

arch 5124 ARCHITECTURAL HISTORY 2

Part 2A

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Part 2A

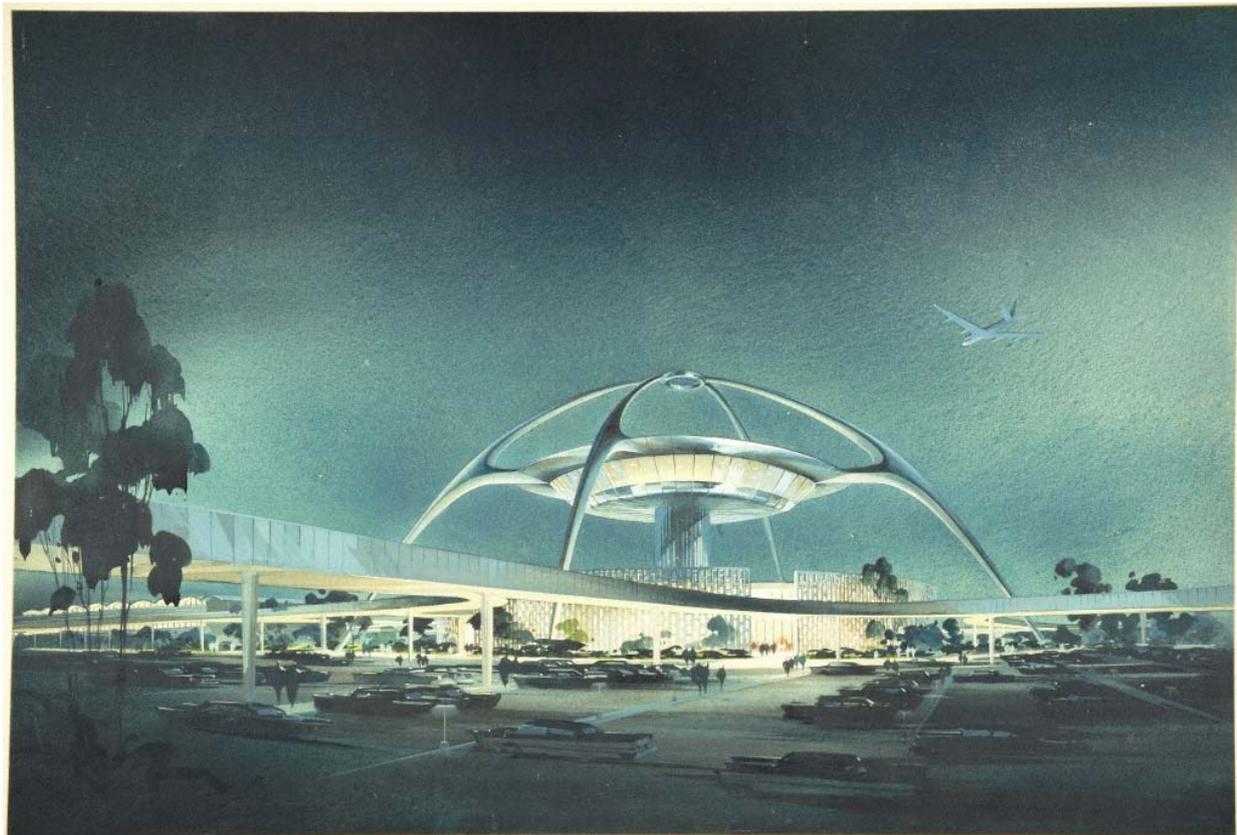
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LAX, Theme Building; perspective view, opened 1961. The Jetsons began in 1962. Architects: William Pereira and Charles Luckman, but there were other firms involved, including Welton Becket and Paul R Williams, the black architect, and it is said the real designer was James Langenheim, or Gin Wong, both of Pereira and Luckman. It has a restaurant in its core. Image: Alan E. Leib Collection. J Paul Getty Museum, Getty Center. © Luckman Salas O'Brien. The black and white photo is by Garry Winogrand, 1964.

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Week 17

C18 AND 19 □ ENGLISH HOUSING,

Terms: Terrace, semi-detached, door-case, 12-pane double-hung sash, fanlight.

Rural housing, pre-Industrial Revolution

Smarden, Kent.

Urban housing, (early c18)

Queen Anne's Gate, Westminster (c1705) □

Smith Square and Lord North Street, Westminster (1714 - 28) □

Doorcases: **Cross Street, Islington.**

Albury Street, Deptford.

Tallow Chandlers' Hall, 21 College Street, City of London (late c17).

Shops (early C18)

Nos 56-58 Artillery Lane, Spitalfields.

Dark green fine Georgian shopfronts, 1756-57, Sir Robert Taylor, for silk merchants. No 56 is 'ebullent' Doric, with curved bay windows, octagonal-patterned glazing, Rococo cartouche and Rococo fanlight with a festooned mask, is the best surviving of its type in London; iron balcony is c1810, as is no 58's flat shopfront).¹

Squares, Westminster (late C17 and early C18)

St James's Square (1665), No 4: Giacomo Leoni (1676).

No. 5: (1854), stone-faced.

No.15: Athenian Stuart (1764-9), with pediment.

St James's Square Garden.

The first English square after Covent Garden. Derived from Italy and Place des Vosges, Paris

¹ Supplemented with material from Nikolaus Pevsner and Bridget Cherry, *London 5: East. The Buildings of England*, Yale University Press, New Haven & London 2005, pp 409 and 410, which has more detail.

(1705-12).

Squares, Bath (C18) John Wood, the Elder (1704-54) and John Wood the Younger (1728-81)

Palladian. Revolutionised urban design and town housing. Bath: fashionable resort.

*** Queen Square (John Wood, the Elder, 1729-36).**

North side as palace front: rusticated ground floor and centrepiece temple front. First successful use. Terraced houses as palace.

The Circus (John Wood, the Elder 1754-70)

An inverted Colosseum design. A Forum and Gymnasium were to follow, to make Bath a Roman city of housing and to impress.

Royal Crescent (John Wood, the Younger, 1767-c75).

Open design to the view. Very influential, ever since.

Edinburgh New Town Squares. Robert Adam (1728-92).

Charlotte Square (1791-)

Regent's Park, North London (1811-30) John Nash (1752-1835).

***Cumberland Terrace (1812-13)**

Chester Terrace □

Westminster Estate: Belgravia, Mayfair & Pimlico, London

□Belgrave Square (1826) George Basevi □

Chester Square (1835) Thomas Cubitt □

Blackheath, South London, □The Paragon (1794-1807) Michael Searles.

An unique design, moving towards semi-detached villa. □

*** Bedford Park, West London (1880),**

The□first Garden Suburb. Dutch influenced 'Queen Anne' style, with a mix of house types, including detached.

* **Houses, Blenheim Road**, Richard Norman Shaw (1831-1912)

Houses, 5 Priory Gardens.

Houses, 8, 10, 12 South Parade, The Green, E. J. May (1880).

Houses, 17 & 18 Norfolk Road. The first semi-detached houses, 1820.

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Week 18

BUDDHIST. HINDU

Terms

Stupa, image house, meeting halls (chaityas), monasteries (viharas), shrines (garbhagriha), open porch-hall (mandopas), roof-tower (sikhara).

Historic and geographic outline

Development of architecture is mainly sacred buildings. Secular buildings rarely survive.

INDIA

Hinduism and Brahmanism

The earliest religions surviving. Developed in the **Vedic period** (c1500 – 500BC) of pantheism (many gods). By 30 AD, there were three gods only (Brahma, creator; Siva, destroyer, and Vishnu, preserver).

Hindu temples

From 600 – 800AD: sculptural forms, often interiors carved from stone. Decoration only. **Shrine cell** (garbhagriha), contains the sacred image, square space. **Porch** with columns. The shrine roof forms a stepped pyramid, spire or vertical beehive dome. All on a massive **plinth**, with subsidiary shrines around within and enclosing wall with gateway towers around shops and ritual baths for pilgrims, and Halls with low columns as resting places.

Jainism

Also founded c500BC North India. Rich complex sculpture, decoration. **Jain Temples** were lighter and more elegant.

Buddhism:

The teaching of Siddhartha Gautama, the Buddha, enlightened one (c563-483BC), North India. Two versions: Mahayana and Hinayana (smaller). King Asoka (c300BC) first encouraged buildings: **stupas** over relics as worship places, ritual and offerings. **Pilgrimages** to four places associated with the Buddha. Symbols, later images allowed,

C1AD. Many **image houses**. Offerings and ritual circumambulation around stupas. Declined in India 700AD, continued elsewhere.

Sri Lanka, Nepal, Bhutan, Thailand, Burma (Myanmar): Buddhist

Palaces: timber construction using Chinese framing.

Afghanistan

Complex histories: Greek, Hellenism, Buddhist, and then Muslim.

Cambodia:

Animism

Spirits, ancestors, then **Hindu** and some **Buddhism**. C9: Khmers: Hindu god king's influence great pyramidal temple-cities of Angkor. C13: popular Buddhism.

Indonesia and Malaysia

C4AD **Hindu-Buddhist**. C15 **Islam**, except Bali.

Symbolism, size, form and planning were more important than technical innovation. No timber and thatch prototypes for masonry structures survive.

BUDDHIST

Building types

Meeting halls

Early rock-cut. Later timber-framed roofs, stone columns.

Monasteries

Monk's cells, sermon halls, stupas, Bo-tree shrines, image houses and chapter houses, refectory and hot water baths.

Shrines

For assembly as well as decoration. Their decoration reveals rather than conceals their structure.

Stupas

The most spectacular Buddhist monuments. Origin as prehistoric burial mounds. Later, burial chambers for sacred relics. Symbolic umbrella canopy is a mark of respect. Some stupas are within meeting halls. They are clad with veneer of stone or brick, stuccoed or

whitewashed, on a podium or podia (with structural retaining walls) for ritual processions. Various shapes. Stonewalls show Hellenistic influence on technology.

- * **No. 1 Stupa, Sanchi** (north-central India). (1C,BC) orientated on cardinal points.

Bodnath Stupa, Kathmandu, Nepal

A brick-faced paraboloid.

Bo-tree (banyan) shrines

Buddha found enlightenment sitting on a stone seat under a Bo-tree, so these are worshipped.

Nillakgama Bo-tree shrine.

Image houses

From 3C AD. Relics in stupas, but also **relic houses**.

Sanchi Image House. C5. Cell and porch.

Lancatilleke Image House, Polonnaruwa, Sri Lanka.

C12. Red brick, 52 x 20m. walls 3.6m thick. Roof gone.

Temple of the Sacred Tooth Relic, Kandy, Sri Lanka, C16

Monastic Community Halls

Chapter house, hall of administration, preaching hall. Often four entrances at cardinal points, symbolically open to four quadrants of the world to hear the word of Buddha.

Monasteries

The earliest were single cell, rock-cut, and cave cells are the best preserved.

Refectories and baths

Tokht-i-Bhai monastery,

C2BC – C2AD. Cells around courtyard and main stupa in second courtyard, covered with small stupa shrines. Larger halls for assembly and dining. Stone blocks with small gaps, once rendered with lime stucco. Rare but Corinthian columns. Location?

The lotus pool at Polomaruwa

Small. 5 scalloped stone steps. Laths and Stanbhas. Monumental columns.

JAIN

Temples

C3 rock cut caves, polished walls, stone impersonating timber and thatch. After 1000AD, flat corbelled courses very elaborately carved stone. Carefully sited. Jains acquire virtue through temple building. Late C10-17 mainly. Elaborate. Detail and exquisite finish. Icons and images.

Palitana. Satrunjaya Hill, Kathrauer (c11-17)

Dilwarra Temple, Mt Abu, North-West India (1032). Interior

HINDU & BRAHMIN

Temples

*** Kandaraya Mahadeva Temple, Khajuvaho, Central India,**

C10. Northern style. A series of porch-like halls (**mandapas**) for meeting and ritual music, approach the small dark shrine (garbhagriha) for religious offerings and devotion. Curved **Sikhara** (pyramidal roof over shrine (orgatory) elaborately sculptured with humans and animals).

Temple of Kesava, Sonathpur, South India (c13). 3 shrines face a central mandapa, each with a square tower over a garbhagriha and an ambulatory between. Entered from a formal gateway. 60m square.

Other roof types:

Stepped pyramid (parasada), vaults, apsidal, round timber, and timber pagoda (foothills of Himalayas).

Later Moghul influence

The Muslim dynasty in India C16-19, derived from Persia (Iran). Especially under the liberal rule of Akbar the Great (1542 – 1605).

Palace of Udaipur, Northern India (c16 – 17)

Ghat Benares (c1860). A **bathhouse** on the River Ganges that fronts the palaces, 5 km long.

SIKH

The religion attempts to combine Muslim and Hindu beliefs.

Golden Temple, Amritsar (Sikh, rebuilt 1766). On a platform in a moat, connected with a marble causeway. Arch forms, paneled decoration, onion domes, at corners of square plan.

BURMA

Bagan period

C9-13. Most important architectural monuments. Intricate rich artistry. Carved wood, lacquer and gold leaf. Pagan was the capital.

Post-Bagan period

C14 – 17. Architectural decline begins, then Chinese influenced 'pagoda style.'

Rangoon-Mandalay period

C18-19.

British Colony

1886-.

Stone Dagon (or Schwedagon) Stupa, Rangoon, C16-17.

Tall: 113 m height. Multi-level processional plinth, crowded with carved, gilded, lacquered shrines with finials. Its highest finial (or pip): is 6-tonnes, clad with 13,000 gold plates, 1065 gold bells, 5448 diamonds, 2317 rubies, sapphires and other gems and one 72 carat diamond.

Ananda Temple, Bagan, C12.

The supreme achievement of classical Burmese architecture. White brick, finely graduated tiered roofs, Greek cross plan, gold tapering spire, with two concentric ambulatories.

Other building types

Monasteries (Kyaung), **administration halls** for monks (Hein), and **libraries** (pitakat-taik) for sacred texts.

CAMBODIA

Funanese and early Khmer: C7-8

Early classical Khmer: C9

Transitional classical Khmer: C10-11

Temples built: 900-1200

Classical Khmer: C12-13

Angkor Thom (Jayavarman VII: 1180-1217). Capital of Cambodia, north of Angkor Wat. Almost square: 3km sides with 90m moat and 6.7m stonewall, it includes the two earlier temple-mountains, five tower-gateways and from five stone causeways and at the centre is the king's own temple-mountain: **Bayon** (early C13).

- **Angkor Vat** (temple), (Suryavarman II: 1113-50). Monument and tomb to the god-king. A moated rectangle, 4km long, despite its magnificent decorative scheme and planning, the building technology is primitive, with stone over timber beams and short vaults, no mortar, with very fine joints, its architecture dominated by sculpture. A stone causeway approaches the temple mountain, over the moat, to a monumental portico, and the colonnaded and vaulted gallery of first terrace.

THAILAND

Dvaravati period (Mon): central Thailand, C6-9.

Lopkuri period (Khmer): central and eastern Thailand, C9-13.

Thai periods (Srivijaya, Sukhothai (1238-1378, timber palaces, now gone), Lanna, Ayutthaya (1351 (Khmers were suppressed) -1767) and Thonburi).

Rattanakosin: 1782-the present. Spectacular Bangkok temples and palaces.

Bangkok Pagoda style: late C18-19

Wat (temple), **Pra Sri Sarapet complex**, c1500.

Thai Period. The most complete and impressive; typically, a central sanctuary with a colossal Buddha behind a high screen, viewed and worshipped through a high narrow arched aperture. Over this, through a columned hall, rises a tapering bell-shaped tower, with surrounding similar stupas, with similar finials.

Throne Room, Royal Palace, Bangkok.

Bangkok-style cruciform gable with a spire over the crossing.²

VIETNAM

Bui-Phat Church, Le Van Sy Road, Saigon, 1956.

INDONESIA

Sanjaya and Sailendra dynasties.

Central Java. A synthesis of Indonesian **Hindu** and **Buddhist** characteristics. Solid stonewalls, corbelled arches, no load-bearing columns. Always isolated, never in cities. Culminates in Borobodur and Prambanam.

* **Borobodur Stupa Complex, Central Java, C8-9.**

Picturesquely sited on a plain, with volcanoes behind. The supreme expression of Indonesian art and of the Sailendra dynasty, a symbolic world-mountain, 150m square, nine terraces lead to nirvana, with 72 bell-like stupas, 1300 sculpture panels. Entirely a religious brief.

Prambanam, South-central Java, C9-10.

A complex of 150 shrines, expressing the decline of Buddhism and a return to the Hindu gods. Now in ruins.

Islam

Dutch Colonial

² Nithi Sthapitanonda and Brian Mertens, *Architecture of Thailand. A Guide to Traditional and Contemporary Forms*, Thames & Hudson, London & New York, 2005.

Arch 5124 ARCHITECTURAL HISTORY 2
Week 19
ISLAMIC

Terms

Islamic (Saracenic, Moorish, Mohammedans), Muslim (religion), Arabic (people), mosque, minaret, mihrab, madrassa, caravanserai, khan, bazaar, suq, horseshoe arch, Kahle.

Historic outline

570-632:	Life of The Prophet Mohammed
610–622:	His revelations of the Word of God at Mecca, then Medina. The first mosques. Arab expansion reduces the extent of the Byzantine Empire.
640:	Expansion of Islam to Egypt.
C8-:	Palestine, Gulf, Iraq, Iran (Mongols, Safavids), Afghanistan, South-central Russia, North Africa (Tunisia, Algeria, Morocco).
C8-11:	Sicily
C8-16	South and central Spain, (especially c11-12).
C10-:	North India (Mongols, Mughals).
C11 & 12-:	Asian Turkey.
C12-:	Central India
1326:	Ottoman Turks conquer the Byzantines and erect large mosques.
C14-:	East Africa
C15-:	Central Africa
C15 & 16:	Turkey (Constantinople became the Ottoman capital in 1453), Bulgaria, Yugoslavia and Greece.

C16-20:	Cyprus
C17-:	Indonesia
C19 -20	North and west China.

Climate

Largely nomadic people, using local resources and influences with some general characteristics.

A hot, dry climate required shaded courtyards, cool dark spaces and thermally stable construction. In monsoonal North India, airflow, small windows in thick walls, wind scoops and flat roofs.

Religion

Building orientation to Mecca. The **Haj**, the annual pilgrimage to Mecca.

No image-worship, decoration is generally abstract.

A conservative tradition, using established forms, innovation was discouraged,.

Culture

Numerals were invented, medicine, astronomy, business trading methods, more literate than Medieval Europe at that time. Schools, higher education, welfare and public kitchens.

Technology

Arcuated construction of domes, vaults and arches.

Adobe, pise, marble, lime mortar and plaster, stone (from Roman quarries), for decorative panels, grilles, stone mosaics and tracery, glass for windows, lead and bronze casting, timber elements, include: doors, window fittings, furniture and facades, inlays of rare timbers, mother of pearl, precious metals and stones. Coloured exteriors: initially mosaics, then glazed tiles from Iznik. By C15, the firing method enabled regular tiles, so larger surfaces could be covered.

Decoration

Within a frame, geometry, calligraphy, the play of light, water, foliation, some figures and animals (although discouraged), uniform overall decoration with no focal elements.

Building types

Mosques, minarets, tombs, palaces, fortresses, gates, walls, towers, markets, khans (caravanserais) and vernacular buildings.

MOSQUES

The building where Muslims worship together, inward, for contemplation and prayer, but not spiritually uplifting, or exulting and no venerated objects. Used as a focus for community activities, which are not set apart, a democratic space, in which all have equal rights.

Particularly in 570-632, it added other uses: madrassa (school, political, administration, business, treasury and libraries. Later as society became more complex, other different building types evolved around a mosque complex: at least the founder's tomb and theological school. In big cities, also: a library, primary school, public bath, fountain, community kitchen for the poor, hospital, welfare asylum, inn and caravanserai (commercial inn).

The plan with a **courtyard** and **minarets** to call the faithful to pray, is on axis, to enable faithful to pray facing the **Kahle** in Mecca and ends at a **mihrab**, where the leader prays. But it is not a sacrosanct space, with secondary mihrabs also, and furnished with carpets and ceramics.

The first mosque was constructed by the Prophet at Kuba, near Medina and a second in Medina in 622, a square courtyard with 5m high walls, regular columns grid with a flat roof covered with date branches. Domed roofs developed in Anatolia (Northern Turkey).

Dome of the Rock, Jerusalem, (688 AD). The second most important Muslim shrine. Formerly double shell timber dome (now replaced), on octagonal plan. Mosaic and quartered marble lined, formerly iron tracery. C16 mosaics replaced by tiles. Pilgrimage focus.

Mosque of Ibn Tulun, Cairo, (876 – 879 A). Early. Iraq-influenced. Brick, stucco-faced.

(Slides) Great Mosque, Cordoba, Spain, (784-6, 961 – 61, 987 – 90AD). Stone, marble and some brick. Open north-facing courtyard in high walls. C8:10 arcades north/south, reuse columns, with piers to heighten, horseshoe arches braced. This structural system repeated

in both additions, with three elaborate domes with complex ribs and mosaics.

- * Great Mosque, Seville, Spain (1171-76). Courtyard survives next to C15 cathedral. Fountains irrigate orange trees. Pointed horse shoe gates, Giralda (1156 – 98). Former minaret of great mosque. Reused stone and brick.

MINARETS

Ghurid Minaret, Hari River, Jam (north of Bukhara), western Afganistan, 1191-8, 65 m high, a stepped tapering cylindrical shaft, entirely of baked brick, on a partly buried octagonal base, set in a remote, rocky ravine that is 2,400 m deep. Its brick bands alternate between geometric decoration and calligraphic verses from the Qur'an (the *surat Maryam*, relating to the Virgin Mary). It is probably located at the site of the Ghurid Dynasty's summer capital, Firuzkuh (or Firuz Koh). In the C12 & 13, the Ghurids controlled Afghanistan and parts of eastern Iran, Northern India and Pakistan.³

³ *Wikipedia*, accessed 4 September 2011, for the 3 images, Dan Cruickshank, Ed, *Sir Banister Fletcher's A History of Architecture, Twentieth Edition*, Architectural Press (Butterworth-Heinemann), Oxford (1896) 1996, pp 602 & 3, and *Notebook* 4 September 2011, [for further images](#).



Ghurid Minaret, Jam.

Kalyan Mosque minaret, Bukhara, Uzbekistan, 1127.

Emin Minaret in Turpan, PR China, brick.⁴

PALACES

⁴ www.paulconnor.me China trip 2010

Fortress-palace, Ukhaydir, (south of Baghdad), Iraq. 780 AD. 165m square. Contains a mosque.

- (Slides) Alhambra Palace, Granada, Spain. (Mostly 1338-90). Citadel over the city, with gates, mosques, baths and residences. Decoration of carved stucco and tiles. Succession of courtyards, reception rooms and private apartments, behind timber grilles, reflected sunlit pools and fountains. Built for a minor Muslim dynasty, surviving until 1492, after this (Seville) part of Spain had become Christian.
- Court of the Myrtles. Court of the Lions.

(Slides) Generalife Gardens, Granada. (Early c14). On a hillside, north-east of the Alhambra. A series of gardens, pavilions, enclosing walls with stucco decoration. The Court of the Stream is the most authentically Arab design still.

(Slides: First floor elevation, etc.) The Alcazar, Seville. (1364). Built when Spain had become Christian, for a Christian king, in a fastidiously Islamic style.

*

Great Khan (urban caravanserai) Qonsuh-al-Ghuri, Cairo (1504 – 05). The two lower floors are warehouses, upper floors apartments, each vertical unit has own inner stair. Stabling, shops. Secure at night.

Qajar Caravanserai, Aliabad (between Tehran and Qom) Iran, (1886). Many ancillary buildings, services

Aleppo bazaar, Syria (mid c17, etc). Includes arcaded khans, mosques and madrassas. An important trading city.

- **Taj Mahal, Agra, India, (1632 – 54).**

Tomb for the wife of Mughal emperor. Combines the styles of central Asia, Iran and India. All emphasise geometrical relationships. Central chamber and four corner chambers, focus on centre. Inner dome, outer dome on high drum. Four minarets, a long garden linked by canals, parterres, reflecting pools and cypresses. All symbolise immortality and regeneration.

Carlton House Terrace, London (1827-33). Massive cast-iron columns for courtiers' apartments for Prince Regent.

Thomas Telford

Bettws Y Coed, bridge, Wales (1815). Telford suggested replacing London Bridge with a 200m cast-iron span.

Conway Bridge, Wales (1826). Suspension.

Isambard Kingdom Brunel

*Clifton Bridge, Bristol (1864). 210m suspension span. 1823: Many English factories

8 & 9 stories: thin walls, cast-iron columns and beams.

Gustave Eiffel (1832 - 1923)

Railway Viaduct, Garabit, France (1879). Iron pylons and parallel chord truss members

Peter Ellis (1808-88).

Oriel Chambers, corner Water Street and Covent Garden, Liverpool (1864), has plate glass windows, in a completely cast-iron frame, with minimal historical illusionism, despite a stone-clad façade; one of the most influential buildings of the late C19.

16 Cook Street, Liverpool (1866), is similar, and his only other known commission, also has an extraordinary expanse of glass for C19.

Peter Ellis was a Liverpool architect, living for a while at 40 Falkner Square, which has a conservatory on its canted bay; his buildings influenced the later work of USA architect **John Wellborn Root**, who lived in Liverpool for a while.⁶

Conservatories

(Botanical Gardens, Paris (1833). Rauhault. Iron frame, glass panes).

Joseph Paxton (1803-65).

⁶ *Wikipedia*, accessed 19 May 2010 and Liverpool Architectural Society.

Great Stove, Conservatory, Chatsworth House, Derbyshire (1836-40. Demolished 1920). 84 x 37 m x 20 m high. Laminated timber arches, ridge and valley gabled glass, like Crystal Palace. Only a similar garden-wall, lean-to conservatory remains

- * Royal Botanical Gardens, Kew, Middlesex. Palm House (1845-47) Decimus Burton.
- * Crystal Palace, Hyde Park, London (1851). Destroyed by fire (1936). Re-erected at Sydenham, South London (1852). One of the most influential buildings ever: first large factory-built prefabricated demountable, modular construction; largest iron frame building, first curtain wall construction and first stiff portal frame.

Paxton. Head Gardener to Duke of Devonshire since 1826, won competition. Designed in 8 days, erected and delivered 17 weeks, built in 39 weeks. Built for the

Great Exhibition (1851). Developed by Prince Albert to promote products of industrial revolution to world markets. The first World Expo.

The building had hollow cast-iron columns, parallel chord truss girders, glass pane roof, diagonal rod bracing. Largest glass sheet then available: 1,200 x 250 mm determined 2,400 dimensions valley/valley and 7,200 column centres. 2 intermediate timber columns and timber glazing joinery. All trusses had the same depth in riveted wrought iron, Re-stressed to allow different loads, spans: 7.2 and 14.4 m (camber: 125 mm) and 2.6 m (250 mm). Cills were supported on 150 mm deep gutters.

It had a basilican plan of 7.6 hectares, 560 x 124 m. The main avenue was 22 m length, 20 m height. 83,700m² of glass was used in the walls, and roof: 1/3 of English glass production that year.

It immediately influenced exposition buildings, department stores, shopping arcades, railway sheds, libraries, museums, etc. as well as glasshouses.

Railway Stations. England

King's Cross, London. (1851-2) Lewis Cubitt. Utilitarian design by engineer. Early. Still much used. Structural members replaced.

Lime Street, Liverpool. (1851) Richard Turner. Original structure.

- * St Pancras, London. (1863-70) Sir George Gilbert Scott. Gothic Railway shed (1863-5) W.H.Barlow, engineer. Largest span then: 73m, 25m height

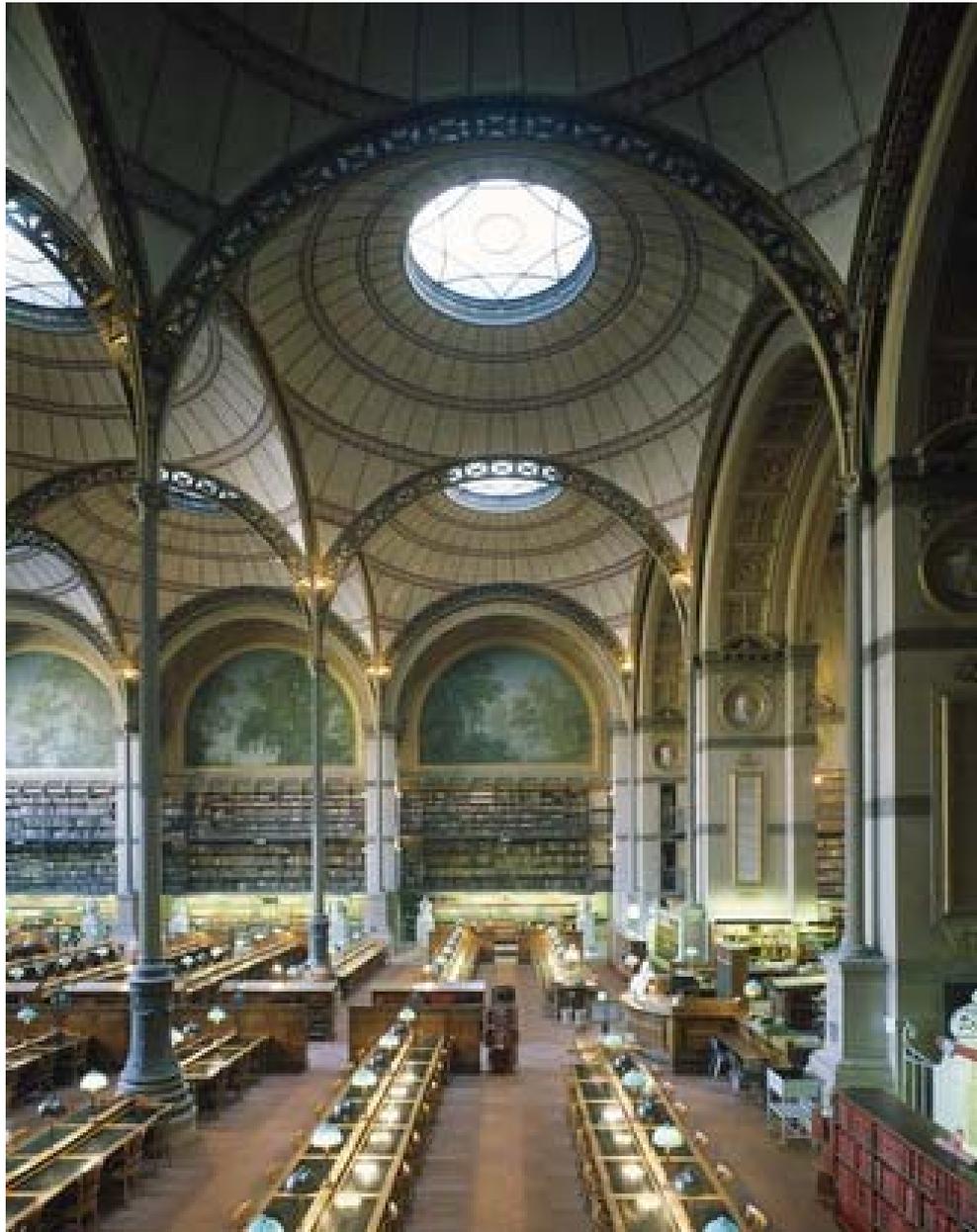
Public Libraries. Henri Labrouste. Paris

* Bibliotheque St. Genevieve, 1843-50.

The first building with all cast iron structure. It has masonry outer walls and a flat ceiling.

Bibliotheque Nationale, 1858-68.

The Reading Room has 16 cast-iron columns, 300 of domical vaulted ceiling of faience. **The Stack Room**: is 4 stories, with a glass ceiling, cast-iron floors and is all iron.



Bibliotheque Nationale, Paris.

Museums, Britain

Pitt Rivers Natural History Building, Oxford University Museum, Oxford (1855-9) Deane & Woodward.

John Ruskin 'supervised.' Cast iron hollow columns (less iron). Capitals depict variety and complexity of nature, by close observation of the natural world. Gothic forms without Gothic construction principles. Ruskin insisted workmen be free to design ornament.

Edinburgh Museum of Science & Art (1861–89), Francis Fowke.

Design modelled on Crystal Palace. Structure itself an entertaining spectacular part of the museum display.

Shopping Arcades, Italy

- * **Galleria Vittorio Emanuel, Milan, 1865 - 77.** Giuseppe Mengoni. Cruciform plan, with glass barrel-vaulting, that had been first used in **Galerie d'Orleans, Paris, 1829-31.** The earliest glass-roofed shopping arcades were in late C18, England and France.

Galleria Umberto I, Naples, 1887 - 90. Emanuel Rocco

Department Stores, Paris

Bon Marche, 1875, major extension, Louis-Charles Boileau and Gustave Eiffel. World's first purpose-built department store 3000 m², with wrought-iron and glass court roofs suspended from a bridge structure. Now this is all demolished, or obscured by later alterations.

La Samaritaine, Quai du Louvre, 1905-6, Frantz Jourdain (1847 -1935) Paris, architect, art critic and man of letters. Engineering and Beaux Arts, of Department stores and theatres.

. Wrought iron structure decorated with Art Nouveau and with elevators. Extension: Henri Sauvage, 1926-28.

- * **Galleries Lafayette, 1905,** Frantz Jourdain. Glass domed atrium.

Printemps. Glass domed atrium.

Notre-Dame-du-Travail church, Rue Vercingetorix, Montparnesse, Paris 1899-1901, Zacharie Astruc.

An all wrought iron structure, with Art Nouveau stencilled decoration.

Paris International Exhibition, 1889

- * **Galerie des Machines, 1889. Victor Contamin, Engineer and Charles Louis Ferdinand Dutert.**

A record span: 114m steel 4-centred arches, hinged and tapering at apex and base.

* **Eiffel Tower. Gustave Eiffel, 1889.**

As the entrance to the fair, 300m height, the worlds highest structure, in wrought iron, near to its last major stuctural use.

Monocoque construction

A construction system in which all loads are taken by the outer shell.

The Shukhov Tower,
Oka River (Dzerzhinsk High-Voltage Mast, or Shukhov Oka Tower).

The world's only diagrid hyperboloid transmission tower, Russia, W suburb of Nizhny Novgorod, left bank of the Oka River, near Dzerzhinsk, 1927-27. It was designed by Russian engineer and scientist Vladimir Shukhov; its power lines were removed in 1989.



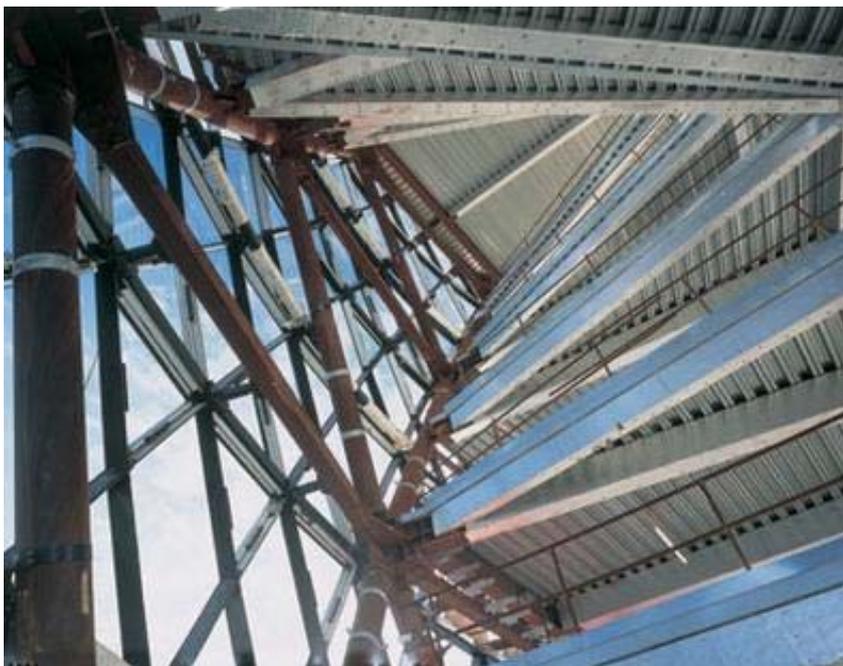


Shabolovskaya Water Tower, Krasnodar, Russia, Vladimir Shukhov, structural engineer, 1928-30.

A net of one-sheeted hyperboloids, with two opposite direction mutually intersecting straight oblique branches.



Swiss Re Building (the Gherkin), 30 St Mary Axe, London, 2002-03, Foster + Partners and Arup. 180 m steel **diagrid (latticed) frame, with spiralling shafts.**



Office Buildings and Warehouses, Chicago.

William Le Baron Jenney (1832-1907).

Leiter 1 Building (1879).

Load-bearing brick piers on external walls, cast-iron columns internally. Early Chicago windows, triple sash.

Fair Department Store (1891).

A steel frame, the first two floors mostly glass walls.

Henry Hobson Richardson (1838-86).

Marshall Field Wholesale Warehouse (1885-57).

Romanesque. External walls 7-stories load bearing. Demolished c1935. Influential.

Daniel Hudson Burnham (1846-1912) of Burnham & Root

Monadnock Building (1889-91).

16 stories. Last load bearing walls. Modern massing. Also: **John Wellborn Root**, refer: **Peter Ellis**, above.

Reliance Building (1890 & 94).

15 stories. Terracotta faced metal frame.

Louis Sullivan (1856-1924), of Adler & Sullivan (1879-95), Louis Sullivan (1895-1919).

Wainwright Building, St. Louis, Missouri (1890-91).

10 stories, the first (?) steel framed building. Influential elevation design: podium, verticality, cap includes rich frieze decoration, also spandrel panels. Every second vertical is load-bearing.

* **Carson, Pirie, Scott (formerly Schlesinger-Mayer) Store (1899-1904).**

9 storey and 12 storey additions (1903-4 and 1906). White terracotta facing expresses structural grid. Ground and first floor decorative friezes. Steel frame. Horizontal emphasis.

SKYSCRAPERS, NEW YORK

Flatiron Building (or Fuller Building, 1902). **Daniel Burnham**, 175 Fifth Avenue, 23rd Street, Fifth Avenue, and Broadway, at the south (downtown) end of Madison Square.

The first skyscraper in New York; a vertical Renaissance palazzo with Beaux-Arts styling.

Woolworth Building (1910-13), **Cass Gilbert**.

The tallest building in world until 1930. Portals within steel frame. Terracotta decoration reflects and enlivens structure. Essence of Modern world. Stands alone yet relates to context.



Woolworth Building

Cass Gilbert's other buildings in lower Manhattan are the **United States Custom House**, the **West Street Building**, and the **Broadway-Chambers Building**.

Chrysler Building (1928-30), **William Van Alen**.

Empire State Building (1929-31), Shreve, Lamb & Harmon.

Rockefeller Centre (1929-40), Reinhard & Hofmeister, etc.

9 buildings on three blocks. RCA Building, 70 stories. Radio City Music Hall.

Lever House (1951-2). **Skidmore Owings & Merrill**.

Ferro-concrete, curtain walls, podium. Transparency. Tinted, heat resistant glass, delicate cage. Building as membrane. Very influential.

REINFORCED CONCRETE. FRANCE.

c1800: Concrete appears in building textbooks in France, where Francois Coignet promoted its use.

1832: Iron reinforcement was first used, embedded a lattice-work of iron ribs.

1844: cast iron joists embedded in slab.

1854: English patent. Iron rope in tension in concrete.

Joseph Monier

1867: Reinforced concrete flower pots.

1877: Columns and beams.

Francois Hennebique

1870s: Developments

1904: Reinforced concrete flats, Paris.

Auguste Perret (1874-1954).

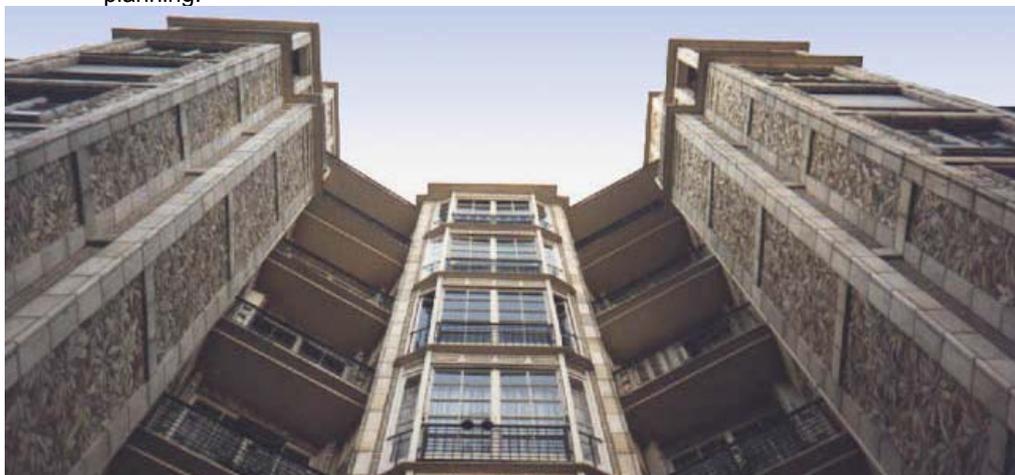
Perret was a member of the Académie des Beaux Arts, president of the Conseil de l'Ordre des Architectes, RIBA Gold Medalist and AIA medalist, but he never finished his diploma course.

He considered the **Lambot reinforced concrete rowing boat, 1849**, as the first realisation of reinforced concrete.

As Charles-Edouard Jeanneret, Le Corbusier had a 14 month internship with him in 1908-08.

*** Flats, 25 bis Rue Franklin, Paris (1903).**

Reinforced concrete skeleton expressed architecturally, not just frame for ornament. Glass brick stairs and walls, for light. Concrete frame allows flexible internal planning.



Théâtre des Champs-Elysees, Paris ⁷
15 Avenue Montaigne, 75008 Paris, 1906-13.

It was based on a scheme by Henri van der Velde (1863-1957), who resigned when it was clear that the contractors, the Perret brothers, had a deeper understanding of the project, though the Perrets were not licensed architects and had another, Roger Bouvard, sign their plans. It has a reinforced concrete frame, daring cantilevered balconies, bow-string trusses over the auditorium, yet within the classical language of the Palladian A:B:A:B:A grid of the foyer frame, and with an exposed concrete stripped classical front.



Théâtre des Champs-Elysees.

Salle Cortot (1928-29).

Garde Meuble du Mobilier National (1934-36).

Palais d'Iéna, Paris (1936-46).

Mairie du Le Havre (1952-58).

Église Saint-Joseph du Havre (1951-57).

A new order, appropriate for concrete.

Furniture.

⁷ theatrechampselysees.fr

arch 5124 ARCHITECTURAL HISTORY 2
Week 21

GOTHIC REVIVAL. ENGLISH ARTS & CRAFTS. ART NOUVEAU

Historic Outline

The Industrial Revolution occurred first in England generally in late the c18. Although it began with the invention of deep-mining in 1705, using steam pumps to remove water.

- Effects:
- mass movement of working people to cities, employed to work in factories, long hours, poor conditions, powerlessness.
 - cheap manufactured products, often low quality, from colonial raw material.
 - decline of craft, trade skills
 - development of large middle class, market
 - romantic nostalgia for Medieval utopia

John Ruskin (1819-1900).

Writer on art and architecture. Strong influence on principles (morality. Set out in *Seven Lamps of Architecture* 1849) and style.

Principles: sacrifice (dignity and beauty necessary), truth (no machine work, no sham), life, (nature, craftsmanship), memory (age), obedience (existing styles); Style: Medieval. Ornament is central to architecture.

William Morris (1834-96).

Strongly influenced by Ruskin's ideas. Worked in G.E. Street office. Promoted Socialism, Medievalism, myth. Established Morris & Co. to manufacture by handcraft methods: furniture, fabrics, stained glass, wall painting, wallpapers, carpets, tapestries and books. Influence on architecture through English Arts and Crafts movement. Influenced: Van de Velde, Behrens, Voysey, etc..

GOTHIC & GOTHIC REVIVAL. (LATE C18 - EARLY C20). LONDON

Following the previous dominance of Classicism (refer: Week 17), a group of architects saw Gothic as the universal style. Gothic Revival a particularly academic version developed by **A W N Pugin**, as Romantic rationalism. He wrote: *True Principles of Pointed or Christian Architecture* (1841)

Augustus Welby Northmore Pugin (1812-52).

- * **Houses of Parliament (Palace of Westminster) Westminster (1836-68)** Sir Charles Barry. Stylistic detail: Pugin.

Symmetrical composition. Derived from Henry VII Chapel. Very influential, and through Wardell, to Melbourne.

Pugin's houses.

Pugin may have **invented the modern English family house**. He introduced the concept of **development**, derived from Newman's theology and reconciling divine creation with evolution: that a house '...be modified [evolving over time] to suit actual necessities.' He fused the Regency villa with the medieval manor in a flexible basic design, eg: the Nash's central space became a circulation space as a double height staircase hall and he invented the cosy ingle-nook.

Both were taken on later by **Arts-and-Crafts** (qv) architects (eg: Philip Webb, The Red House, 1859), so that by C20 for Stefan Muthesius, in *Das Englische Haus* (1903-04, refer: Voysey), they were the essence of English domestic architecture. And influential on subsequent English architects, eg: Edwin Lutyens (). He avoided architectural pretension and deleted unnecessary medieval elements: decorative bargeboards, pointed windows, and the render used by Sir John Nash.

He introduced more light and shade by making the gable over the main rooms break forward. He never rejected any post-medieval invention he believed to be an improvement, eg: he introduced WCs. Windows were located only for light, or a view, with a blank wall facing the road. Other innovations included: red brick, casement windows and pitched roofs.

St Marie's Grange (1835). Pugin's own first house, extant, privately owned.⁸

The Grange, Ramsgate, Kent (1843-44). Pugin's own second house.

Restored by the Landmark Trust 1997-2006.

⁸ Rosemary Hill, 'Inventing the modern home. St Marie's Grange and Pugin's houses,' *Country Life*, 29 August 2012, pp 40-45.



The Grange.

Scarisbrick Hall, Lancashire.

Alton Towers, Staffordshire (1837-52).

Warden's House, St John's Hospital, Alton.

Bishop's House, Birmingham, 1840-41.

Rampisham Rectory, Dorset, 1845-47.



Rampisham.

Sexton's Cottage, St Mary's Newcastle.

Oswald Croft (or Oswaldcroft), **Liverpool**, 1844-47.



Oswald Croft.

Woodchester Park, Gloucestershire.

- * **Royal Courts of Justice, Strand** (1874-82, **George Edmond Street**. Ingenious plan. Strong modelling. 3000 drawings by Street.

Prudential Assurance Office, Holborn (1876, etc), **Alfred Waterhouse** (1830-1905). Terracotta and red granite.

Holborn Viaduct, over Farringdon Street, Holborn (1863-69). William Haywood, City Surveyor. Ornate massive cast iron decoration. The first bridge in the world on which a road passes over another, and more beautiful than anything subsequent.

St Pancras Station and Hotel (1865-71). **Sir George Gilbert Scott**. French and Flemish influence.

Tower Bridge, (1886-94). **Sir John Wolfe Barry**, engineer and **Sir Horace Jones**, architect. Iron frame, steam engine raises central section, lifts to pedestrian bridges.

Eugène-Emman'uel Viollet-le-Duc (1814-79).

Gothic as structural rationalism. Very influential, including on modernism. Wrote: *Dictionnaire Raisonne* (1854-68).

Schloss Neuschwanstein, (1869-86) King Ludwig II, of Bavaria. **Christian Jank**, stage designer, design, and implemented by Eduard Riedel architect, in homage to Richard Wagner.

It sits on a rugged hill above the village of Hohenschwangau, near Füssen, southwest Bavaria. It inspired Disneyland's Sleeping Beauty Castle (Disney Imagineers, 1955), which is much smaller, only 23 m height. More than 1.3 million people visit Neuschwanstein annually, with up to 6,000 per day in the summer.



Photochrom print, c1900.

Sir Ninian Comper (1864-1960)

their and Gothic Scottish-born architect, the last of the residual Gothic Revival: churches, furnishings, stained glass, use of colour and subtle integration of Classical elements which he described as unity by inclusion.

Westminster Abbey, nave: line of windows in the north wall.

St Peter's Parish Church, Huddersfield: baldachino (or ciborium), high altar and Great War Memorial east window.

St Mary's, Wellingborough.

St Michael and All Angels, Inverness.

Downside Abbey, Somerset, Lady Chapel.

St Stephen's House (formerly Society of St John the Evangelist), **Oxford**: ciborium and House Chapel extension.

St Cyprian's, Clarence Gate, London.

Lady Chapel, St Matthew's, Westminster, London.

All Saints, Margaret Street, London, Lady Chapel and gilded paintings in the chancel.

Wymondham Abbey: reredos.



St Mary's, Wellingborough.

ENGLISH ARTS-AND-CRAFTS

Philip Webb (1831-1915).

* **Red House, Bexleyheath, Kent (1859).**

This was very influential towards the English Arts-and-Crafts style and eventually, on Modernism. Webb's client was William Morris. It is a very large house in an unpretentious cottagey vernacular, with fragmented elements to reduce scale. It uses rural sources, fine craftsmanship, honest exposure of materials, and some Gothic. It complies with Ruskin's and Pugin's principles.

Charles Francis Annesley Voysey (1857-1941).

He influenced by Philip Webb and the suburban vernacular. He uses no historicism, plain materials and finishes, with restrained, simple geometrical forms, reasonableness and utility. Influenced by Morris' and Ruskin's principles, Mackmurdo, and linked to Modernism. As was Frank Lloyd Wright, he was a strong influence on suburban middle class houses in UK and Australia. His houses are characterised by applied roughcast (or pebble-dash), stone mullions, battered buttresses, broken roof pitch, and subtle curved Asian details. Master of the Art Workers Guild, 1924. He was promoted by Stefan Muthesius in *Das Englische Haus*, (1904-05).⁹

* **Annersley Lodge, Kidderpore Avenue, Hampstead, London (1895)**

Forster house, 14 South Parade, Bedford Park, London (1888-91 & 94)

The Orchard, Chorleywood, Hertfordshire (1899-1901).

His own house. Admired by Pevsner.

* **Sanderson Wallpaper Factory, Barley Mow Passage, Turnham Green, London (1902).**

Bold piers above the parapet and glazed white brick walls.

House for his father, Platts Lane, Finchley, London ().

H Baillie Scott (1865-1945), Isle of Man.

Ludwig House, Darmstadt, Germany. Bedroom

Charles Harrison Townsend (1851-1928).

Nearest, with Mackintosh, in Britain to Art Nouveau.

* **Whitechapel Art Gallery, London (1897-98).**

Influence of Voysey, H H Richardson's Romanesque. Fine details and ornament.

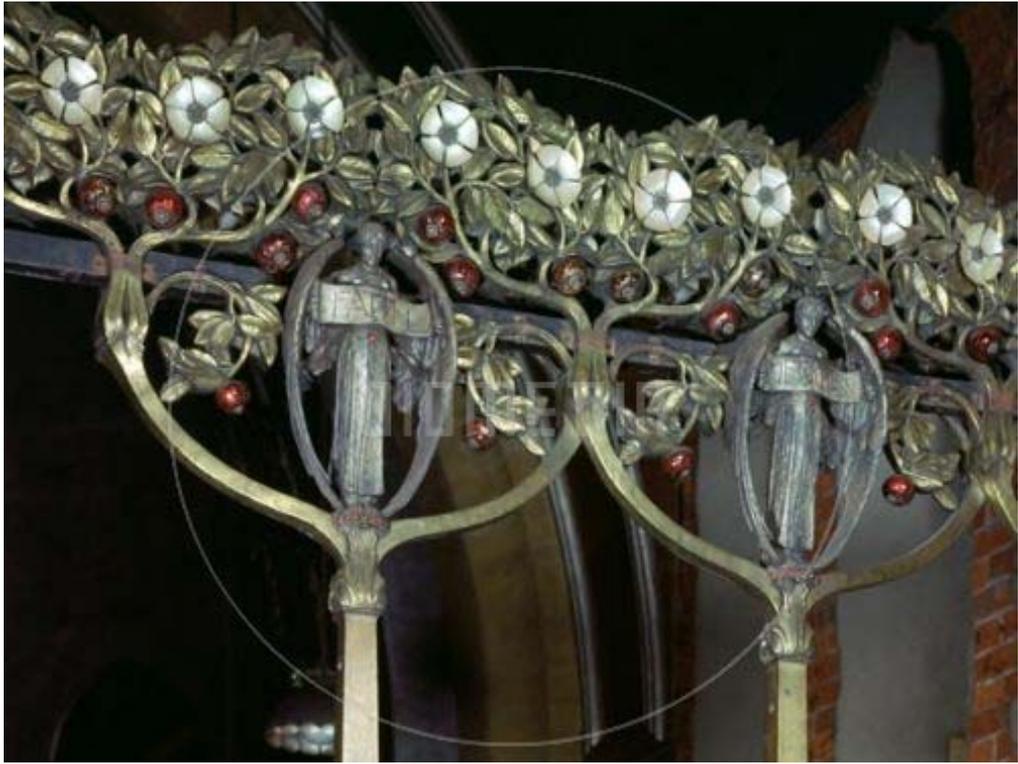
⁹ Also refer: AWN Pugin.

The Church of St Mary the Virgin, Warkley Street, Great Warley, Essex (1902).

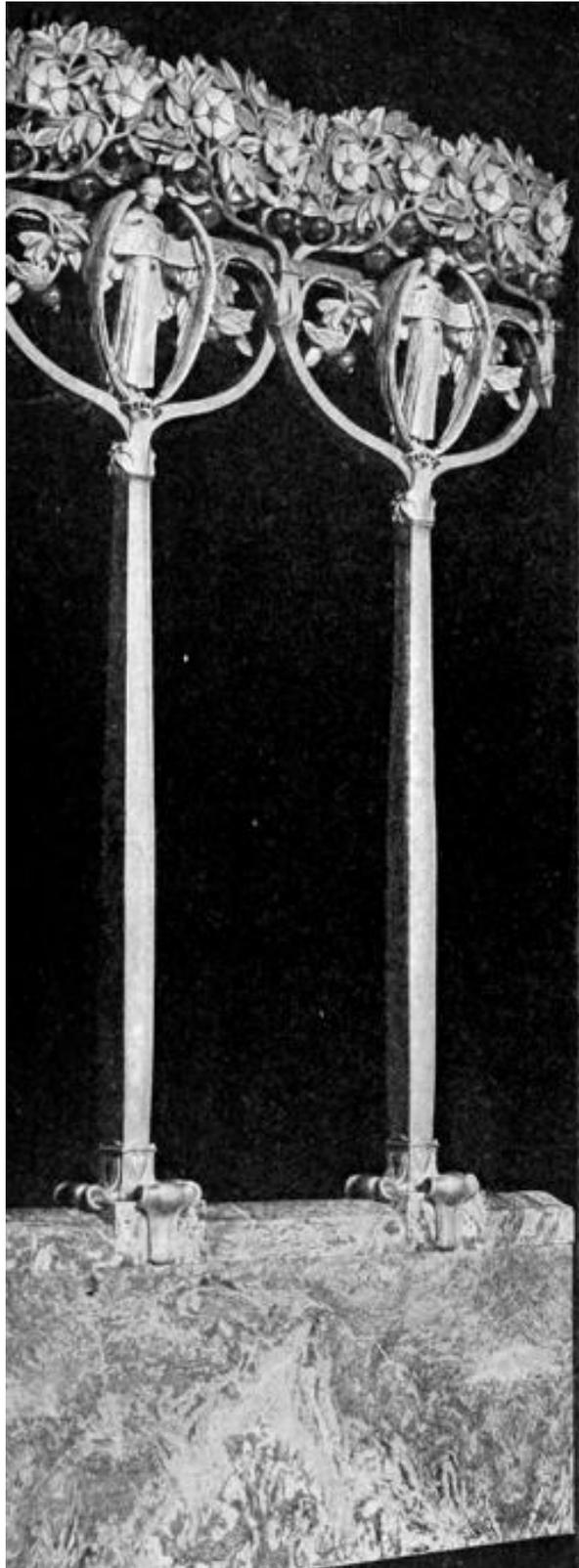
Sir William Reynolds-Stephens, sculptor and interior designer designed most of the internal fittings. The chancel screen is brass trees with mother-of-pearl flowers, and figures in oxidized silver, on a marble base, and depicts the Fruits of the Spirit: Joy, Peace, Patience, Faith, Meekness and Temperance, with kneeling figures of Goodness and Gentleness, the attributes of Jesus, flanking a central crucifix, symbolising Love.¹⁰



¹⁰ John Goodall, 'The Fruits of the Spirit,' *Country Life*, 7 August 2013, p 76.



St Mary the Virgin.



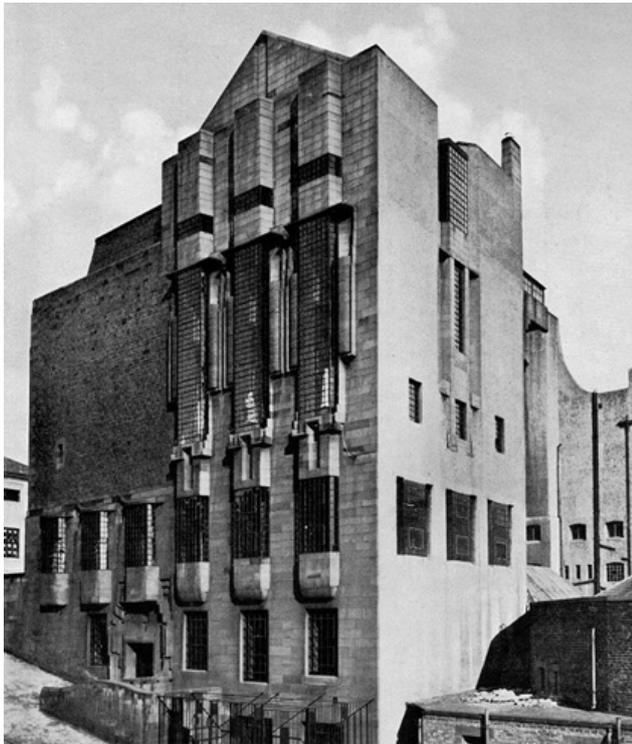
St Mary the Virgin.

Charles Rennie Mackintosh (1868-1928), Glasgow.

With his wife, **Margaret Macdonald**. Influence of **Scottish Baronial** Highland vernacular. Exquisite fine inimitable decorative crafted details. His work is austere and was influenced by the **Wiener Sezession**.

***Glasgow School of Art (1896-9 & 1907).**

Designed when he was 28. Fine Library space.



The Scott Street exterior of the west wing of Glasgow School of Art in 1933.



The library, Glasgow School of Art.



The library, Glasgow School of Art.

On 24 May 2014, the Library was destroyed by fire commencing in the basement. Broadcaster Muriel Gray, who is the art school's chairwoman a former student at the school, revealed that the art school's archives were safe. The most amazing, almost miraculous news is that the

majority of the building is still intact.

Due to one of the most astonishingly intelligent and professional pieces of strategy by the fire services, they succeeded in protecting the vast majority of the building, apparently by forming a human wall of firefighters up the west end of the main staircase and containing the fire. After ensuring no lives were in peril, they displayed an impressive understanding of the precious nature of the building, and due to their careful and meticulous handling of each developing situation the damage is considerably less than we dreaded. We have run out of words with which to thank them, but the school has most certainly gained a new gallery of heroes.

Many students had lost some, or all, of their work, but other work had been preserved. She said curators and academic staff was hoping to be allowed into the building in the next few days to assess what could be salvaged. Speaking about the loss of the library, Ms Gray said: "Mackintosh was not famous for working in precious materials. It was his vision that was precious and we are confident that we can recreate what was lost as faithfully as possible.



24 May 2014.

I had the daily pleasure of seeing the west wing of the Glasgow School of Art, with its castle-like stonework and triple tall oriels rising dramatically from the steep slope of Scott Street, when, for more than a decade, I taught architectural history at the Mackintosh School of Architecture. I also had the privilege of being able to explore the interior of the School of Art at will. And I became more and more impressed. It was a building that worked, though made of ordinary and traditional materials – stone, timber and iron – on a limited budget; it was the product of a mind at once practical and imaginative. Throughout, as my then boss, Andy MacMillan, put it, Mackintosh ‘demonstrates a creative exploitation of each and every specific requirement, seizing the opportunity to create an architectural “event” through some feat of invention’.

The thought of any part of the GSA being damaged is terrible, but that it was the library that was destroyed really is heartbreaking, for it was Mackintosh’s finest, most personal and most mysterious creation, a complex space, at once dark and well-lit, in which every detail was personal and deliberate. It was the summation of his desire to combine structure and decoration, to create powerful spaces, to make something new out of history and tradition and to explore the potential of symbolic forms. The management of the GSA, which, despite warnings about fire, allowed a student to combine expanding foam with a hot projector in the basement, now cheerfully assure us that most of the building is safe and that the library can be re-created as it is so well documented. Perhaps: but the possibility of examining the original woodwork and of experiencing the tangible result of the designer’s close involvement has gone – along with the precious books that the room contained (plus the paintings and more than a hundred pieces of Mackintosh furniture in store in the room above).

As I learned to admire Mackintosh’s work, I also became increasingly exasperated by the Mackintosh myth: that he was a lone misunderstood genius, Scotland’s answer to Van Gogh, a progressive, forward-looking artist who was not appreciated by his contemporaries in Britain and who died, unsung, in exile. In trying to understand the historical Mackintosh, we have to deal both with the commercialisation of his legacy – the ‘Mockin’tosh’, as Murray Grigor termed it, that fills the shops – and the tendency to see him as a lone figure instead of a man who, like all great artists, did not just borrow but stole, from others and from the past. I used to wonder what all those visitors in the grip of the Cult of Mackintosh, exposing endless reels of film as they gazed at the dark brown sandstone of the Renfrew Street front, really made of the building. Glasgow may be on the pilgrimage route along with Barcelona, Budapest, Nancy, Moscow and Riga, those cities in which strikingly original buildings from the years around 1900 can be found, whether Art Nouveau, Jugendstil or Modernismo, but the GSA building is not wildly unconventional in either mass or detail, as the creations of Gaudí are, or made conspicuously eccentric by the use of strange organic curvilinear forms, as are those of Guimard in Paris or Horta in Brussels. The main front of the School of Art has the scale of, and is built like, a Glasgow tenement; it has a cornice, and there are pediments – traditional elements, even though metamorphosed by an unusual sensibility.

A competition for the design of a new building for the School of Art was held in 1896 and won by the Glasgow firm of Honeyman & Keppie. The drawings were made by a brilliant young assistant, a policeman’s son from Dennistoun who was born Charles R. McIntosh, but he was not at first given any credit for the design. The plan is admirably clear, with tall north-facing studios placed along spinal corridors. The huge windows that light these studios may well have been inspired by those at Montacute in Somerset, the Elizabethan country house which Mackintosh had sketched. As for other details, architectural historians can enjoy themselves spotting the sources, mostly from recent progressive English buildings by Voysey or Norman Shaw (a London Scot), and some Scottish ones, by the Glaswegian J.J. Burnet. One influence behind the vaguely Scottish Baronial east elevation in Dalhousie Street is the little-known James MacLaren, a gifted Scottish architect who died young. Mackintosh loved castles, and the extraordinary harled irregular south elevation that rises from the building line on steeply sloping ground overlooking the rooftops of Sauchiehall Street might be Fyvie in Aberdeenshire, as drawn by Jessie M. King.

For there is another character evident, one which so many of the visitors come to see: the sensuous, decorative excitement of the Art Nouveau. It is there in the treatment of the metalwork, in the tapering timber columns of the central first floor museum, in the treatment of the little leaded-glass windows in the doors and, above all, in the white-painted woodwork of the board room, ornamented with gentle curves cut in relief. Mackintosh was an artist as well

as an architect. With his future wife, Margaret Macdonald, her sister Frances and her future husband, Herbert McNair, he was one of 'The Four', responsible for paintings of attenuated female figures with intense faces, and stylised curvilinear decorative swirls. To their critics, their work was the 'Spook School'. It was for such work, and for their distinctive interior designs and furniture, that Mackintosh, together with Margaret, first became known abroad and invited to exhibit in Vienna, Turin and Budapest.

At first the School of Art could only afford to build the east wing and the central entrance bay. By 1907, when enough money had been raised to complete the building, the architect had matured, having designed several houses and tea rooms for Kate Cranston, and was now a partner in the firm of Honeyman, Keppie & Mackintosh. By this date, the international Art Nouveau had gone off the boil and Mackintosh, exploring a new decorative manner, responded both to the contemporary revival of Classicism and to the more formal, geometrical style developing in Vienna. So, while completing the original scheme for the main façade, he completely redesigned the rest of the west wing with its library. The dramatic west front, with its towering oriels, is an abstracted Tudor composition which, as John Summerson pointed out, may owe something to the central reference library in Bristol designed by a distinguished but less applauded English near contemporary, Charles Holden. But there was no precedent for the extraordinary library space behind those tall metal oriels.

The library was at once very practical and very strange. Made entirely of dark timber, it was dominated by tall square piers rising from floor to ceiling which supported the balcony running around the room on all four sides. The piers were placed far in front so as to be conspicuous. Was the idea of a Forest of Knowledge in Mackintosh's mind, in which symbolism was so important? Oddest, and most personal of all, were the timber pendants on the balcony front, each with what might be hanging tassels, but with little ovals, like bubbles, in the gaps. Each one was slightly different. Of this mysterious, enchanting room Summerson wrote that

one has the odd feeling that if the whole room were turned upside-down, so that the light fittings grew upwards from the floor, it would be even more true to itself. Here we are in a private world – a world where, as in Beardsley's drawings, we tread with fascinated horror, unbounded admiration and a sense of being total and probably unwanted strangers.

This room is now ashes, but it is proposed to reconstruct it faithfully. How perverse that the sort of modernists who disapprove of replicas of Georgian interiors, such as the National Trust had done after the Uppark fire, preferring something new, of our own time, should favour the building of an archaeological pastiche, even to the extent of recommending that the new wood is patinated to look old. Such is the reverence now granted to this much misunderstood designer.

It might seem remarkable that Mackintosh ever got away with the west wing: he had the school governors breathing down his neck insisting on economy. It was probably only the support of the director, the painter Francis Newbery (an Englishman), that made it possible. Worse, the architectural climate in Glasgow was changing. Since 1904 the head of the School of Architecture had been a Beaux-Arts trained Frenchman, Eugène Bourdon, who was strongly opposed to the 'New Art' and interested in modern American Classical architecture. Bourdon's students poked fun at the new west wing, mocking Mackintosh's decorative system of 'permutations and combinations of simple forms' in which 'once the motive is selected an office boy or a trained cat can do the rest ...' Having been a brilliant student himself and treated as a prodigy at an early age, feted abroad and possessing no little personal vanity, Mackintosh must have found it intolerable to have lost touch with the younger generation and to be patronised by student critics. Perhaps it was this, rather than the continuing hostility of older architects like Burnet, which suggested to him that there was little future in Glasgow for his sort of architecture.

After the completion of the School of Art building in 1909, Mackintosh's career went downhill. Drink and depression increasingly dominated his life. Less and less productive, he left the practice in 1913 and Glasgow and Scotland the following year, ending up in Chelsea. He had one more, limited, opportunity to build when, during the Great War, an engineer and manufacturer of model trains, Wenman Bassett-Lowke, asked him to remodel the interior of his Georgian terraced house in Northampton. After that, Mackintosh and Margaret moved to the South of France where he devoted himself to painting, producing many of his powerful, sophisticated watercolours in which landscapes look like solid architecture. He returned to London to die, horribly, of cancer of the tongue in 1928.

It is not true that Mackintosh was then completely forgotten. Illustrations of the west wing of the GSA appeared in 1924 in *Modern English Architecture* by Charles Marriott, art critic of the *Times*, who thought that 'it is hardly too much to say that the whole modernist movement in European architecture derives from him; and the Glasgow School of Art, as an early and successful attempt to get architecture out of building, making decorative features out of structural forms, goes far to explain the reason why.' In 1933, reviewing the Mackintosh memorial exhibition in Glasgow, P. Morton Shand, critic, oenophile and the grandfather of the Duchess of Cornwall, wrote in the *Architectural Review* that 'he has been called "the father of modern architecture".' In 1936, in the first edition of his *Pioneers of the Modern Movement*, Nikolaus Pevsner wrote that in Glasgow 'there worked one of the most imaginative and brilliant of all young European architects, and at the same time one of the originators of the Art Nouveau', adding that Mackintosh's later work showed him 'as the one real forerunner of Le Corbusier'. And the following year, in an essay in the catalogue published by the Museum of Modern Art in New York, Henry-Russell Hitchcock also included pictures of the GSA and claimed that 'no work of British architecture could more appropriately serve as an introduction to an exhibition of Modern Architecture in England.'

The tendency to see Mackintosh primarily as a pioneer of modernism culminated in the publication in 1952 of a biography by the English architect Thomas Howarth, *Charles Rennie Mackintosh and the Modern Movement*. But to interpret his work in this light required a certain manipulation of the evidence. Shand, and others, deplored the feminine, decorative influence of Margaret's 'rather thin Aubrey Beardsley mannerism of the arty-crafty type' on Mackintosh's purely architectural development. Yet, shortly before he died, the man himself wrote from France asking his wife, to whom he was devoted, to 'remember that in all my architectural efforts you have been half if not three-quarters in them,' and once said that 'Margaret has genius, I have only talent.' As Alan Crawford concluded in his sane and succinct 1995 study: 'Mackintosh and Margaret Macdonald came together not only as man and woman, but also as artists. From this point on, the story of Mackintosh's life, and of his work, cannot be told as if he were a single person.'

A more balanced interpretation of Mackintosh came with the publication in 1968 of a study by the Canadian-born architect Robert Macleod, who concluded that he was 'a last and remote efflorescence of a vital British tradition which reached back to Pugin ... With his pursuit of the "modern", his love of the old, and his obsessive individuality, he was one of the last and one of the greatest of the Victorians.' This remains a truth that neither modern architects, nor the authorities in Glasgow, wish to hear.

The year 1968 was, among other things, the centenary of Mackintosh's birth: an ambitious exhibition was duly arranged by the Scottish Arts Council. It was hosted at the Edinburgh Festival and in London, at the Victoria & Albert Museum; a reduced version travelled to several European cities. But it never got to Glasgow. The city's attitude to its famous son is puzzling. Despite the rise in Mackintosh's reputation, Glasgow contrived to plan urban motorways which threatened both his Martyrs' and Scotland Street Schools. In 1950, the Corporation had been encouraged to buy the lease of the Ingram Street Tea Rooms with its varied set of interiors designed for Kate Cranston which, had it survived, would now be a lucrative asset to the city. But in 1971 it dismantled the interiors, with much of Mackintosh's work being subsequently damaged or lost. Earlier, Glasgow University had demolished the Mackintoshes' home in Hillhead, although the ethereal white interiors were saved by Andrew Maclaren Young, organiser of the 1968 exhibition and a hero in this sad story. They were eventually reconstructed in a concrete annex to the new Hunterian Museum building.

When Murray Grigor, who made a film about Mackintosh in 1968 and soon after co-founded the Friends of Toshie in emulation of the Amigos de Gaudí in Barcelona, asked people in George Square who they thought the man was, 'the answers went from the inventor of raincoats to toffees, but few knew the architect.' The local attitude to Mackintosh had long been one of ignorance or active hostility. Maclaren Young thought the latter was a form of 'queer-bashing'. The much reproduced photograph by Annan – 'loose collar and a tie gathered in a big, mock-careless bow, like W.B. Yeats' – says it all. He also had airs, and it cannot have helped when he and his half-English middle-class wife moved to that introverted, artistic house in the West End.

Most of Mackintosh's buildings survived, but it was outside opinion that was largely responsible for saving them and reviving interest in his work. The Charles Rennie Mackintosh

Society was founded in 1973 and soon had an international membership. At the same time Cassina, in Italy, began to manufacture reproductions of Mackintosh's strange, tall, elegant furniture. By the 1980s, his status as a great architect and designer seemed secure and its unfortunate concomitant, the Mockin'tosh industry, was flourishing, giving rise to the impression that poor Toshie was a designer of tea-towels, mugs and greeting cards based on, to quote Grigor again, 'misunderstood typography along with wilting roses, four-squares, or whatever happened to take their fancy in Mackintosh's diverse decorative output'. It was around this time that a semi-mythical character entered the wider public consciousness: 'Rennie Mackintosh' – an appellation he never used or was known by.

Tourist tat can be taken or left, but other well-meant tributes to Mackintosh were surely misconceived. Visitors to Glasgow today are directed to the House of an Art-Lover in Bellahouston Park as if it were an authentic work by Mackintosh. It is not. This curious case of necrophilia, on which work began in 1989, is the necessarily fudged realisation of the exquisite drawings which Mackintosh and his wife entered for a competition announced in Darmstadt in 1900. They were given a special prize; the winner was an Englishman, M.H. Baillie Scott. It is hard to believe that Mackintosh would ever have built this Fin-de-Siècle dream without a lot of revision. As it is, without the master's guidance, the pseudo-Mackintosh details have a kitsch quality which bodes ill for any reconstruction of the Glasgow School of Art's west wing.

Amid all the misunderstandings and appropriations, Mackintosh's masterpiece on the top of Garnethill stood out as tough and authentic, a working building in which his rare command of light and spatial effects was enlivened by his delight in detail and decoration. But even this triumph had to suffer insults. The latest was only completed this year: the Reid Building, named after the last director of the School of Art. This replaced the unsympathetic Brutalist tower, named after Newbery, which the Mackintosh successor firm, Keppie Henderson, designed in the late 1960s, along with another, lower, bush-hammered concrete block, equally inappropriately named after Bourdon, slung over Renfrew Street to impede the view of the west wing.

The Reid Building, of reinforced concrete clad in pale green glass, massively fireproof and, at £50 million, massively expensive, was designed by the New York architect Steven Holl, who wishes 'to realise space with strong phenomenal properties while elevating architecture to a level of thought'. Like all architects, he professes immense respect for Mackintosh and claims that his building creates 'a symbiotic relation with Mackintosh in which each structure heightens the integral qualities of the other'. In fact, as vociferous critics from outside Glasgow soon noted, it overawes Toshie's carefully crafted masterpiece on the opposite side of Renfrew Street while failing to provide a congenial environment externally or internally. Until the fire, it was the final insult.

Culpably arrogant as it is, the new Reid Building has a wider, disturbing significance in view of the forthcoming referendum on Scotland's independence, a context in which the mythical Mackintosh is celebrated as a Celtic hero whose School of Art is a symbol of Scottish talent and creativity; also a context in which governments in Westminster and Edinburgh are happy to offer unlimited sums to restore his 'priceless gem' (a generosity not extended to the threatened works of Glasgow's other great 19th-century architect of international stature, Alexander 'Greek' Thomson). The real Mackintosh flourished when Glasgow flourished as the Second City of the Empire, with a civic culture that was as British as much as it was Scottish. To build its new home, an economical 'plain building', the School of Art commissioned a good local firm, and the assistant entrusted with the design eventually emerged as a distinct local talent. Just over a century later, the School of Art, in search of a new 'icon', held another competition but this time it was determined to select an international superstar architect. Any local genius who'd recently emerged from the Mackintosh School of Architecture was denied the opportunity to show what he or she could do. All this suggests to me that Glasgow, far from gaining confidence in recent decades, has lost it.

* **Hill House, Helensborough (1902-3)**

Miss Cranston's Tea Rooms, Sauchiewell Street, Glasgow (1904)

Facade, interior and contents were all designed by Mackintosh.

Houshill (1904). Interior (Musee d'Orsay, Paris).

House, Farr, Inverness-shire.¹¹

Other English Arts-and-Crafts

Holy Trinity Sloane Square, London, 1888, John Dando Sedding.

An important collection of stained glass, with its east window by Burne-Jones and Morris.

The Black Friar pub, 174 Queen Victoria Street, cnr New Bridge Street, City (opposite Blackfriars station and Tube), London.

This is the finest **Arts-and Crafts** pub in London, remodelled from an ordinary wedge-shaped corner pub built in 1873, and the ground floor was rebuilt by H Fuller Clark in c1905, well after the 1890s pub boom.

Artists, none of them specialists, went to work with a vengeance. Externally: metalwork, **mosaic**, **enamel**, with 'alarming' reliefs in a **bas-relief frieze** carved by Henry Poole, inside, the **saloon bar** (restored in 1983), by Jamie Troughton with Larkin, May & Co, has pink and white veined marble, and 'arch' **monkish** narratives in bas-relief copper friezes by Poole. An **inglenook** 'in the grand manner.' A small **barrel-vaulted** extension under the adjoining railway arch was added as a **snack-bar** by Clark in 1917-21, with yet more **inlay** including in **mother-of-pearl**, sculpture by Poole and F Callcott in **bronze** and **alabaster** mixing monkey with Aesop and nursery rhymes. 'Lots of mirrors further dizzy the drinker, who may muse on architectural historian Andrew Saint's suggestion that the space slyly parodies the vaulted marble-lined interior of **Westminster Cathedral**, Ashley Place, Victoria Street (1895-1903, J F Bentley).'¹²



¹¹ Country Life, 7 August 2013, advertisements.

¹² Nikolaus Pevsner, and Simon Bradley, *London 1: The City of London, The Buildings of England*, Penguin Books, London 1997, p 588.



Inglenook, The Black Friar pub.



The Black Friar.

English Influences on Art Nouveau

There is virtually no Art Nouveau architecture in England, although refer the section below

Arthur Mackmurdo (1851-1942).

Wallpaper design (1882) Daring, and influential.

Aubrey Beardsley ().

John the Baptist & Salome, illustration (1894).

Organic, sinuous, intertwined forms, like tendrils.

McKim Mead & White (1882-c1955). **Charles McKim** (1847-1933), **William Mead** (1846-1928) and **Stanford White** (1853-1906), New York.

Greene & Greene (1896-1907), **Charles Greene** (1868-1957) and **Henry Greene** (1870-1954).

TUDOR REVIVAL: ENGLAND

A C19 eclectic revival of the Tudor style in England, with two distinct versions: early Gothic Revival like cheap Commissioners' Gothic churches, educational buildings (or Collegiate Gothic), Domestic Revival and Vernacular Revival houses and country houses, associated with the Picturesque and later within the Arts-and-Crafts movement.

Often brick, it was used for schools, workhouses, chapels, gate-lodges, and model cottages, with diaper-patterns, small casement windows with leaded lights, moulded brick chimneys and partial timber framing, depicted in many pattern books.

Port Sunlight housing, Cheshire, 1880-1914.

Thornton Hough, Cheshire, and both with designs by Grayson & Ould, Douglas & Fordham and William & Segar Owen.

Former **Astor House**, the Astor Estate Office, 2 Temple Place, London, John Loughborough Pearson, 1895.

North of Temple Station, outside the gates of Embankment Gardens.¹³

In 1920-40, was a further, less sophisticated revival, especially for houses and pubs.¹⁴

OLD ENGLISH

A picturesque medieval revival and generally domestic architectural style, characterised by some Tudor elements such as four-centred arches.

It is characterised by picturesque rooflines, decorative wrought-iron including weather vanes, jerkin-head gables, tall red brick chimneys, jettied first floors, terra-cotta tile-hung wall cladding, stone quoins and entries, half-timbering and other diverse finishes, wide carved and fretted barges, hooded, mullioned and oriel windows, with diamond leaded lights and lych-gate.

It was popularised in 1860s England by fashionable architects Richard Norman Shaw (1819-72), George Devey (1820-86), whose pupil was C F A Voysey (1857-1941) and William Eden Nesfield (1835-88) and was influenced by John Ruskin's writings in reaction against the post-1850 industrialisation and urbanisation, the English Arts and Crafts movement and derived from Shaw's understanding of the romantic composition and elements of vernacular medieval houses then surviving in the Weald of Sussex and Penshurst, Kent. He used it for country houses.

Leys Wood, Groombridge, Sussex, 1868-69, demolished.

Cragside, Northumberland, 1870-85.

Shaw shared an office with Nesfield, who was brother-in-law to Antony Salvin (). Shaw was not himself an Arts and Crafts architect, because he operated as an (hugely successful) heroically isolated practitioner, distrusting Morris and collaboration.¹⁵

¹³ Nikolaus Pevsner and Simon Bradley, *London 6: Westminster, The Buildings of England*, Penguin Books, London 2003, pp 380 and 381.

¹⁴ James Stevens Curl, *A Dictionary of Architecture*, Oxford University Press, Oxford 1999, p 686 and Richard Peterson, *A Place of Sensuous Resort. Buildings of St Kilda and their People*, St Kilda Historical Series Number Six, St Kilda Historical Society, Balaclava (2004), Edition 2, 2008, at www.skhs.org.au/~SKHSbuildings/index.htm and Edition 3, current 2010. Not in Pevsner.

¹⁵ This point from Edquist, Harriet, *Pioneers of Modernism. The Arts and Crafts Movement in Australia*, The Miegunyah Press, Carlton 2008, p xi.

Old English was itself revived in the C20

Bournville, Birmingham (1902-25).

The Cadbury employee housing community.

Liberty London department store, Regent Street, London, Edwin Thomas Hall and his son Edwin Stanley Hall, built 1924.

Built of hand-made tiles and real old oak timbers from superannated man-o-war sailing ships HMS Impregnable and HMS Hindustan. Another influence then was the '**Half-timbered English**' style of the homes of the stars, in Hollywood.

ART NOUVEAU: BRUSSELS, PARIS

The style was too dangerously sexualised for England, and Germany where it soon evolved to **Secession**.

Baron Victor Horta (1861-1947), Brussels.

Hotel Tassel, rue Paul-Emile Janson (1892-). Staircase: exposed wrought iron structure, ornament, linear surface decoration unified.

- * Hotel Solvay (1895 - 1900). Entrance, interiors: door furniture, electrolier, heater even.

2, 4 Avenue Palmerston (1896-8)

Braeke House (1901)

Joseph Hoffmann (1870-1956), Vienna,

Founded the Wiener Werkstatte (1903-30). High quality craftsmanship. Works in National Gallery, Melbourne.

Palais Stoclet, Tervurenlaan 281, Brussels (1911).

Cubic forms, ascending as central tower. Small sculptures fragment, geometric mouldings. Its interior has Klimt murals.

Sanatorium, Purkersdorf, outskirts of Vienna (1906).

A great advance toward abstraction and away from Arts and Crafts and historicism. This project served as a precedent and inspiration for the modern architecture that would develop in the first half of the 20th century, eg: the early work of Le Corbusier. It had a clarity, simplicity, and logic that foretold of a **Neue Sachlichkeit**.

Austrian Pavillion, Venice Biennale (1934), Via Giuseppe Garibaldi 868, Giardini di Biennale, Venice.

Henri van de Velde (1863-1957).

He was a painter, architect & furniture designer, in Antwerp, Paris, Chemnitz, Berlin, Weimar, Dessau & Brussels. Influenced by Ruskin and Morris. Long, daring resilient curves. Tension, resolved only in his best work, between modest purpose and extravagant design. In Loos, similarly, but inverted: simple forms, for complicated interior life: plain exteriors and imaginative spatial plans.¹⁶

Bloemenwerf House, Uccle, Brussels, 1895.



Chair for the Bloemenwerf House.



Monument to Frederic Merode.
a place des Martyrs, Brussels, 1898.

L'Art Nouveau shop, Paris, 6 rooms, 1896.

Designed the interiors for the shop that gave the style its name.

Folkwang-museum, Hagen, 1901.

Graf Kessler's flat, Weimar, 1902.

Weimar Theatre, design, 1904.

¹⁶ Klaus-Jürgen Sembach, *Henri Van De Velde*, Thames & Hudson, London 1989 [held], Dennis Sharp, *Henri Van De Velde Theatre Designs 1904-1914*, The Architectural Association, London 1974 [held] and www.henryvandelde.pl/en/html/text_lievendaenens.php.

School of Arts & Crafts and Art School (Kunstgewerbeschule (1904-11) and Kunstschule, 1904-05), Weimar, Germany.
Modernist/Arts & Crafts.

In 1905 the Grand Duke of Weimar asked him to establish the Grand-Ducal **School of Arts and Crafts in Weimar**, the predecessor of the **Bauhaus** (qv), which, following World War I, eventually replaced it, under new director **Walter Gropius** (qv), who was suggested for the position by Van de Velde.



Kunstgewerbeschule, Weimar.

Chemnitz Tennis Club, 1906-08.

Villa Hohenhof, Hagen, 1907-08.



Villa Hohenhof.

Kötschau family tomb, Weimar, 1909.

Abbe Memorial, Jena, 1909-11.

Rudolf Springmann's House, Hagen, 1910-11.

Own House, Hohe Pappeln, Weimar, 1910-11.



Own House, Hohe Pappeln.

Théâtre des Champs-Élysées,¹⁷

¹⁷ theatrechampselysees.fr

15 Avenue Montaigne, 75008 Paris (1919-11) opened in 1913.

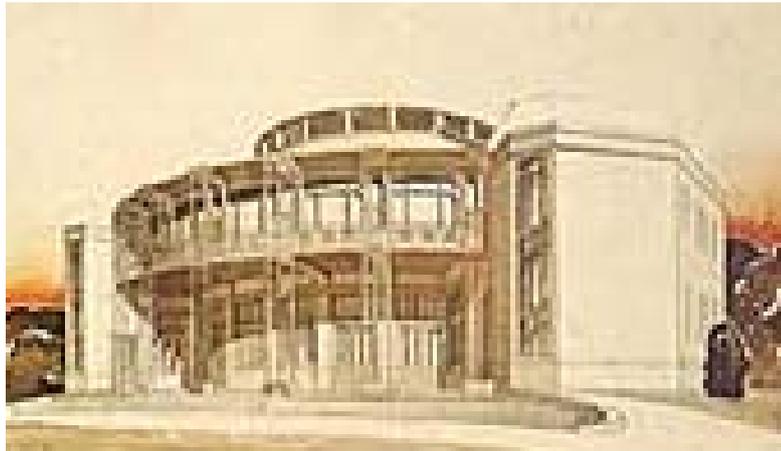
It was based on a scheme by Henri van der Velde (1863-1957), who resigned when it was clear that the contractors, the Perret brothers (qv) rode rough-shod over him.

Werkbund Exhibition Theatre, Cologne, 1913-14.

Demolished.

Theatre Louise Dumont, Weimar, 1903-04.

Unbuilt, project abandoned.



Theatre Louise Dumont.

Körner Villa, Chemnitz, 1913.

Schulenburg Villa and Porter's Lodge, Gera, 1913-14.

He played an important role in the **German Werkbund**, and famously opposed **Hermann Muthesius** at the Werkbund meeting of 1914 when he supported the individuality of artists while Muthesius wanted standardization.

University Library, Ghent, 1936.

Monumental, and fully realised on site.

Gustave Strauven (1878-1919), Brussels.¹⁸

The façades are only 3.5 - 6 m width, with ingenious articulation to maximise their effect. **Strauven** completed more than 30 buildings, incorporating wrought iron floral motifs.

He started in Victor Horta's office aged 18. And assisted on the Hôtel van Eetvelde and the Maison du Peuple.

85 Boulevard Clovis (1900)

¹⁸ My Notebook No 7, 14 April 1975, *The Observer*, 24 October 1974 and *Studio International*, Belgian Issue, October 1974.

11 Square Ambiorix

Others include:

Maisons de Mme Spaak, rue Saint-Quentin/Sint-Quintensstraat, 30-32, [Brussels](#), quartier des squares (1899).

Maison Van Dijck, boulevard Clovislaan, 85, [Brussels](#), quartier des squares (1899–1901).

Maison particulière, rue Campenhoutstraat, 51, [Brussels](#), quartier des squares (1901).

Maison de commerce et d'habitation, rue Paul de Jaerstraat, [Saint-Gilles](#) (1902).

Maison particulière, rue Souveraine, 52, [Ixelles](#) (1902).

Maison particulière, rue Lutherstraat, 28, [Brussels](#), quartier des squares (1902)

Maison Beyens, rue de l'Abdication/Troonsafstandsstraat, 4, [Brussels](#), quartier des squares (1904).

Immeuble à appartements et magasins, avenue Louis Bertrandlaan, 55-65/rue Josaphatstraat 338-340, [Schaerbeek](#) (1906).

Maison particulière, [Chaussée de Wavre](#), [Etterbeek](#)

Maison particulière, avenue des Volontaires, 2, [Tournai](#)

Maison particulière, avenue Van Cutsem, 29, [Tournai](#)





George Saint-Cyr House

Maison Van Dyck, Brussels.

rue Luther 28, Brussels.



Saint-Cyr House

Jose Plecnik (1872, active: 1900-1957), Vienna, Belgrade, Prague and Ljubljana.

Viennese Secession, early in-situ-concrete, using classical forms in surprising ways.

Langer apartment building (1901-03), Streggasse 1, V District, Vienna

Antoine Pompe (1873-1980), Belgian.¹⁹

Geometric Art nouveau and Fin de Seicle

Docteur Van Neck's Clinic, 53 rue Henri Wafelaerts 2, Brussels, 1910.

Maison Gheude, avenue Molière 174 (with Fernand Bodson) 1913.

Palace Hôtel, 22-24 place Rogier, Brussels, 1908-09.

33 rue d'Écosse (with Fernand Bodson) 1916.

Modernist

Cité Batavia à Roulers (with Fernand Bodson), 1919.

Cité-jardin de La Roue, at Anderlecht (with Louis Van der Swaelmen, Jean-Jules Eggericx, Anotoine De Koninck and Fernand Bodson), 1920-1921.

Cité du Kapelleveld (with Louis Van der Swaelmen, Huib Hoste, Jean-François Hoeben et Paul Rubbens), 1922-1926.

House, rue des Atrébates 129, 1922.

House, avenue de Floride, 1926.

Own house, rue du Châtelain 47, 1937.

Paul Cauchie (1877-).

Belgian Art Nouveau architect, painter and designer.

Cauchie house (*Maison Cauchie*, or *Cauchiehuis*) 1905, Etterbeek, Brussels, next to the Cinquantenaire Park, now a Tintin museum.

¹⁹ Not in Curl. 1974 Catalogue held.





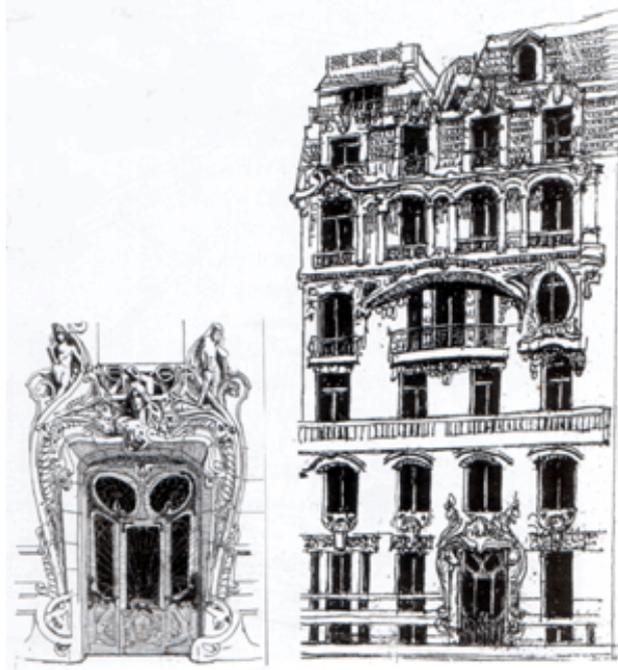


[Cauchie house](#), Brussels.

Louis Sullivan (1856-1924), Chicago.

Carson, Pirie, Scott Building (1887-9). Detail

Jules Lavirotte (1864-1924), Paris, Art Nouveau.



Lycée Italien Léonard-de-Vinci, 12, rue Sedillot, Paris, 1899.

Square Rapp, 3 (accessed between 33 and 35 Avenue Rapp), 1899-1900.

Avenue Rapp, 29, 1901, especially the entry, refer: above.

Céramic Hôtel, 35, avenue de Wagram, 1904.

Hector Guimard (Lyon, 1867- New York, 1942), Paris.

The finest French Art Nouveau architect

- * **Castel Beranger** (1894-8). Metal, faïence, and glass bricks details.

142 Avenue Versailles (1905)

- * **Metro Stations** (1899-1904). **Abbesse** and **S Michel**.

There were main types of **édicule**, the largest are all now now demolished. They are constructed of cast iron and some steel in extreme Art Nouveau forms and with Guimard's graphics.

On 19 July 1900, the line from Porte de Vincennes to Porte Maillot with its Guimard entrances opened.

The Hector Guimard Paris Métro entrances, including the canopies at **Abesse**, **Porte Dauphin** and **Chatelet**, located at Place Sainte Opportune, near rue de Rivoli ().

In 1900, the line from Porte de Vincennes to Porte Maillot the first with its Guimard entrances opened. 66 metro entrances designed by Hector Guimard are remaining in Paris today. □ Only three have a large pavilion: . The most impressive **édicule** was demolished c1965, the large entrance to Bastille, today a concrete slab, used by skate-borders and roller-skaters.

Métro Denfert-Rachereau still has the original Guimard WCs.

41, rue Chardin-Lagache, cnr Villa de la Réunion, Hôtel Jassedé, Hector Guimard, 1893. Centre Chardin Lagache: brick, render and random rubble stone, superb polychrome ceramic bricks, by the Emile Muller Company. Client: the Jassedé family.

Jassedé apartments, 142, avenue Versailles, cnr 1 rue Lancret, Hector Guimard, 1904-05: now offices, apartments, stair, nasty concierge.

34, rue Boilleau, Hôtel (or Villa) Roszé, Hector Guimard, 1891, his earliest important surviving work.

38, rue Boilleau, Hector Guimard, very interesting ceramics, Gentil & Boudet ceramicists. Atelier Carpeaux, 39, rue Boilleau, Hector Guimard, 1895].

Jagsade Flats, 112, avenue Versailles, near rue Lancret, Hector Guimard, 1905]

1 ter, rue Molitor, c1895, Hector Guimard.



Métro Chardin Lagache.



Édicule, Métro Denfert-Rachereau.



Chatelet, Place Ste Opportune.



Édicule, Métro Porte Dauphin.



The most impressive **édicule** was at Bastille, but it was demolished in c1965, today a concrete slab, used by skate-borders and roller-skaters.



2 villa Flore (cnr 120 avenue Mozart), Hector Guimard, 1924, and

122 avenue Mozart, Hôtel Guimard, Hector Guimard, 1909-10, 5 stories, fantastic swelling walls, moving effect about such a small cul-de-sac entrance. Guimard's office, apartment, and an atelier for his painter wife Adeline, who paid for it.²⁰

18 rue Henri Heine, Hector Guimard, 1925-26, Deco influence, a tall pile façade cream brick, and sandstone ziggurat, of Empire State heaviness. The interior court is superbly fine, elegant doors, with wrought-iron and brass bell-push, door furniture. One of his last buildings in Paris.

3 square Jasmin, Hector Guimard, house, cream/buff render, in rectilinear patterns, 1922. More superb little applied decorative elements, then.

14 rue La Fontaine, Castel Beranger, Hector Guimard, 1895-98, a cluster of buildings that is Guimard's most important work.

21-25 rue La Fontaine, cnr rue Gros, apartments, 1909-12, Hector Guimard, including the surviving small café-bar in rue Fontaine. It was intended to extend along rue Agar.

19 rue La Fontaine, Hector Guimard, 1911.²¹

11 rue F Millet, Tremois Building, Hector Guimard].

Hotel Mazzara, 60 Rue Jean de la Fontaine, Hector Guimard, 1911.

1888 Café Au grand Neptune, quai d'Auteuil, 16^e.²²

1891 Hôtel Roszé, rue Boileau, 16^e

1894 Hôtel Jassedé, rue Chardon-Lagache),

Hôtel Delfau, rue Molitor,

Funerary chapel of Devos-Logie and Mirand-Devos, in the cimetière des

Gonards, Versailles.

1895 Atelier Carpeaux, boulevard Exelmans,

École du Sacré Cœur. Meets Victor Horta.

Castel Béranger, rue La-Fontaine, commenced construction.

1896 La Hublotière au Vésinet.

²⁰ Refer my Notebook, No 2, for a thumbnail location plan.

²¹ 14 rue [Jean de] La Fontaine, opposite, is **Castel Beranger**, Hector Guimard, 1895-98, a cluster of buildings that is Guimard's most important work, I seem to have missed.

²² Buildings in black are in Paris.

1897 moves into Casa Coillot.
1898 Completion of Castel Béranger, which is called "deranged".
1899 Villa Bluette, Hermanville, Calvados.
1900 Maison Coilliot, 14, rue Fleurus, Lille;
Design of the station entrances, and lettering of the Métropolitan.
1901 Salle Humbert-de-Romans, Paris.
Castel Henriette, rue des Binelles, Sèvres, Hauts-de-Seine.
1903 Castel Val, 4, rue des Meulières, Auvers-sur-Oise.
Villa La Sapinière, Hermanville.
1904 Castel Orgeval at Villemoisson-sur-Orge;
Hôtel Léon Nozal, 16^e.
Chalet Blanc, 2, rue du Lycée, Sceaux);
Castel Orgeval, 2 avenue de la Mare-Tambour, Villemoisson-sur-

Orge.

1905 Hôtel Deron Levet, Chalet Blanc, Sceaux.
1909 Immeuble Trémois, rue Agar.
Marries Adeline Oppenheim and they move into the
Hôtel Guimard on a triangular site, Rue Mozart.
1910 Hôtel Mezzara, 60, rue La Fontaine, 16^e.
1913 Synagogue de la rue Pavée à Paris, 10, rue Pavée, 4e
Villa Hemsy, 3, rue Crillon, Saint-Cloud.
1924 Villa Flore, avenue Mozart, 16^e.
1926 Apartment building, rue Henri Heine.,
1928 Apartment building, rue Greuze, Paris, his last work.
1938 Guimard and his wife moved to New York.

He has no museum devoted to him, however, original
architectural drawings are stored in the Dept. of Drawings &
Archives at Avery Architectural and Fine Arts Library at Columbia
University in New York City.

Stile Liberty, Italy

Art Nouveau in Italy, named for Liberty's in Regent Street, London (refer: Old English); and
Stile Floreale is its early version.

Eg: Quartiere Coppedè, a small urban area of area Rome, within quartiere Trieste, with piazza
Buenos Aires and via Tagliamento, 1915-21, designed by Gino Coppedè (1866–1927, Italian
architect, sculptor and decorator).



Villino Ruggeri, i Pesaro, 1904-08, architect Giuseppe Brega (1878-1958, born Urbino).



Villino Broggi Caraceni (1910-11), architect Giovanni Michelazzi, via Scipione Ammirato 99, Florence.

Antoni Gaudí, Barcelona (1852-1926).²³

A Catalan patriot, but some sources of his unique style in Islamic and Gothic. Abandoned Gothic after 1900. Extravagant anthropomorphic forms, free forms and plans, angled columns, parabolic arches. Tested on loaded scale models.

- * **Sagrada Familia Church (1883-). Upper levels (1903-).**
- * **Casa Mila (1905 - 10).**

Luxury flats. Undulating facades, no right angles to plan. Speculative development.

Parc Güell (1900-14).

A garden complex with architectural elements on the hill of El Carmel in the Gràcia district of Barcelona, Catalonia, Spain. It covers 17 ha, so is one of the largest architectural works in S Europe. It is part of the UNESCO World Heritage Site 'Works of Antoni Gaudí'. It was originally part of commercially unsuccessful housing, the idea of Count Eusebi Güell, after whom the park was named inspired by the English garden city movement. It has since been converted into a municipal garden. The original English name *Park*. It was a rocky hill with little vegetation, called *Muntanya Pelada* (or Bare Mountain). It already included a large country house **Larrard House** (or Muntaner de Dalt House), and was next to an upper class neighborhood *La Salut* (The Health).

It was intended to exploit the fresh air, well away from polluting factories, and views from the site, with sixty triangular lots for luxury houses. Count Eusebi Güell added to the prestige by moving in 1906 to live in Larrard House. Only two houses were built, neither designed by Gaudí. One was to be a show house, but on being completed in 1904 was put up for sale, and as no buyers came forward, Gaudí, at Güell's suggestion, bought it with his savings and moved in with his family and his father in 1906, where he lived from 1906-26, was built in 1904. Since 1963, it has been the **Gaudi House Museum** (or Casa Museu Gaudí), with original works by Gaudí and his collaborators, and in 1969 was declared a historical artistic monument of national interest.

Gaudí's house, **la Torre Rosa**, containing **furniture** he designed can be visited for an entrance fee.

The buildings flanking the entrance have fantastically shaped roofs with unusual pinnacles.

The focal point is the main terrace, surrounded by a long bench in the form of a sea serpent, whose curves form social enclaves. Gaudí incorporated many motifs of Catalan nationalism, and elements from religious mysticism and ancient poetry.

Roads around the park to service the intended houses were designed by Gaudí as structures jutting out from the steep hillside or running on viaducts, with separate footpaths in arcades formed under these structures to minimize their intrusion, and Gaudí designed them using local stone to integrate them into the landscape. His structures reflect natural forms, with columns like tree trunks supporting branched vaulting under the road, and the curves of vaulting and alignment of sloping columns designed similarly to his Church of Colònia Güell so that the inverted catenary arches form perfect compression structures.

The large cross at the Park's high-point offers the most complete view of Barcelona and the bay, to view the city panorama, with the Sagrada Família and the Montjuïc area at a distance.

The park supports a wide variety of wildlife, several non-native species of parrot, short-toed eagle and hummingbird hawk moths.

²³ Antonio Gaudí y Cornet.



Parc Güell entrance.



Parc Güell hypostyle hall.



Parc Güell hypostyle hall.



Parc Güell.



Parc Güell serpentine bench.



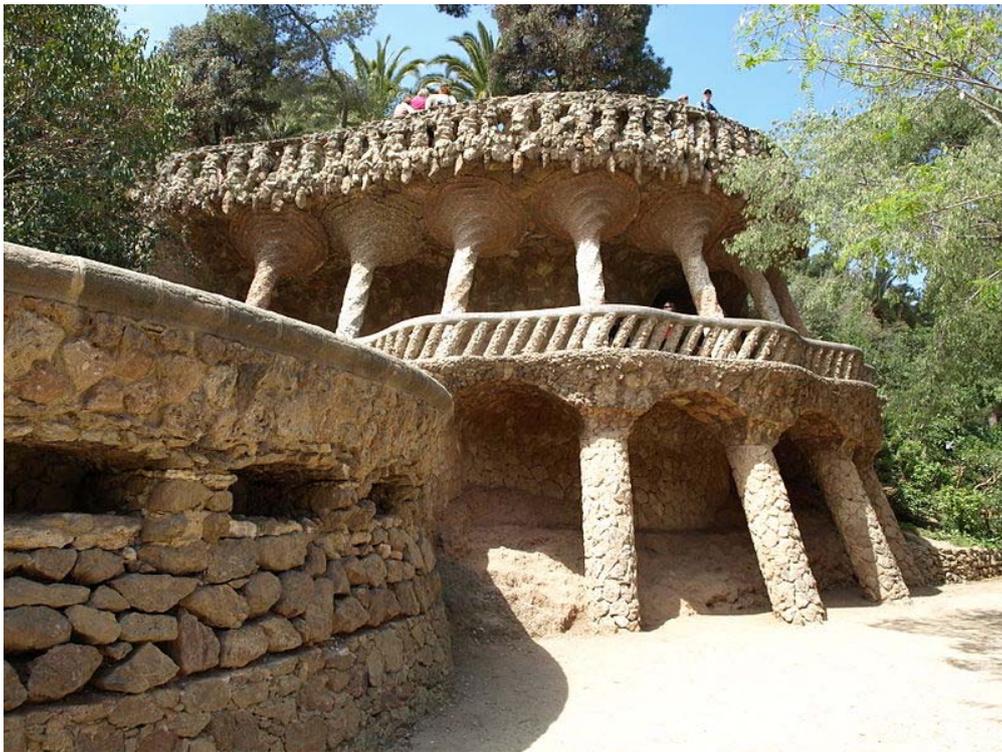
Parc Güell salamander, popularly 'el drac' (or the dragon), at the main entrance, restored after the vandalism of 2007.



Colonnaded walkway where the road projects from the hillside, with vaulting as a retaining wall which curves over to support the road, and transmits the load onto sloping columns.



Parc Güell Gaudí's birds nests in the terrace walls.



Parc Güell viduct.



Parc Güell, the Gaudi House Museum.

ART NOUVEAU: ENGLAND





Zara (former Boots Chemist), High Street, Nottingham, exterior, 1903-

4, restored, 1974.²⁴



²⁴ www.flickr.com/photos/loveartnouveau/8531071686/in/photostream and www.flickr.com/photos/loveartnouveau/8469757357/in/photostream.



Arthur Wakerly, The Turkey Club, Leicester, 1901