

#### HZ Diploma of Architectural Technology

CIBC 6042

- 15 Credits

Lecture

- ARTS AND CRAFTS; ART NOUVEAU

### William Morris and the English Arts and Crafts Movement

William Morris b 1834, was not an architect , yet he had an influence on architecture and design in the late 1800's.

- a) After graduating from art school, he commissioned Philip Webb to design a house for him. He wanted a house that was tailored to his specific requirements, using simple materials found locally. This house was named the Red House and was located in Kent on Bexley Heath in 1859.
- b) William Morris and Company was set up in 1861 as a result of Morris' disgust with products that were on the market. Morris designed and made his own furniture and furnishings for the Red House. He then formed a company dedicated to the design and production of a range of top quality hand-made items, such as wallpapers, carpets, textiles, and furniture. Later they designed and produced book bindings and type-faces.
- c) Morris toured the country promoting good design in a series of public lectures. He spoke out against the ugliness of the new buildings and furnishings in many of the towns that he visited. He called for society to support him in his quest for the reinstatement of 'good design'.

Morris was anti-machine. He referred to the machinery of the Industrial Revolution as being responsible for the plethora of poor quality mass-produced items, that were being produced for the people. He wanted a return to a time when the products that people used had been carefully crafted by hand.

Morris wanted well-designed articles to be available for all, not just for the elite and wealthy few. He wanted 'art by the people for the people'. He was a socialist hence the saying 'I don't want art for a few, any more than education for a few, or freedom for a few'.

The English Arts and Crafts Movement included designers and architects who had been strongly influenced by Morris, and who wanted to put his ideas into practice, people like Voysey and Shaw.

Examples are:
Webb's Red House (1859);
the Orchard in Chorley Wood, by Voysey (1899);
Wallpapers, furniture and fabrics by Voysey(1895).

Lecture prepared by Linda Kestle©

Refer also to: p.299. A concile history of mestern architecture - furnianx: p.688 A history of architecture. - spiro kastof.

# The Spread of Art Nouveau; Arts and Crafts plus the introduction of the International Style (in Europe) and Skyscrapers (in the USA)

**1850** Industrial Revolution Worldwide

Reaction to the Industrial Revolution's Machine Age and Mass Production regime resulted in:

1880 Arts and Crafts Movement in UK (Morris)
Art Nouveau in Scotland and parts of Europe
(eg Mackintosh, Horta, Guimard and Gaudi)

1880's 'Chicago School' in USA (eg Louis Sullivan, Burnham Root, FLW, Jenney)

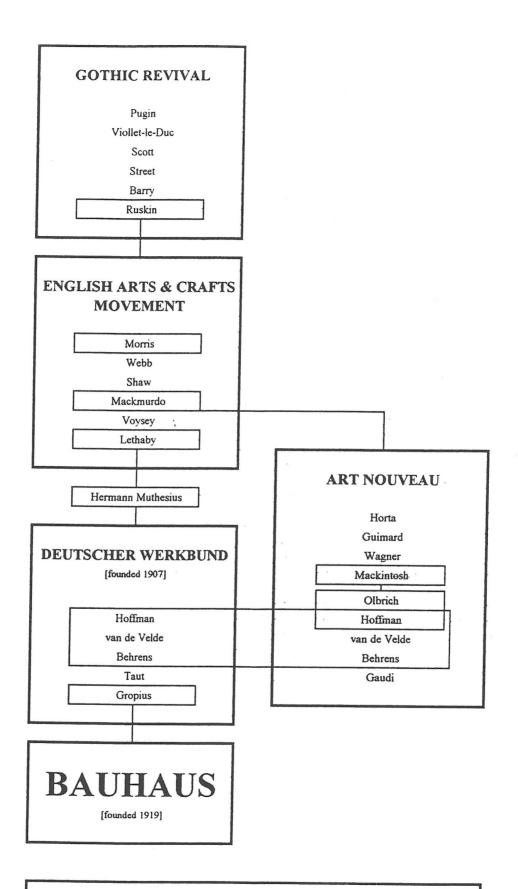
Then a Resistance to 'Ornament' was led by a small group of designers in Vienna from 1900, headed up by Olbrich and Loos and which also included Peter Behrens.

Peter Behrens was the link in Europe between Le Corbusier, Walter Gropius, Mies van der Rohe, and Loos & Olbrich.. This then led to the development of the International Style (out of Europe) in the late 1890's

In USA the Organic Architecture of FLW and his Prairie Houses was introduced in the late 1890's in Chicago...and later the Skyscraper was introduced ..one of the first being the Flat Iron Building in New York, in 1902..

This then saw the early beginnings of Modernism in Europe and the USA..from the late 1890's and early 1900's

L Kestle –Lecturer



GOTHIC REVIVAL TO BAUHAUS

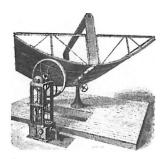
1830-1919

# The Beginning of the Energy Race Technology and building technology 1870-1914

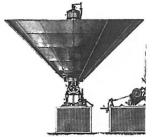
A boom of solar inventions started at the end of the 19th century. In France, Augustin Mouchot, a professor of mathematics at the Lycée de Tours, developed solar collectors and motors, ovens, and even a still to make brandy. In the US, engineer John Ericsson predicted as early as 1868 that the world's consumption of fossil fuels would lead to crisis and worked on refining solar motors. The sunny states of the US were to be the natural testing ground for solar power, and engineers H.E. Sillsie and John Boyle established full-size solar power plants there in the early 1900s.

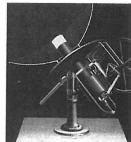
#### Travel and Transport

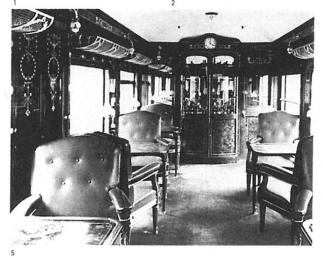
By the end of the 19th century. comfort and elegance had been incorporated into travel and transport. Shown is a drawingroom car of 1897 belonging to the South Eastern Railway (5). The London Underground transport system came into operation around 1863 (6).

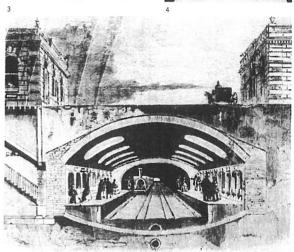












1870

1870 - Rockefeller Centre

1874 - Flora, Berlin

1874 - Mouchot Solar Engine

1875 - Krupp Housing

1876 - Bon Marché, Paris

1879 - Solar printing press

1880

1880 - Hotels and winter-gardens

1884 - Gaudí

1885 - Le Printemps, Paris

1885 - Home Insurance, Chicago

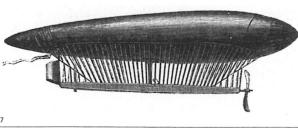
1888 - Wright, Rookery Building

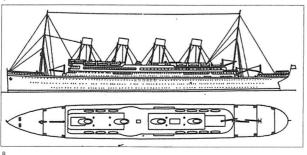
1889 - Galerie des Machines, Paris

1889 - Eiffel Tower, Paris

Indicators of progress include a solar-powered printing press developed by Mouchot's assistant Abel Pifre in 1880. Mouchot's portable solar oven developed in 1877 for use by French troops in Africa, his solar motor impressing the crowds by powering an ice maker at the Paris Exposition of 1878, and a hot air engine developed by Ericsson in 1872

Building technology was advancing hand in hand with industry and transport. Machines and monuments were constructed that tested design skill, construction technology, and new materials.









Throughout the 19th century, engineers were engaged in the pursuit power, in finding ways of providing enough energy to feed the semingly insatiable machinery of heavy industry. Most innovations were in fossil-fuel power, electricity, and gas, but in Europe and the JS, solar energy had many proponents.

# "What so Rare as a Cloudy Day in Arizona"



## SUNSHINE Like Salvation is Free!

and
Every Arizona home should take advantage of it by installing a

# "Day and Night" Solar Heater

because
It can't stop working, while the sun shines
It can't get out of fix, explode, or start a fire
It not only heats your water,
It KEEPS IT HOT in a storage boiler.

Will it really work?
Thousands of satisfied users think so.
Let us give you prices and full information. Write

# Southwestern Solar Heater Co.

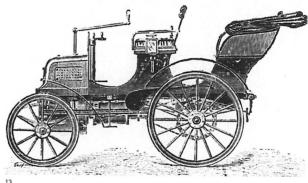
219 Nat'l Bank of Ariz. Bldg. P. O. Box 1298 PHOENIX ARIZONA





Combustion Engine

People's ideas about transport were to be changed irrevocably by the development of the internal combustion engine. Germany, Britain, and the US were the centres for development of the motor car. In 1896. Daimler began to manufacture cars in Coventry - the model shown below (13) dates from the following year. By 1904, there were already 17,000 motor vehicles on UK roads; by 1914, that figure had risen to just over 265,000.



1893 - GUM, Moscow

1895 - Reliance Building, Chicago

1901 - Horta

1902 - Ebenezer Howard

1903 - Garnier, Cité Industrielle

1905 - Unwin, Garden City

1905 - Einstein

1905

1906 - Wagner, Post Office

1909 - Wright, Robie House

1910 - Gaudi, Casa Mila

1912 - Atkinson, Sun House

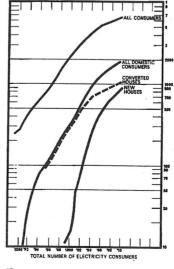
1914 - Taut, Glass House

1914 - World War One begins

1914







**Electric Energy Consumption** The number of electricity consumers grew exponentially as machinery was installed to save labour and increase comfort. One of the first pieces of electrical equipment for domestic use was the fan.

#### Art Nouveau

This was a style of artistic decoration. The name came from a shop in Paris that opened in 1895 to sell products that were of non-historical design.

Art Nouveau's origins came from the Arts and Crafts Movement in UK.

- a) there was a conscious shift away from the historical content in design
- b) there was a respect for the hand-made product of high design quality
- c) naturalistic forms were used as the basis for stylistic expression

The style was characterized by an emphasis on the ornamental value of line and demonstrated a balanced relationship between ornament and surface; ornament and structure.

The Industrial Revolution had introduced cast-iron, which was ductile, good in tension and compression, and had an excellent strength – to- weight ratio. However, cast-iron had not originally been considered an 'architectural material, being used mainly by engineers for bridges and other engineering structures.

This all changed though in the Art Nouveau period when architects such as Guimard and Horta, Mackintosh and Gaudi utilized cast-iron in their mainly organic designs.

This was the beginning of the move away from period styles toward a modern architectural movement.

The countries that adopted the Art Nouveau style were Spain, Scotland, Belgium, and France. UK adopted the Arts and Crafts Movement instead.

Examples of Art Nouveau are:
The Tassel House in Brussels by Horta (1893)
Entrances to the Metro Stations in Paris by Guimard (1900)
Sagrada Familia in Barcelona by Gaudi (1885-)
Casa Batllo in Barcelona by Gaudi (1907)
Casa Mila in Barcelona by Gaudi (1910)
Parc Guell in Barcelona by Gaudi (1914)
Willow tea Rooms in Glasgow by Mackintosh (1903)



Fig. 26.26 Barcelona (Spain), the Casa Milá on the Paseo de Gracia, built for Dona Rosario Segimon

de Milá, 1905–10, Antoni Gaudí. The building, popularly known as La Pedrera (the Quarry), was

meant to carry a gigantic statue of the Virgin Mary on its roof.

tioners had shied away from all that organic exuberance. Individualism, the idea of architecture as personal expression, sustained itself marginally thereafter by invoking the Arts and Crafts belief in the autonomous artist and by poetizing industrial materials like concrete and glass. The programs of these Expressionist architects, as they were later called, tended to be escapist, visionary, or festive. Some seized on the inherent plasticity of concrete to mold space with the flare of imperial Rome.

Gaudí himself had ignored this material except for some of his rooftop creations, even though his architecture, and especially "Catalan" vaults and warped roofs, anticipates very recent forms in concrete construction. Most other architects, since

688

-

rear

on, s Queen orne Wight. In 1874 the architect Charles Tringham (active in Wellington 1869–95) designed a two-storeyed wooden house to be built outside the town of Marton for Sir William Fox. Its most notable feature is a square tower which owes something to those on Queen Victoria's Italianate house at Osborne, built in 1854. The Italianate appearance of Westoe derives from the paired arched windows of the upper storey and from the modillions that support the cornices on the main roof and tower. The tower is beautifully detailed, with timber quoins, an arched entry on the ground floor and a pedimented roof. A projecting string course forms a sharp defining line between the two storeys.

Thomas Mahoney (1854-1923) was responsible





in 1877 for another even larger Italianate mansion, known originally as The Pah, at Hillsborough, Auckland. Situated on what was formerly Whataroa Pa, the house was designed for the prominent Auckland businessman James Williamson, a man who had invested heavily in Waikato land holdings following the land confiscations of the 1860s. Deliberately planned on the most extravagant lines, the house took two years to build and was constructed on stone foundations with plastered brick walls. The building boasts an impressive porte cochère supported on groups of Ionic columns, but great attention was also given to the garden front. which was originally approached by a sweeping carriageway. A long, curving verandah supported by paired wooden columns follows the curves of the generously proportioned rooms within.

As at Westoe, the hallmarks of the fashionable Italianate style are evident, although on a much grander scale. Window groupings are more elaborate and some are provided with balconies; a heavily modillioned eaves line rises to form a low gable above the windows of upstairs rooms. No expense was spared with inside furnishings; inlaid floors, Italian marble fireplaces and decorative plasterwork distinguish the principal rooms. Within a decade of building The Pah, its owner, who had risen to be chairman of the Bank of New Zealand, was to see his fortune evaporate and his house sold. Today it is called Monte Cecilia and is owned by the Sisters of Mercy, who use it for emergency housing.

It is said that James Williamson had envied the 43-roomed Larnach Castle, which William Larnach began building for himself in 1871 on the Otago Peninsula. The building was designed by the eminent Dunedin architect R. A. Lawson (1833–1902), and first-rate craftsmen were employed to work on the materials which Larnach, as a wealthy importer, had at his disposal. While undeniably impressive in its scale and the extravagance of its appointments, Larnach Castle has been criticised for its illmatched features: for example, the Scottish baronial crenellated parapets and the tower conflict with the horizontal emphasis of the enormously wide, colonial, cast-iron and glass verandahs. Its planning is confused, although there is much to admire in the exquisite woodcarving and plaster work by overseas craftsmen. The stone work, including the lions and eagles on the entrance steps, and also some of the carved woodwork in the dining room, are by the sculptor Louis Godfrey. William Larnach achieved great wealth and eminence, but he lost a

called vas with It able aking

ies.





historical landmark. At a time when the West End of London, as well as many country houses, were still being built in debased Palladian stucco, Philip Webb followed the path explored in Butterfield's country vicarages, and used brick, tiles and oak. The house had a few mannerisms – French and Gothic touches – but its justification was its revival of the simple vernacular, the tall chimneys and long ridge lines of the old English farm or manor, with a corresponding integrity of craftsmanship.

368 The Vicarage, Coalpitheath (1844–5). In spite of Butterfield's elaborate and polychromatic churches, a house such as this shows that he was far ahead of Webb in his appreciation of the traditional and craftsmanlike English house. Like medieval buildings, it is planned from the inside out: the irregular exterior expresses the plan, rather than dictating it

369 Philip Webb's Red House at Bexley Heath (1859–61), built for William Morris, shows a picturesque and romantic grouping of roof and chumneys around the focal point of a well-head. There is practically no ornament or stylistic detail; what there is comes equally from Gothic and from the 17th century

Sourced from A consider History of Western Architecture by Furngaux