702831 Development of Western Architecture

the language of architecture
COMMONWEALTH OF AUSTRALIA
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analysing buildings

are we getting buildings that we like?

who is entitled to decide what we get?

should buildings harmonise with their environment or stand out from it?

can you lay down rules that will create good design?

have we the right to impose design ideas upon other people?

should we be conserving old buildings or trying to create better ones?
architecture as memory
the flat roof

the norm in from ancient times in the Middle East and northern Africa

the pitched (or sloping roof)

the norm in the more forested and wetter areas of central and northern Europe
flat-roofed houses in Balaban, Turkey

Miles Lewis
palm log roofing imitated in stone

Zozer complex,
Saqqara, Egypt

House of the South

Entrance Hall

Miles Lewis
the possible wooden origins of the Doric order

Jim Harter [ed], *Images of World Architecture* (New York 1990), p 54

the Shrine of Remembrance
Melbourne

Brian Lewis
architecture as material culture
the monolithic arch

church of the monastery at Sitt-er-Rum, Syria, AD C6th

Miles Lewis
San Pedro de la Nave, near Zamora, Spain, late C7th

view from south-west

window in the south side of the sanctuary

X B i Altet [translated Lory Frankel], *The Early Middle Ages from Late Antiquity to A.D. 1000* (Köln 1997), p 105

Miles Lewis
classical principles

clarity

simplicity

structural logic

refinement

the Parthenon, Athens, by Iktinos & Kallikrates, 447-432 BC: reconstruction

Athens [brochure, undated, unpaginated]
the Parthenon, Athens, by Iktinos & Kallikrates, 447-432 BC: reconstruction

*Athens* [brochure, undated, unpaginated]


MUAS1,920
architectural vocabulary
classical vocabulary
columns
capitals
entablature
pediment &c

the Parthenon, Athens, by Iktinos & Kallikrates, 447-432 BC: reconstruction

*Athens* [brochure, undated, unpaginated]
architectural syntax
the Parthenon, Athens, by Iktinos & Kallikrates, 447-432 BC: reconstruction


*Athens* [brochure, undated, unpaginated]
architectural language

text: architectural language

vocabulary

columns, capitals, piers, pilasters, entablature, pediment

syntax or grammar

e.g. a capital goes on top of a column, not beneath it
expression

the plan

the function

the services

&c
‘expressing’ the pipes
Beauborg (Pompidou) Centre, Paris, by Piano & Rogers
George Tibbits
constraints upon the architect

the client requirements, or ‘brief’

cost

location and form of the site

properties of building materials

laws and regulations

taste and fashion
Newton Memorial, by Étienne-Louis Boullée, late C18th

unsourced, from George Tibbits
the classical language
Parliament House, Spring St, Melbourne
west front by Peter Kerr, 1880s
Miles Lewis

Kobe Chartered Bank,
Japan
Office of Kingo Tatsuno, 1920
Hugh O’Neill

IBC Bank, Tianjin,
China
Hemmings & Parkin
1918-21
Miles Lewis
north side of the main temple court at Baalbek, Lebanon, AD C1st/2nd
elevation by Robert Wood compared with a modern view

Robert Wood, *The Ruins of Balbec* (London 1757), pl xii
Miles Lewis
architectural language

vocabulary
columns, capitals, piers, pilasters, entablature, pediment

syntax or grammar
e.g. a capital goes on top of a column, not beneath it

idiom, or phrasing
motifs such as the recessed colonnade, the giant order &c
the transformation of
the classical language

window from a traditional house in Suzdal, Russia

Miles Lewis
some classical Greek principles

trabeation (post and beam construction): they ignored the arch

cylindrical columns, not square pillars or piers

three ‘orders’ – Doric, Ionic, Corinthian
the Doric order in classical Greek architecture

the Parthenon, Athens, from the south-west
Doric order from the Temple of Zeus, Olympia, c 460 BC

MUAS 12,545
the Doric order

Temple of Zeus, Olympia, c 460 BC

the frieze is a horizontal band containing blocks and panels – *triglyphs* and *metopes* (possibly derived from timber construction)

the three classical Greek orders

Ionic, from the Temple on the Ilissos, c 450 BC
Doric, from the Theseion (Hephaesteion), Athens, c 449-444
Corinthian, from the Choragic Monument of Lysicrates, Athens 334 BC


the frieze in the Ionic and the Corinthian does not have triglyphs and metopes, but is a continuous band of sculpture

the Ionic capital is a linked pair of scrolls or volutes

the Corinthian capital is made of foliage (of the acanthus plant)
comparative Greek and Roman orders of architecture

arcuation (or arch construction)

the arch is made of wedge-shaped blocks, or voussoirs

the arch is structurally unstable until a wall is built on top

aesthetically, the arch is regarded as a hole in a wall, and a row of arches is therefore supported on rectangular piers rather than cylindrical columns as in the trabeated system
Hadrianic Baths, Ephesus, C2nd AD
Miles Lewis
represented structure
the Coliseum, Rome, c AD 80
Isometric diagram and view

MUAS 12,257

the *real* structure is arcuated –
arches carried on piers

the *represented* structure is
trabeated – beams carried on
columns
an example of a solecism, or grammatical error, in a represented structure

C B A Bank, 333 Collins Street, Melbourne, by Lloyd Tayler and Alfred Dunn, c 1890-1892

Michael Cannon, *Land Boom and Bust* (Melbourne 1972), p 230
represented structure in medieval architecture

St-Étienne, Abbaye-aux-Hommes, Caen, France, 1067-1081: detail of nave elevation
Lichfield Cathedral, England, after 1250, interior.

MUAS 4,252
the obsession with ‘orders’

classical architecture was defined by the Doric, Ionic and Corinthian orders, mainly defined by the form of column capital used in each

historians tried to define medieval architecture by orders in the same way, and described foliated (leafage) capitals as ‘Corinthian’

architects trying to develop radical new styles did so in terms of new orders of architecture
‘Gothick entablature and capital of the first order at large’ by Batty Langley, 1741

an invented order

corn cob capital in the Capitol, Washington, by Benjamin Latrobe, 1809

University Museum, Oxford, by Deane & Woodward, 1855-9

view of the internal courtyard, and detail of a capital

Miles Lewis
wit, associationism, and the classical language
Oratorio di San Filippo Neri, by Borromini, 1637-49, fireplace in the Sala di Recreazione: elevation, and detail of the Doric frieze and tassels

Weinreb, *The Architect's Eye*, p 16
architectural language
a further stage

vocabulary
columns, capitals, piers, pilasters, entablature, pediment

syntax or grammar
e.g. a capital goes on top of a column, not beneath it

idiom, or phrasing
motifs such as the recessed colonnade, the giant order &c

wit and humour
making something look like something else, playing tricks with classical principles, &c
Parque Güell, market hall

detail of columns and entablature

Miles Lewis
the Doric order used to effect monumentality
compетition entry for the Chicago Tribune Tower, by Adolf Loos, 1923

the column and capital abstracted into a futuristic form
Johnson Wax Co, Racine, Wisconsin, by Frank Lloyd Wright, 1936-9

MUAS 13,177, 14,419
a postmodern revival of the ionic order

Allen Memorial Art Museum, Oberlin, Ohio, USA: additions by Venturi & Rouch, 1974-7: timber sheathed steel column

*Progressive Architecture*, 1977