Architecture

Architecture over time

Prehistoric

c10.000-c2500 BC

Earth barrows were constructed for worship and burial. Stone circles, called henges, were made using natural materials.



Stonehenge, England

Ancient Egyptian

c3100-c30 BC

Enormous pyramids and temples were built from stone. A wide pyramid base supported the heavy, sloping walls.



Great Pyramid of Giza, Egypt

Classical

Gothic

1100-1500

Renaissance

1400-1600

c850 BC-cAD 470

Decorated stone temples supported with columns were built in ancient Greece. The Romans further developed these designs, and invented concrete to add arches and domes.

Buildings were taller, with pointed

arches and larger windows. Arches

of stone called flying buttresses

supported thinner walls.



Notre Dame Cathedral, France



Villa la Rotonda, Italy

Baroque

1600-1830

Early industrial

1700-1850

Modernist

1920-1970

and plain.

Postmodern

1960-1990

Sustainable

1980-present day

Using the domes and colonnades from the Renaissance, buildings were larger and grander with golden statues and twisted columns.

The industrial revolution led to

the mass production of iron and

steel. These new materials gave

Buildings were designed for their

use rather than their appearance.

structures were more functional

Some traditional designs were

given a surprising or amusing

twist. Buildings were designed to

Buildings are designed to reduce

using solar panels, environmentally

their environmental impact by

friendly building materials and

plants, such as grass and trees.

make a statement or entertain.

Glass, metal and concrete

structures added strength.



Palace of Versailles, France



Ironbridge, England



De La Warr Pavilion, England



Dancing House, Czech Republic



Bosco Verticale tower, Italy

Greek architecture

The ancient Greeks developed the Classical style of architecture. Their temples were made from limestone or marble, and columns supported the roofs.



Columns

The order of a building was determined by the style and design of the columns. Three types of columns were used in ancient Greece: Doric, Ionic and Corinthian.







Ionic columns were thinner than Doric columns and stood on a base with scrolls decorating the capital at the top.



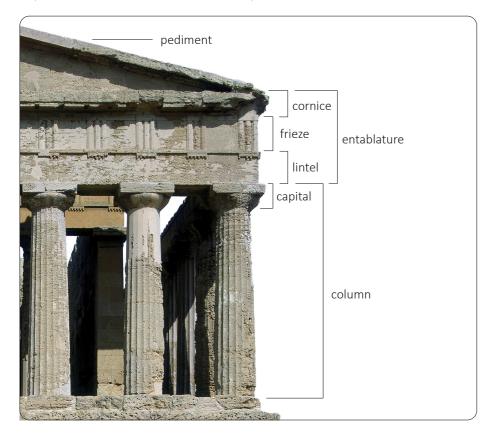
Corinthian columns were the most decorative, with scrolls and leaves of the acanthus plant carved around the capital at the top.





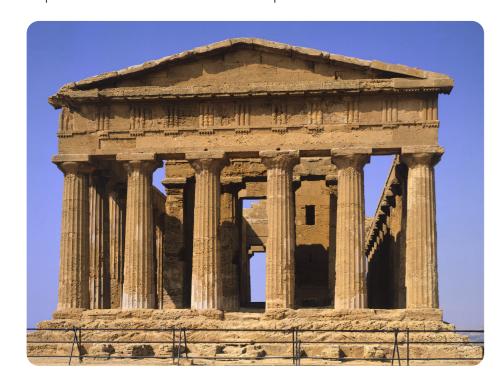
Entablature

The entablature is the wide, horizontal block above the columns. It comprises the lintel, which helps to support the roof; the frieze, which often provided decoration or a series of scenes; and the cornice, which separated the entablature from the pediment.



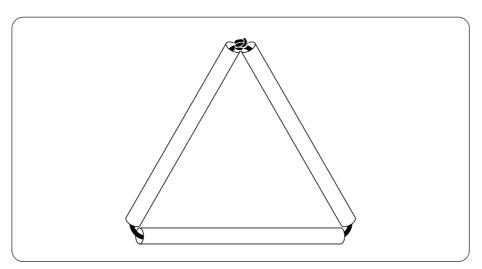
Pediment

The pediment is the triangular shape that forms the end of the roof slope. It was often decorated with sculptures.

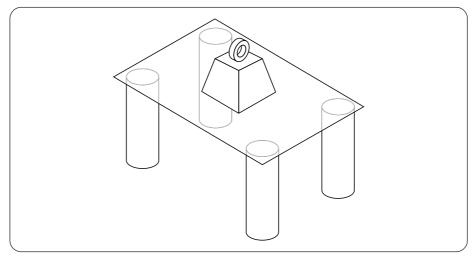


Support, stiffness and stability

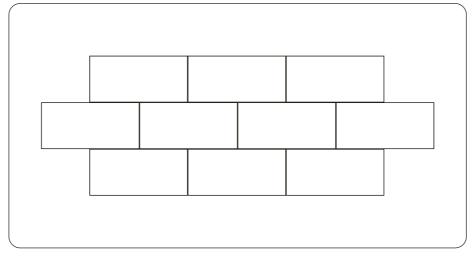
Different features are used to support a framework and increase the strength of a structure. The features below can be seen in different types of architecture.



triangular shapes



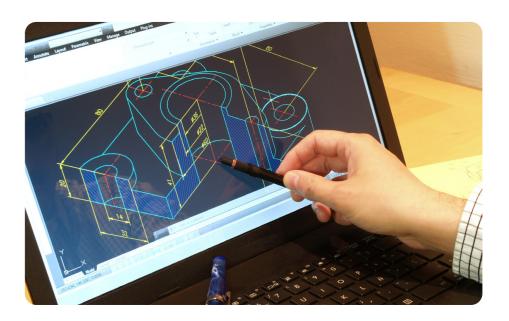
columns



overlapping brickwork patterns

Computer-aided design

Engineers and architects use computer-aided design software to help design structures and view them from all angles. Computers allow designers to make changes to structures and immediately see the effects.



Glossary

barrow	A large mound of earth or stones used as an ancient burial ground.
capital	The top part of a column that supports the weight of the entablature.
colonnade	A row of columns set at regular intervals, usually supporting a roof.
concrete	A building material made by mixing cement, sand, small stones and water.
industrial revolution	A period of time when work began to be done more by machines in factories than by hand at home.



