

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

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.



Parthenon, Greece

Gothic

1100–1500

Buildings were taller, with pointed arches and larger windows. Arches of stone called flying buttresses supported thinner walls.



Notre Dame Cathedral, France

Renaissance

1400–1600

Inspired by classical architecture, private villas were built with columns, arches and domes.



Villa la Rotonda, Italy

Baroque

1600–1830

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



Palace of Versailles, France

Early industrial

1700–1850

The industrial revolution led to the mass production of iron and steel. These new materials gave structures added strength.



Ironbridge, England

Modernist

1920–1970

Buildings were designed for their use rather than their appearance. Glass, metal and concrete structures were more functional and plain.



De La Warr Pavilion, England

Postmodern

1960–1990

Some traditional designs were given a surprising or amusing twist. Buildings were designed to make a statement or entertain.



Dancing House, Czech Republic

Sustainable

1980–present day

Buildings are designed to reduce their environmental impact by using solar panels, environmentally friendly building materials and plants, such as grass and trees.



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.

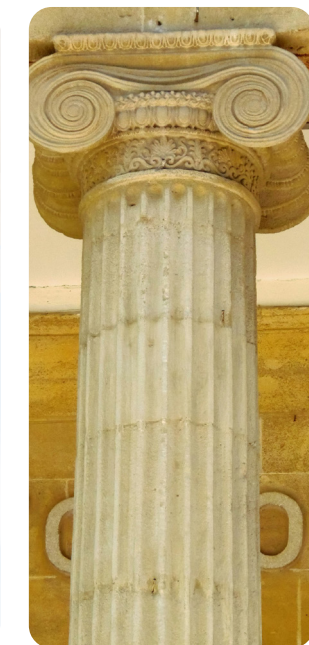


Columns

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.



Doric columns were plain and simple, with no decoration. They were wider at the bottom than at the top.



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

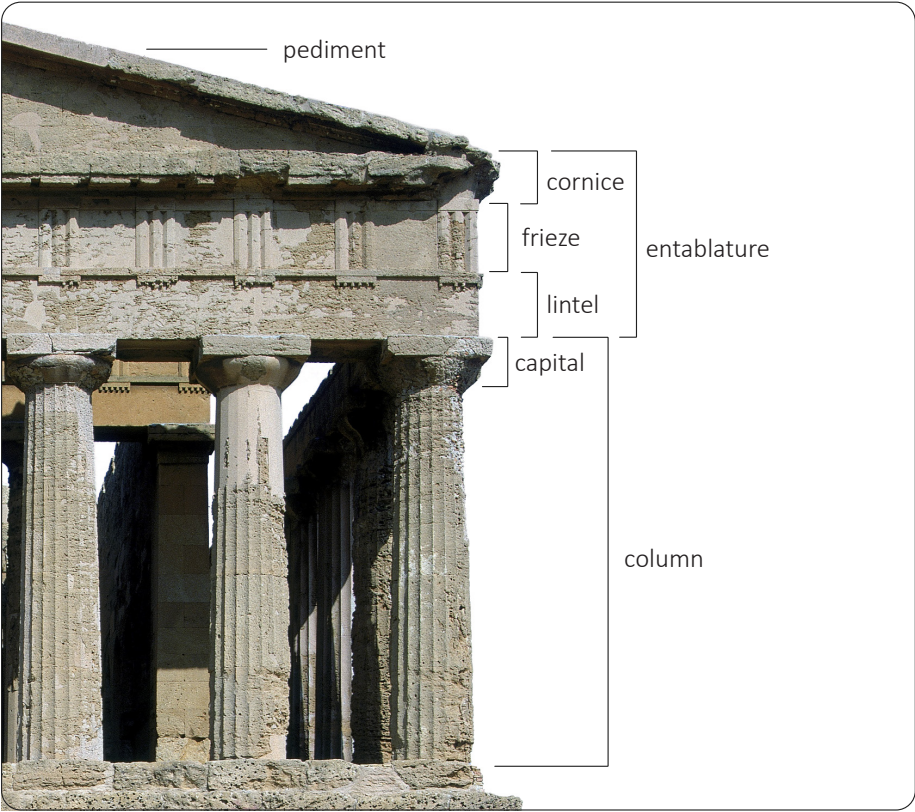


Corinthian columns were the most decorative, with scrolls and leaves of the acanthus plant carved around the capital at the top.



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.



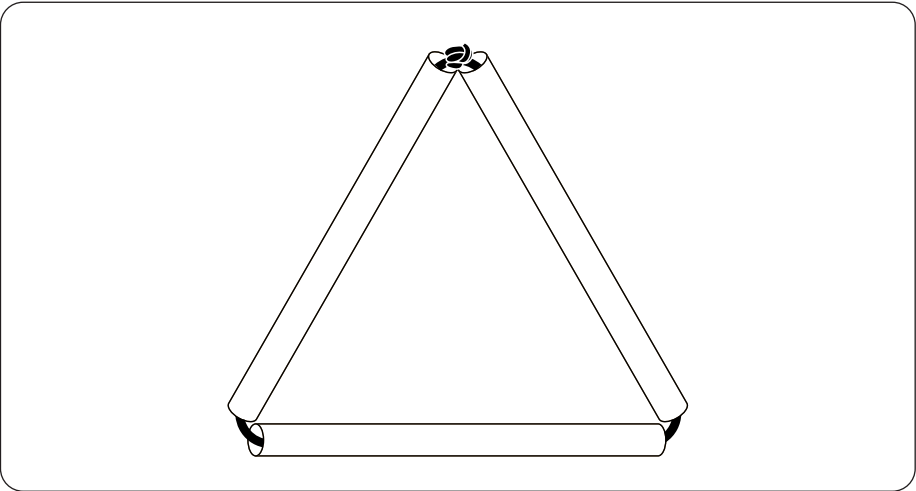
Pediment

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

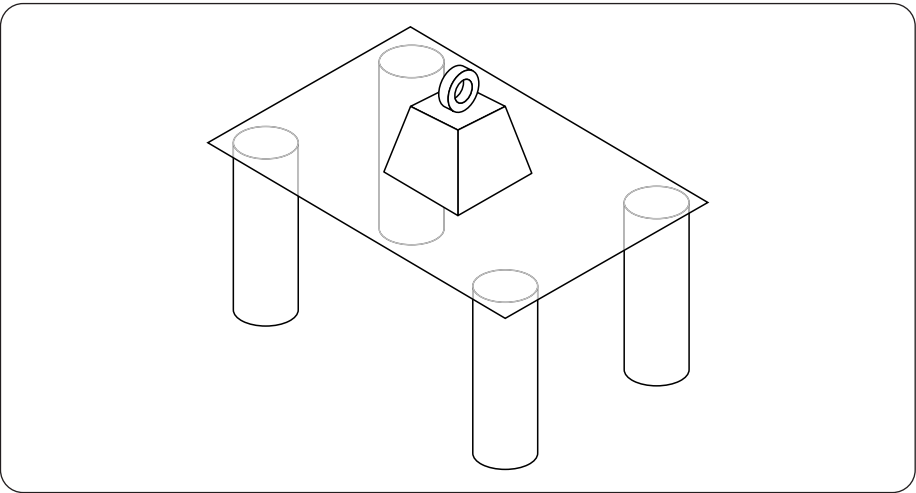


Support, stiffness and stability

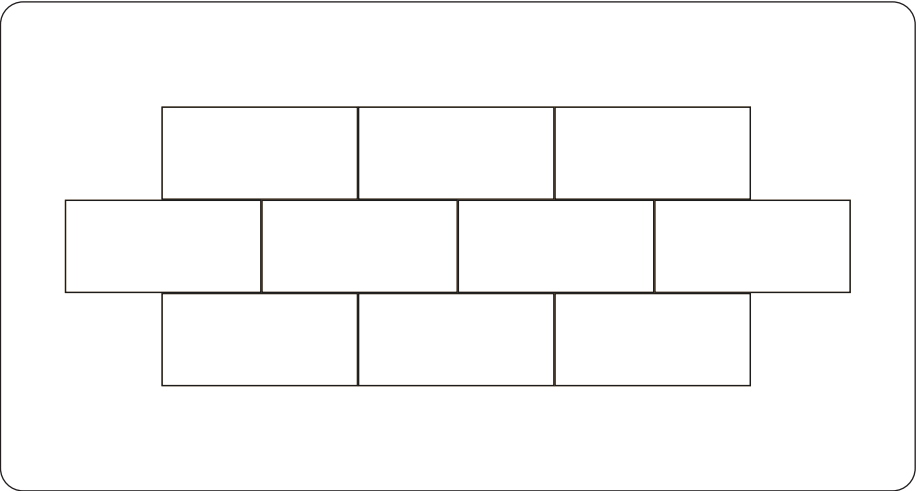
Different features are used to support a framework and increase the strength of a structure. The features below can be seen in different types of architecture.



triangular shapes



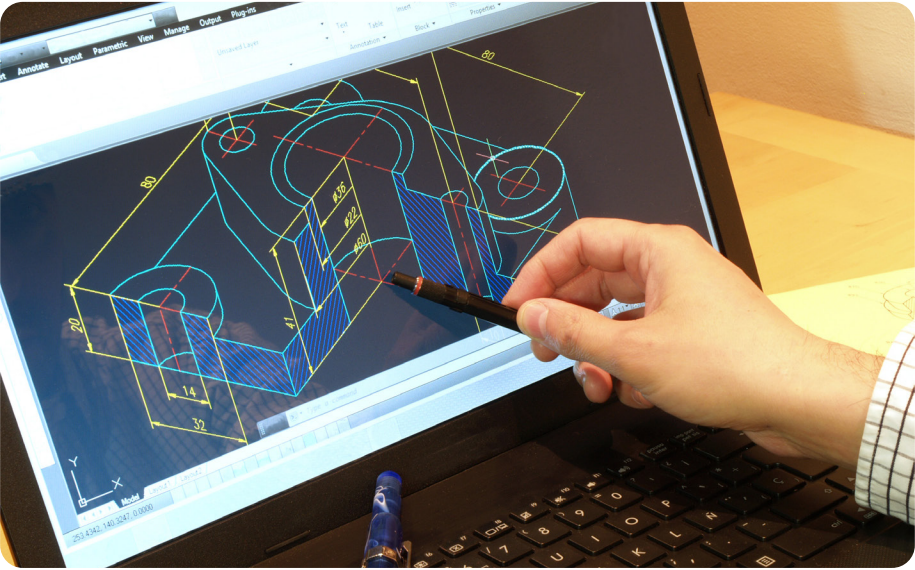
columns



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.



Eat the Seasons

Seasonality

Seasonality is the time of year when the harvest or flavour of a type of food is at its best. It is often when the item is at its lowest cost and freshest on the market.

Different foods are at their best in different seasons; for example, apples are freshest between September and February, and carrots between June and September.



Benefits of seasonal eating

Taste

Food that has grown and ripened naturally tastes best.

Freshness

Local, seasonal food will be fresher than foods transported thousands of kilometres from where they were grown.

Nutrition

A food’s nutritional value drops after it has been picked, so eating freshly-picked, seasonal foods provides more nutritional value.

Carbon footprint

It uses a lot of energy to grow food in heated greenhouses or transport it over long distances. This use of energy releases carbon into the atmosphere which contributes to climate change. Local, seasonal foods do not need to be grown in heated greenhouses or transported long distances so they have a smaller carbon footprint.

Supporting local farmers

Buying locally grown foods supports local farmers and local shops.

Cost

Locally grown food is usually cheaper as transport costs are lower.

Nutritional value of food

Nutritional value is the amount of protein, carbohydrate, fat, minerals and vitamins in a food or a meal. It is important to eat a balanced diet to provide all the nutrients the body needs in the correct quantities. Meals need careful planning to provide the right balance of nutrients and make use of seasonal ingredients.

Food hygiene

Food hygiene is important to prevent the spread of disease-causing bacteria. Health and safety rules include:

	Wash hands thoroughly before, during and after preparing food and handling raw meat.
	Clean all work surfaces with antibacterial spray.
	Use different-coloured chopping boards for different foods.

Food preparation techniques

Dicing

Cutting food into small cubes measuring approximately half a centimetre.



Peeling

Removing the skin of a fruit or vegetable, either with your fingers or with a knife or peeler.



Grating

Rubbing food against a grater to create small, shredded pieces.



Cooking techniques

Boiling

Water is heated on a hob, so it moves vigorously and bubbles burst and roll on the surface. This method is used for cooking potatoes and pasta.



Steaming

The steam from boiling water rises and cooks food held above the water by a perforated pan. This method is used for cooking fish and vegetables.



Saut  ing

A small amount of butter or oil is used in a shallow pan over high heat to fry vegetables or meat until brown.



Glossary

carbon footprint	The total amount of greenhouse gases released into the atmosphere by an individual or organisation.
food hygiene	The conditions necessary to ensure safe handling of foods to avoid the spread of bacteria.

