'internally' by piers and cantilevered trays. Unconventionally, the building increases in size gradually with each floor.

In 1923 Mies van der Rohe helped found the Berlin 'G' group which set out its aim as truth to construction and function. In the same year he drew up design for a brick villa. The plan resembles an abstract graphic pattern akin to the creations of both El Lissitzky and van Doesburg. With a system of overlapping planes, the building also harks back to Frank Lloyd Wright's early work.

Falsafahnya tentang arsitektur adalah kesederhanaan, ketelitian, kerapian, kedisiplinan, keseimbangan dan bersifat umum. Bentuk bangunannya teratur, simetris, netral dalam penggunaan, eksterior tidak menunjukkan fungsi, rangka bangunan kaku dengan dinding pengisi, bahan buatan pabrik, mencerminkan keindahan mesin, memperhatikan detail.

# FUNCTIONALISM

**Functionalism** preoccupied some architects more than others, Johannes Brickmann and Leendert van der Vlugt together with Mart Stam designed and built a factory for the firm of Van Nelle (1927-30) in which practical considerations – light, air open floor space – dictated the form.

Windows from floor to ceiling ran the length of the main building and glazed bridges acted as communication links. Such functionalism coupled with the social implication of creating a decent working space undoubtedly dictated a form that was not a 'style' as such (that is, not until later architects began to define it).

**Dr. Farnworth House**, Mies van der Rohe, 1950  
sebagai kubus kaca dan bergaya 'matematika murni'  
selaku puncak selera rasionalisme

**The Seagram Building**, New York,  
Mies van der Rohe dan Philip Johnson, 1950s.  
The ultimate shopistication of the glass box.

# ART DECO AND ART MODERNE

The term 'Art Deco' was popularized in the 1960s and is used to describe a largely decorative style (roughly 1920-1940) which is characterized by a strong geometric forms, striking colours and graphic sharpness.

Named after the Paris Exposition Internationale des Arts Décoratifs et Industriels Modernes (1925), it was this exhibition that provided the first large-scale showcase of the decorative arts and architecture in a 'moderne' style.

It can be argued that Art Moderne was purely the commercial interpretation of Modernism; the two movements certainly shared common influences such as Cubist, Abstract and Expressionist art, the architecture of the Art and Crafts practitioners, Frank Lloyd Wright and the Secessionists.

The Kärntner Bar in Vienna, designed by Adolf Loos in 1907, appears to foresee both Modernism and Art Moderne. Similarly, Le Corbusier's *L'Esprit Nouveau* pavilion at the Exposition was an inspiration to all manner of architects.

While Art Moderne and Art Deco were decorative, Modernism was exclusive and rarefied, and above all, hard on eyes accustomed to more ornamental and traditional forms of architecture.

Art Deco, on the other hand, combined the solid geometric shapes thought of at the time as decidedly 'modern', but was mellowed with sculptural ornament, metal-work and colour.

# 1945 – 1970

Pasca PD II : (lebih banyak kerusakan dibandingkan pasca PD I)

- Banyak negara kesulitan keuangan memicu produksi bahan bangunan buatan pabrik yang dibuat massal agar lebih murah
- Berbagai bangunan diperlukan dan harus dibangun cepat
- Modernisme tumbuh subur 1950-an dan 1960-an dengan menggunakan beton (Le Corbusier dan Frank Lloyd Wright) serta baja dan kaca (Mies van der Rohe) dan juga arsitektur eksperimental (Buckminster Fuller dan Bruce Goff)
- Kemudian 1970-an perkembangan arsitektur terlihat mengendor

# 1970 – 1990

Arsitektur melangkah dari kondisi akseptabel menjadi fashionable:

- Gaya Internasional dan *Modern Movements* menerima banyak kritik
- Setelah resesi 1970-an, kebangkitan arsitektur di Eropa dan Amerika dengan pola baru, tampil dengan vitalitas dan antusiasnya perusahaan-perusahaan. Muncul arsitek-arsiteknya: Shiro Kuromata, Joe D'Urso, Ettore Sottsass, Norman Foster, Nicholas Grimshaw, Richard Rogers. Gaya arsitekturnya: The New International Style, High Tech, Neo Klasik, Deconstructivism, dsb

dari sumber lain ...

# Periode I (1917 – 1929)

- Dalam pembentukan ruang, selain kegiatan, emosi dan kemuliaan, ditunjang komposisi, manipulasi, rasio, dimensi dan daya (power).
- Arsitektur modern berarti putusnya hubungan dengan sejarah, daerah dan ingin universal (karena sifat industri, ilmu pengetahuan dan teknologi yang universal).
- Bentuk arsitektur - karena dasar yang universal - menjadi bentuk yang universal pula dan disebut Gaya Internasional, dengan pengaruh 'horisontal' dari Frank Lloyd Wright.
- De Stijl, November Gruppe, Arbeitsrat für Kunst, Glaserne, Zehnerring, Constructivist, Frank Lloyd Wright, Walter Gropius, Ludwig Mies van der Rohe, Le Corbusier.

# Periode II (1930 – 1949)

- Adanya kecenderungan untuk memperluas bentuk yang dalam beberapa hal mempunyai hubungan dengan kedaerahan.
- Bentuk arsitektur secara umum dapat dikatakan memiliki karakter Gaya Internasional, perpaduan keahlian, teknologi, industri dan seni dengan dipadukan dengan faham kedaerahan.
- Alvar Aalto, Arne Jacobsen, Oscar Niemeyer.

# Periode III (1949 – 1966)

- Setelah kerusakan bangunan yang meluas akibat perang, prinsip-prinsip perencanaan didasarkan pada kebutuhan fungsi dipadu dengan hasil penemuan teknik serta keindahan mesin.
- Bentuk arsitektur geometris dan curvelinier geometris, berlantai banyak, bentangan lebar dan banyak menggunakan kaca. Penggunaan bahan, fungsi, pencahayaan, bentuk massa serta lansekap dipengaruhi oleh keadaan iklim, topografi dan sifat kenasionalan.
  - a. Fase I (1949-1958)
  - b. Fase II (1958-1966)

# Fase I (1949 – 1958)

Dikenal aliran-aliran:

- i. Aliran penyederhanaan bentuk. Mies van der Rohe.
- ii. Aliran bentuk sesuai dengan fungsi dan bahan. Alvar Aalto.
- iii. Aliran pernyataan bentuk melalui struktur. Eero Saarinen.
- iv. Aliran organik. Frank Lloyd Wright.
- v. Aliran perubahan sikap terhadap jaman lampau. Minoru Yamasaki.

## Fase II (1958 – 1966)

Dikenal aliran-aliran:

- i. Aliran brutalisme. Le Corbusier, Smithsons.
- ii. Aliran formalisme. Paul Rudolph.

*The Modernist architecture built in the 1950s-1960s can be separated into two camps - that which looked to the more 'sculptural' concrete architecture of Le Corbusier and that which looked to the 'steel and glass' architecture of Mies van der Rohe.*

# Karakter Arsitektur Modern menurut Bruno Taut

1. Syarat bangunan mencapai kegunaan semaksimal mungkin.
2. Material dan sistem konstruksi merupakan prioritas berikutnya.
3. Keindahan tercapai dari hubungan bangunan, kegunaan, material dan sistem konstruksi.
4. Tidak membedakan depan-belakang, fasade-rencana lantai, jalan- halaman dalam, serta detail tidak berdiri sendiri.
5. Pengulangan merupakan alat ekspresi artistik.

# Telaah terhadap “Arsitektur Modern”

1. Arsitek membuat pilihan berdasarkan pengalamannya dan tidak berdasarkan keinginan sebenarnya dari pemakai jasa.
2. Arsitek beranggapan bentuk dapat menentukan tingkah laku manusia.
3. Arsitek memaksakan ide-ide elit arsitektural kepada dunia.
4. Pendekatan universal mengakibatkan lenyapnya perbedaan kultural.
5. Metode perancangan secara rasional mengarah ke kebutuhan fisik, sedang pemenuhan kebutuhan spiritual dan nilai sosial terabaikan.
6. Menolak hiasan. Kejujuran fungsi adalah satu-satunya ukuran keindahan.
7. Dilupakan kenyamanan psikis, di samping kenyamanan fisik.

# sehingga “Arsitektur Modern” dikritik:

1. Konsepnya terlalu logis dan rasional
2. Kurang memperhatikan nilai sosial yang ada.
3. Kurang memperhatikan lingkungan dan emosi manusia.
4. Memperhatikan bagaimana cara manusia hidup tetapi kurang memperhatikan kehidupan manusia sebenarnya.
5. Dianggap sangat kaku, seragam, membosankan, tidak memiliki identitas.

# Matinya “Arsitektur Modern”

*Modern architecture went out with a bang. Modern architecture died in St Louis, Missouri on July 15, 1972 at 3.32 p.m. when the infamous Pruitt-Igoe scheme were given the final coup de grace by dynamite. Previously, it had been vandalized, mutilated and defaced by its black inhabitant, and although millions of dollars were pumped back, trying to keep it alive (fixing the broken elevators, repairing smashed windows, repainting), it was finally put out of its suffering*

*Pruitt-Igoe was constructed according to the most progressive ideals of CIAM and it won an award from the American Institute of Architect when it was designed in 1951. It consisted of elegant slab blocks fourteen storeys high with rational 'streets in the air' (which were safe from cars, but as it turned out , not safe from crime); 'sun, space and greenery', which Le Corbusier called the 'three essential joys of urbanism' (instead of conventional streets, gardens, and semi private space, which he banished). It had a separation of pedestrian and vehicular traffic, the provision of play space, and local amenities such as laundries crèches and gossip centers - all rational substitutes for traditional patterns. Moreover its Purist style, its clean, salubrious hospital metaphor, was meant to instill, by good example, corresponding virtues in the inhabitants.*

*Alas, such simplistic ideas, taken over from philosophic doctrines of Rationalism, Behaviourism, and Pragmatism, proved as irrational as the philosophies themselves. Modern architecture, as the son of the enlightenment, was an heir to its congenital naivities.*