

scroll
Spiral-shaped decorative end of the peg box.

peg
Piece of wood or metal that rolls the end of a string to adjust its tension to obtain the exact note.

ART & ARCHITECTURE

fingerboard
Board on which the player's fingers are placed to control the length of the vibrating string to determine the pitch of a note.

purfling
Ornamental strip of wood around the edge of the soundboard and the bottom of the sound box.

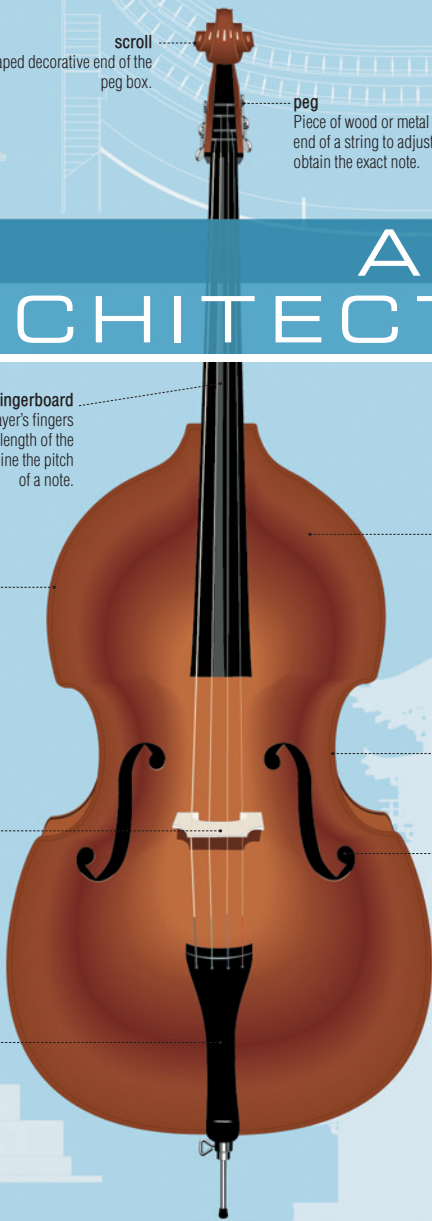
bridge
Piece of wood over which the strings are stretched; it transmits their vibrations to the soundboard.

tailpiece
Piece of wood to which the bottom ends of the strings are attached.

soundboard
The upper, slightly convex face of the instrument; it has two holes and receives vibrations from the bridge, which it transmits to the sound box.

rib
Each of the thin pieces of wood that form the sides of the instrument.

sound hole
Each of the openings whose function is to release sound from the sound box.



ART & ARCHITECTURE

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INTRODUCTION

EDITORIAL POLICY

The Visual Dictionary takes an inventory of the physical environment of a person who is part of today's technological age and who knows and uses a large number of specialized terms in a wide variety of fields.

Designed for the general public, it responds to the needs of anyone seeking the precise, correct terms for a wide range of personal or professional reasons: finding an unknown term, checking the meaning of a word, translation, advertising, teaching material, etc.

The target user has guided the choice of contents for *The Visual Dictionary*, which aims to bring together in 12 thematic books the technical terms required to express the contemporary world, in the specialized fields that shape our daily experience.

STRUCTURE

Each tome has three sections: the preliminary pages, including the table of contents; the body of the text (i.e. the detailed treatment of the theme); the index.

Information is presented moving from the most abstract to the most concrete: sub-theme, title, subtitle, illustration, terminology.

TERMINOLOGY

Each word in *The Visual Dictionary* has been carefully selected following examination of high-quality documentation, at the required level of specialization.

There may be cases where different terms are used to name the same item. In such instances, the word most frequently used by the most highly regarded authors has been chosen.

Words are usually referred to in the singular, even if the illustration shows a number of individual examples. The word designates the concept, not the actual illustration.

DEFINITIONS

Within the hierarchical format of *The Visual Dictionary's* presentation, the definitions fit together like a Russian doll. For example, the information within the definition for the term *insect* at the top of the page does not have to be repeated for each of the insects illustrated. Instead, the text concentrates on defining the distinguishing characteristics of each insect (the *louse* is a parasite, the female *yellow jacket* stings, and so forth).

Since the definition leaves out what is obvious from the illustration, the illustrations and definitions complement one another.

The vast majority of the terms in the *Visual Dictionary* are defined. Terms are not defined when the illustration makes the meaning absolutely clear, or when the illustration suggests the usual meaning of the word (for example, the numerous *handles*).

METHODS OF CONSULTATION

Users may gain access to the contents of *The Visual Dictionary* in a variety of ways:

- From the TABLE OF CONTENTS at the end of the preliminary pages, the user can locate by title the section that is of interest.
- With the INDEX, the user can consult *The Visual Dictionary* from a word, so as to see what it corresponds to, or to verify accuracy by examining the illustration that depicts it.
- The most original aspect of *The Visual Dictionary* is the fact that the illustrations enable the user to find a word even if he or she only has a vague idea of what it is. The dictionary is unique in this feature, as consultation of any other dictionary requires the user first to know the word.

TITLE

Its definition is found below. If the title refers to information that continues over several pages, after the first page it is shown in a shaded tone with no definition.

TERM

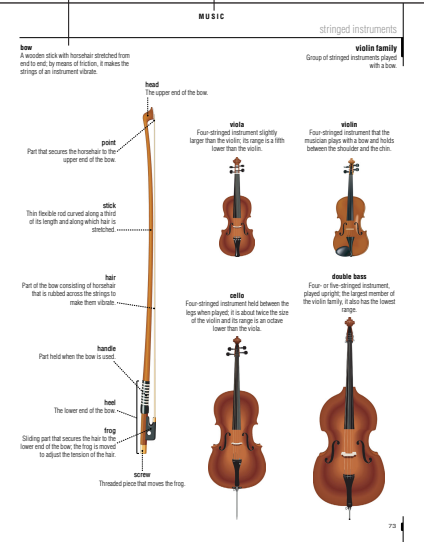
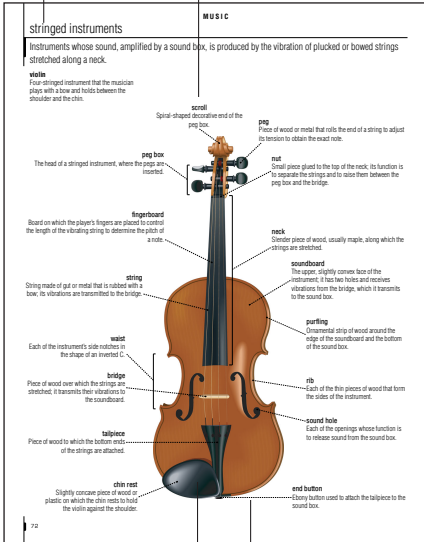
Each term appears in the index with a reference to the pages on which it appears.

DEFINITION

It explains the inherent qualities, function, or characteristics of the element depicted in the illustration.

SUB-THEME

These are shown at the end of the preliminary pages along with their definitions. They are then repeated on each page of a section, but without the definition.



ILLUSTRATION

It is an integral part of the visual definition for each of the terms that refer to it.

NARROW LINES

These link the word to the item indicated. Where too many lines would make reading difficult, they have been replaced by color codes with captions or, in rare cases, by numbers.

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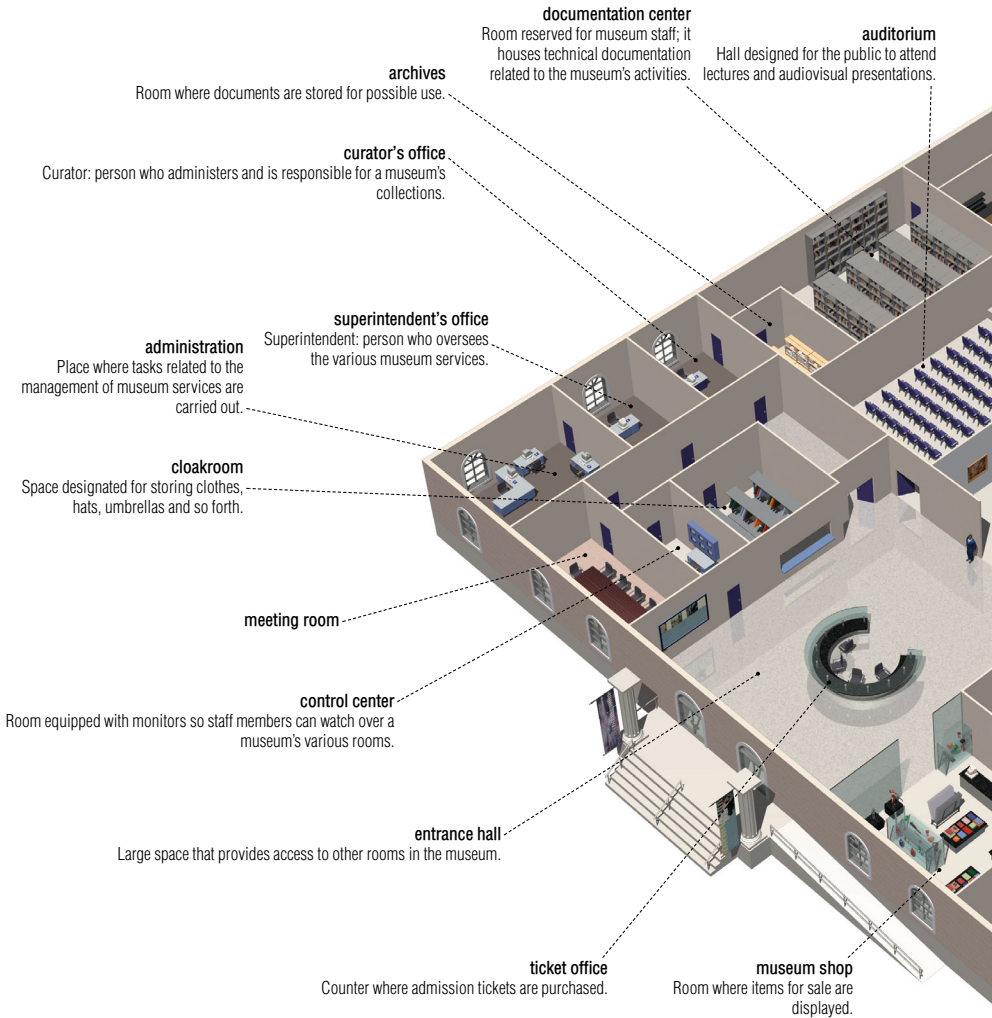
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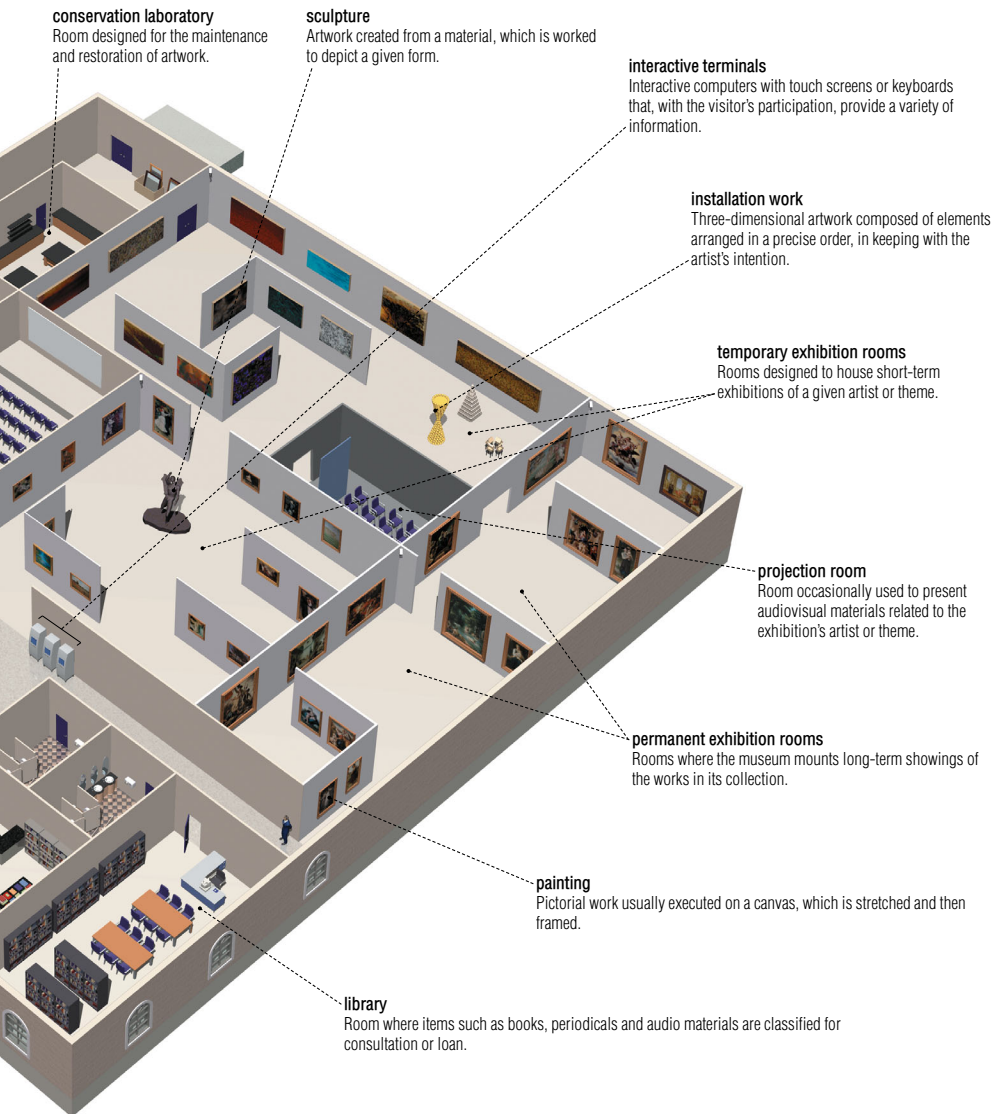
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museum

Establishment where works of art are stored and exhibited.





**audioguide**

Handheld device that allows users to listen, in their own language, to commentary on the artwork exhibited.

**frame**

Rigid border around a painting or engraving that protects it and makes it possible to hang it.

painting

Pictorial work usually executed on a canvas, which is stretched and then framed.

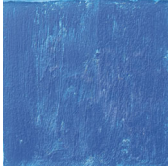
**work sheet**

Stiff paper containing information about a work of art.

Arts that use graphics and color to represent or suggest visible or imagined concepts on a surface.

major techniques

The processes used to execute drawings and paintings.



oil painting

Technique used to achieve an opaque, transparent, matte or brilliant finish, depending on the composition of the paint.



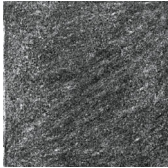
watercolor

Mixture of pigment powder agglutinated with a water-soluble binder; when it is diluted, a transparent effect is created.



gouache

Mixture of roughly ground pigment and chalk agglutinated with a water-soluble binder; when it is diluted, an opaque effect is created.



charcoal drawing

Sketching technique that can create tones ranging from the darkest blacks to the lightest grays.



wax crayon drawing

Technique used mostly by children to create a precise line and a brilliant color effect.



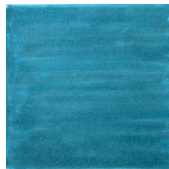
colored pencil drawing

Technique for combining precise lines with color, and then applying layers of color to achieve new shades.



ink drawing

Technique usually involving the use of a pen to create fine and precise lines.



felt tip pen drawing

Technique for producing precise lines and gradations of color.



dry pastel drawing

Technique whose powdery line creates a velvety effect.



oil pastel drawing

Technique that provides a bold stroke similar to that of an oil painting.

painting and drawing

equipment

Materials, instruments and accessories used to create a drawing or painting.

**watercolor/gouache cakes**

Small watercolor or gouache disks inserted into cells to prevent the colors from mixing.

**wax crayons**

Sticks composed of pigment molded with wax.

**oil pastel**

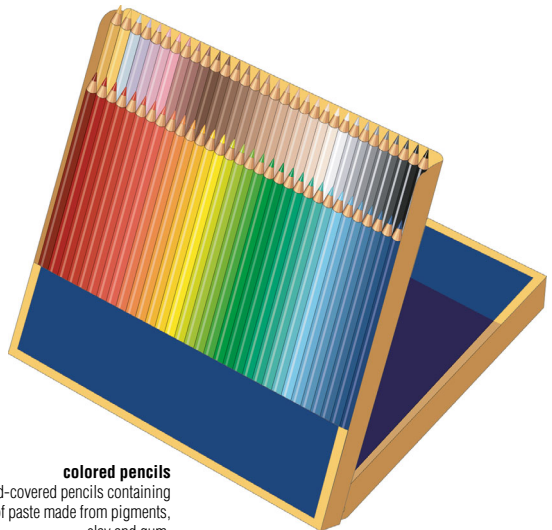
Mixture of pigments, wax and sometimes oily substances in stick form.

**watercolor/gouache tube**

Tube containing watercolor or gouache in paste form.

**dry pastel**

Mixture of pigment powder agglutinated using a gum-based binder, then shaped into sticks and dried.

**colored pencils**

Wood-covered pencils containing sticks of paste made from pigments, clay and gum.

**marker pen**

Bevel-tipped color felt pen of variable size.

**oil paint**

Oil-based pigment that comes in a tube; the artist uses oil or essences to dilute it and prepare it for application.

**felt tip pen**

Pen whose felt tip is permeated with ink; it comes in a variety of colors.

**ink**

Liquid preparation, black or colored, used to write or draw.

**fan brush**

Brush used to achieve color gradations by blending colors that have already been applied to a canvas.

**painting knife**

Instrument with a trowel-shaped blade used to mix colors and to spread them on and remove them from the canvas.

**brush**

Natural or synthetic bristles attached to a handle, used for spreading paint, varnish or stain on a base.

**flat brush**

Brush made from natural or synthetic bristles affixed to a handle and used mostly for oil painting on large surfaces.

**reservoir-nib pen**

Drawing instrument with a curved tip containing a small amount of ink.

**charcoal**

Stick of charcoal used for sketching; it erases easily.

**spatula**

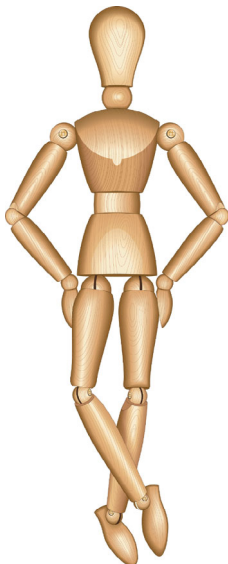
Instrument with a flat flexible blade used to mix colors, spread them on a canvas or scrape down the palette.

**sumi-e brush**

Brush made from natural bristles affixed to a bamboo handle and used for drawing with India ink.

palette with hollows

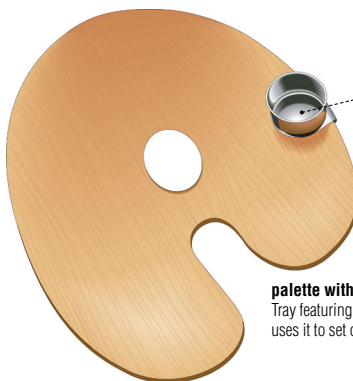
Tray featuring a thumb hole and hollows where the paint is placed before it is mixed.

**articulated mannequin**

Wooden figurine used to visualize various positions assumed by the human body.

**color chart**

Sample of the different color shades provided by a manufacturer.

**dipper**

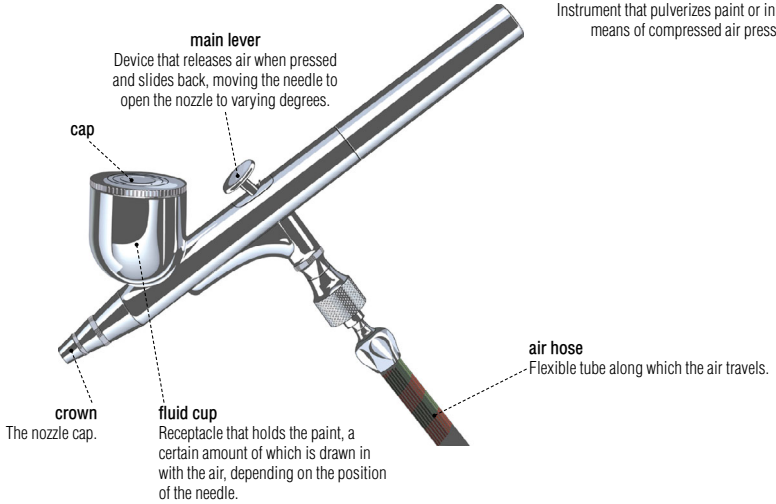
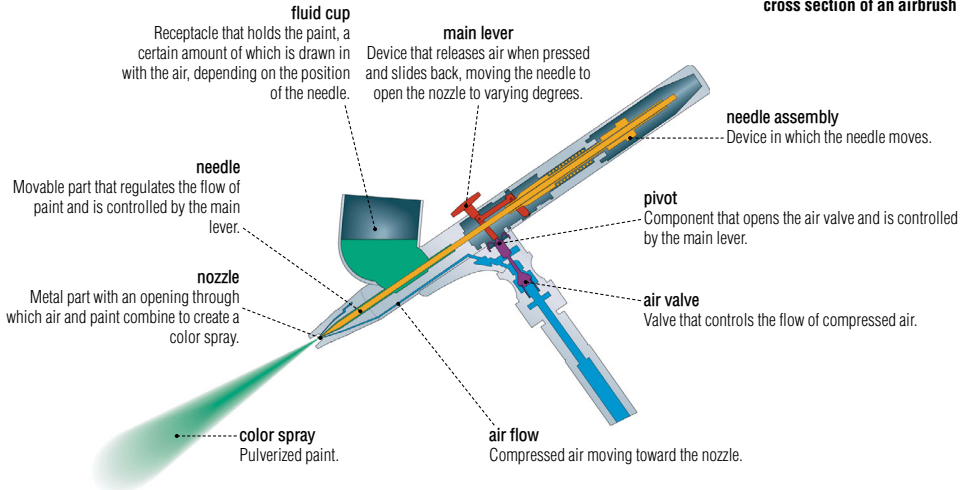
Small metal receptacle fastened to the palette; it contains the oil and essences used to dilute color.

palette with dipper

Tray featuring a thumb hole and a dipper; the painter uses it to set out colors and mix them.

airbrush

Instrument that pulverizes paint or ink by means of compressed air pressure.

**cross section of an airbrush**

accessories

drafting table

Table whose height and incline can be adjusted; it is equipped with a drafting machine.

adjustable lamp

Multidirectional light usually mounted on a worktable by an adjustable clamp.

drawing board

Perfectly level wooden board whose incline can be adjusted; the drafting paper is placed on it.

**ruler**

Instrument used to draw a straight line and to measure length.

track

Rail along which the drafting machine moves vertically and horizontally.

drafting machine

Instrument that moves along the drawing board and contains technical drawing instruments.

adjustment pedal

Device that regulates the height and angle of the drafting table.

maulstick

Stick with a ball-shaped end covered with fabric or skin; it rests on the easel and is used to support the brush hand.

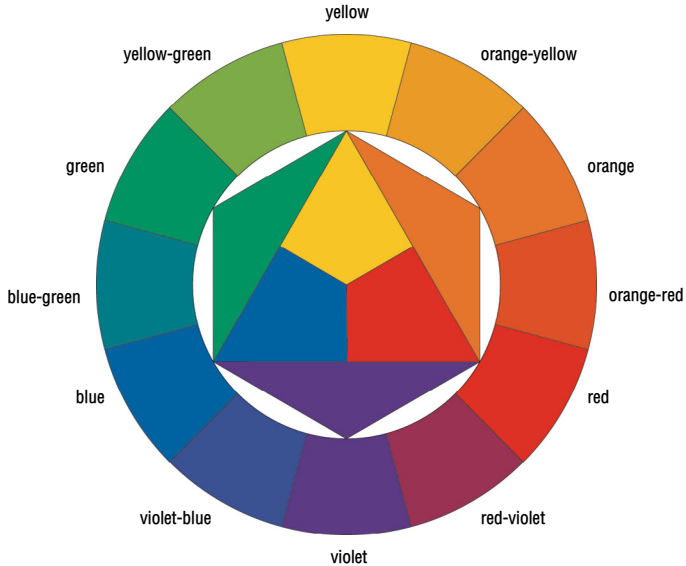
**easel**

Tripod on which a canvas is placed to execute a work or show it.



color circle

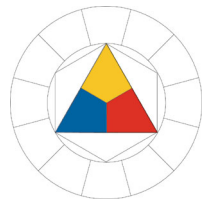
Representation of the color spectrum on a circle.

**tertiary colors**

Colors obtained by mixing equal proportions of a primary color and a secondary color.

**secondary colors**

Colors obtained by mixing equal proportions of two primary colors.

**primary colors**

Colors that cannot be obtained by mixing other colors.

painting and drawing

utility liquids

Utility liquids are used to prepare a color or protect a work of art.

**linseed oil**

Oil made from linseeds; it acts as a binding agent so that pigment adheres to a surface.

**varnish**

Preparation with no pigment; when applied to a surface, it forms a protective film.

**turpentine**

An essential oil obtained by the distillation of natural resins and used mostly as an oil paint thinner.

**fixative**

Transparent solution in liquid or aerosol form applied to protect a drawing in charcoal, chalk, pastel or pencil.

supports

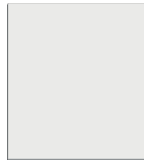
Surfaces on which paintings, drawings and engravings are created.

**canvas**

Piece of fabric covered with a primer and set on a stretcher; it serves as the surface for the painting.

**panel**

Wooden board that serves as a rigid support for a painting.

**cardboard**

Somewhat rigid sheet made of several layers of paper pulp; its function is to support a drawing or painting.

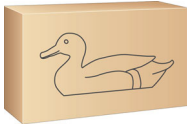
**paper**

Vegetable substance reduced to paste, rolled and then dried into thin sheets that serve as a surface for a drawing, painting or engraving.

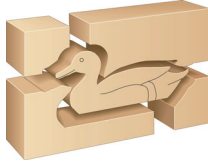
Art that consists of carving a piece of wood to represent or suggest an object.

steps

Phases in the development of a wood sculpture.

**drawing**

Step that involves drawing the piece to be carved on a wooden block.

**roughing out**

Step that involves bringing out the basic contours of a piece.

**carving**

Step that involves shaping and refining the piece.

**finishing**

Step that involves fine-tuning the details and polishing the surface of a piece until no evidence remains of the tools used.

major types of blades

Blade: the sharp part of a sculptor's chisel.

**spoon blade**

Blade used for deep gouging.

**straight blade**

Blade used for general work in a straight line.

**blade with two beveled edges**

Blade used to execute rectilinear cuts.

**bent blade**

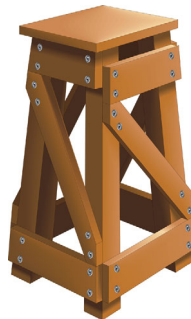
Blade used for intaglio engraving.

**mallet**

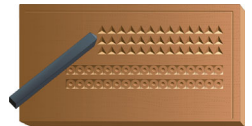
Hammer used to strike the heel of a sharp tool to force it into the wood.

**carver's bench screw**

Threaded instrument used to secure a piece of wood to a stand.

**stand**

Small stool on which the sculptor places and secures the piece to be worked on.

**punch and pattern**

The punch, a metal rod, is struck to carve motifs into a slab of wood.

wood carving

examples of tools

Tools: instruments used in sculpture to cut and file wood.

knife

Tool used mainly for carving notches.

**fluteroni**

Chisel with a U-shaped blade used for delicate work.

**macaroni**

Chisel with a U-shaped blade at straight angles used for delicate work.

**block cutter**

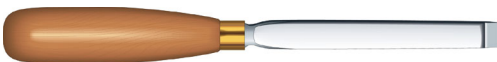
Chisel with a beveled point used in engraving to achieve subtleties of line; it was once used on copper but is now used mainly on wood.

**gouge**

Chisel with a curved blade used to create canal-shaped grooves.

**firmer chisel**

Flat chisel with beveled blade edges used to create straight cuts.

**riffler**

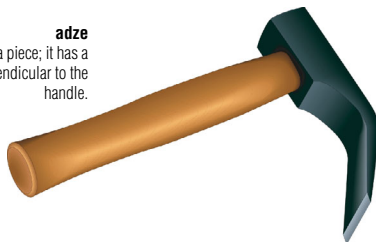
Small file used to smooth out grooves that are hard to reach.

rasp

Hand tool made up of a metal blade whose tooth-covered surface can quickly rough out wood, metal or plastic.

**adze**

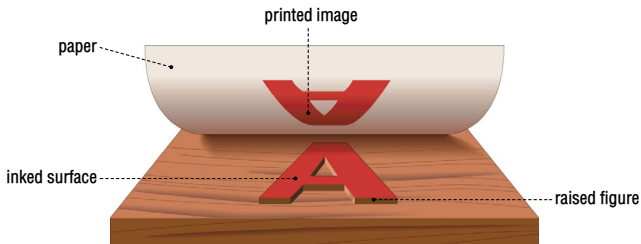
Hatchet used to rough out a piece; it has a hook or a flat nose perpendicular to the handle.



Reproduction of characters or illustrations by transferring a model to a surface, usually paper, most often using ink.

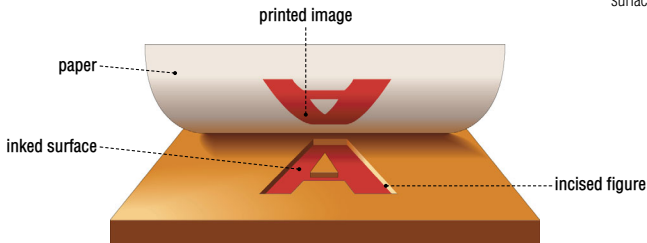
relief printing

Process that consists of printing an image from a raised figure covered with a film of ink; the image is transferred to a surface by means of pressure.



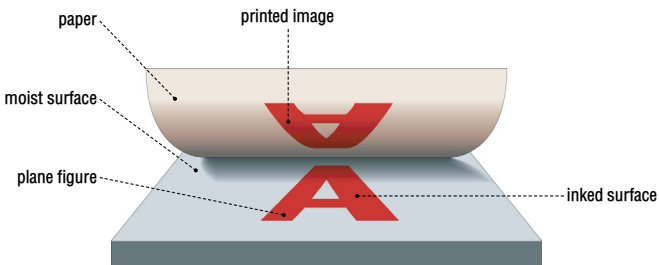
intaglio printing

Process that consists of printing an image from an incised figure filled with ink; the image is transferred to a surface by means of pressure.



lithographic printing

Process that consists of printing an image from a figure on the same plane as the nonprinted parts, which are protected from the ink by dampening.

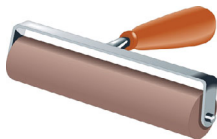


relief printing process

Technique that consists of creating a raised figure on a piece of wood.

equipment

Collective term for the materials, instruments and tools used for engraving and printing.



brayer

Instrument used to spread ink on a raised figure.



baren

Instrument that exerts pressure on the back of the paper to help the ink adhere.

inking slab

Plate on which the ink is spread so it will be evenly distributed on the brayer.



ink

Preparation in black or in color used for printing.

spatula

Tool with a flat flexible blade used to spread ink or scrape down the inking slab.



knife

Tool used for engraving in the grain direction of the wood; it brings out the figure by means of incisions.



block cutter

Chisel with a beveled point used in engraving to achieve subtleties of line; it was once used on copper but is now used mainly on wood.



U-shaped gouge

Sharp U-shaped chisel used to remove areas to create large blank spaces.



V-shaped gouge

Sharp V-shaped chisel used to dig deep angular grooves and to remove areas to create smaller blank spaces.



chisel

Sharp tool with a flat beveled blade used for engraving wood in the grain direction; it removes areas to create blank space around the figure and smooths out the background.



ink

Preparation in black or in color used for printing.

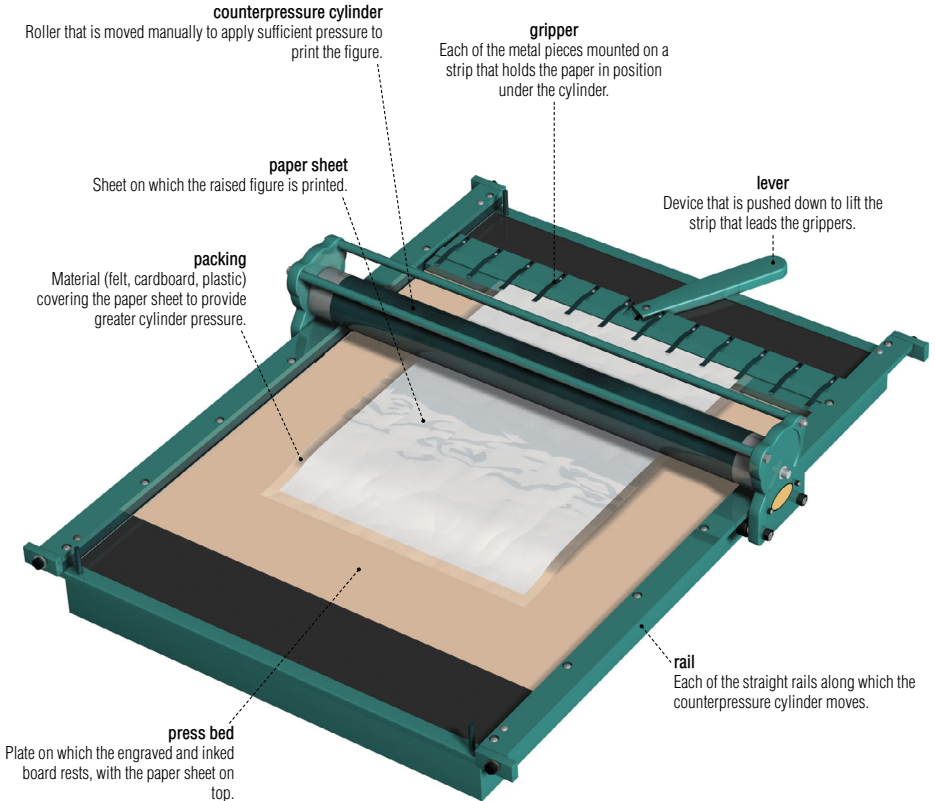


mallet

Hammer used to strike the heel of a sharp tool to drive it into wood.

proof press

Fixed-bed printing press with a cylinder that is moved along an engraved and inked board covered with a sheet of paper.



woodcut

Technique of engraving a piece of wood in the same direction as the grain.



wood engraving

Technique of engraving a piece of wood against the grain.

intaglio printing process

Technique that consists of drawing a figure by engraving its lines into a surface, usually a copper plate.

equipment

Collective term for the materials, instruments and tools used for engraving and printing.



drypoint

Steel rod used to engrave a figure in copper by biting into the plate or the varnish covering it.



roulette

Instrument with a steel wheel containing several rows of regular asperities and used to create coarse-grained lines.



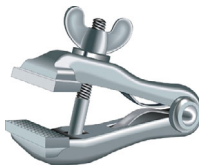
brush

Natural or synthetic bristles attached to a handle, used for spreading paint, varnish or stain on a base.



burnisher

Instrument used to refine the cuts and remove irregularities from the metal.



hand vise

Instrument used to hold and handle the plate while smoking it.



rocking tool

Tool with a thick rounded beveled steel blade; the row of vertical grooves on its sides gives the copper surface a uniform grain.



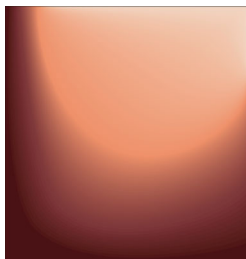
scraper

Tool with a pointed triangular blade used to remove burrs, thin strips of copper left on the edge of the groove made by the drypoint.



dabber

Instrument made up of a handle placed in a cotton wad and wrapped in silk; it is used to spread varnish on the plate.

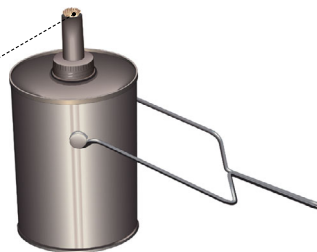


copper plate

Copper is the metal most often used in engraving because it is strong, is malleable enough for engraving and reacts to chemicals.

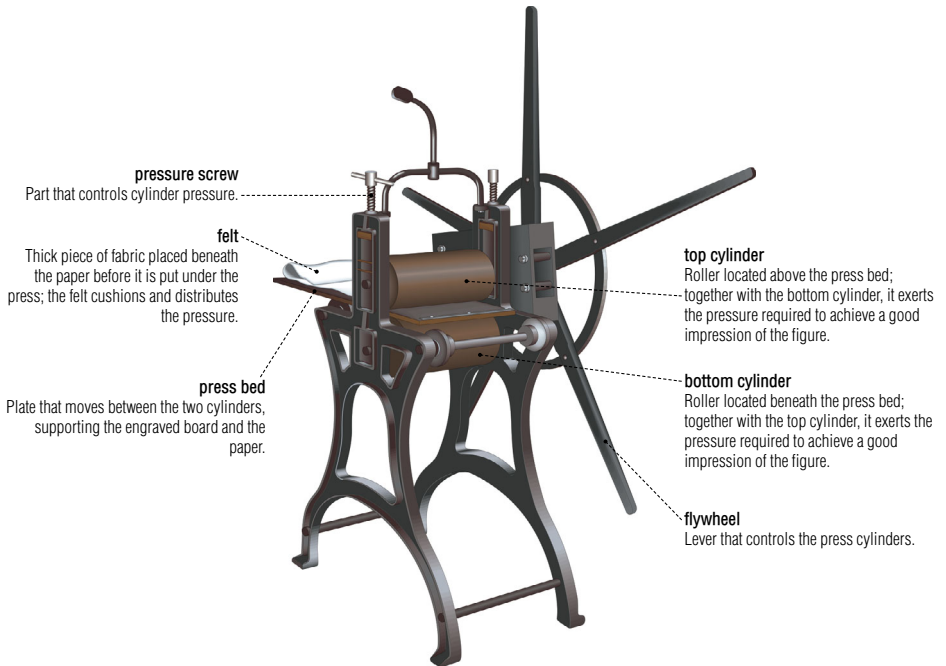
smoking-apparatus
Instrument used to blacken the varnish and the plate with smoke; this makes the figure more visible during the engraving process.

smoking candle
Wax-covered wick used to blacken the plate with smoke.



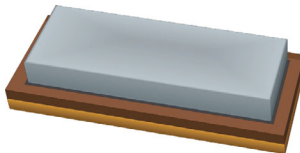
etching press

Apparatus with two cylinders; to print, an engraved and inked plate and a sheet of paper are pressed between them.



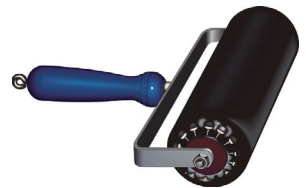
tartan

Muslin used to wipe excess ink from the surface of the plate.



oilstone

Stone used to sharpen tools.



varnish-roller

Instrument used to spread varnish on the surface and prevent ink from adhering to it; it ensures that only the figure is inked.

lithography

Technique of printing from a plane surface using grease to draw a figure on damp limestone; the grease retains ink, the water repels it.

equipment

Collective term for the materials, instruments and tools used for engraving and printing.



caliper
Instrument that measures the stone's thickness in order to level it.

red ocher pencil
Stick of hematite (iron oxide) used to produce a sketch on paper; the sketch is then transferred to the stone.



pumice correcting pencil
Instrument used to polish the stone and make corrections to the figure.



litho pencil
Grease pencil used to draw a figure on a lithographic stone.



litho crayon
Rectangular stick of grease chalk used to draw a figure on a lithographic stone.



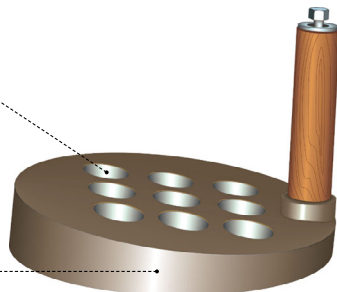
drypoint
Instrument used to engrave the stone in some lithographic techniques.



lithographic tusche
Greasy ink in liquid or solid form used to draw a figure on a lithographic stone using a pen or a brush.

hole
Cell in which an abrasive substance is placed.

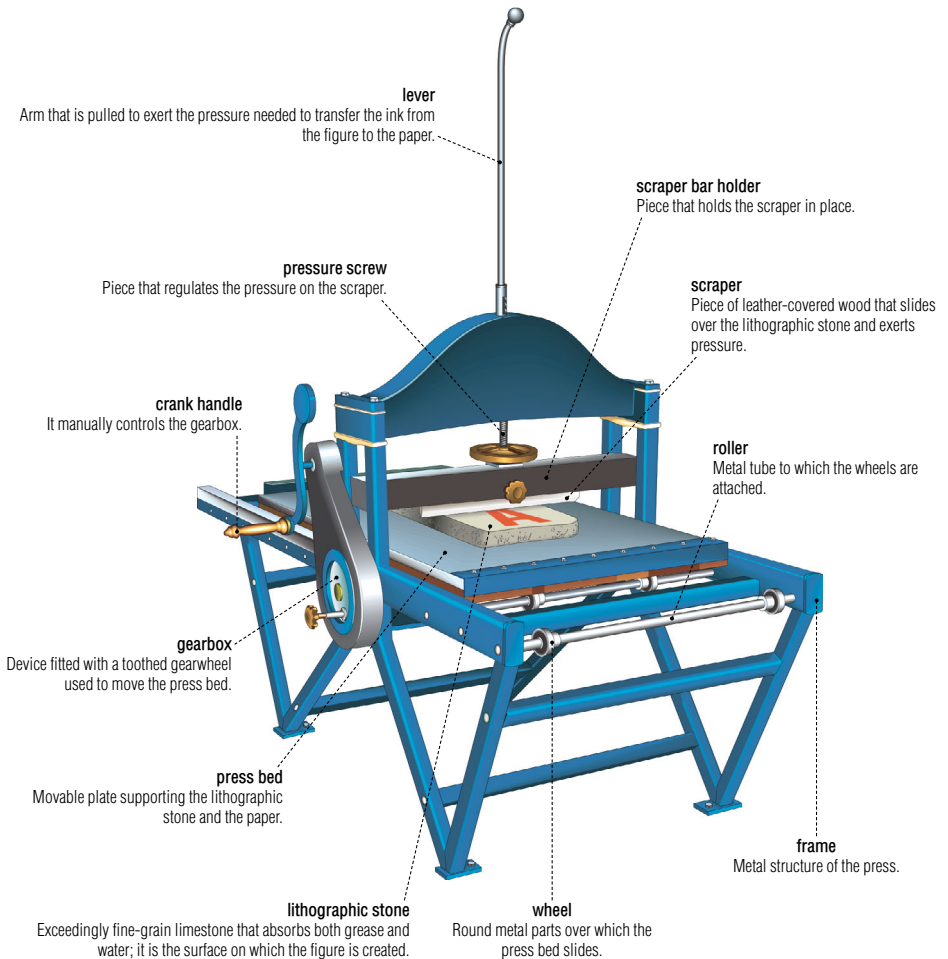
disk
Cast-iron plate with holes, used to buff the stone.



levigator
Instrument that is rotated over the surface of the stone to buff it; the stone is first sprinkled with an abrasive.

lithographic press

Manual printing press that uses pressure to print, on paper, an image created on a lithographic stone.

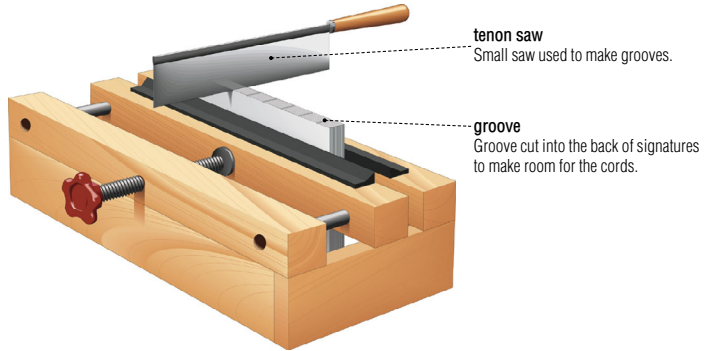


fine bookbinding

Collective term for the manual operations required to bind the sheets of a book together and add an attractive solid cover.

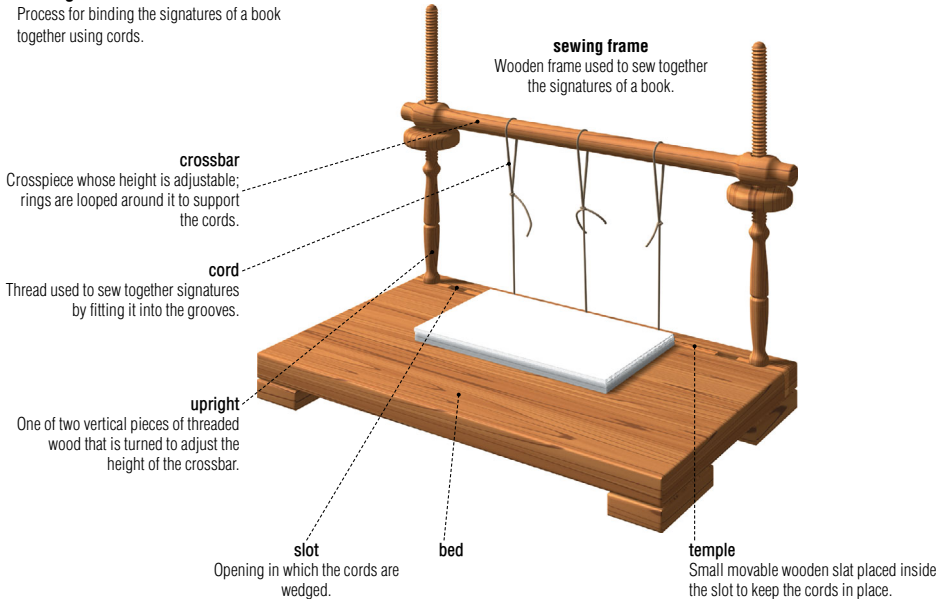
sawing-in

Process for making grooves on the backs of signatures to make room for the cords.



sewing

Process for binding the signatures of a book together using cords.

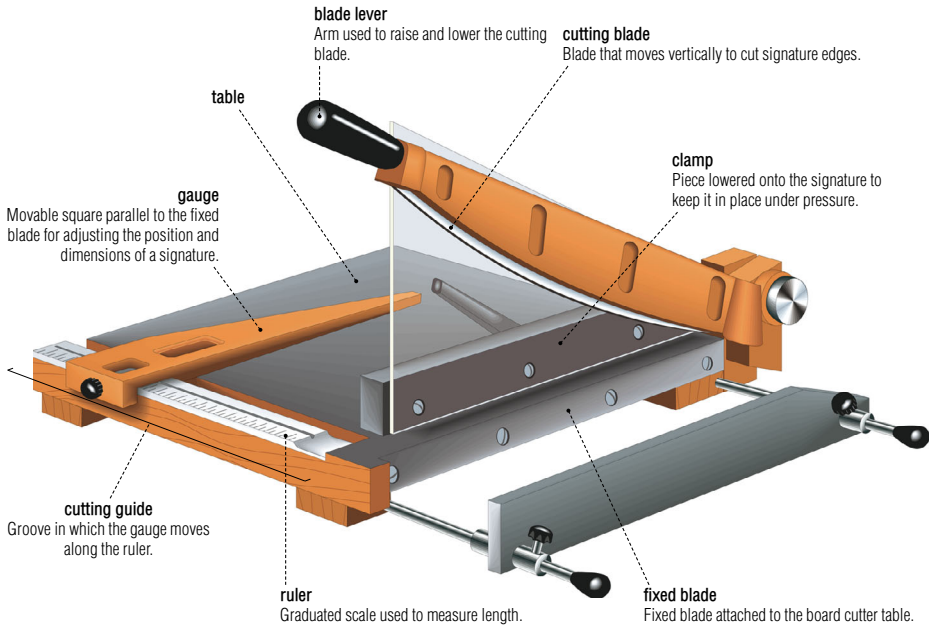


trimming

The process of evening the edges of a signature using a board cutter.

board cutter

Piece of equipment used to make square cuts in paper, cardboard, transparencies, etc.

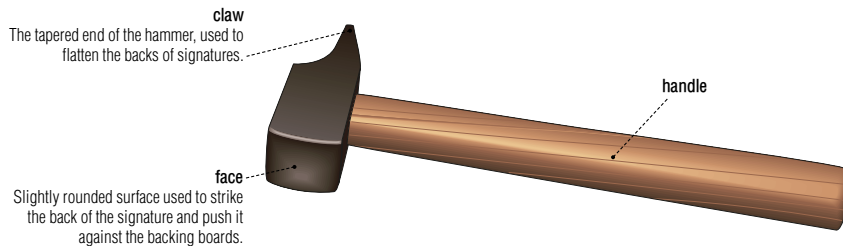


backing

Process for creating joints, the parallel projections running the length of the book that act as hinges between the spine and the boards.

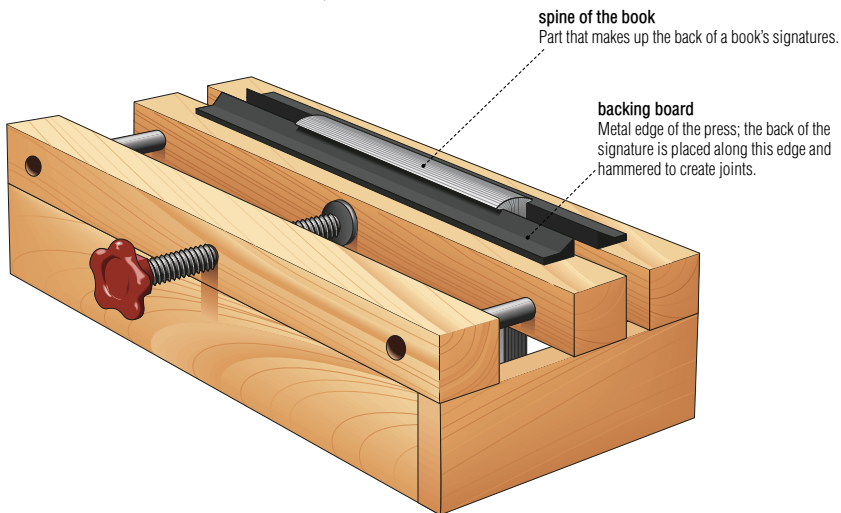
backing hammer

Tool used to flatten the back of signatures to give the spine a fan shape.



backing press

Press used to flatten a book so that the joints can be made.

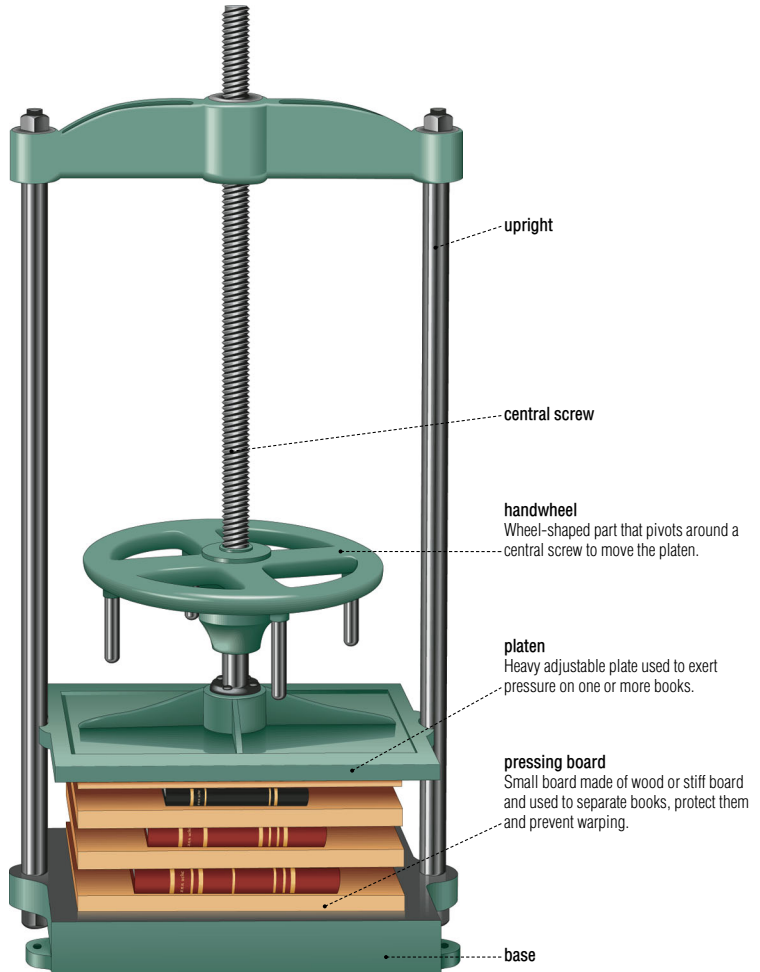


pressing

Process for exerting pressure on a book being bound in order to flatten the signatures and make them more compact.

standing press

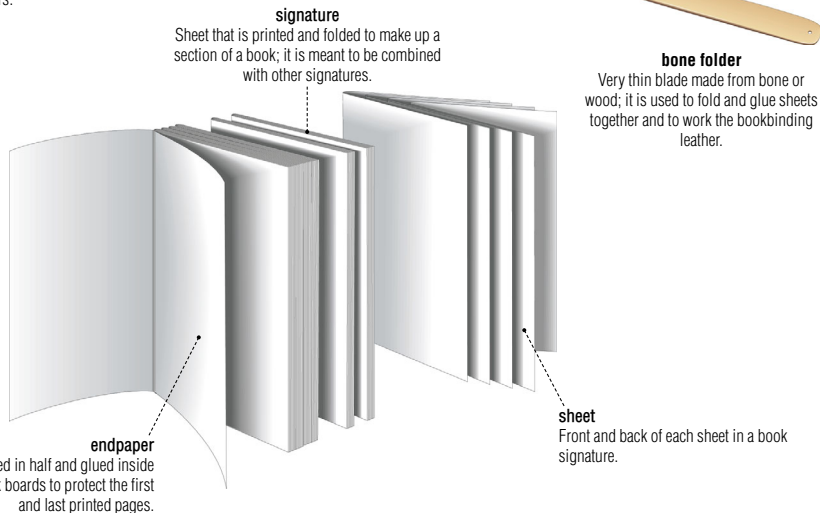
Hand-operated machine for pressing books during the binding process.



fine bookbinding

gathering

Process by which signatures are assembled together, in particular by adding endpapers.

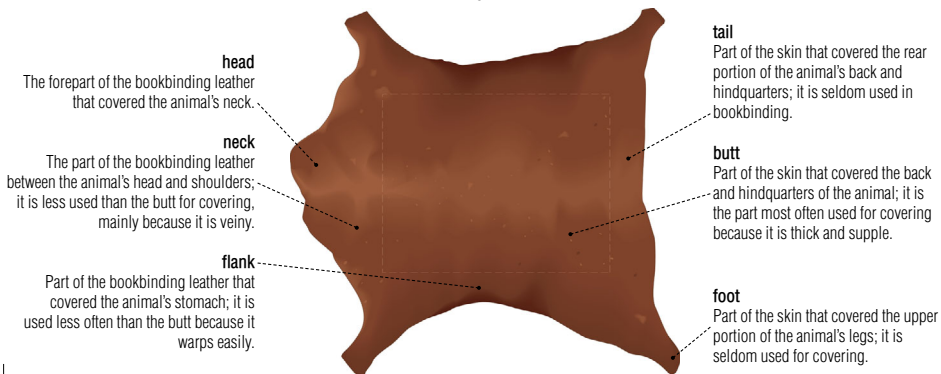


covering

Process of applying a covering material (skin, fabric, paper) to the boards and spine of a book.

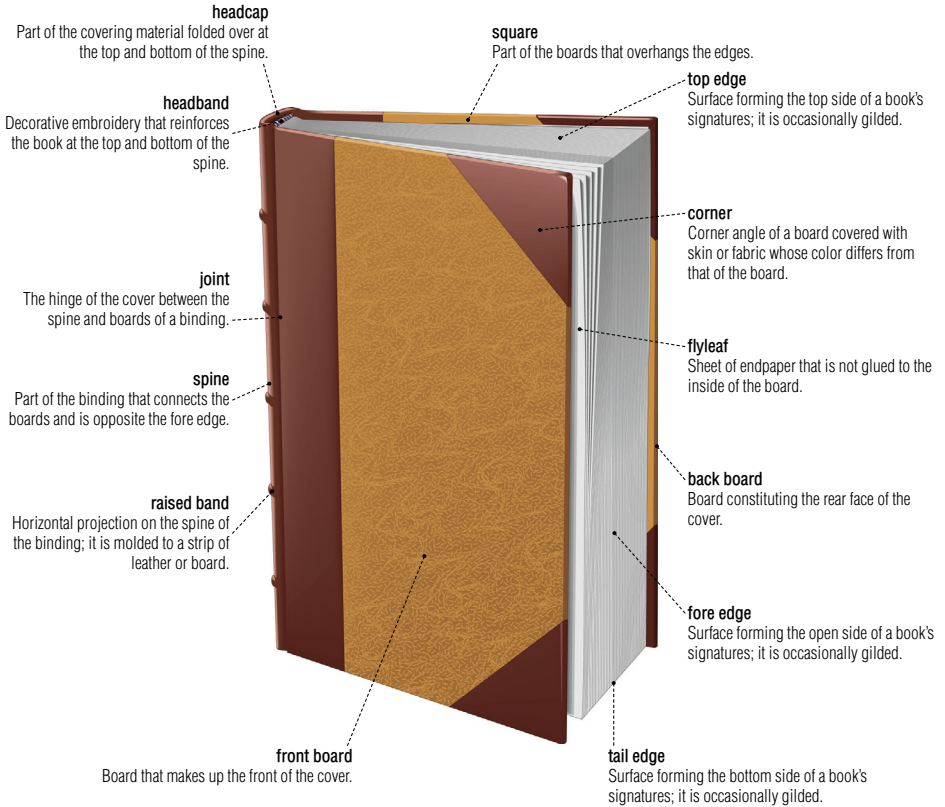
bookbinding leather

Animal leather (e.g., goat or calf) used in bookbinding to cover a book.



bound book

Book whose signatures are sewn together and bound inside a rigid cover made of leather, fabric or paper.



writing instruments

The first true writing instruments were made by the Sumerians in Mesopotamia nearly 5,000 years ago.



quill

Large feather with a hollow stalk (calamus) that is sharpened to a point and dipped in ink to write; it was used in the Middle Ages.



cane pen

Instrument that was used from antiquity through the Middle Ages to write on papyrus and parchment; it remains the traditional instrument of Arabic calligraphy.



stylus

Pointy metal instrument used by the ancient Greeks to etch wax tablets; the flattened end was used to erase etching.



lead pencil

Pencil made of lead with a decorative end; it was first used in the Middle Ages and was later replaced by the graphite lead pencil.



pencil

Writing instrument made up of a casing of soft wood around a graphite lead; it can be sharpened easily.



steel pen

Curved point mounted on a handle; it is dipped in an inkwell to write.



writing brush

Natural or synthetic bristles set into a handle and dipped in ink to write; it has been used for Chinese calligraphy for 4,000 years.



Roman metal pen

Metal writing instrument devised by the Romans in ancient times; it is the ancestor of the modern metal pen, which appeared in the 19th century.



marker

Bevel-tipped color felt pen of variable size.

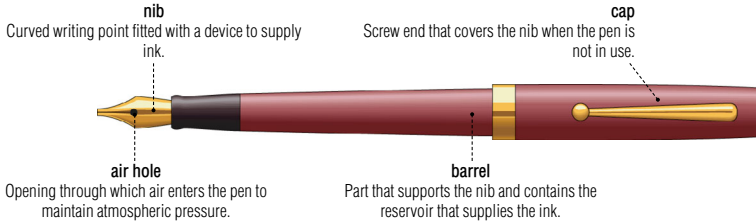


mechanical pencil

Instrument that is made up of a slender tube containing a fine piece of lead; pressing the thrust button moves the lead forward.

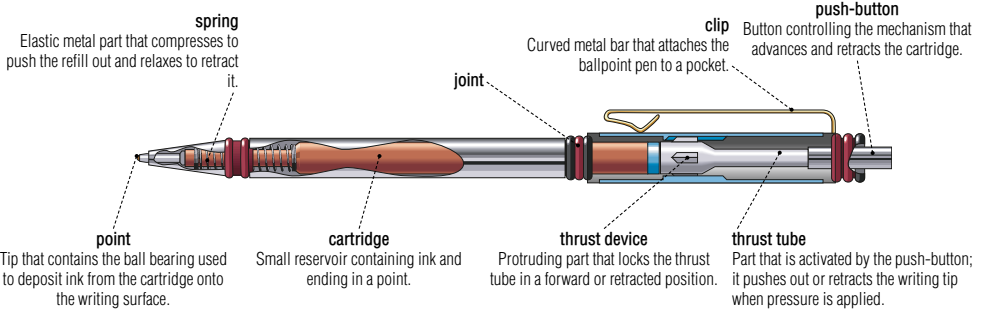
fountain pen

Instrument with a metal nib that is attached to a body containing an ink reservoir, usually in the form of a cartridge.

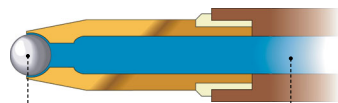


ballpoint pen

Instrument invented at the beginning of the 20th century; the writing tip holds a small rotating ball.



refill
Cartridge that is inserted into the body of a ballpoint pen to refill the ink.

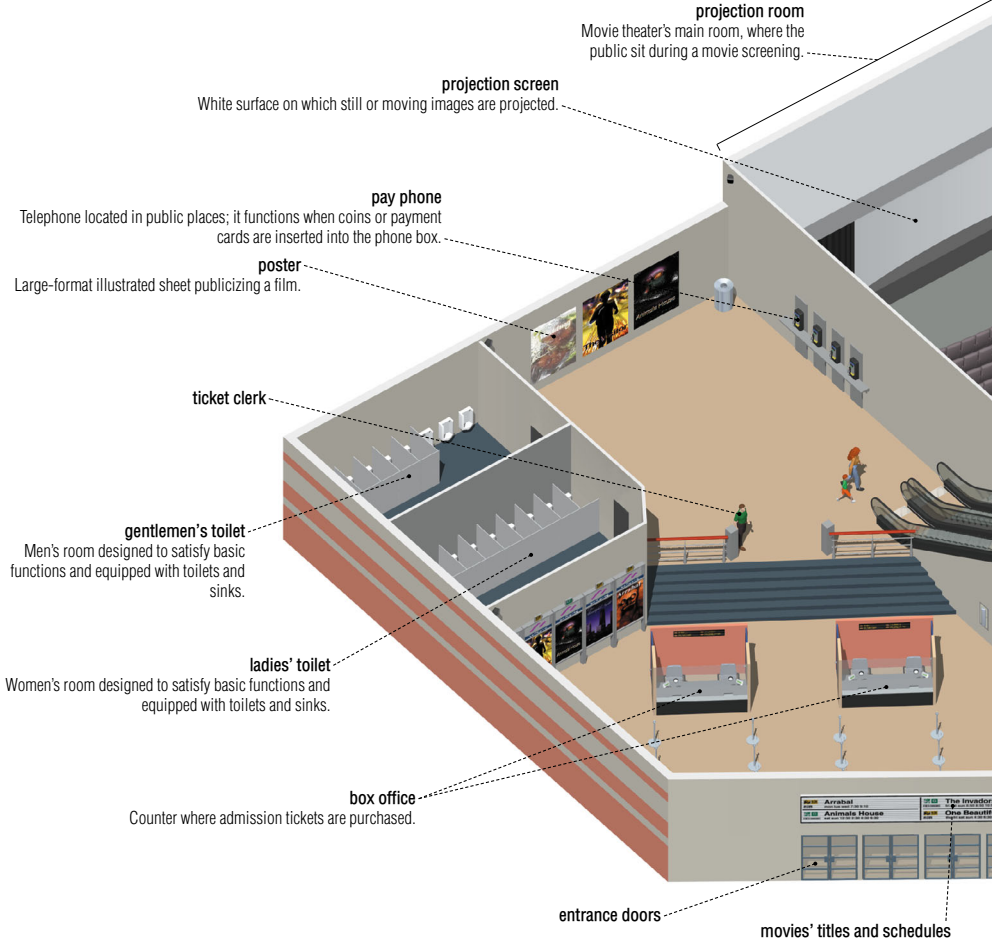


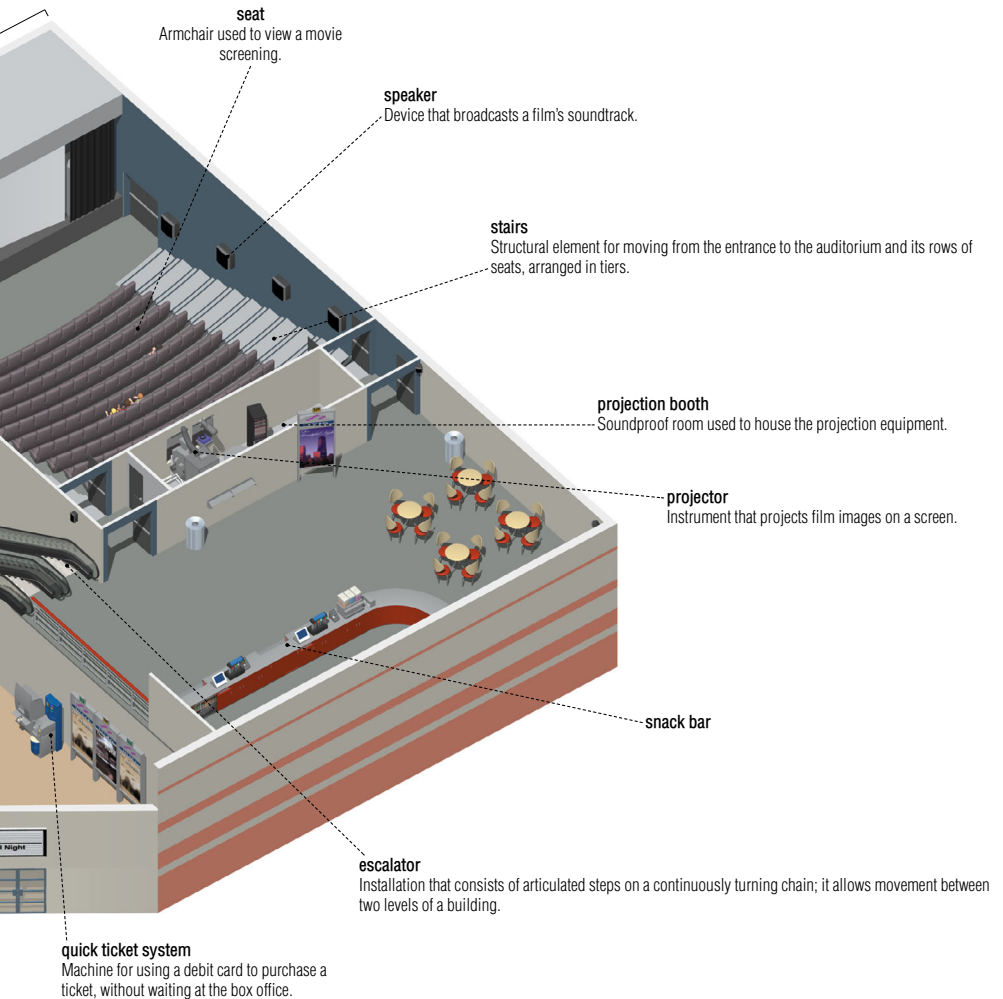
ball bearing
Small metal ball in the point of the pen; when turned, it deposits ink from the cartridge onto the writing surface.

ink
Black or colored liquid used for writing.

movie theater

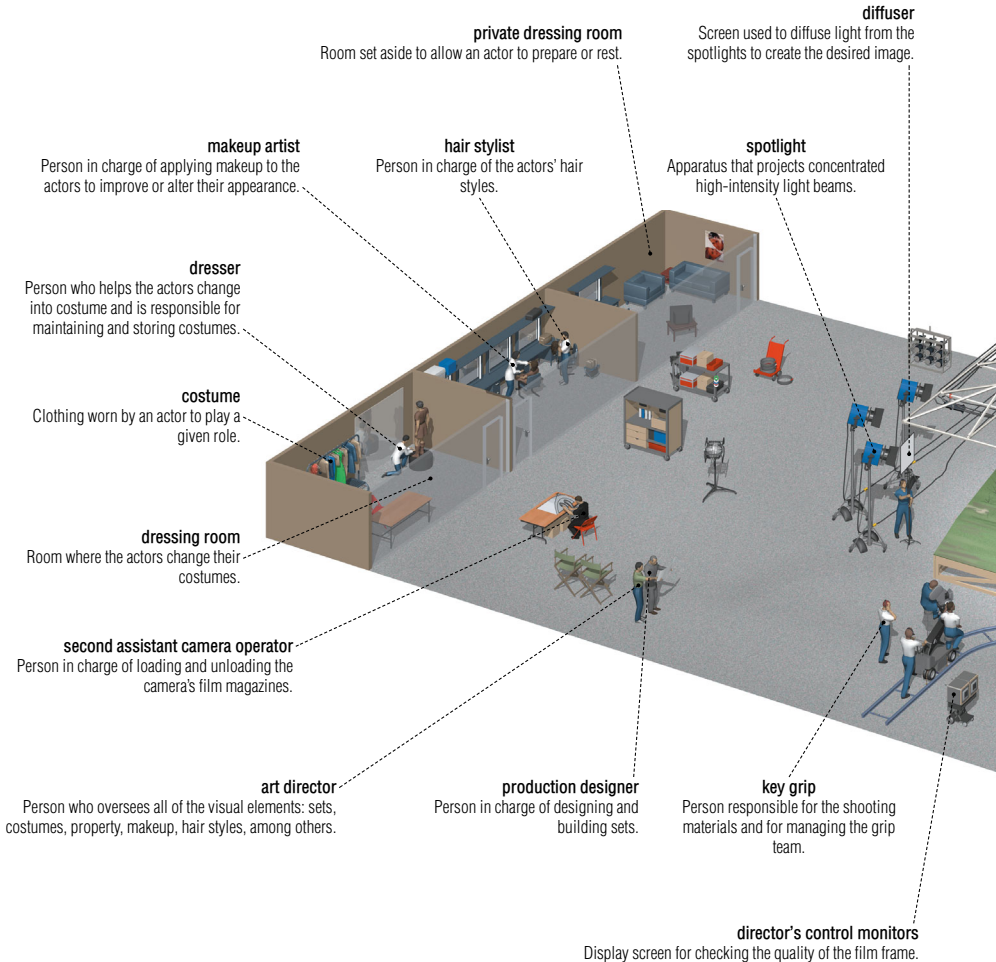
Establishment with auditoriums used for projecting films.

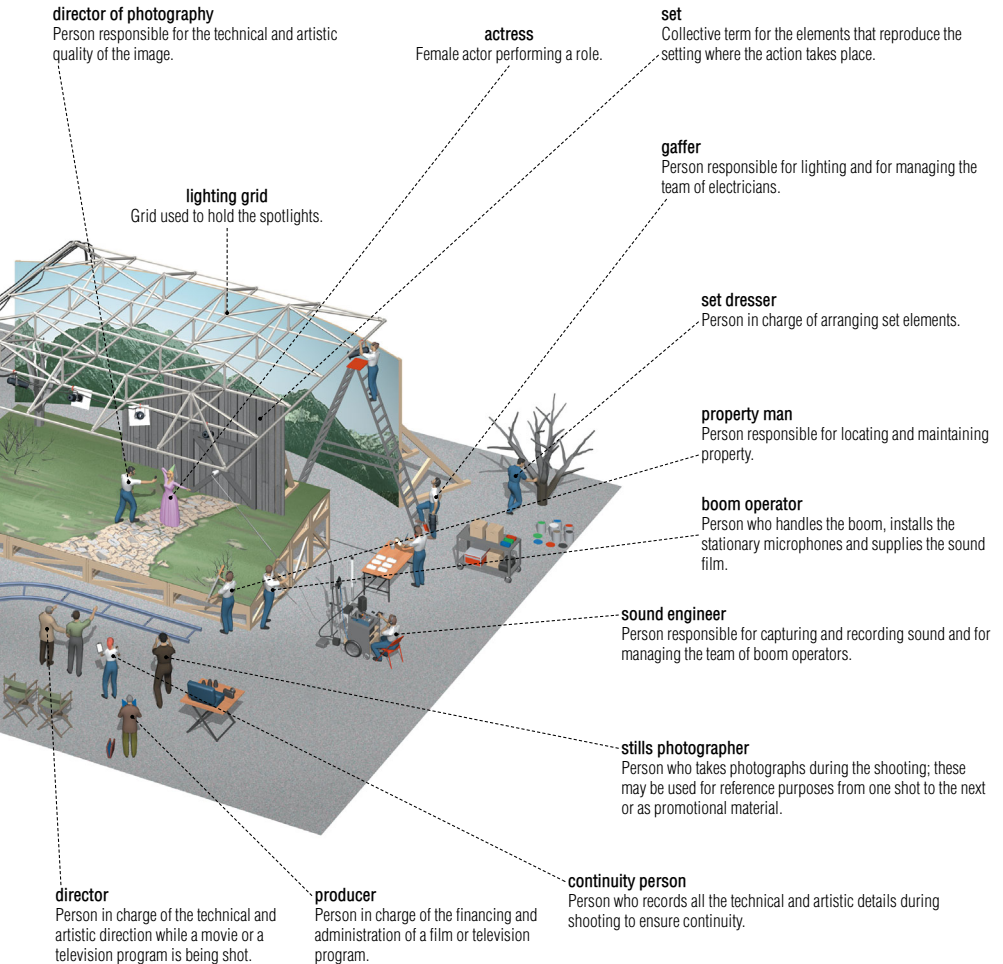




movie set

Sets, materials and personnel needed to shoot a movie or a television program.

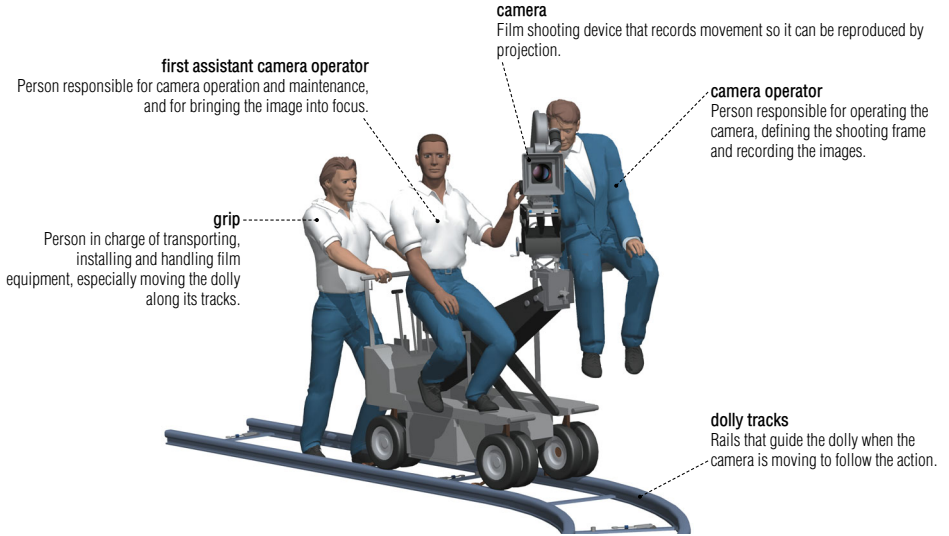




movie set

dolly

Small vehicle on rails that carries the camera, the camera operator and the assistant.



clapper/the slate

Panel consisting of two small boards that are clapped together to signal the start of shooting.



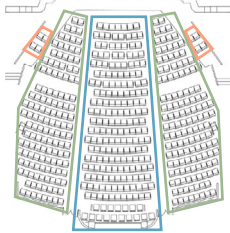
time code

Device that indicates the hour, minute, second and number of the frame; it is used to mark the sequence for editing purposes.

Establishment built to present plays, shows, dance performances, concerts and so forth.

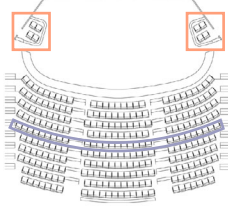
parterre

The first floor of the house.



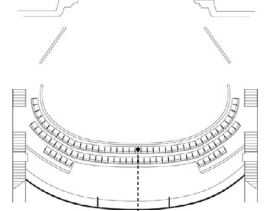
mezzanine

The floor above the parterre of the house.




balcony

Area of the house located above the mezzanine.




seat

Armchair used to watch a performance.

 **box**
Small partitioned room that seats two or three people.

 **side**

 **row**
Series of seats the same distance from the stage.

 **center**

stage

The area seen from the house where the artists perform.

lights

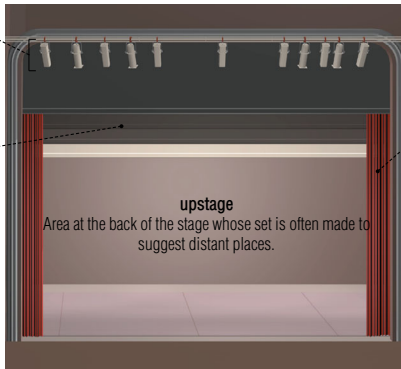
Row of projectors set up above the proscenium.

border

Horizontal strip of fabric used to hide the parts of the flies that are visible from the house.

prompt side

The left side of the stage, from the audience.



stage curtain

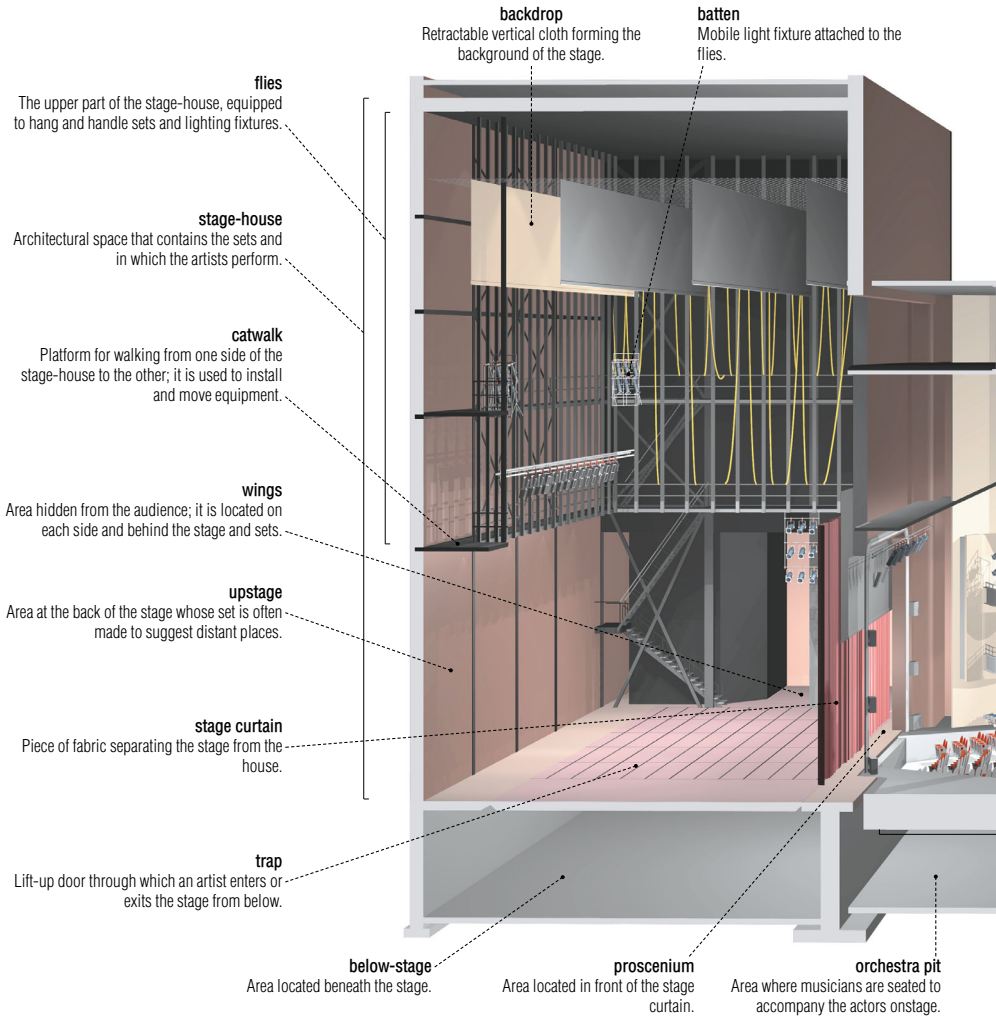
Piece of fabric separating the stage from the house.

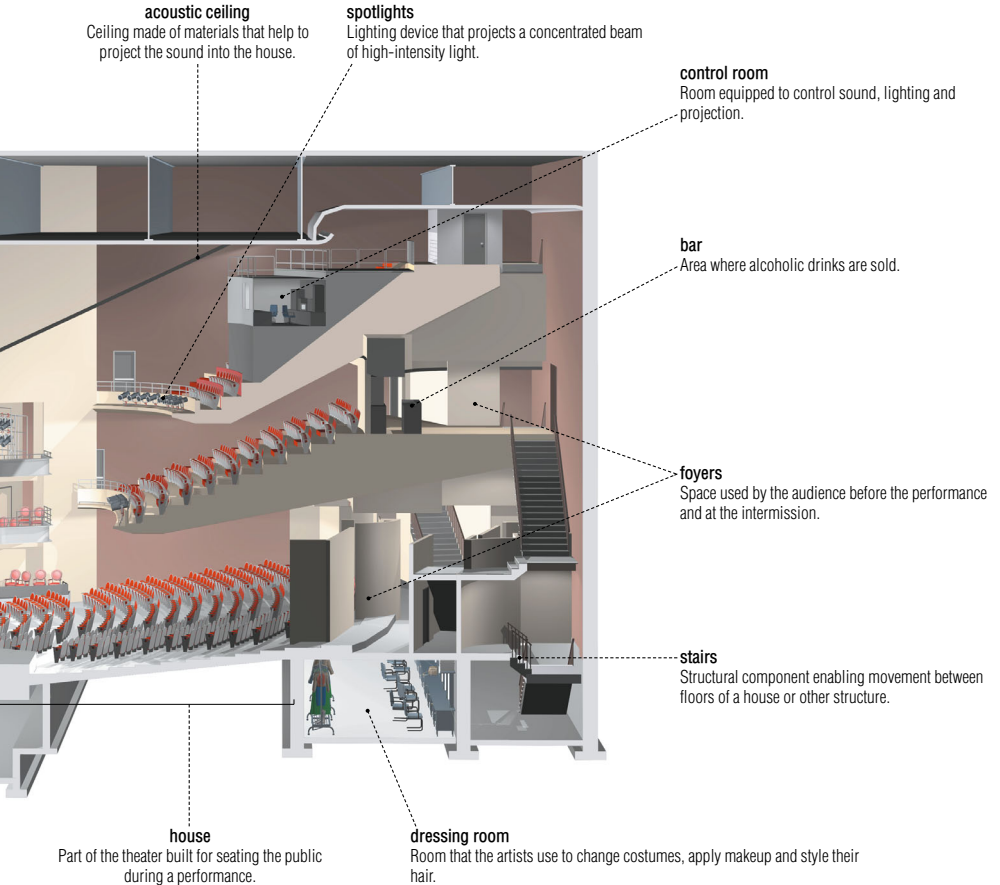
upstage

Area at the back of the stage whose set is often made to suggest distant places.

opposite prompt side

The right side of the stage, from the audience.





photography

Process that captures an image on a light-sensitive surface by admitting light through a shutter.

single-lens reflex (SLR) camera: front view

Still camera with an interchangeable lens that can be used for both viewing and shooting, hence the term "reflex".



film reflex camera: camera back

Reflex camera that captures an image on a light-sensitive media (film).

film rewind system

Manual or motorized device that winds a partially or totally exposed film back into its cartridge.

film guide roller

Rotating cylinder that directs the film from the cartridge toward the film guide rails.

viewfinder

Device for viewing the scene to be photographed, framing it and adjusting its clarity.

focal plane shutter

Opaque device that opens for a predetermined length of time based on the shutter speed chosen; it allows light to come in contact with the film.

neckstrap eyelet

Small ring that holds a strap to help carry the camera.

take-up spool

Cylinder for winding the exposed film.

film guide rail

Each of the flat metal rails on both sides of the focal plane shutter; the taut film travels along them.

film leader indicator

Indicator showing whether the film leader (end of the film extending outside the cartridge) is properly inserted into the take-up spool.

pressure plate

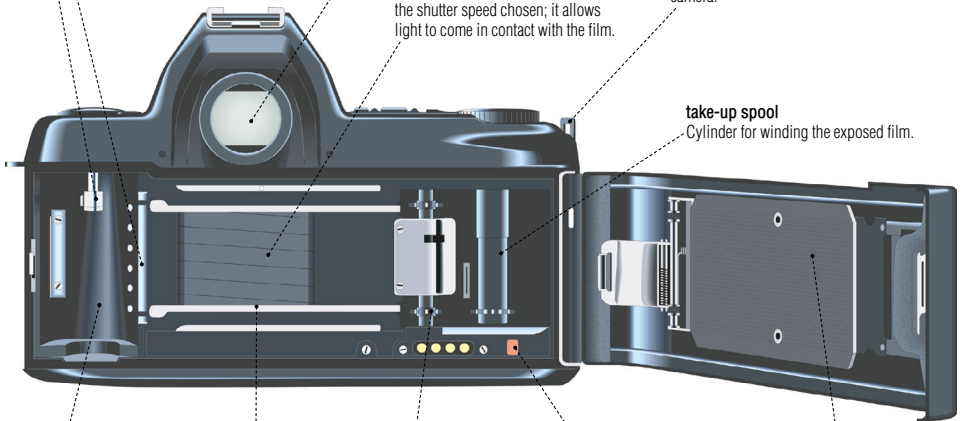
Spring plate that keeps the film flat as it passes behind the lens.

film cartridge chamber

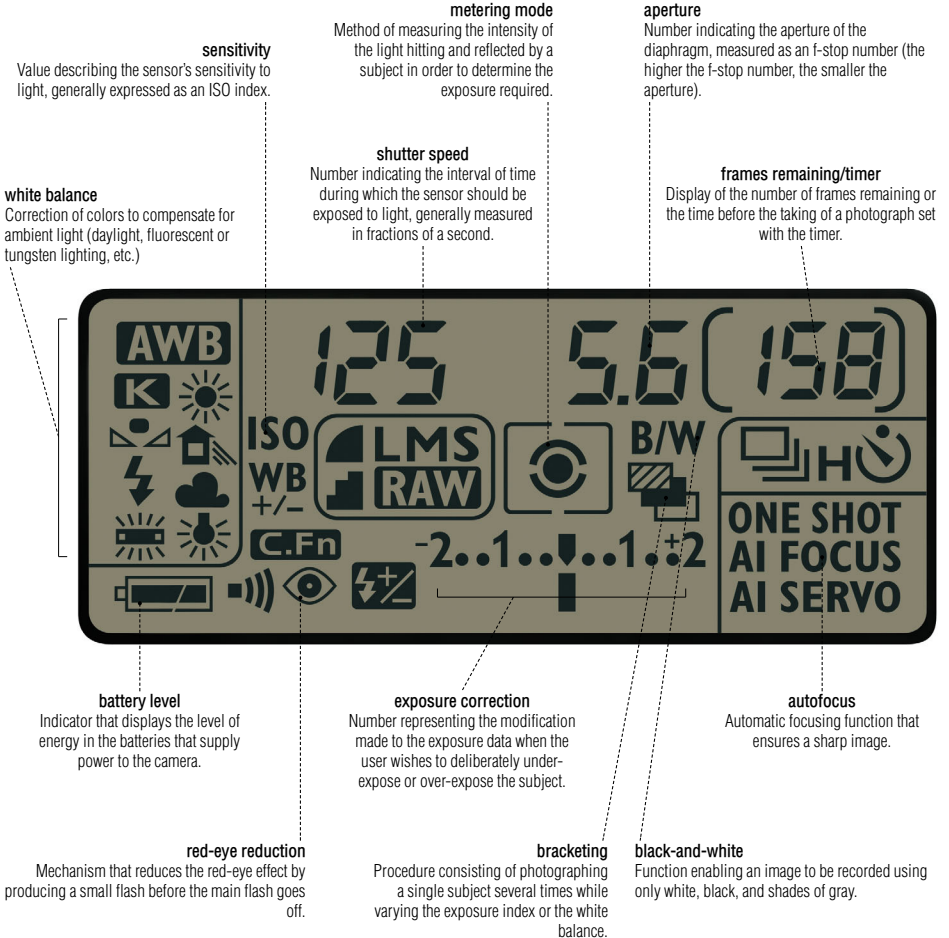
Compartment that holds a film cartridge.

film sprocket

Small serrated wheel that guides the film toward the take-up spool.



digital reflex camera: control panel



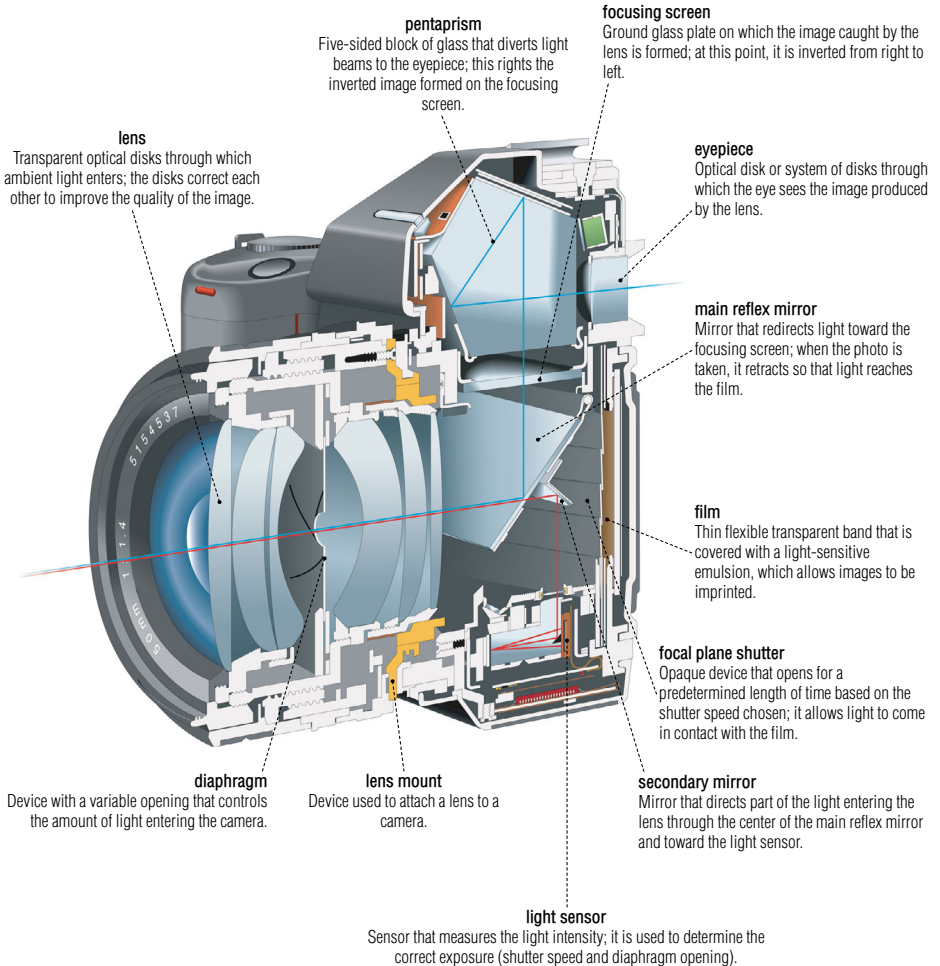
digital reflex camera: camera back

Reflex camera that contains a sensor and a microprocessor rather than film; they record and store images in digital form on a memory card.



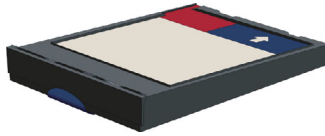
cross section of a film reflex camera

A slanted mirror allows the user to view and shoot at the same time; the mirror flips up when the shutter release button is pressed.

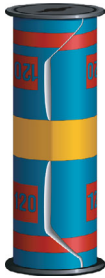


films

Thin, flexible, transparent media covered with light-sensitive materials that enable images to be imprinted in a film camera.

**film pack**

Small rigid box containing a certain number of sheet films, which are dispensed successively as the camera operates; they are used in Polaroid® cameras.

**roll film**

Band of film with a number of exposures; it is rolled on a spool and used in midsize cameras.

**cartridge film**

Small lightproof container that holds a roll of film with a number of exposures, which is loaded into a camera.

**sheet film**

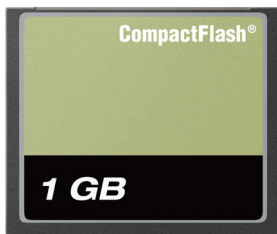
Semirigid film made to fit specific applications; it is usually loaded into a view camera.

memory cards

Rigid cards used as a storage medium to record photographs taken with a digital camera.

xD-Picture card

Very-small-format flash memory card, designed in 2002.

**compact flash card**

Rigid card used as a storage medium to record photos taken with digital cameras.

**Secure Digital card**

Small-format flash memory card that includes a copyright-protection mechanism. It was developed in 2000.

**Memory Stick**

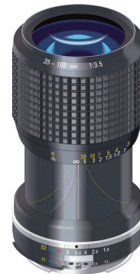
Flash memory card in a rectangular-shape case. It was developed in 2000.

lenses

Lenses are characterized by their focal length (between the optical center and the film), aperture (ratio between the diameter of the lens and the focal length) and angle of view (width of the captured image).

zoom lens

Lens with a variable focal length so that the visual field can be changed without changing the lens.



standard lens

Lens that produces an image close to that seen by the human eye.



focus setting ring

Setting ring that sharpens the image of a subject.

distance scale

Scale that shows the distance between the lens and the subject on which it is focused.

lens aperture scale

Graduated scale that controls the diaphragm's opening; it is measured in f-stops and a high f-stop indicates a small opening.

depth-of-field scale

Scale that shows the zone of sharpest focus around the subject; this is a function of the diaphragm's opening and the distance between the lens and the subject.

macro lens

Lens designed mainly for close-up shots of small objects.



wide-angle lens

Lens with a short focal length that covers a larger visual field than a regular lens and provides significant depth of field.



fisheye lens

Lens with a very short focal length that covers a visual field of at least a 180°; it creates circular images.



telephoto lens

Lens with a long focal length that enlarges the image of a distant subject but reduces the visual field and the depth of field.



semi-fisheye lens

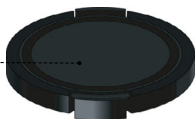
Lens with a short focal length that covers a wide visual field; it emphasizes the effect of perspective.

lens accessories

All the parts that can be attached to a lens to change its focal length or alter the image projected on the film.

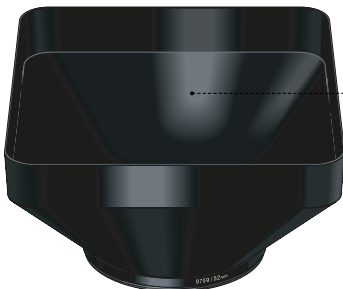
lens cap

Part that covers and protects the lens when it is not in use.



lens hood

Cone-shaped device that reduces the effect of intense ambient light to improve the image's contrast.



color filter

Colored glass used to alter the characteristics of the light reaching the film.



close-up lens

Optical disk that changes the focal length of the lens so that very near subjects can be photographed.



polarizing filter

Glass used to reduce reflections from nonmetallic surfaces such as water, glass and asphalt.



objective lens

Optical system made up of a set of lenses fixed on a mount; it allows a clear image to be produced on film.



tele-converter

Component inserted between the camera and the lens to increase its focal length; this enlarges the image of a distant subject.



still cameras

Cameras whose principal components are a lightproof chamber and an optical system, which causes an image to be imprinted on a light-sensitive surface.

**compact camera**

Small, easy-to-use camera.

**disposable camera**

Small lightweight easy-to-use camera containing a film; it is designed to be used only once.

**ultracompact camera**

Very small camera, usually completely automatic.

**single-lens reflex (SLR) camera**

Camera whose interchangeable lens is used to both view and shoot through a slanted mirror that flips up (reflex).

**underwater camera**

Camera composed of a watertight pressure-resistant body; it is used mainly for underwater photography.



Polaroid® camera

Camera that develops photos instantly. After a photo is taken, the exposed film is ejected from the camera and develops automatically in a few minutes.



medium format SLR (6 x 6)

Midsized camera with interchangeable lenses; it produces 6 cm x 6 cm images on a roll of film.



view camera

Large camera composed of two telescopic blocks connected to an expandible bellows, which allows the perspective and focus to be checked and adjusted as needed.



twin-lens reflex camera

Camera whose upper lens uses a mirror to view while its lower lens is used to shoot.

photographic accessories

Add-on devices that improve or change the way a camera operates.



button cell

Device that converts chemical energy into electrical energy.



battery pack

Device that stores chemical energy during charging and converts it into electrical energy.



battery

Device that converts chemical energy into electrical energy to supply power to another device.



waterproof case

Rigid container designed to protect a camera from water or bad weather. It is used, among other things, for underwater photography.



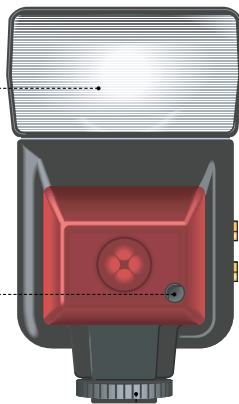
cable shutter release

Flexible cable with a trigger that activates the shutter at close range thereby reducing the possibility of moving the camera.



camera bag

Bag with compartments designed to hold and protect a camera and its accessories.



electronic flash

Device with a lamp that produces a brief and intense flash of light; it is used to compensate for inadequate lighting.

flashtube

Part that concentrates and channels light from the lamp toward the subject to be photographed.

photoelectric cell

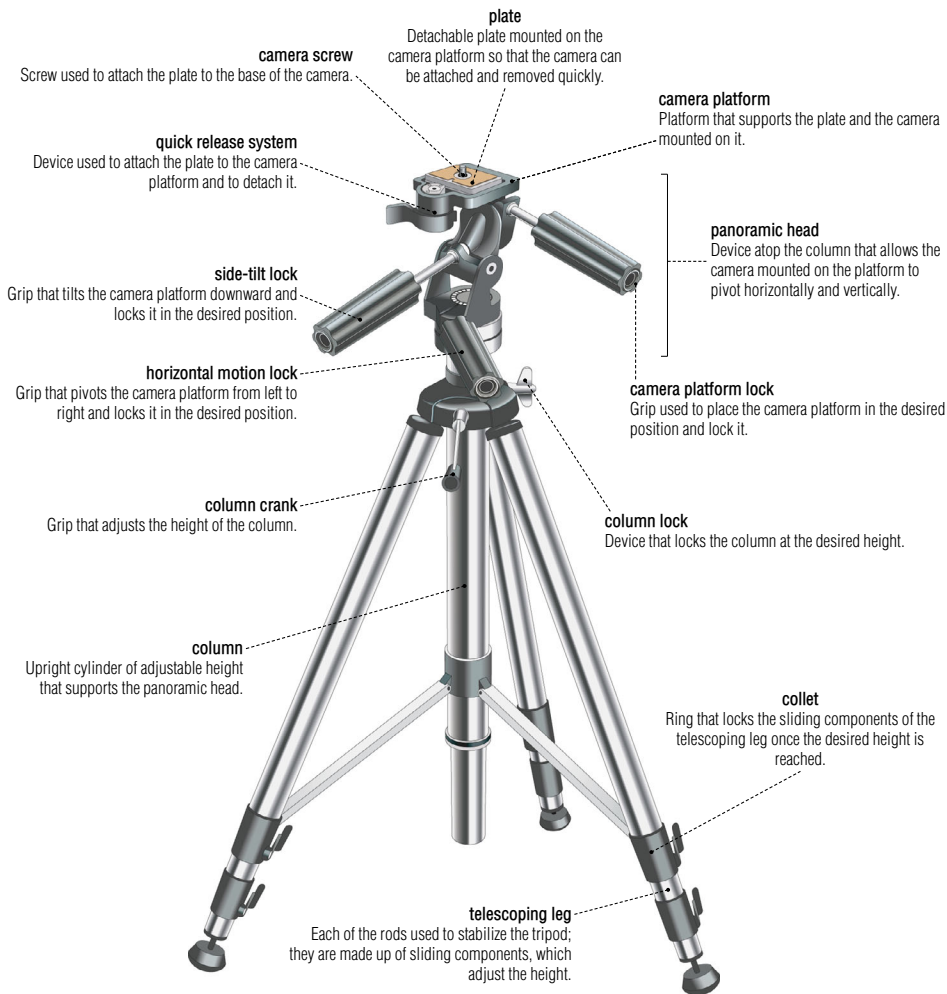
Detector that measures the intensity of ambient light and controls the amount of light emitted by the flash.

mounting foot

Device used to mount the flash onto the accessory shoe.

tripod

Adjustable support to which a camera is attached to keep it stable, level and in focus.



photography

darkroom equipment

Material required to process film and to print photographs in a darkened room.

**easel**

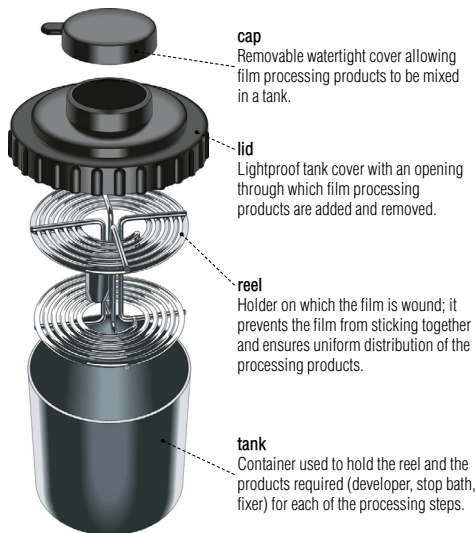
Frame used to hold paper flat under an enlarger; its movable edges make allowance for white margins on the proof.

**contact printer**

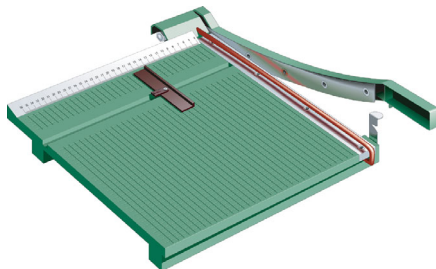
Frame in which negatives come in contact with photographic paper and are exposed to light to print an image of the same size.

developing tank

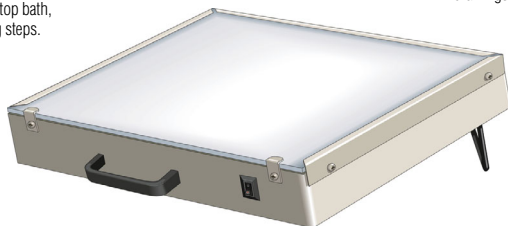
Lightproof container used during the various stages of processing an exposed film to obtain a negative.

**paper cutter**

Piece of equipment used to make square cuts in paper, cardboard, transparencies, etc.

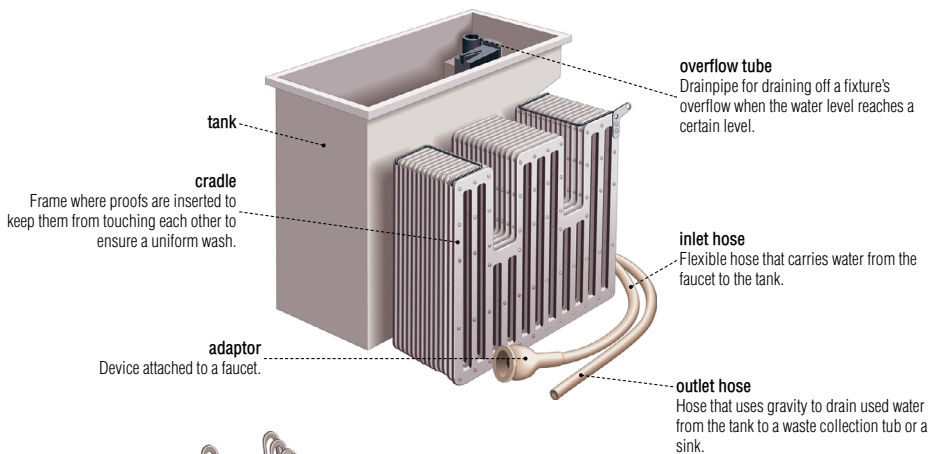
**lightbox**

Screen that is illuminated from behind and used to examine items such as negatives, slides, transparencies and drawings.



print washer

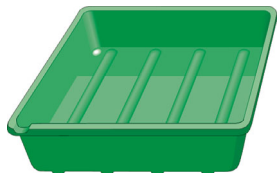
Device that uses water to eliminate residual chemicals accumulated during the processing of photographic paper.

**print drying rack**

Frame that holds prints once they have passed through the washer so that the water evaporates.

developing baths

Trays used for the various steps in processing exposed photographic paper to obtain a proof in black and white.

**developer bath**

Tray containing a chemical that acts on light-exposed photographic paper to reveal an image.

**stop bath**

Tray containing a chemical that stops the action of the developer.

**fixing bath**

Tray containing a chemical that fixes the revealed image by making the photographic paper insensitive to light.

traditional musical instruments

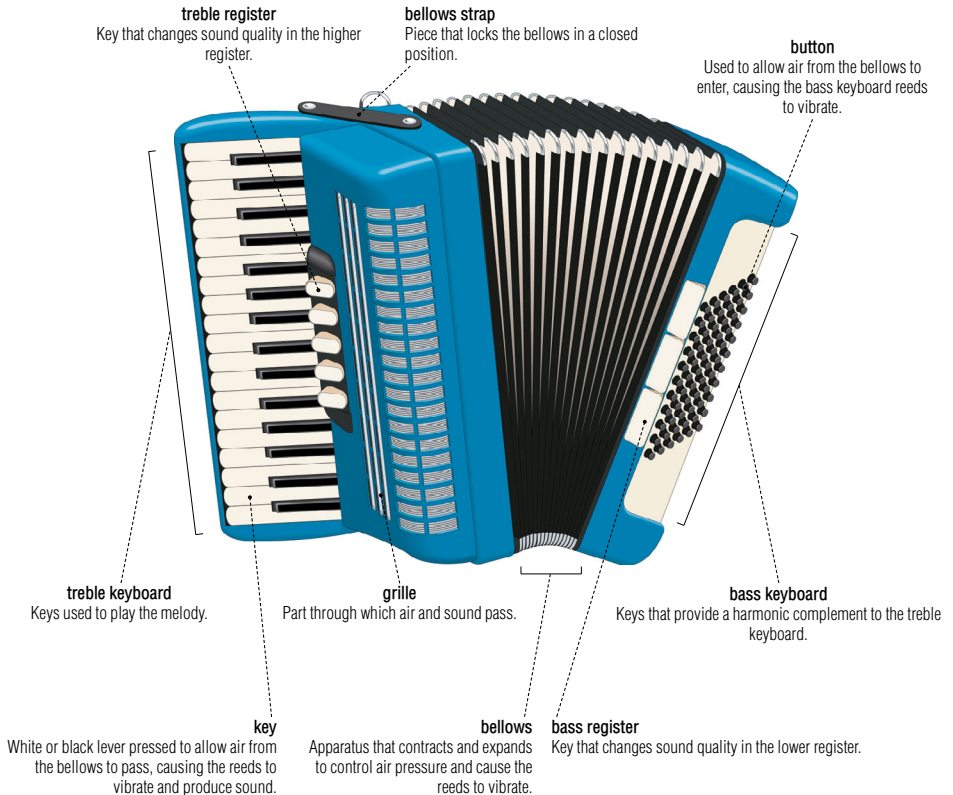
Collective term for the instruments, current or ancient, that characterize a culture, era or style of music.

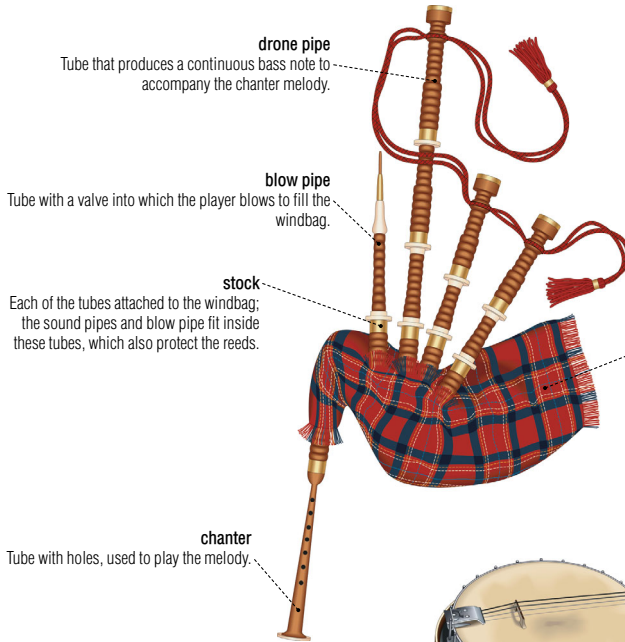
accordion

Wind instrument composed of keyboards and a manual bellows used to cause the reeds to vibrate and produce sound.

harmonica

Instrument composed of small tubes with free reeds recessed in a frame, which the player causes to vibrate by exhaling and inhaling.



**drone pipe**

Tube that produces a continuous bass note to accompany the chanter melody.

blow pipe

Tube with a valve into which the player blows to fill the windbag.

stock

Each of the tubes attached to the windbag; the sound pipes and blow pipe fit inside these tubes, which also protect the reeds.

chanter

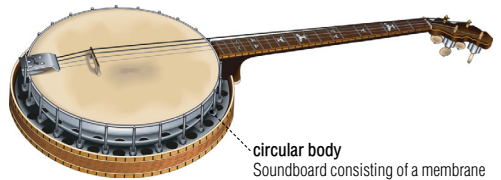
Tube with holes, used to play the melody.

bagpipes

Wind instrument associated with Scottish culture; it is composed of a bellows in the shape of a windbag and several sound pipes.

windbag

Air chamber that feeds the chanter and drone pipes by means of compression.

**banjo**

Afro-American stringed instrument that was extremely popular at the dawn of the jazz era.

circular body

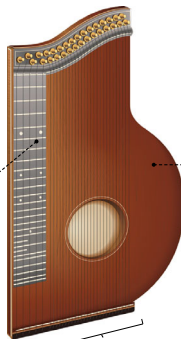
Soundboard consisting of a membrane stretched over a wooden drum; it amplifies the sound vibrations produced by the strings.

soundboard

The hollow part of the instrument; it amplifies the sound vibrations produced by the strings.

zither

Flat stringed instrument with no neck, associated with the music of Austria and Germany.

**fingerboard**

Part of the instrument, with or without frets, where the fingers of the left hand are placed to shorten the strings.

melody strings

Strings of varying length that are plucked with a pick attached to the right thumb to create the melody.

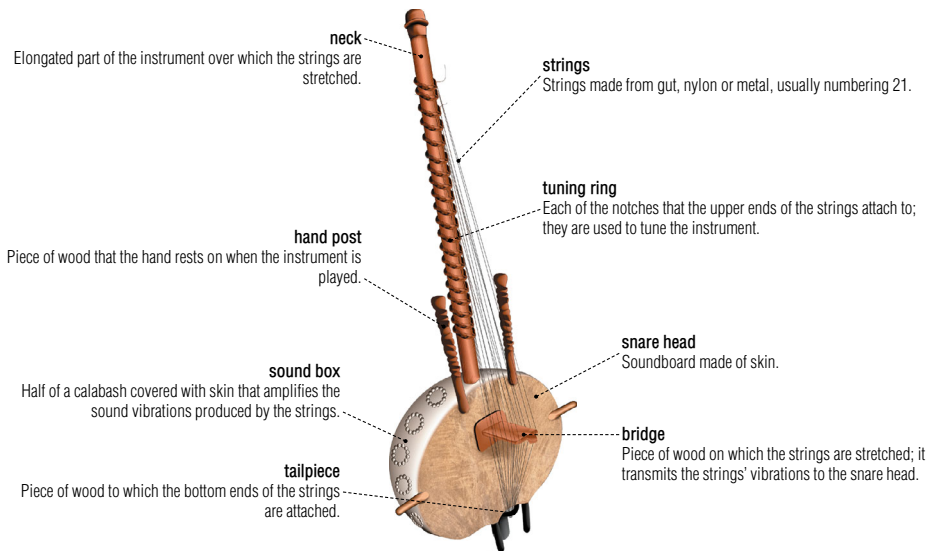
open strings

Strings with fixed tones, plucked with the fingers of the right hand.

traditional musical instruments

kora

Plucked string instrument used in Africa for celebrations and rituals.

**mandolin**

Plucked instrument with paired strings and a pear-shaped body, originally from Italy.

plectrum

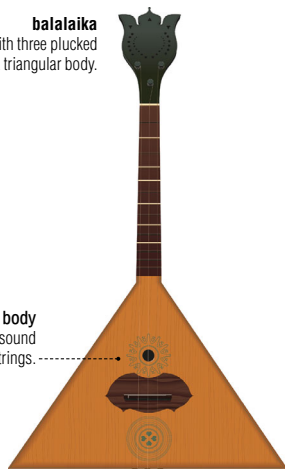
Accessory used to cause the strings to vibrate on certain instruments, also called a pick.

**pear-shaped body**

Soundboard in the shape of a half pear; it amplifies the sound vibrations produced by the strings.

balalaika

Russian instrument with three plucked strings and a triangular body.

**triangular body**

Soundboard that amplifies the sound vibrations produced by the strings.

Jew's harp

Instrument composed of a tongue fitted to a frame; the instrument is held against the lips and the mouth is used to alter or amplify the sound vibrations.

**tongue**

Flexible strip of metal attached to the frame; the player uses a finger to make it vibrate.

frame

Curved metal or bamboo rod held against the lips.

lyre

Plucked string instrument used in antiquity.

crossbar

Horizontal piece of wood supported by the arms, across which the strings are stretched.

arm

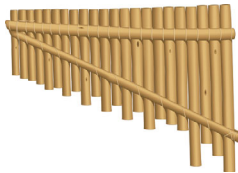
Each of the pieces of wood connecting the soundboard to the crossbar.

**soundboard**

The hollow part of the instrument whose shape varies; it amplifies the sound vibrations produced by the strings.

panpipe

South American instrument consisting of tubes of unequal length, each of which produces a single note.

**djembe**

Large chalice-shaped drum used in Africa for celebrations and rituals.

batter skin

Stretched goat or antelope skin that is struck with the hands.

sound box

Hollow cone-shaped part of the instrument that amplifies the sound vibrations produced by the hands beating on the drum.

tension rope

Twisting ropes used to tighten the batter skin.

**drumstick**

Curved stick used to strike the skin of the talking drum.

**talking drum**

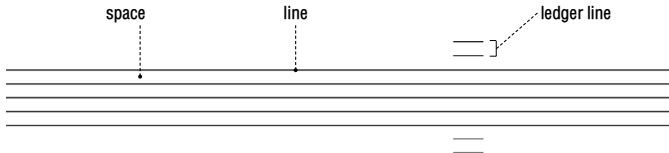
Drum from West Africa that is held in the armpit when played; its hourglass shape allows the tone to be adjusted by applying arm pressure to the tension ropes.

musical notation

Collective term for the signs on a staff that represent sounds and silences as well as value, pitch, measure, rhythm and so forth.

staff

A series of five lines and four spaces on which music is written and read: the lower notes are written on the bottom, the higher notes on the top; the duration of the notes is read from left to right.



clefs

Signs placed at the beginning of the staff and named after the note they refer to.



G clef

Key indicating that the second line of the staff corresponds to the note G; it is used to write notes in the middle and treble registers.

F clef

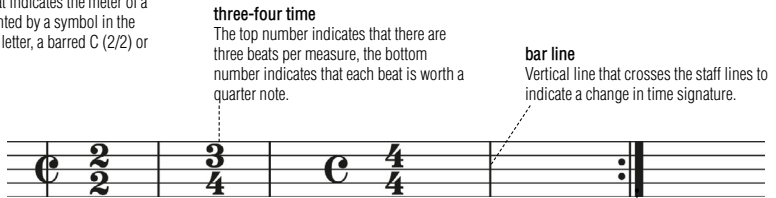
Key indicating that the fourth line of the staff corresponds to the note F; it is used to write notes in the middle and bass registers.

C clef

Rarely used clef indicating that the line chosen (first, third or fourth) corresponds to the note C; its use is more specialized.

time signatures

Section of the staff that indicates the meter of a composition, represented by a symbol in the form of a fraction or a letter, a barred C (2/2) or a C (4/4).



two-two time

The top number indicates that there are two beats per measure, the bottom number indicates that each beat is worth a half note.

three-four time

The top number indicates that there are three beats per measure, the bottom number indicates that each beat is worth a quarter note.

four-four time

The top number indicates that there are four beats per measure, the bottom number indicates that each beat is worth a quarter note.

bar line

Vertical line that crosses the staff lines to indicate a change in time signature.

repeat mark

Sign that indicates that a section or passage is to be played again.

intervals

Difference in pitch between two successive notes (melodic interval) or simultaneous notes (harmonic interval).

unison
Notes of the same pitch, or one or more octaves apart, produced simultaneously by several voices or instruments.

second
Interval of two tones (e.g., from C to D).

third
Interval of three tones (e.g., from C to E).

fourth
Interval of four tones (e.g., from C to F).

fifth
Interval of five tones (e.g., from C to G).

sixth
Interval of six tones (e.g., from C to A).

seventh
Interval of seven tones (e.g., from C to B).

octave
Interval of eight tones (e.g., from C to C).

scale

The diatonic scale consists of eight notes, including two semitones between E and F and between B and C. The chromatic scale is composed of 13 notes, all semitones.

C D E F G A B C

musical notation

rest symbols

Symbol that marks an interruption of sound; the figure indicates duration and has the same value as the accompanying note.

whole rest
Silence equal to four beats or a whole note.

half rest
Silence equal to two beats or a half note.

quarter rest
Silence equal to one beat or a quarter note.

eighth rest
Silence equal to 1/2 of a beat or an eighth note.

sixteenth rest
Silence equal to 1/4 of a beat or a sixteenth note.

thirty-second rest
Silence equal to 1/8 of a beat or a thirty-second note.

sixty-fourth rest
Silence equal to 1/16 of a beat or a sixty-fourth note.

accidentals

Signs used to change the pitch of a note.

key signature
Collective term for the accidentals placed after the clef to indicate the tonality of a composition.

sharp
Accidental placed before a note that raises it by a semitone.

flat
Accidental placed before a note that lowers it by a semitone.

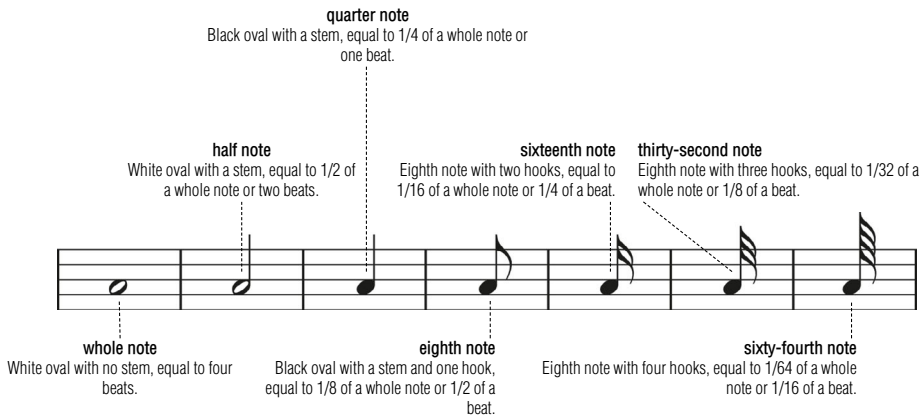
natural
Accidental that cancels the effect of another accidental.

double sharp
Accidental placed before a note that raises it by two semitones.

double flat
Accidental placed before a note that lowers it by two semitones.

note symbols

Measure of a note, determined by its form; the whole note represents the basic unit of time.

**other signs**

Signs that indicate how a note or series of notes should be played.

**chord**

Three or more notes played simultaneously.

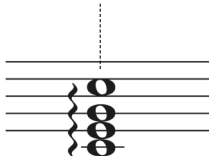
**tie**

Curved line indicating that the first note is prolonged by the value of the note or notes following it.

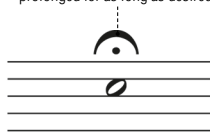
accent mark
Sign indicating that a note should be played louder.



arpeggio
A chord whose notes are played in rapid succession, starting with the lowest.



pause
Sign indicating that the note can be prolonged for as long as desired.

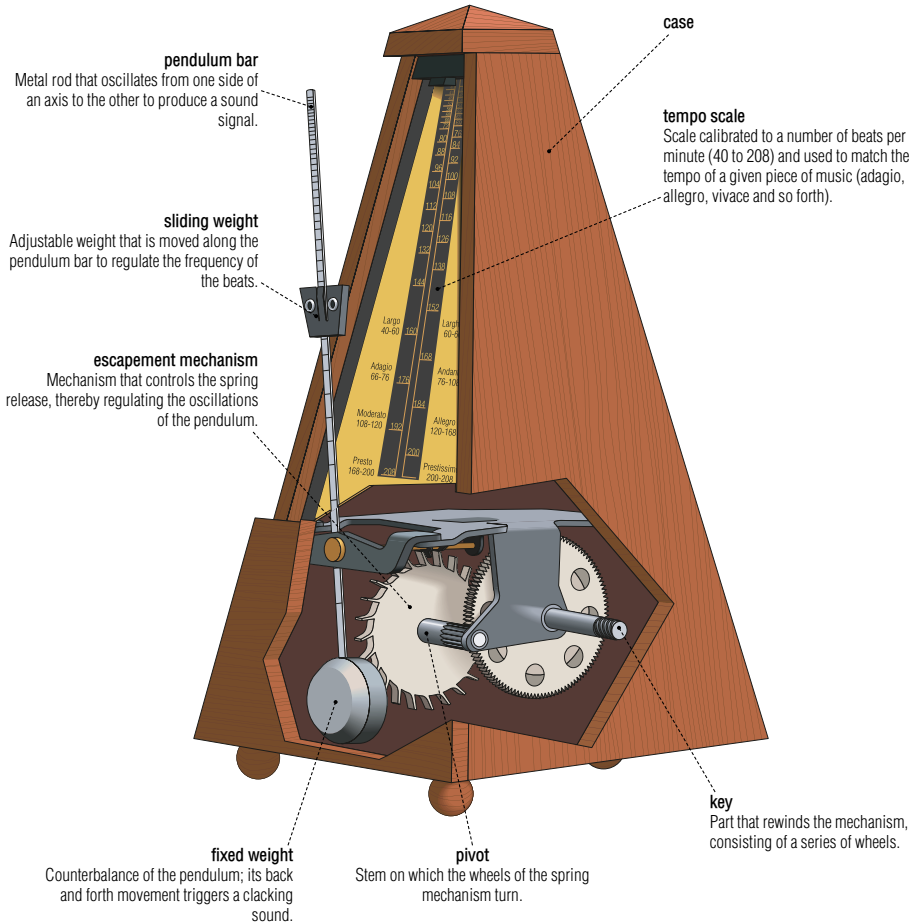


musical accessories

Instruments used by musicians to measure the tempo of a composition, tune their instruments and hold their music.

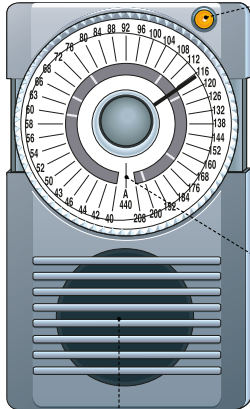
metronome

Spring-activated pendular instrument whose beats can be synchronized with the tempo of a piece of music while practicing.



quartz metronome

Metronome that translates the electric signal produced by a piece of quartz into sound or visual signals.

**light signal**

Part that translates the electronic beats of the metronome into flashing light.

standard A

Reference note established as the international standard; its frequency is 440 Hz (440 vibrations per second).

sound signal

Device that translates the metronome's electric signal into beeps; its volume can be controlled.

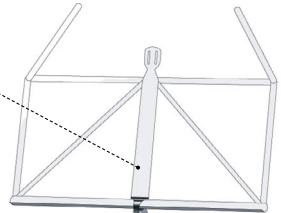
**tuning fork**

Metal instrument used to tune voices and instruments; by convention, its two vibrating prongs emit an A note.

music stand

Device with an inclined frame where the musician places music so that it can be read comfortably.

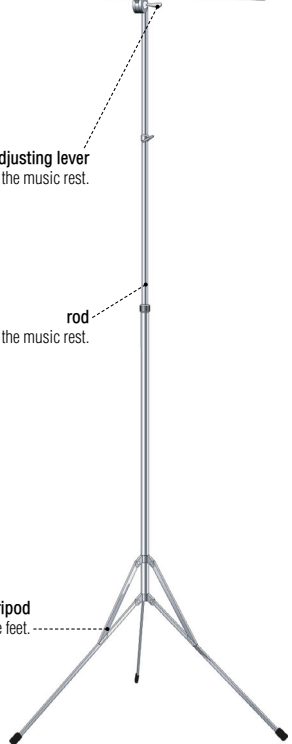
music rest
Inclined frame on which the musician places music.



adjusting lever
Lever that regulates the incline of the music rest.

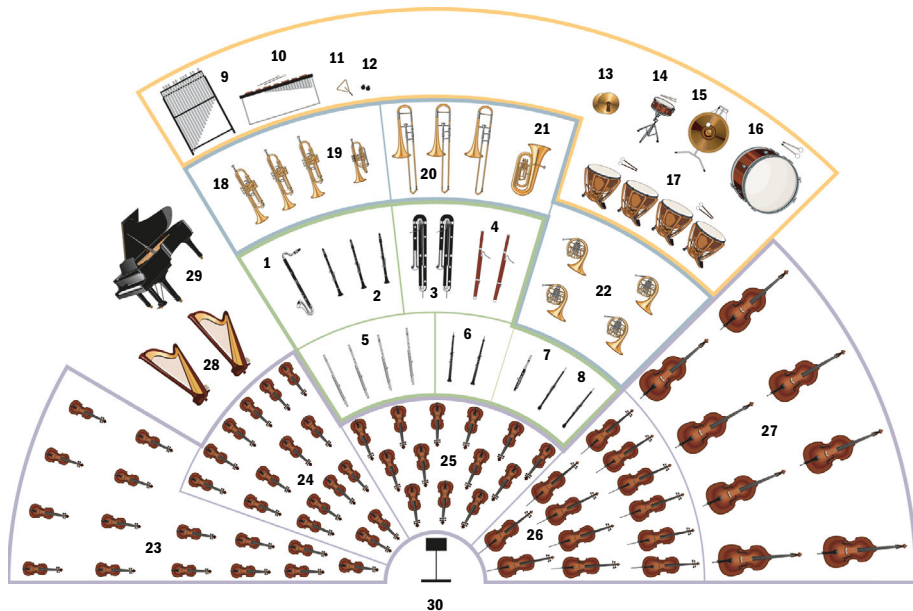
rod
Telescopic piece used to adjust the height of the music rest.

tripod
Solid base with three feet.



symphony orchestra

Group composed of numerous musicians under the direction of a conductor; it includes various categories of instruments, depending on the work to be performed.



woodwind family

Group of wind instruments originally made from wood.

bass clarinet

- 1 Clarinet with a curved tube; its range is one octave lower than the ordinary clarinet.

clarinets

- 2 Single-reed instruments whose cylindrical tube contains holes (some closed by keys) and ends in a flared bell.

contrabassoons

- 3 Double-reed wind instruments consisting of several tubes; their range is one octave lower than the bassoon.

bassoons

- 4 Double-reed instruments consisting of a curved conical wooden tube; the double-reed is inserted into a curved mouthpiece.

flutes

- 5 Instruments with a side mouthpiece and a tube containing holes, some of which are closed by keys.

oboes

- 6 Double-reed instruments consisting of a conical tube with holes (some closed by keys) and a slightly flared bell.

piccolo

- 7 Small transverse flute whose range is an octave higher than the regular transverse flute.

English horns

- 8 Alto oboes with a pear-shaped bell.

percussion instruments

Group of instruments that are struck directly with the hands or with sticks, mallets, etc. to produce a sound.

tubular bells

9 Series of metal tubes arranged vertically in order of size; small hammers are used to strike the tops of the tubes.

xylophone

10 Instrument consisting of wooden bars placed on top of resonators arranged in chromatic order in two rows; the bars are struck with mallets.

triangle

11 Instrument composed of a metal bar bent to form a triangle open at one end; the triangle is struck with a metal rod.

castanets

12 Instrument composed of two shell-shaped pieces of wood held in one hand and struck together using the fingers.

cymbals

13 Instrument consisting of two metal disks that are struck together.

snare drum

14 Flat drum consisting of two membranes; stretched across the lower head are snares that produce a rattling sound.

gong

15 Instrument consisting of a large metal disk with a raised central portion that is struck using a mallet.

bass drum

16 Large drum set on a vertical frame and struck using a pedal-controlled wooden mallet.

timpani

17 Instruments consisting of a parabolic copper basin covered with a stretched batter head that is struck with a mallet.

brass family

Group of wind instruments made from metal and played with cup-shaped mouthpieces.

trumpets

18 Valved instruments consisting of a curved cylindrical tube and a flared bell.

cornet

19 Valved instrument consisting of a curved conical tube and a flared bell.

trombones

20 Instruments consisting of a curved tube with a slide that is lengthened to produce notes varying in pitch by semitones.

tuba

21 Valved instrument whose tonal range is the lowest in the brass family; it consists of a coiled conical tube and an upturned bell.

French horns

22 Valved instruments consisting of a coiled conical tube and a flared bell.

violin family

Group of stringed instruments played with a bow.

first violins

23 The violins that play the melody.

second violins

24 The violins that support the first violins.

violas

25 Four-stringed instruments similar to a violin but played a fifth lower.

cellos

26 Four-stringed instruments placed between the legs when played; they are about twice the size of a violin and their range is one octave lower than the viola.

double basses

27 Four- or five-stringed instruments played upright; the largest of the violin family, they also have the lowest range.

harps

28 Plucked stringed instruments consisting of strings of unequal length attached to a triangular frame.

piano

29 Piano whose mechanism is horizontal, allowing the pianist to better control the sound; it varies in size from 8 to 9 ft.

conductor's podium

30 Small dais that the conductor stands on to direct the musicians as they play.

examples of instrumental groups

Instrumental groups: groups of two or more instruments and musicians; a group's composition depends on the work being played.

duo

Musical work composed for two instruments.



trio

Musical work composed for three instruments.

quartet

Musical work composed for four instruments; the most common, the string quartet, features two violins, a viola and a cello.

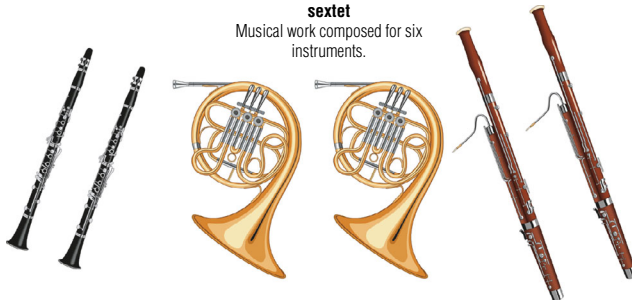


quintet

Musical work composed for five instruments.

**sextet**

Musical work composed for six instruments.

**jazz band**

Group composed of an indeterminate number of instruments playing an Afro-American style of music created in the early 20th century.

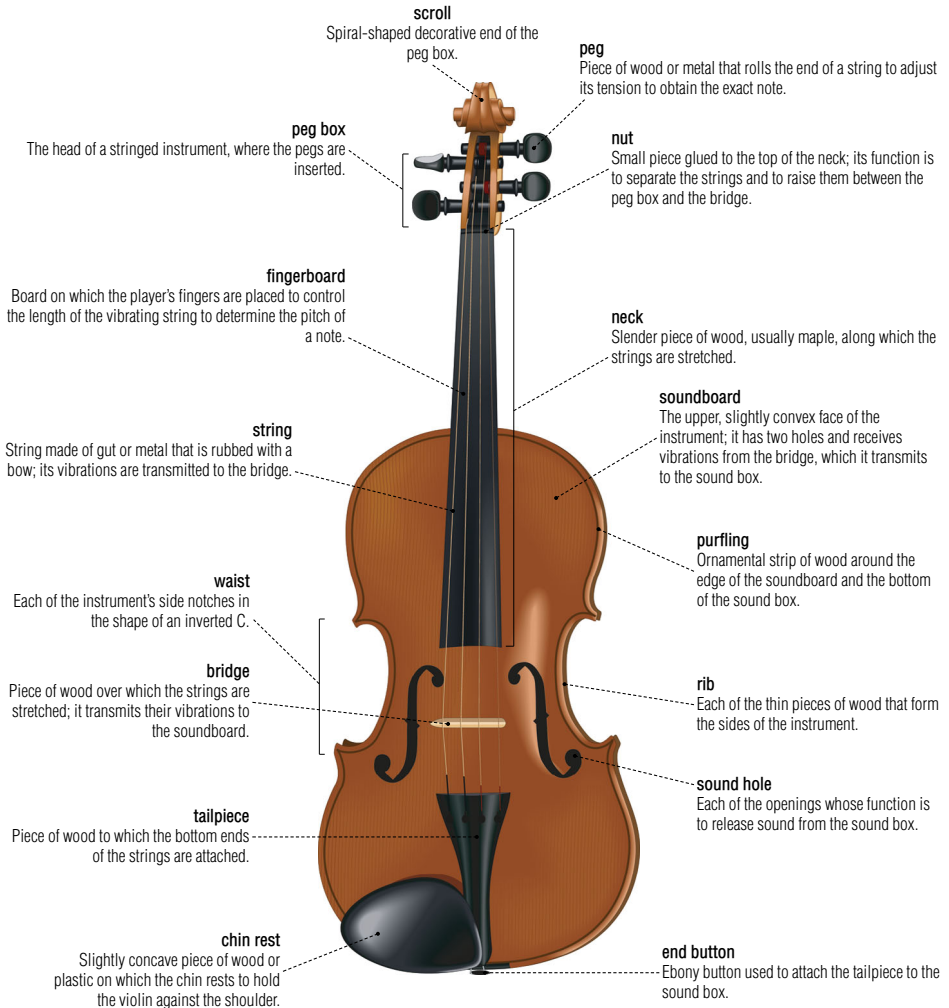


stringed instruments

Instruments whose sound, amplified by a sound box, is produced by the vibration of plucked or bowed strings stretched along a neck.

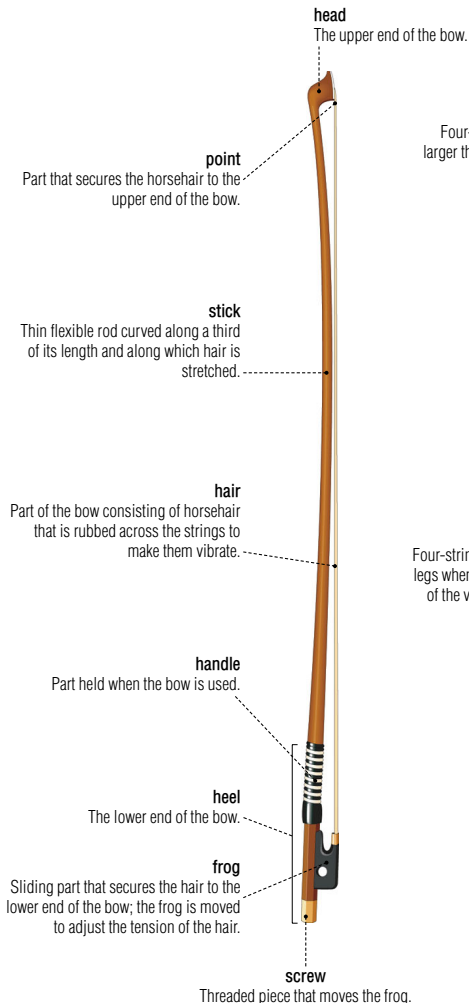
violin

Four-stringed instrument that the musician plays with a bow and holds between the shoulder and the chin.



bow

A wooden stick with horsehair stretched from end to end; by means of friction, it makes the strings of an instrument vibrate.

**violin family**

Group of stringed instruments played with a bow.

viola

Four-stringed instrument slightly larger than the violin; its range is a fifth lower than the violin.

**violin**

Four-stringed instrument that the musician plays with a bow and holds between the shoulder and the chin.

**double bass**

Four- or five-stringed instrument, played upright; the largest member of the violin family, it also has the lowest range.

**cello**

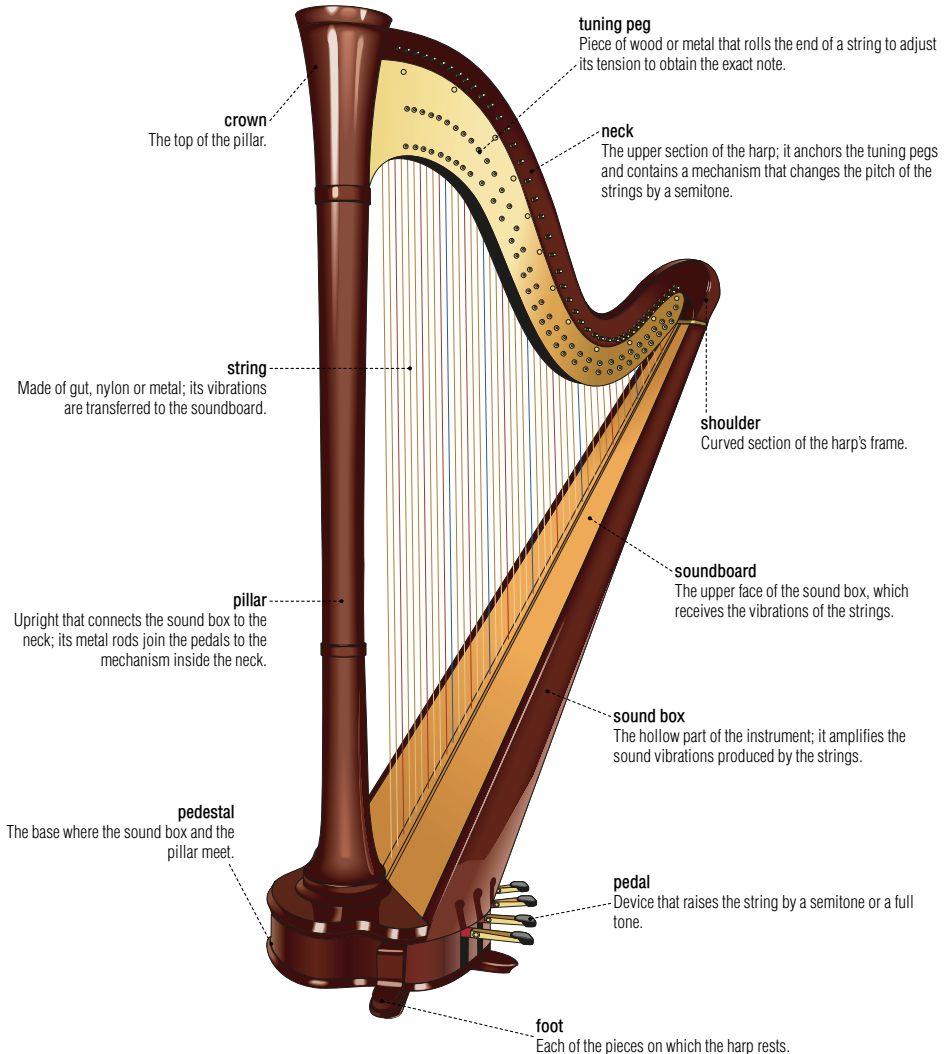
Four-stringed instrument held between the legs when played; it is about twice the size of the violin and its range is an octave lower than the viola.



stringed instruments

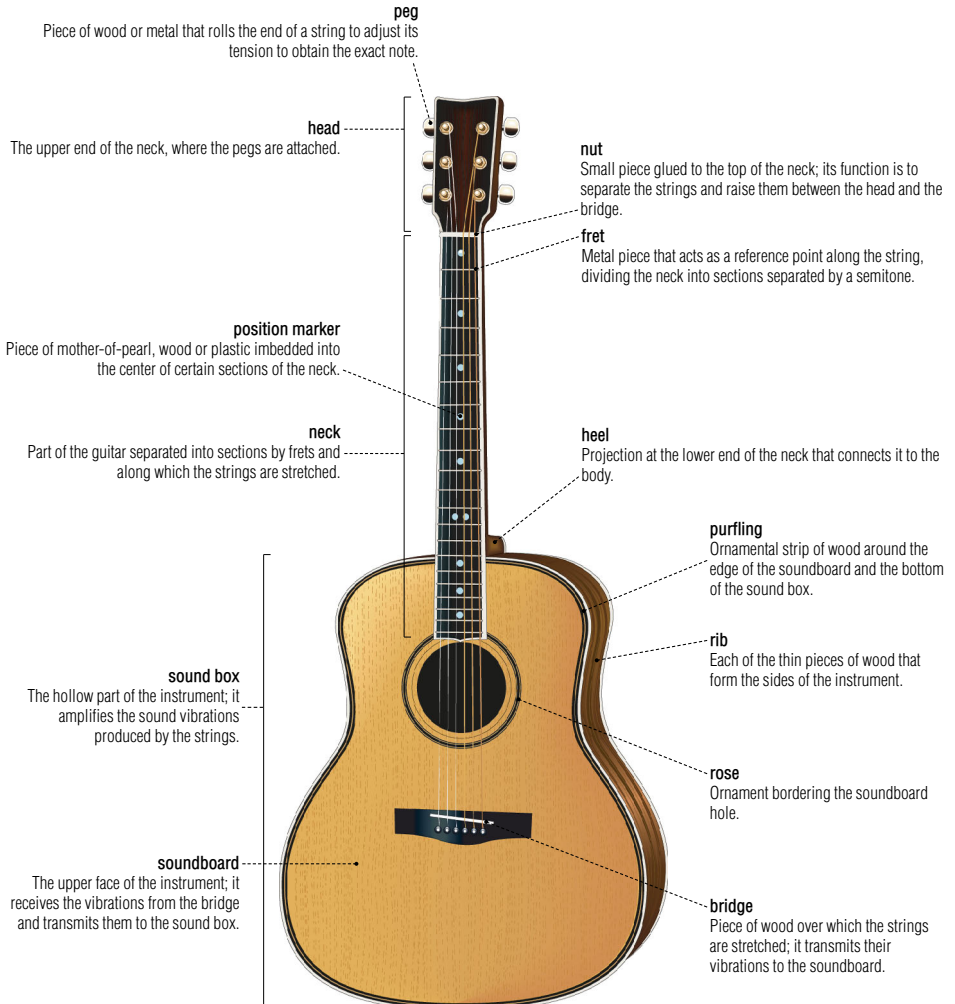
harp

Plucked stringed instrument consisting of strings of various lengths attached to a triangular frame.



acoustic guitar

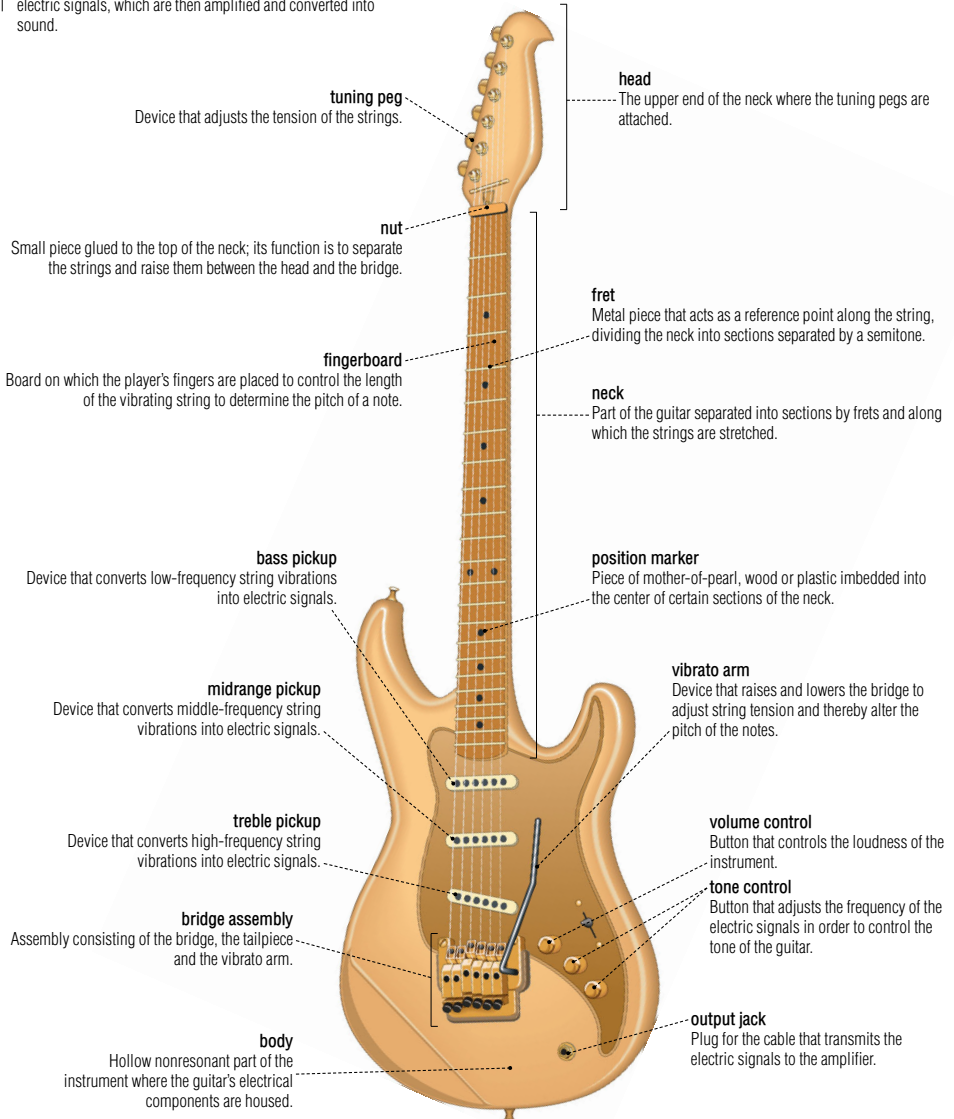
Plucked stringed instrument whose hollow body amplifies the vibrations produced by the strings.



stringed instruments

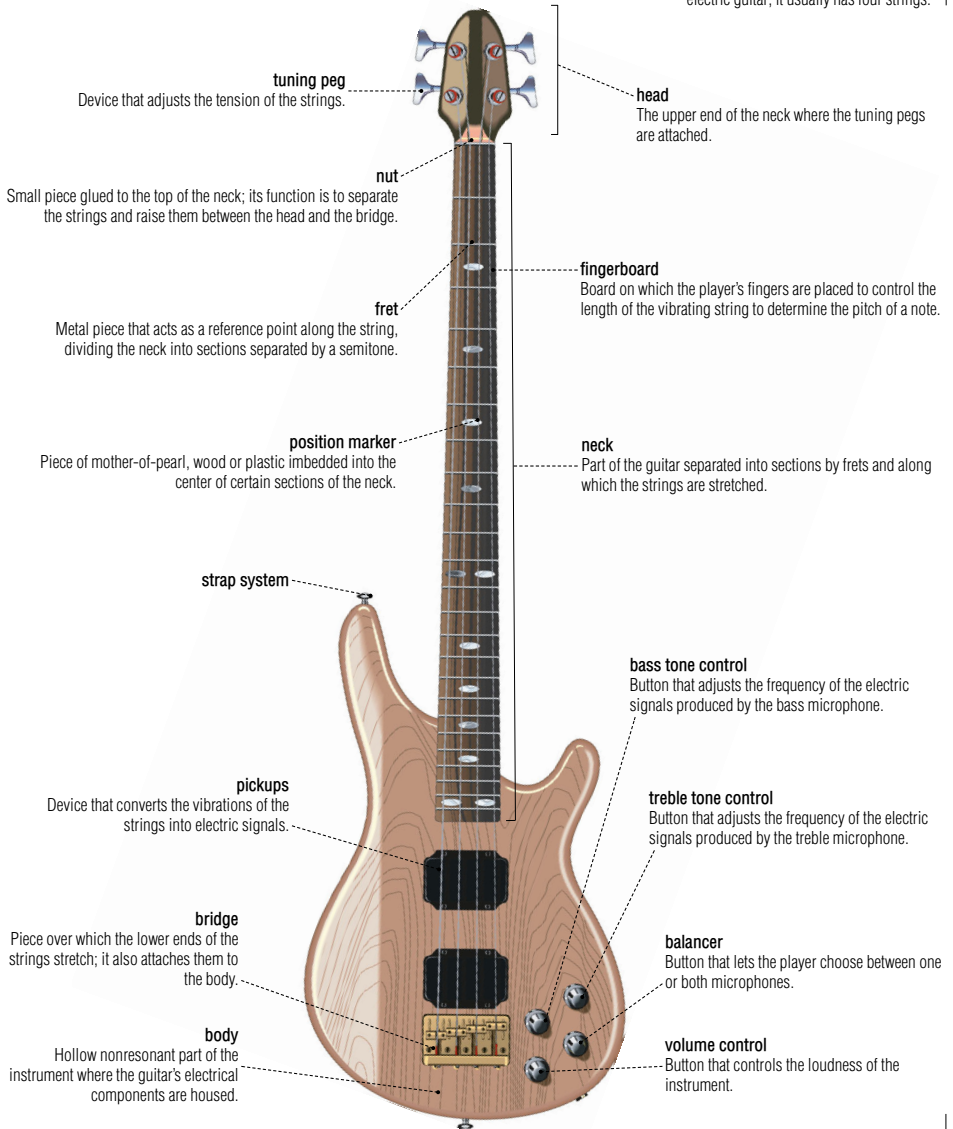
electric guitar

Guitar with microphones that convert string vibrations into electric signals, which are then amplified and converted into sound.



bass guitar

Guitar whose tonal range is lower than that of the electric guitar; it usually has four strings.

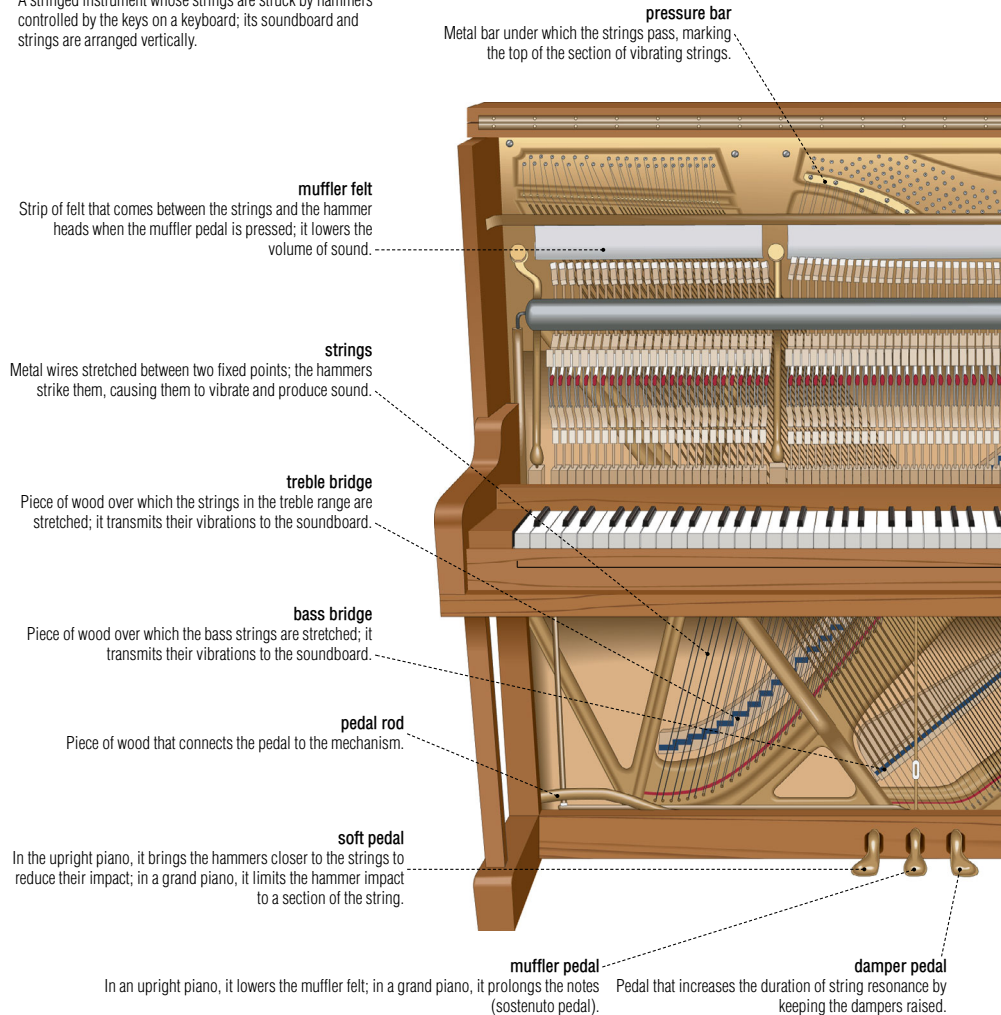


keyboard instruments

Instruments with a series of keys that are pressed to strike or pluck strings and thereby produce sound.

upright piano

A stringed instrument whose strings are struck by hammers controlled by the keys on a keyboard; its soundboard and strings are arranged vertically.



pressure bar

Metal bar under which the strings pass, marking the top of the section of vibrating strings.

muffer felt

Strip of felt that comes between the strings and the hammer heads when the muffer pedal is pressed; it lowers the volume of sound.

strings

Metal wires stretched between two fixed points; the hammers strike them, causing them to vibrate and produce sound.

treble bridge

Piece of wood over which the strings in the treble range are stretched; it transmits their vibrations to the soundboard.

bass bridge

Piece of wood over which the bass strings are stretched; it transmits their vibrations to the soundboard.

pedal rod

Piece of wood that connects the pedal to the mechanism.

soft pedal

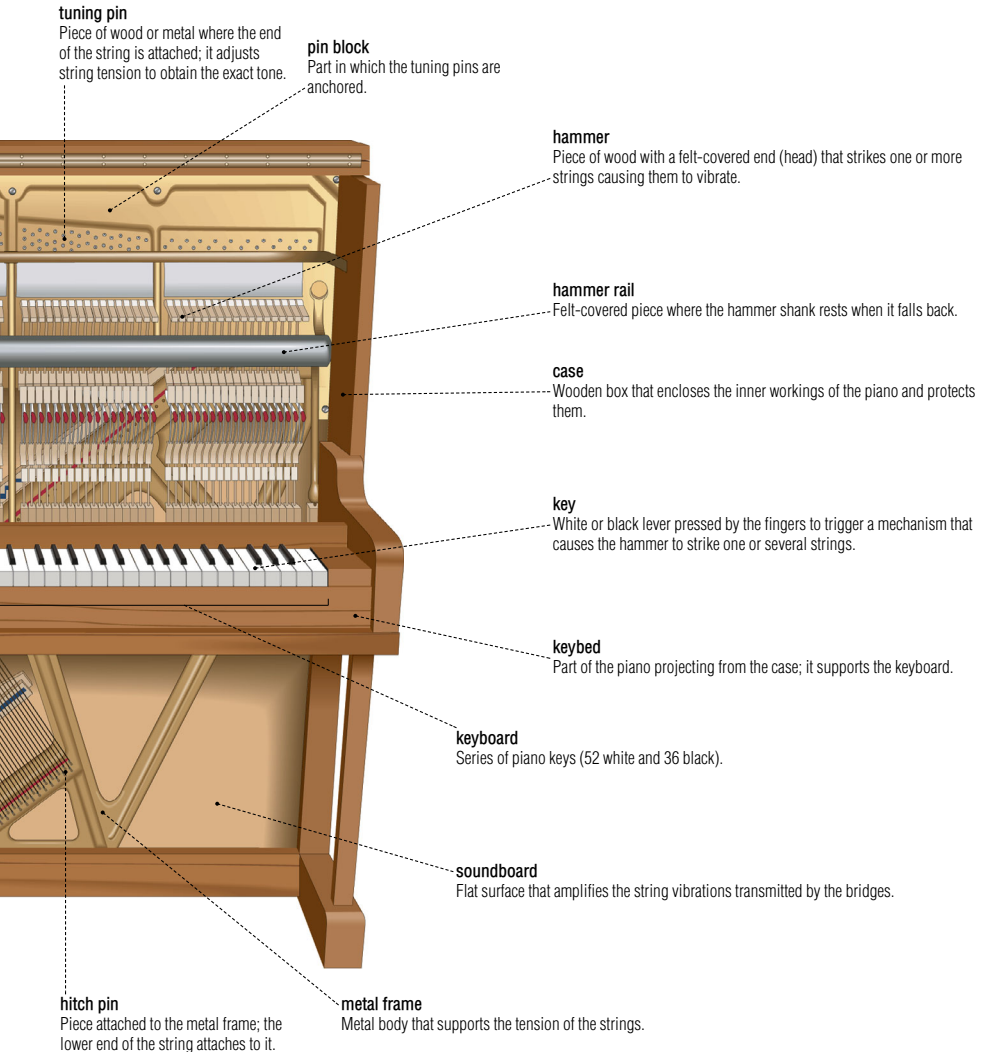
In the upright piano, it brings the hammers closer to the strings to reduce their impact; in a grand piano, it limits the hammer impact to a section of the string.

muffer pedal

In an upright piano, it lowers the muffer felt; in a grand piano, it prolongs the notes (sostenuto pedal).

damper pedal

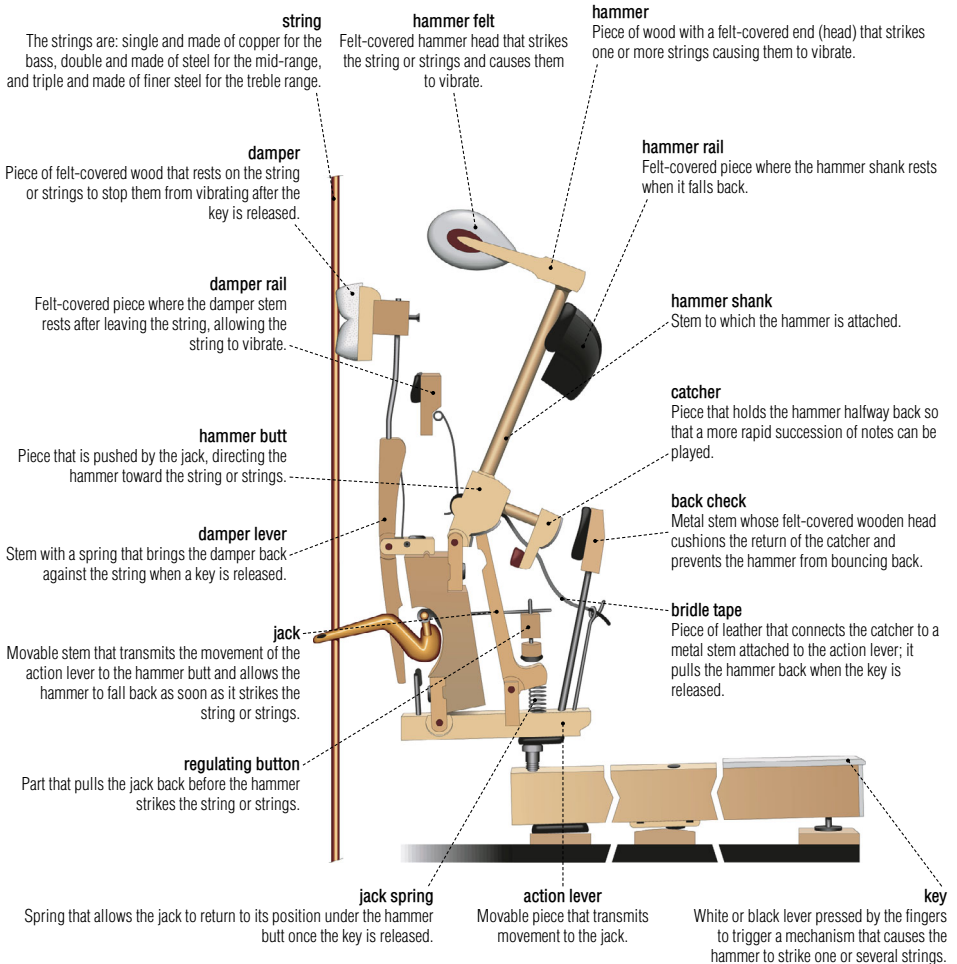
Pedal that increases the duration of string resonance by keeping the dampers raised.



keyboard instruments

upright piano action

Combination of elements whereby energy applied to a key is transferred to the hammer, which in turn causes the strings to vibrate.



examples of keyboard instruments

concert grand

Piano whose mechanism is horizontal, allowing the pianist to better control the sound; it varies in size from 8 to 9 ft.

**baby grand**

Grand piano measuring around 5.5 ft.

**boudoir grand**

Grand piano measuring from 6 to 7 ft.

**harpsichord**

Plucked string instrument consisting of one or several keyboards.

keyboard instruments

organ

Wind instrument with several keyboards; it produces sound by means of pipes that are fed by a blower.

organ console

Console consisting of the mechanisms controlled by the organist (e.g., manuals, pedals, stop knobs).

coupler-tilt tablet

Plate that controls the mechanism joining two or more manuals.

thumb piston

Hand-controlled mechanism used to prepare the pipes of a manual in advance, making them sound only when the piston is pushed.

manuals

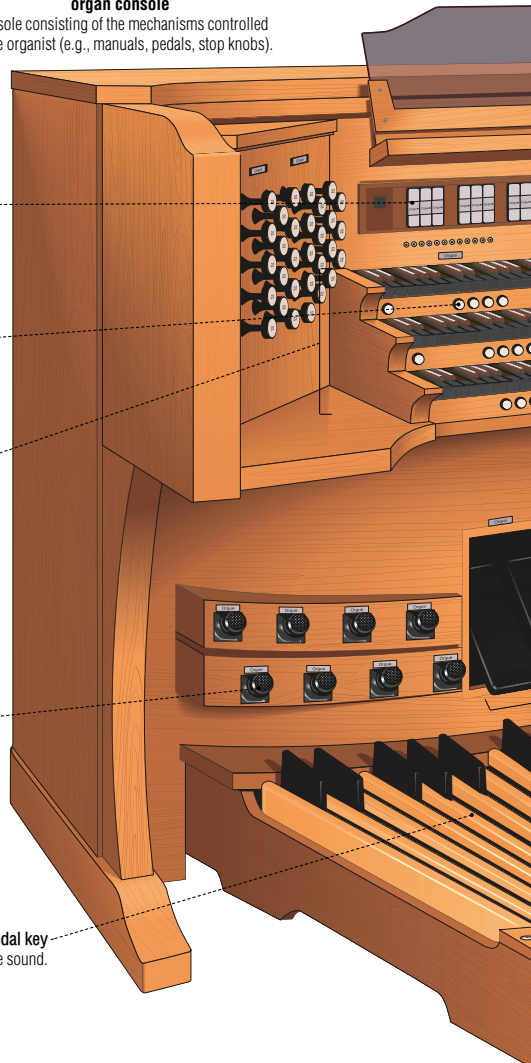
Each of the series of keys that the organist plays by hand, which control one or several pipes of the same note.

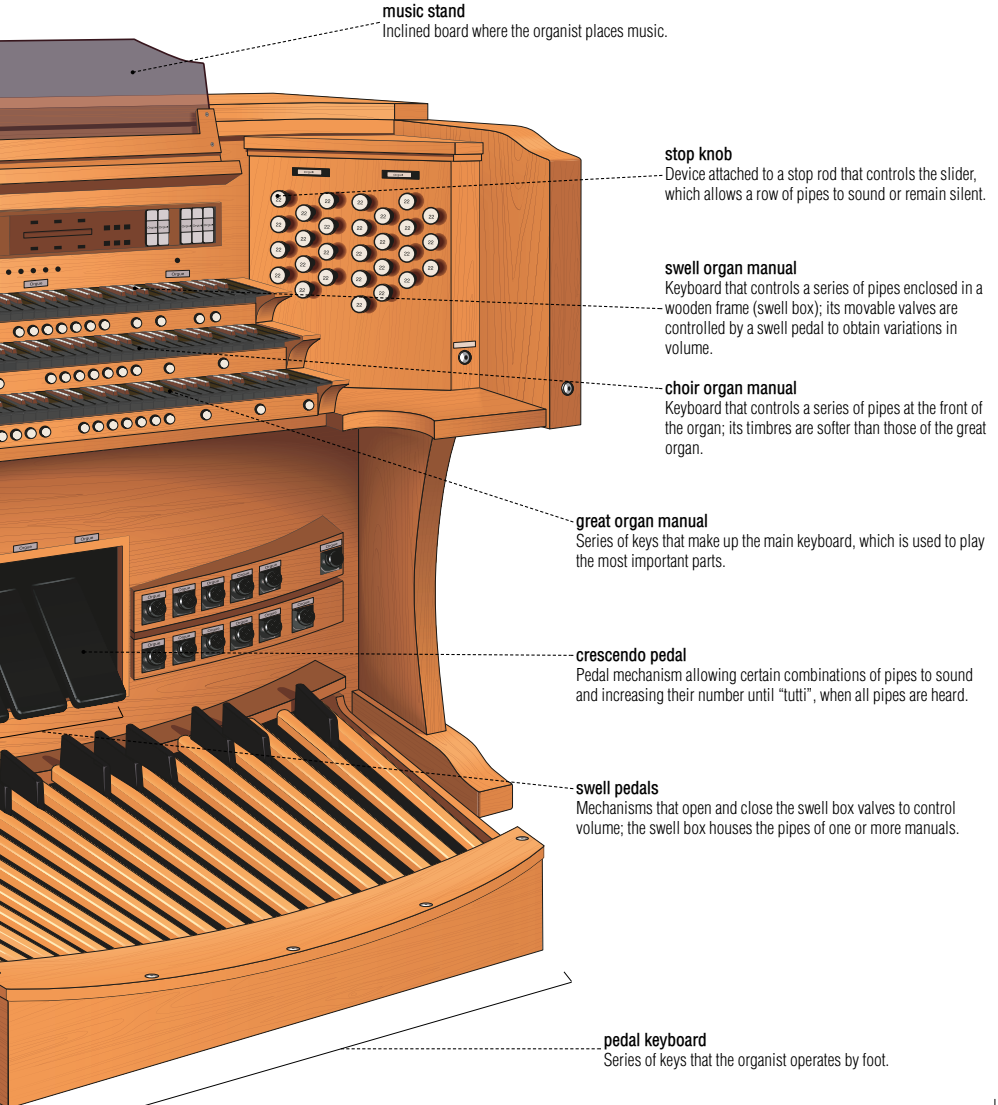
toe piston

Mechanism controlled by foot that prepares the pipes in advance, making them sound only when the pedal is pushed.

pedal key

Lever that is lowered using the foot to allow air to enter and produce sound.

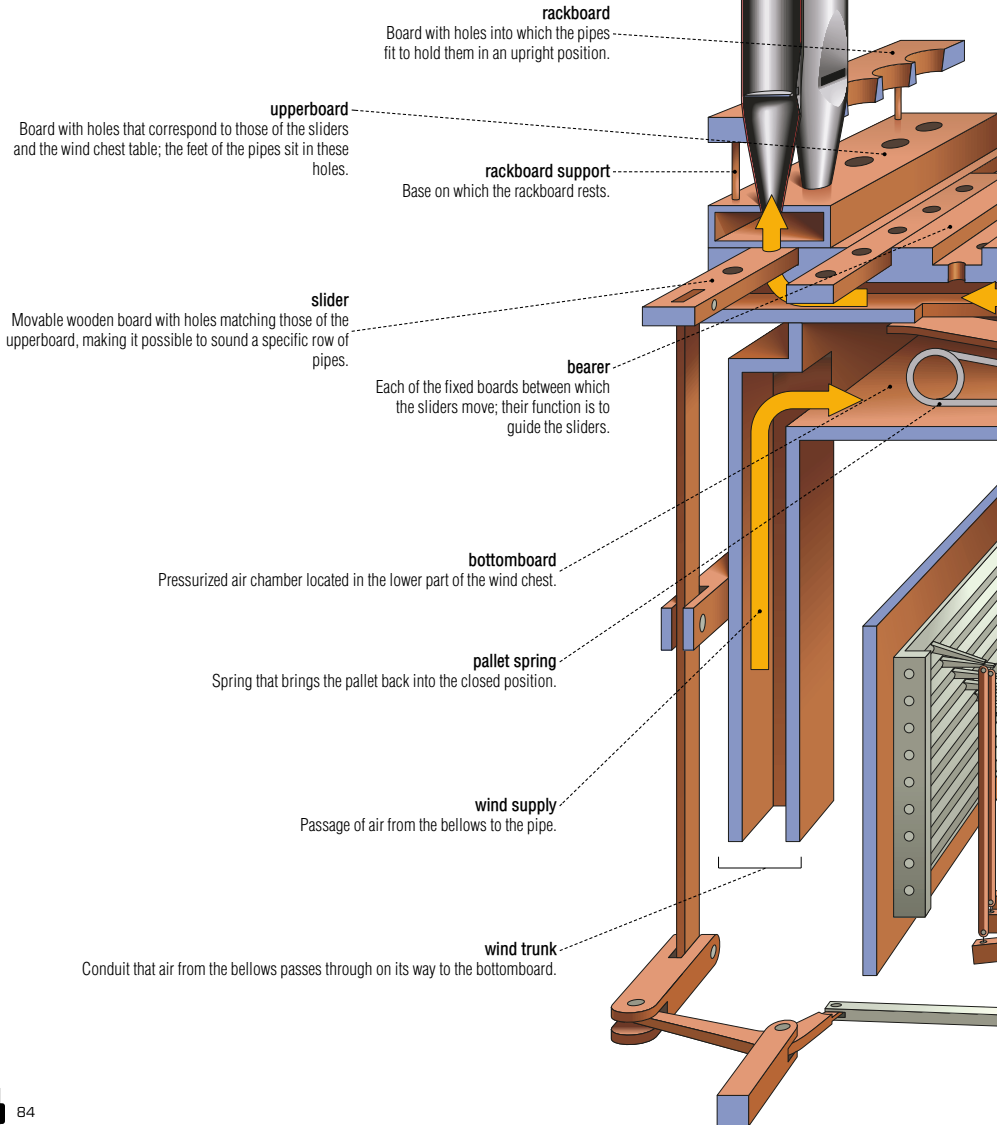


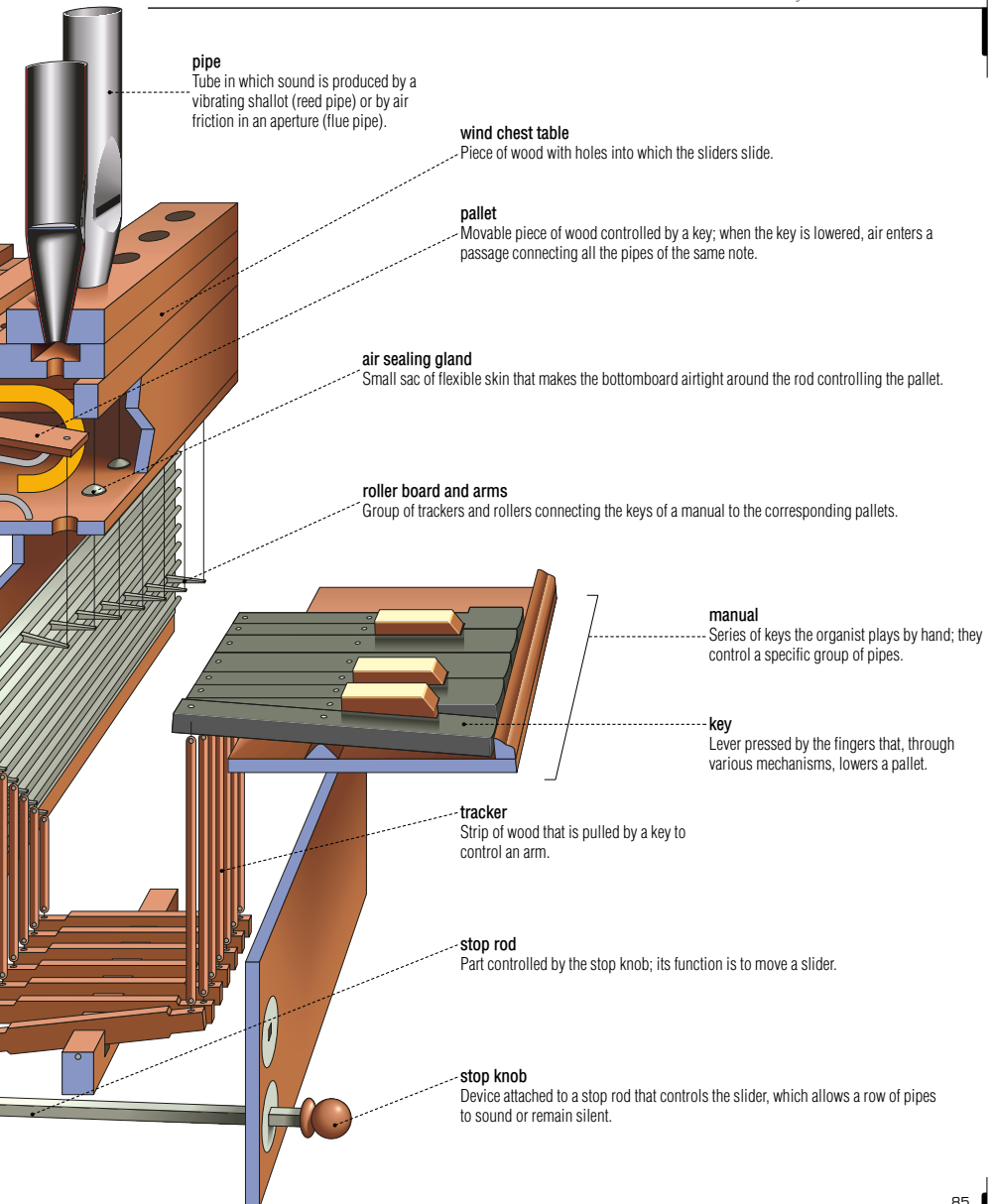


keyboard instruments

mechanism of the organ

All the parts between the manual keys and the pipes; in combination, they cause the organ to function.

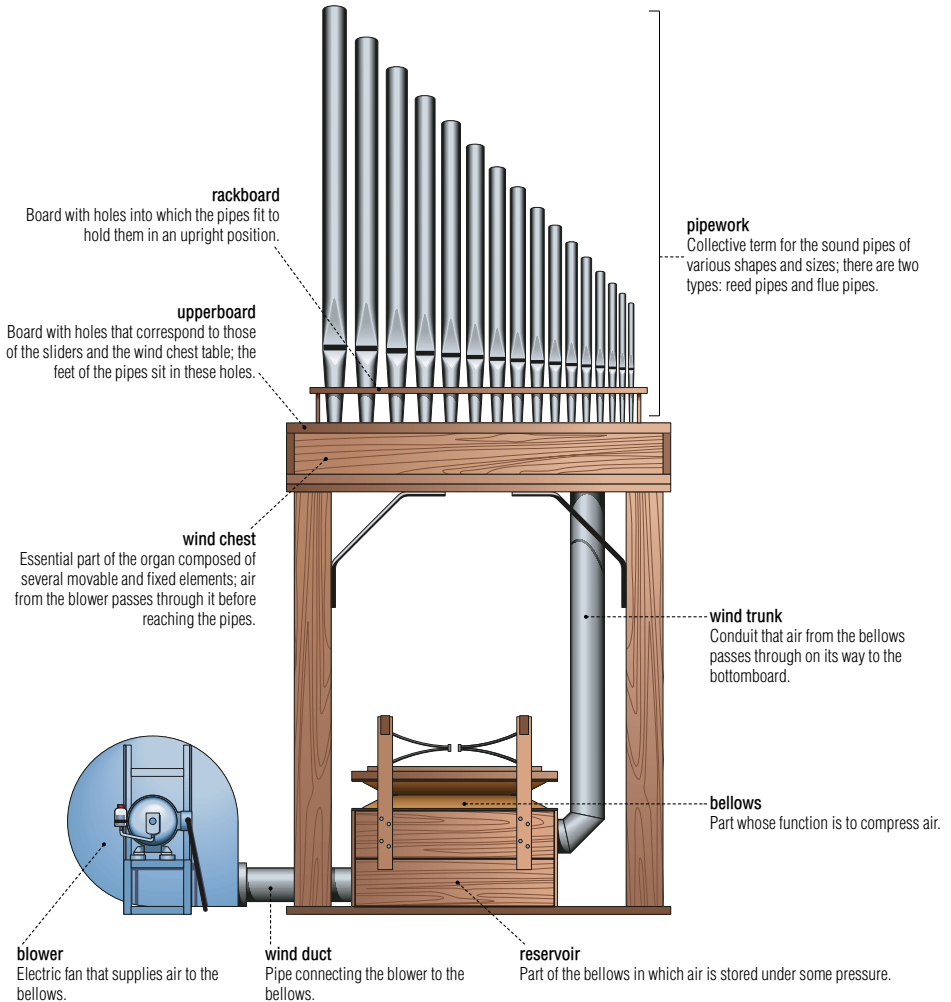




keyboard instruments

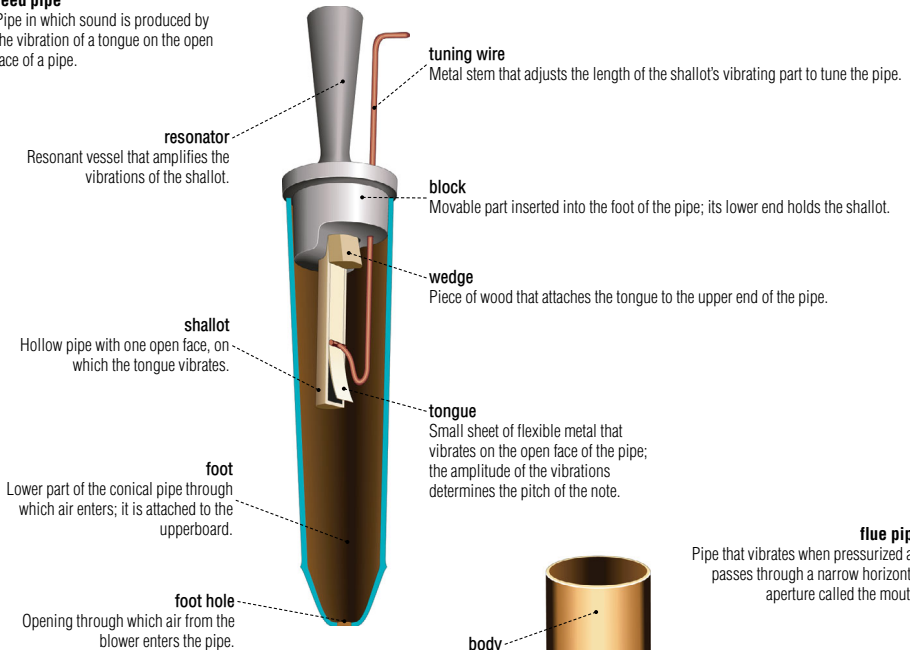
production of sound

The sound made by the organ pipes is generated by a supply of air from an electric blower.

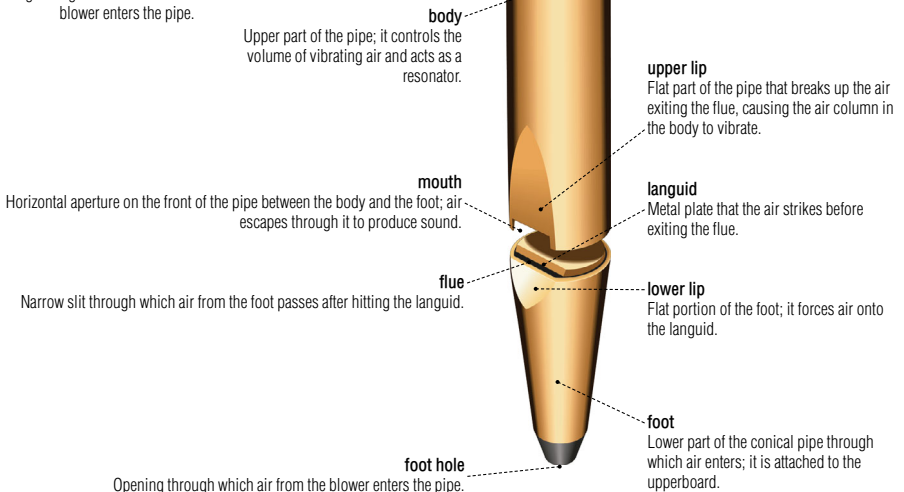


reed pipe

Pipe in which sound is produced by the vibration of a tongue on the open face of a pipe.

**flue pipe**

Pipe that vibrates when pressurized air passes through a narrow horizontal aperture called the mouth.

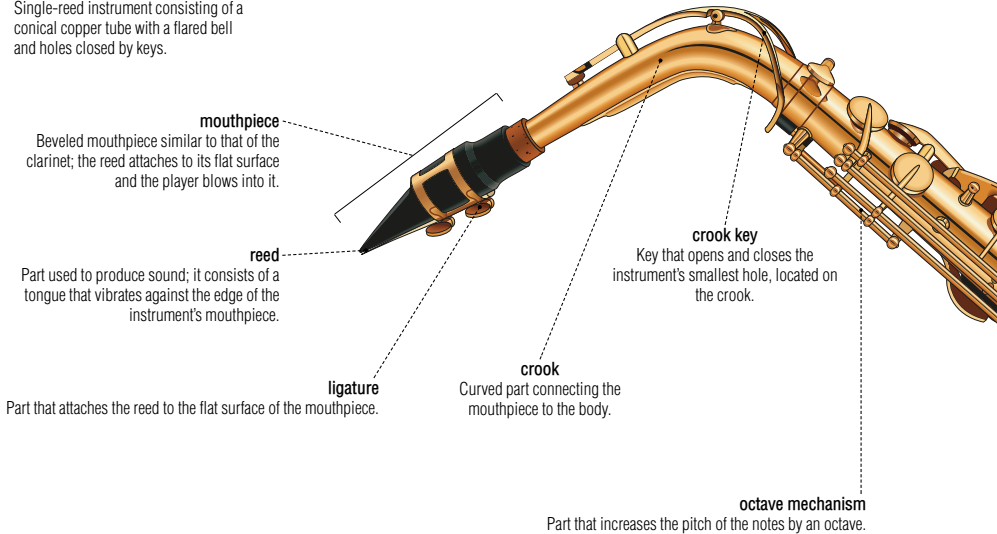


wind instruments

Collective term for instruments that produce sound by blowing, which causes the air column inside the tube to vibrate; a reed or the lips are used to play them.

saxophone

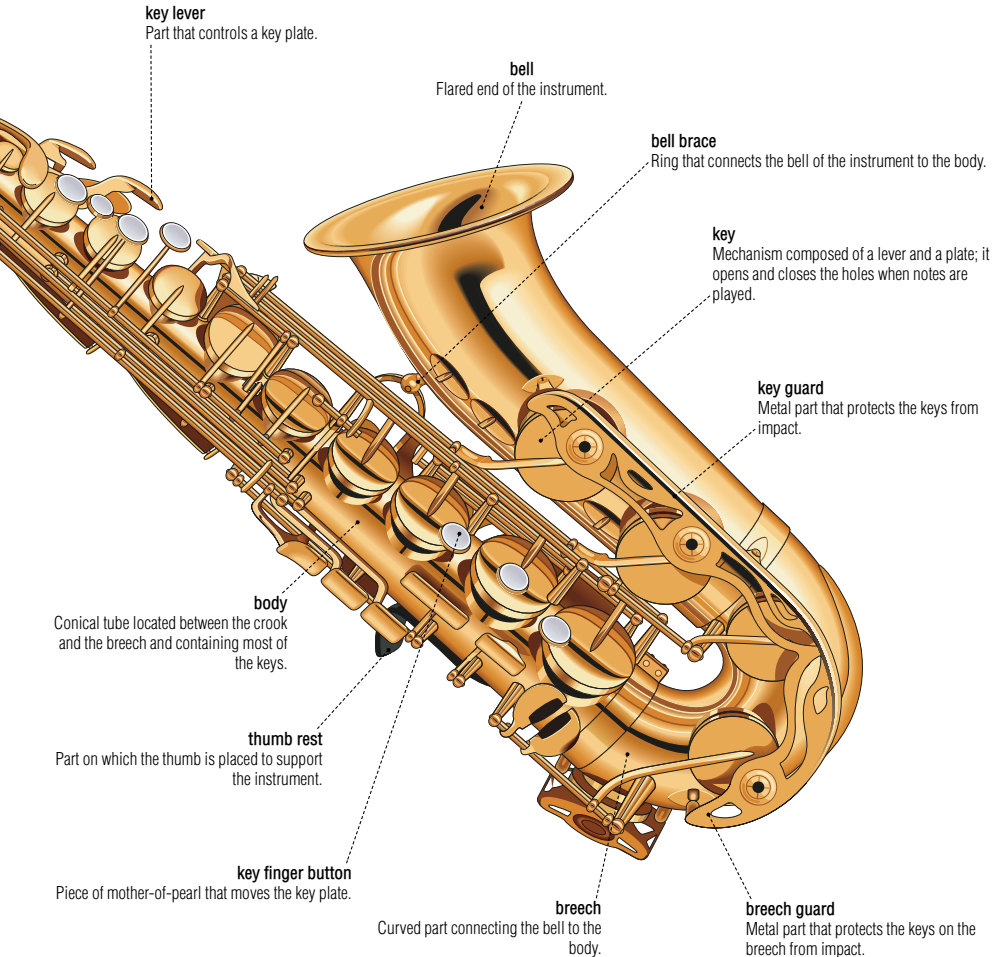
Single-reed instrument consisting of a conical copper tube with a flared bell and holes closed by keys.

**double reed**

Part of the mouthpiece used to produce sound; it consists of two tongues that vibrate against each other.

**single reed**

Part used to produce sound on a woodwind instrument; it consists of a tongue that vibrates against the edge of the mouthpiece.



**bassoon**

Instrument with a double reed that fits into a curved mouthpiece; it consists of two parallel wooden tubes joined at the base.

**clarinet**

Single-reed instrument consisting of a cylindrical tube with holes (some closed by keys) and a flared bell.

**piccolo**

Small transverse flute whose range is an octave higher than the regular transverse flute.

**oboe**

Double-reed instrument consisting of a conical tube with holes (some closed by keys) and a slightly flared bell.

**transverse flute**

Instrument consisting of a metal or wooden tube with holes (some closed by keys) and a side mouthpiece; it is held horizontally.

**English horn**

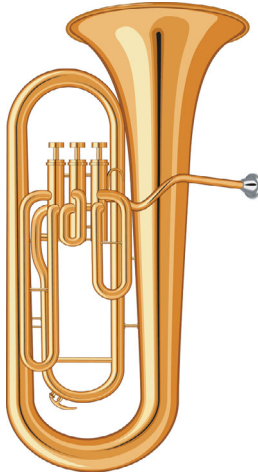
Alto oboe with a pear-shaped bell.

tuba

Valved instrument whose tonal range is the lowest in the brass family; it consists of a coiled conical tube and an upturned bell.

**saxhorn**

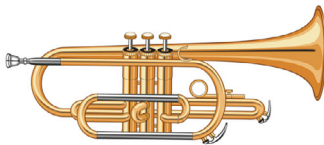
Valved instrument whose range is a fifth lower than the cornet; it consists of a curved conical tube and a large bell.

**French horn**

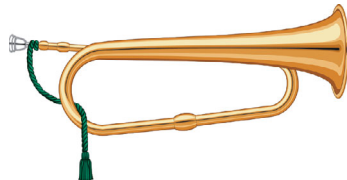
Valved instrument consisting of a coiled conical tube and a flared bell.

**trombone**

Instrument with a curved tube and a slide that is lengthened to produce notes varying in pitch by semitones; its register is lower than that of the trumpet.

**cornet**

Valved instrument consisting of a curved conical tube and a flared bell.

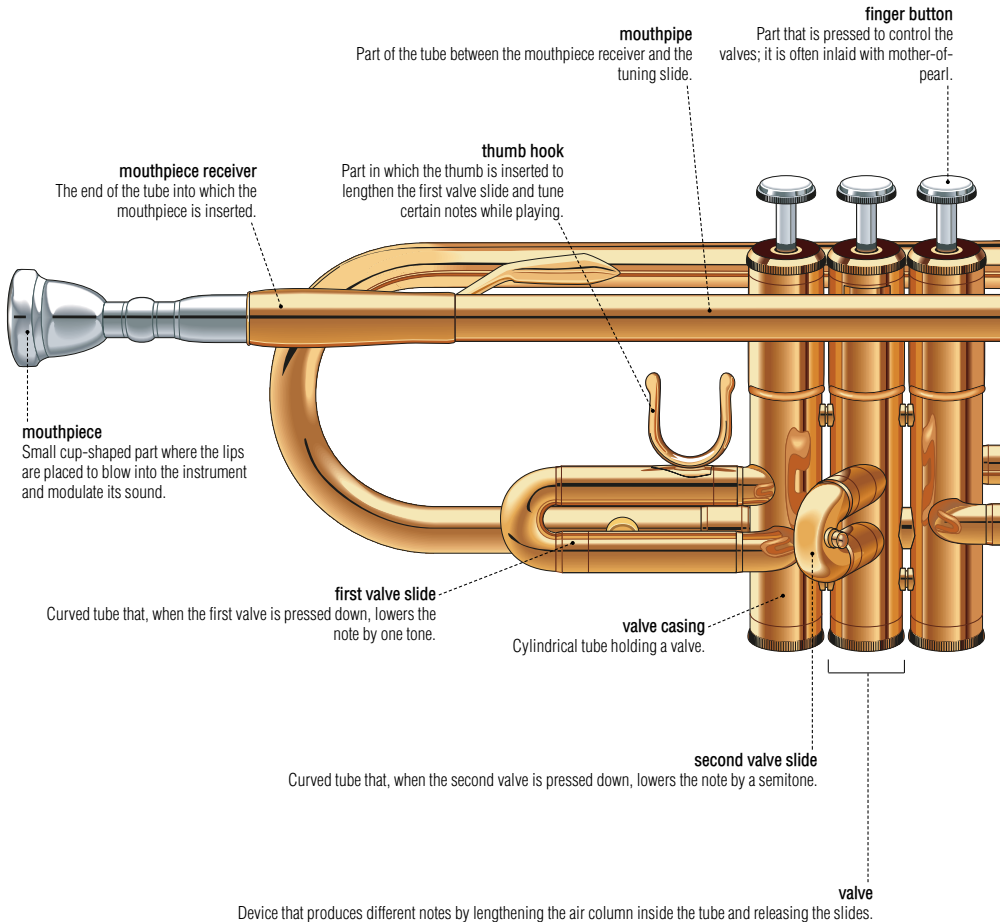
**bugle**

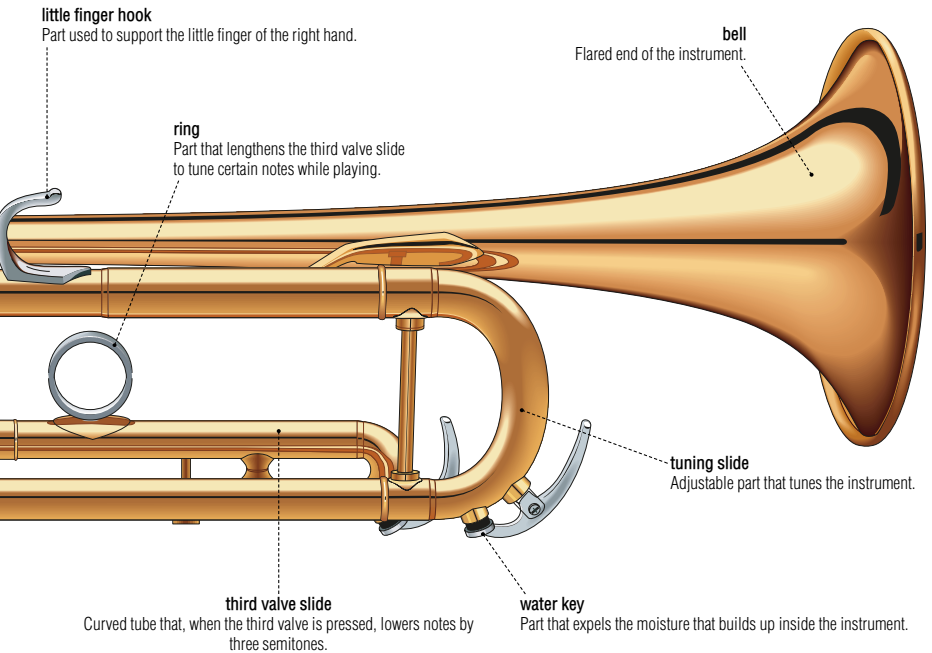
Instrument with a conical tube and no valves or keys; it is used mainly for military calls.

wind instruments

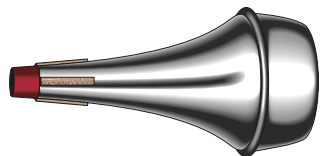
trumpet

Valved instrument consisting of a coiled cylindrical tube and a flared bell.





mute
Device that is inserted into the bell to muffle the sound.



percussion instruments

Group of instruments that are struck directly with the hands or with sticks, mallets, etc. to produce a sound.

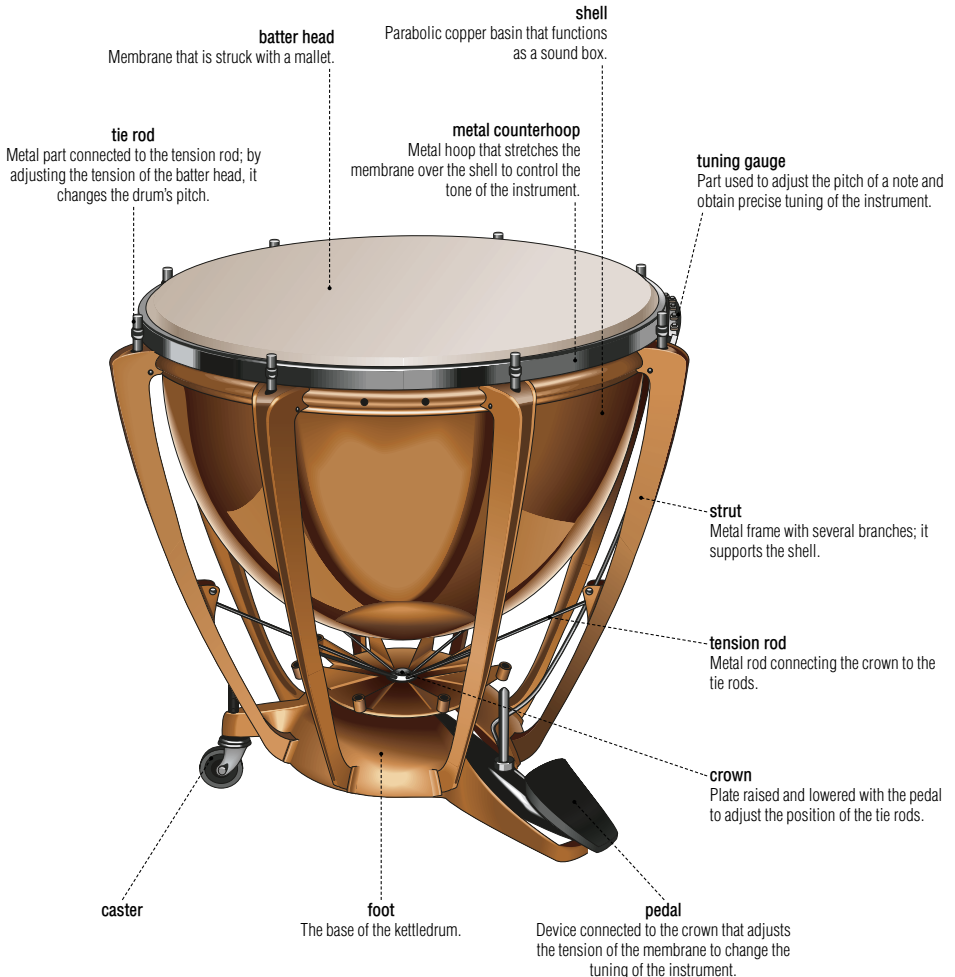
drums

All the percussion instruments played by a single musician, the drummer.



kettledrum

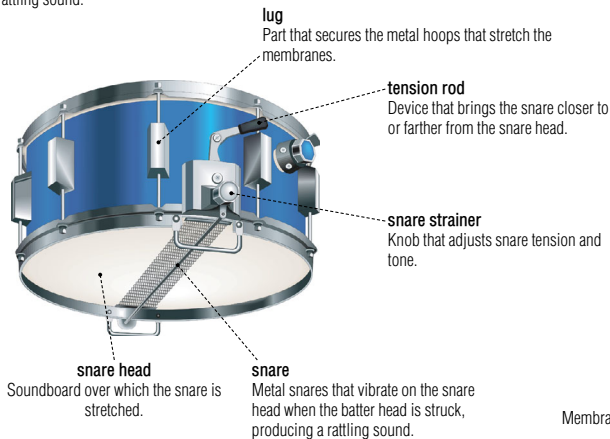
Instrument consisting of a parabolic copper basin covered with a stretched membrane that is struck with mallets.



percussion instruments

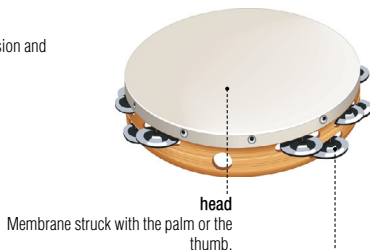
snare drum

Flat drum consisting of two membranes; stretched across the lower membrane are snares that produce a rattling sound.



tambourine

Instrument consisting of a wooden hoop covered with a membrane and fitted with jingles; it can be struck, brushed or shaken.



jingle

Small cymbals that knock together when the tambourine is shaken.



bongos

Instrument consisting of two small connected drums; they are usually struck with the hands.



wire brush

Instrument consisting of extremely fine steel wires that are brushed across a cymbal or the batter head on a snare drum.



sticks

Sticks of wood with olive-shaped heads used to strike a percussion instrument.



mallets

Metal or wooden rods whose end (made of felt, skin, rubber, etc.) is used to strike an instrument.

**sleigh bells**

Set of hollow metal pieces with a free-moving steel ball inside; they are tied to a ribbon and used as accompaniment.

set of bells

Series of small bells attached to a ribbon and used as accompaniment.

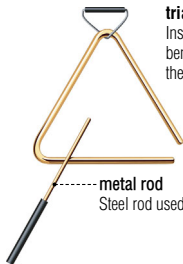
**castanets**

Instrument composed of two shell-shaped pieces of wood held in one hand and struck together using the fingers.

gong
Instrument consisting of a large metal disk with a raised central portion that is struck using a mallet.

**triangle**

Instrument composed of a metal bar bent to form a triangle open at one end; the triangle is struck with a metal rod.

**metal rod**

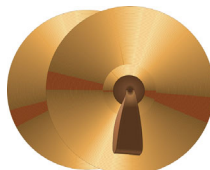
Steel rod used to strike the triangle.

**sistrum**

Instrument consisting of a frame with crossbars and attached metal disks that knock together when the instrument is shaken.

xylophone

Instrument consisting of wooden bars placed on top of resonators arranged in chromatic order in two rows; the bars are struck with mallets.

**cymbals**

Instrument consisting of two metal disks that are struck together.

tubular bells

Series of metal tubes arranged vertically in order of size; small hammers are used to strike the tops of the tubes.



electronic instruments

Electronic instruments are designed to imitate, convert or produce sounds based on electric signals and digital data.

sampler

Component that digitizes and stores sounds based on recordings of various acoustic sources, and reconverts them into sound signals.



headphone jack

Slot that takes the plug from the headphones.

function display

Liquid crystal display indicating various data.

disk drive

Device used to read or record data on a diskette.

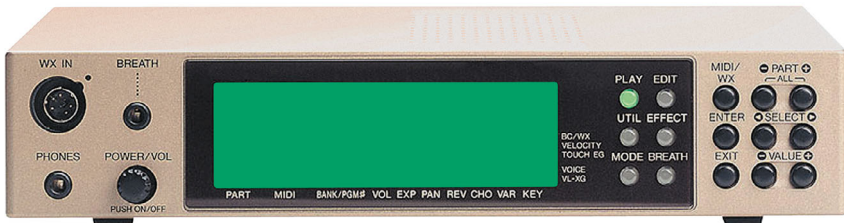
sequencer

Component used to record, read and change MIDI data, the digital data used to create electronic music.



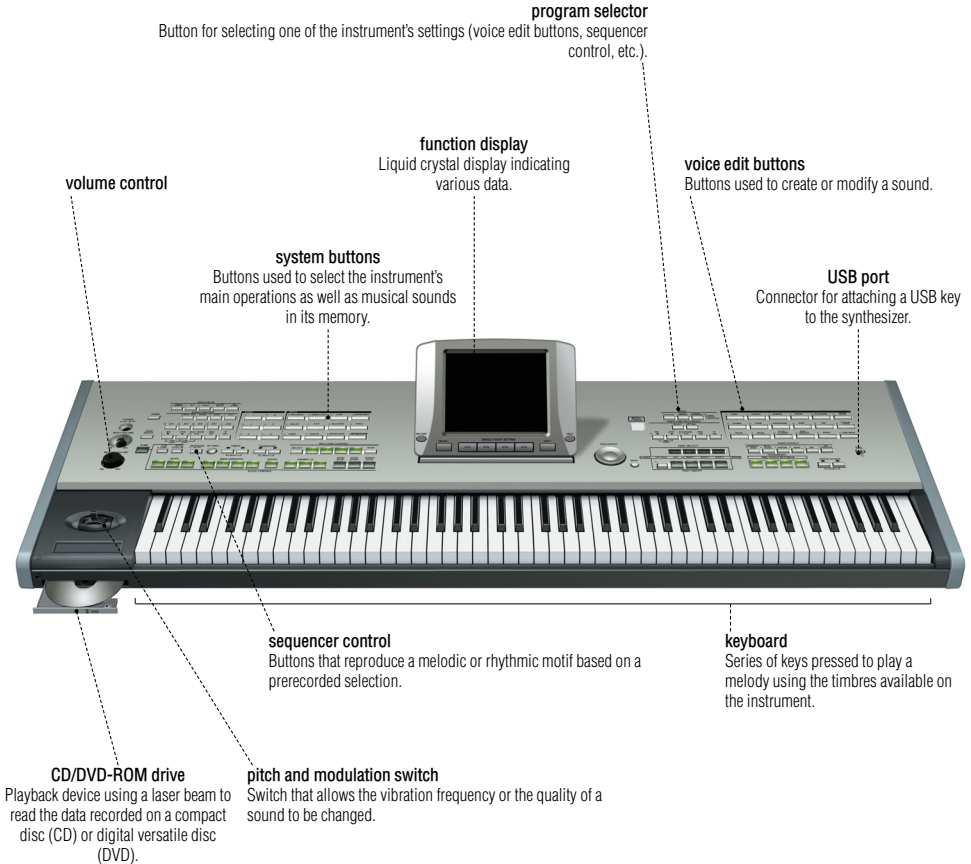
expander

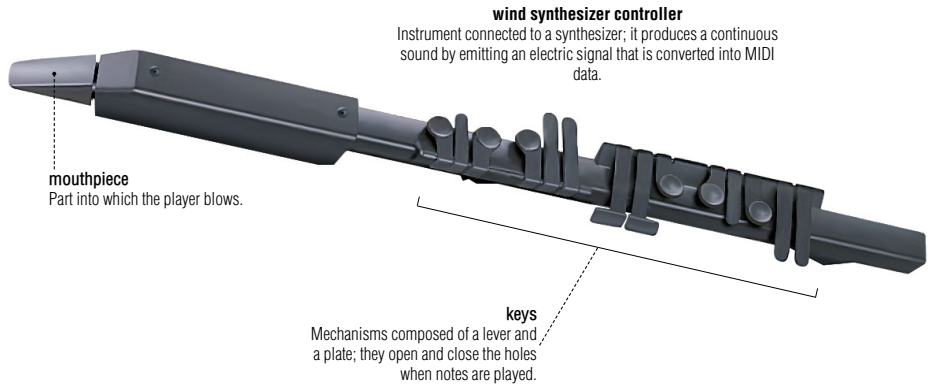
Synthesizer used to produce sounds based on digital data transmitted by a keyboard, a sequencer or a computer.



synthesizer

Instrument that imitates other instruments or creates new sounds using electric signals.





musical instrument digital interface (MIDI) cable

Cable connecting two MIDI instruments; the MIDI interface is used to transfer digital data and electric signals.

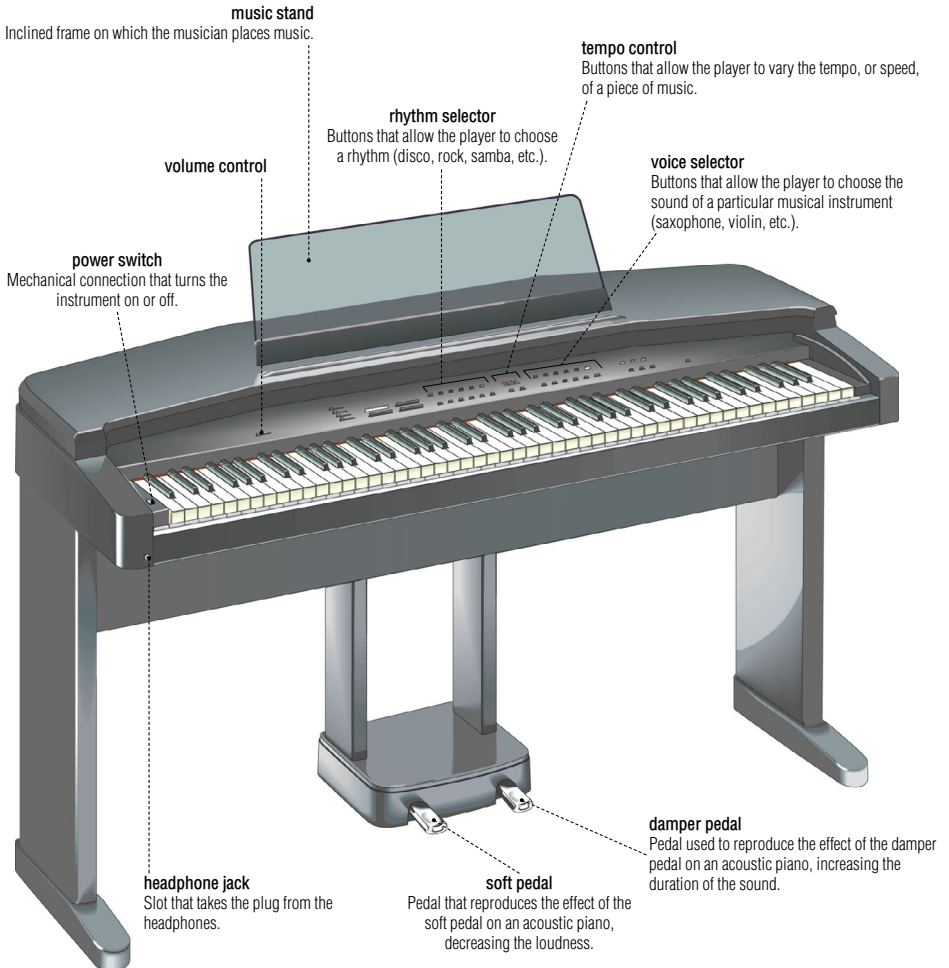


electronic drum pad
Instrument that is struck with drumsticks to produce a percussive sound by emitting an electric signal that is converted into MIDI data.



electronic piano

Piano designed to reproduce the sound of an acoustic piano by converting it into digital data; it also reproduces the sound of other instruments.

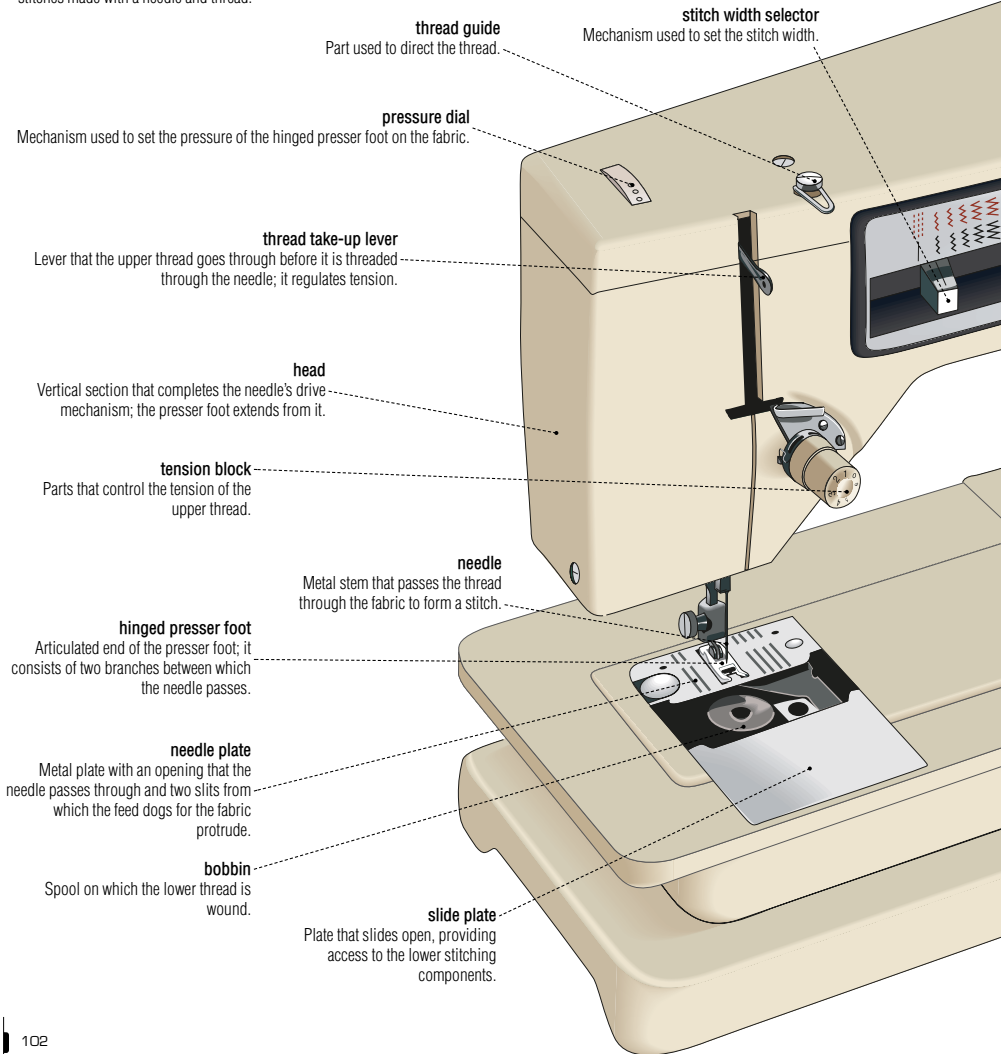


sewing

Process of joining two items using a needle and a thread.

sewing machine

Machine used to assemble two pieces of fabric by means of a series of stitches made with a needle and thread.

**thread guide**

Part used to direct the thread.

stitch width selector

Mechanism used to set the stitch width.

pressure dial

Mechanism used to set the pressure of the hinged presser foot on the fabric.

thread take-up lever

Lever that the upper thread goes through before it is threaded through the needle; it regulates tension.

head

Vertical section that completes the needle's drive mechanism; the presser foot extends from it.

tension block

Parts that control the tension of the upper thread.

needle

Metal stem that passes the thread through the fabric to form a stitch.

hinged presser foot

Articulated end of the presser foot; it consists of two branches between which the needle passes.

needle plate

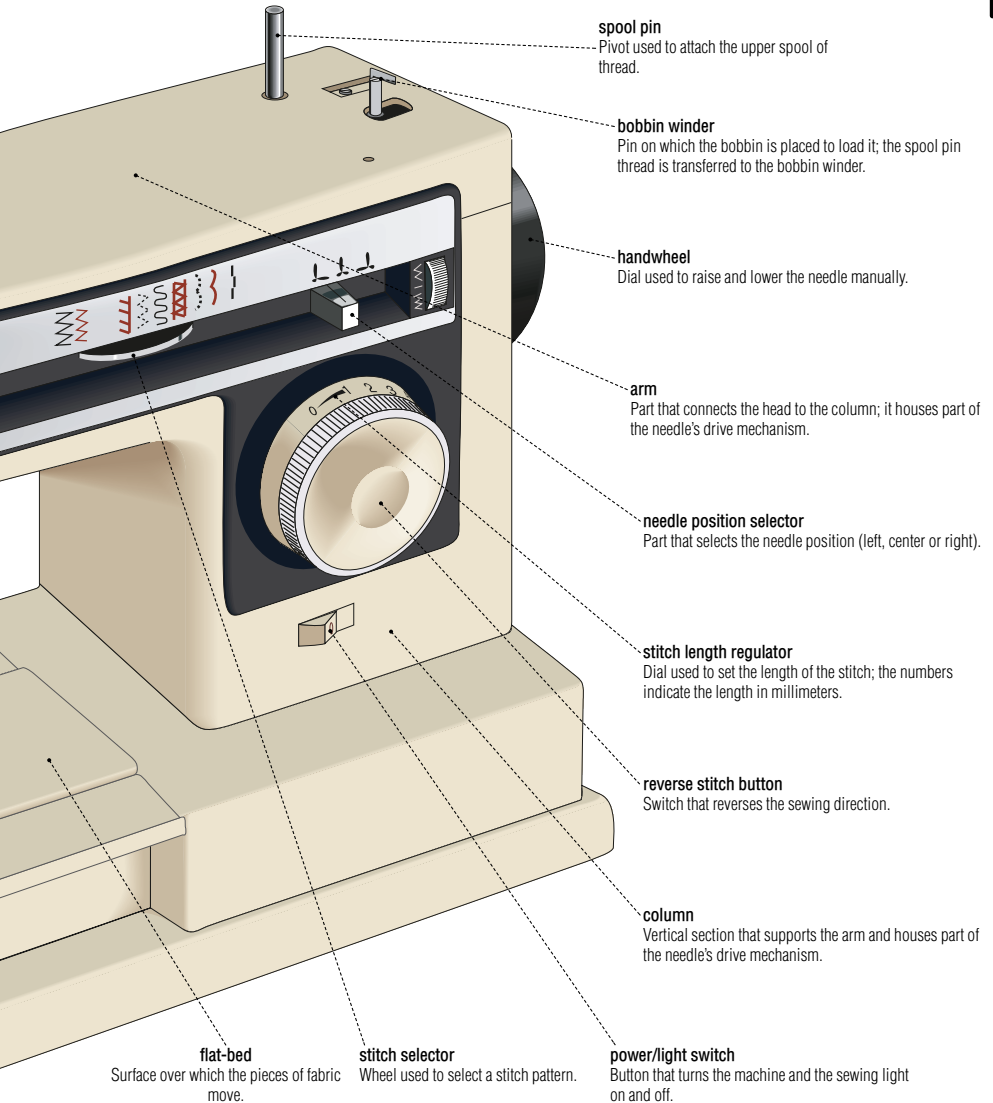
Metal plate with an opening that the needle passes through and two slits from which the feed dogs for the fabric protrude.

bobbin

Spool on which the lower thread is wound.

slide plate

Plate that slides open, providing access to the lower stitching components.



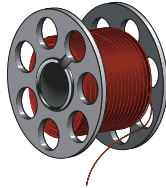
sewing

bobbin case

Case placed under the needle plate; the bobbin fits inside it.

**latch lever**

Mechanism that the bobbin fits into and that regulates lower thread tension.

**bobbin**

Spool on which the lower thread is wound.

**hook**

Fixed lower component containing the latch lever.

foot control

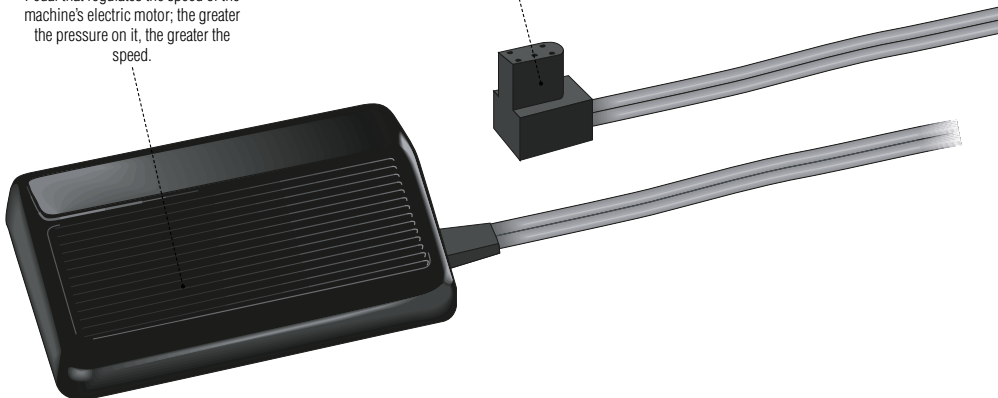
Mechanism operated by foot; it controls the sewing machine's electric motor.

speed controller

Pedal that regulates the speed of the machine's electric motor; the greater the pressure on it, the greater the speed.

connecting terminal

Part that connects the speed controller to the sewing machine.



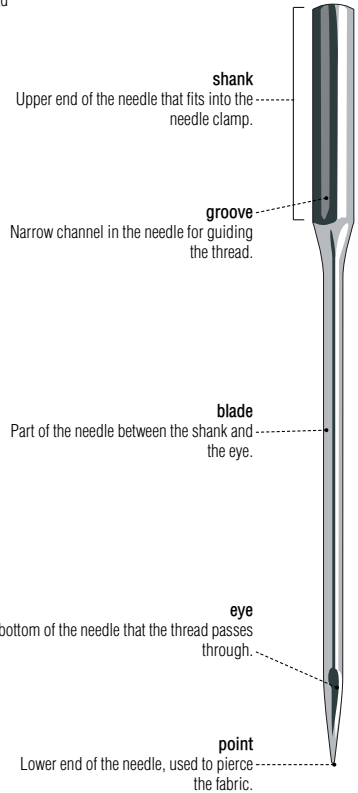
tension block

Parts that control the tension of the upper thread.



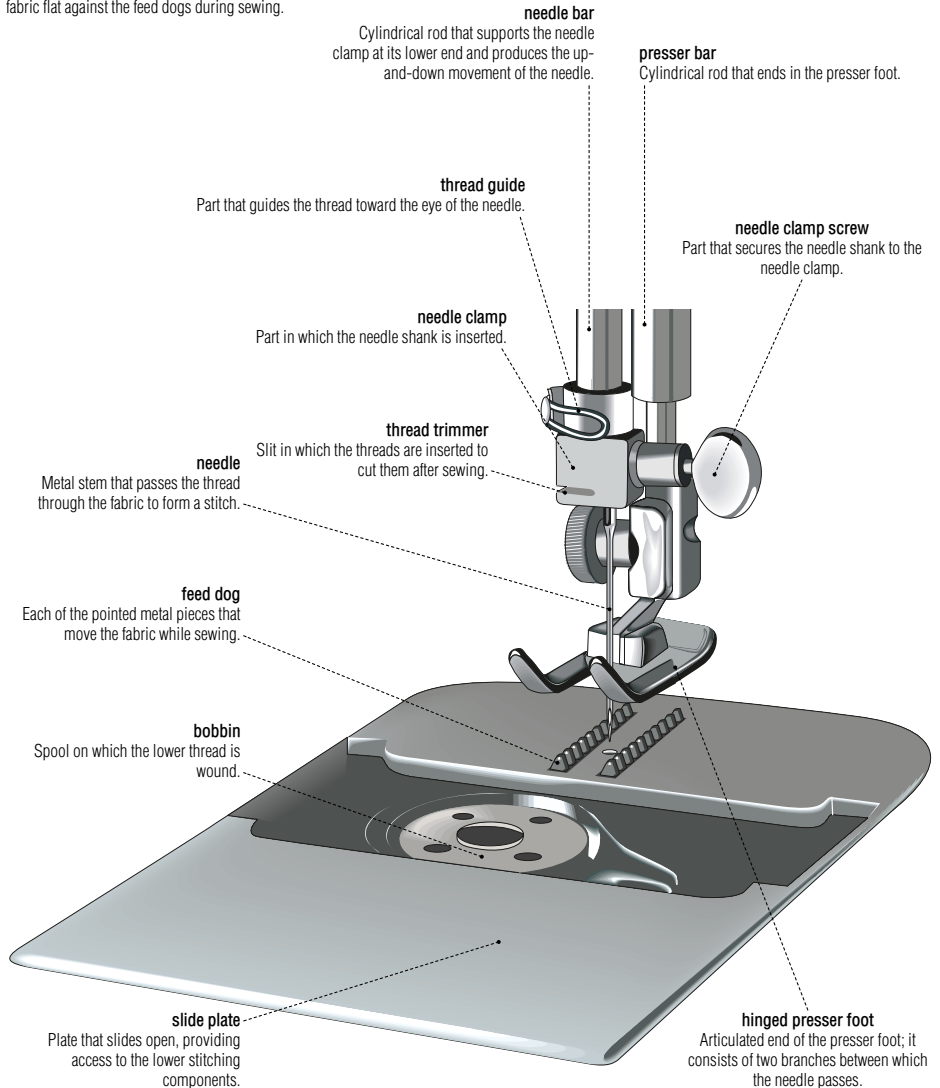
needle

Metal stem that passes the thread through the fabric to form a stitch.



presser foot

Part of the sewing machine that keeps the fabric flat against the feed dogs during sewing.

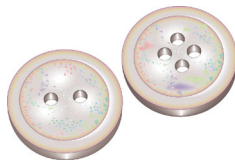


fasteners

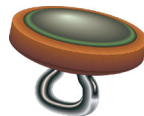
Accessories used to open or close a garment.

**safety pin**

Curved metal stem that forms a spring; the pointed extremity of its flexible arm is kept in place by a hook.

**sew-through buttons**

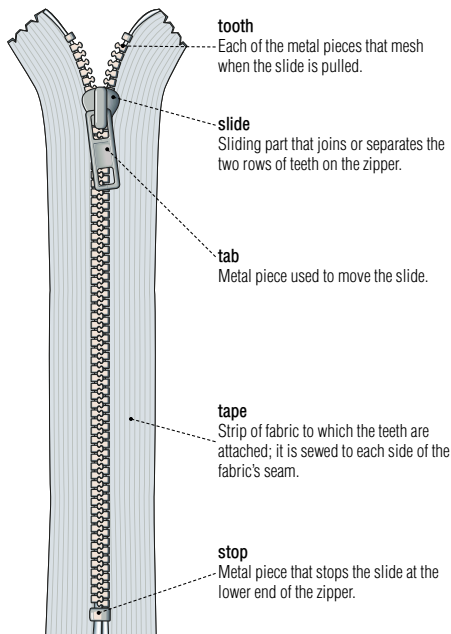
Buttons with two or four holes that the thread passes through to sew them to a piece of fabric.

**shank button**

Button with a metal ring that the thread passes through to sew it to a piece of fabric.

zipper

Closure made up of two lengths of tape edged with teeth that interlock by means of a slide.

**hook and eyes**

Fasteners formed of a metal hook inserted into a round eye or a straight eye.

hook

Curved piece that fits into a round eye or a straight eye to attach or do up a garment.

**round eye**

Horseshoe-shaped ring to which the hook attaches.

**straight eye**

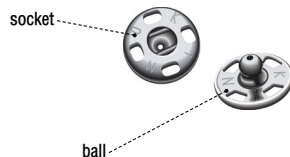
Piece in which the hook is inserted.

ring

Curved end of the round eye used to attach it to a piece of fabric.

snap

Fastening mechanism made of a socket disk and a ball disk that snap shut when pressed together.

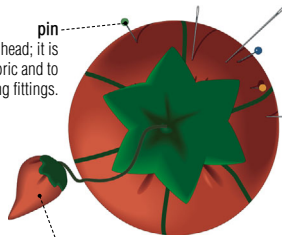


accessories

pin cushion

Small cushion used to hold pins and needles.

pin
Small pointed metal stem with a head; it is used to fasten two pieces of fabric and to mark fabric during fittings.



emery pack

Small cushion filled with powdered emery; it is used to maintain the points of pins and needles.

tracing wheel

Instrument that transfers the design of a pattern to a piece of fabric or another piece of paper using carbon paper.



wheel

Toothed metal wheel used to mark a piece of fabric or paper.

shank

handle



magnet

Instrument used to collect pins and needles.

seam gauge

Graduated instrument used to take measurements, make checked patterns, trace seam lines, etc.



eye

Hole in the head of the needle through which the thread passes.



thimble

Metal sleeve used to protect the middle finger, which pushes the needle when sewing by hand.

needle

Metal stem that passes the thread through the fabric to form a stitch.



tape measure

Plasticized strip of fabric with a gauge, used to take circular or curved measurements.



needle threader

Instrument that makes it easier to insert the thread into the eye of the needle.



skirt marker

Device fitted with a graduated ruler that moves vertically; it is used to mark the hem of a skirt all around the garment.



dressmaker's model

Adjustable model used to make and try on garments.

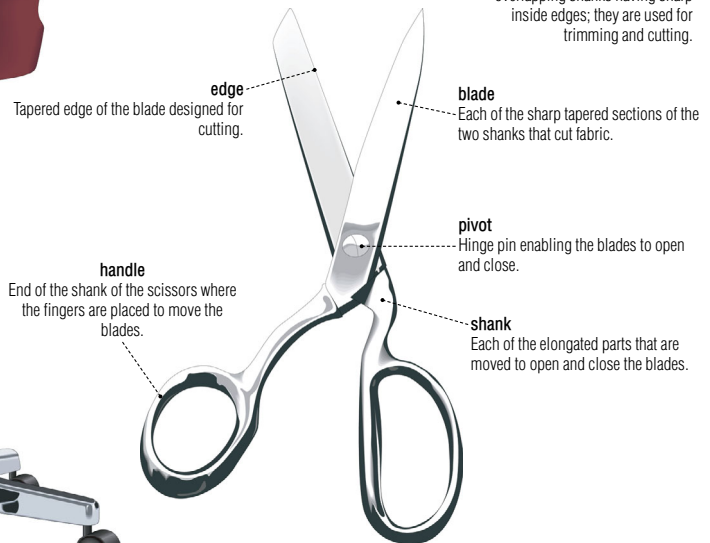


pinking shears

Scissors with a toothed blade used to give a zigzag finish.

scissors

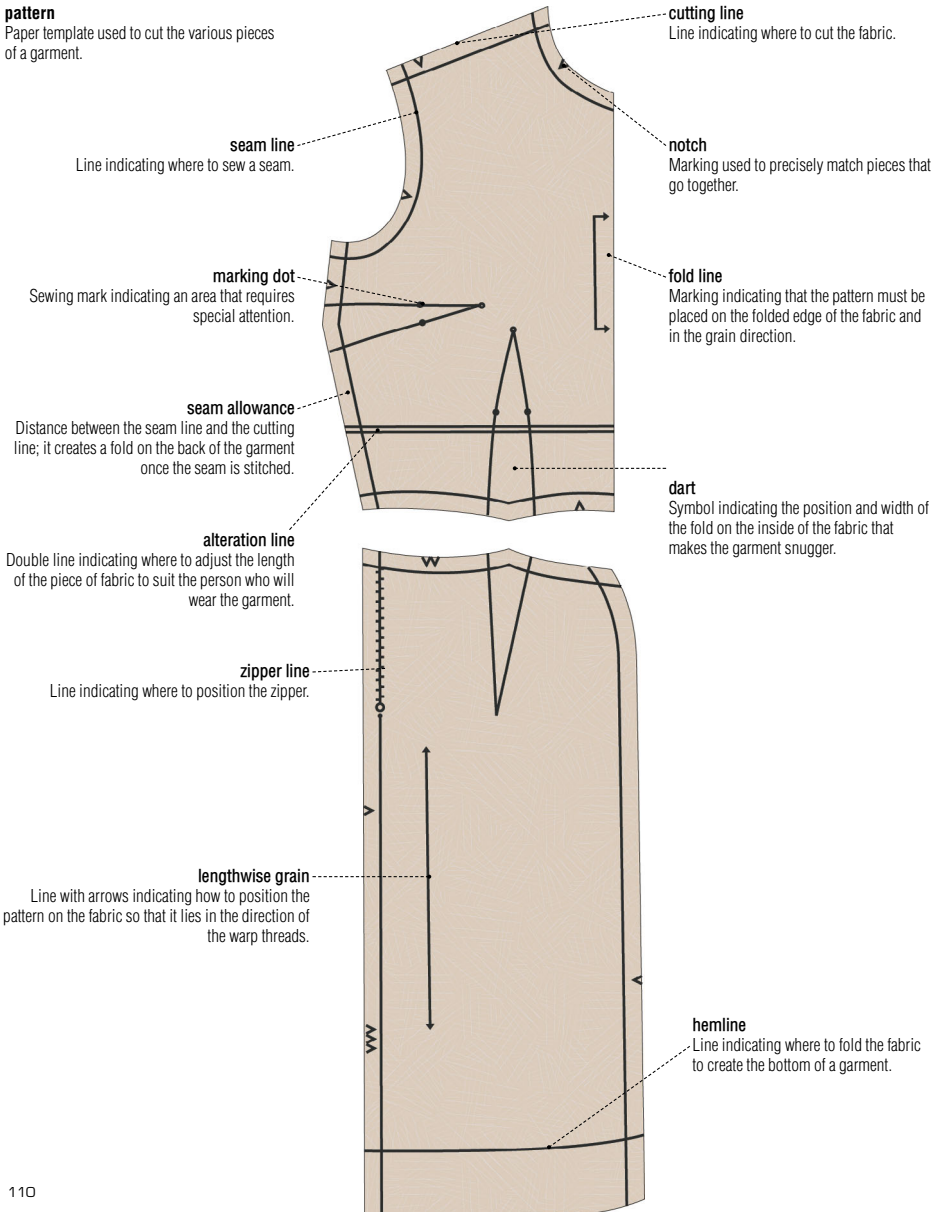
Instrument with two movable overlapping shanks having sharp inside edges; they are used for trimming and cutting.



sewing

pattern

Paper template used to cut the various pieces of a garment.



fabric structure

The way the threads of the material are put together during weaving.

**bias**

Direction of a fabric; it is diagonal to the crosswise grain and the lengthwise grain.

selvage

The finished border of a piece of fabric, woven more tightly than the piece it borders and parallel to the lengthwise grain.

lengthwise grain

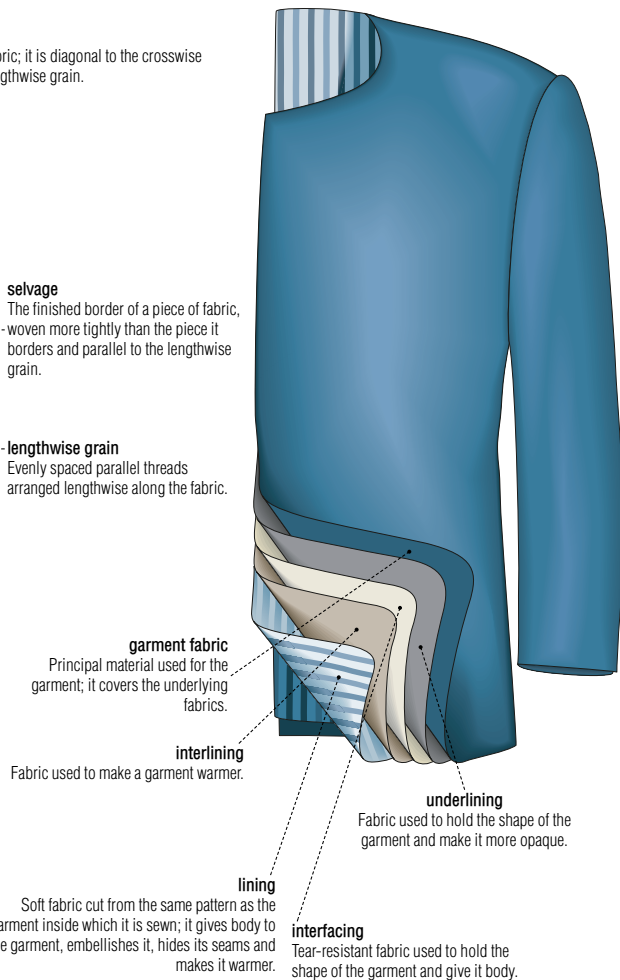
Evenly spaced parallel threads arranged lengthwise along the fabric.

crosswise grain

The threads that are passed through the lengthwise grain from one selvage to another; it is the width of the fabric.

underlying fabrics

Fabrics used to hold the shape of a garment and give it a professional finish.

**garment fabric**

Principal material used for the garment; it covers the underlying fabrics.

interlining

Fabric used to make a garment warmer.

underlining

Fabric used to hold the shape of the garment and make it more opaque.

lining

Soft fabric cut from the same pattern as the garment inside which it is sewn; it gives body to the garment, embellishes it, hides its seams and makes it warmer.

interfacing

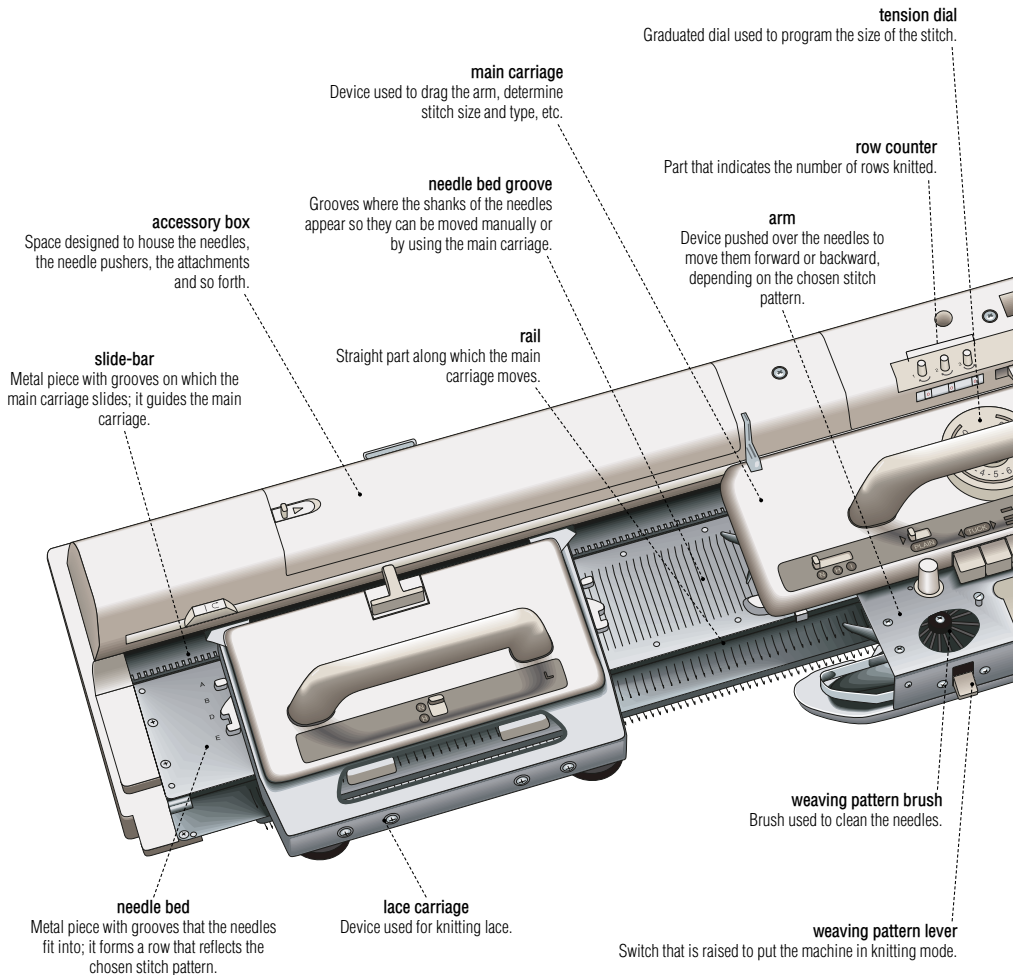
Tear-resistant fabric used to hold the shape of the garment and give it body.

knitting machine

Machine used to knit fabrics mechanically.

needle bed and carriages

Metal piece with grooves in which the needles are inserted; the carriages slide over it to create a knit.

**accessory box**

Space designed to house the needles, the needle pushers, the attachments and so forth.

slide-bar

Metal piece with grooves on which the main carriage slides; it guides the main carriage.

needle bed

Metal piece with grooves that the needles fit into; it forms a row that reflects the chosen stitch pattern.

main carriage

Device used to drag the arm, determine stitch size and type, etc.

needle bed groove

Grooves where the shanks of the needles appear so they can be moved manually or by using the main carriage.

rail

Straight part along which the main carriage moves.

lace carriage

Device used for knitting lace.

tension dial

Graduated dial used to program the size of the stitch.

row counter

Part that indicates the number of rows knitted.

arm

Device pushed over the needles to move them forward or backward, depending on the chosen stitch pattern.

weaving pattern brush

Brush used to clean the needles.

weaving pattern lever

Switch that is raised to put the machine in knitting mode.

carriage handle

Part used to hold and move the main carriage.

color display

Screen that posts a number corresponding to a color.

stitch pattern memory

Keys to place the stitch patterns in memory.

variation keys

Keys used to change the shape of a stitch pattern.

correction key

Key that is pressed to undo knitting.

pattern start key

Key used to repeat a pattern starting with the first row.

arm nut

Button connecting the main carriage to the arm.

stitch control buttons

Buttons used to select a type of stitch (e.g., moss stitch, stocking stitch, garter stitch).

carriage control dial

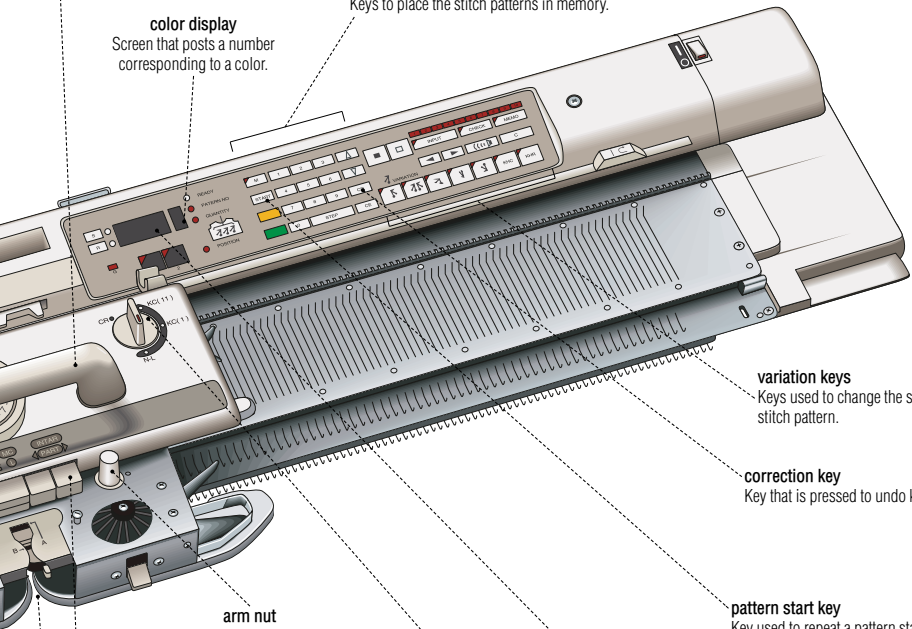
Button used to choose a type of stitch, select the needles and lift the main carriage from the needle bed.

row number display

Screen indicating the number of the next knitting row.

yarn feeder

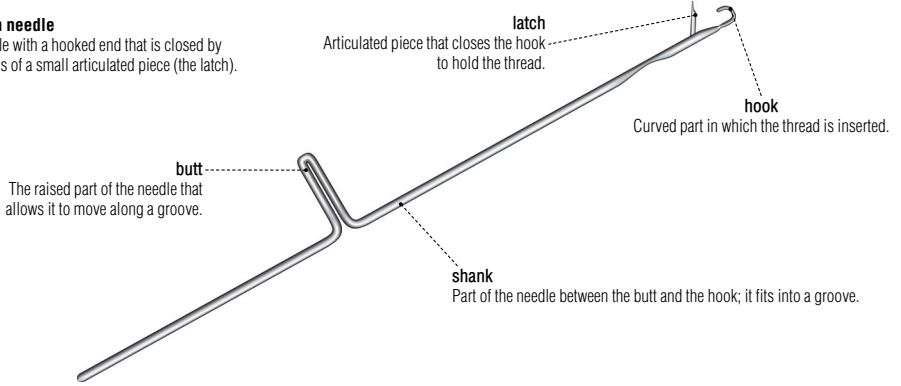
Part in which the thread is inserted.



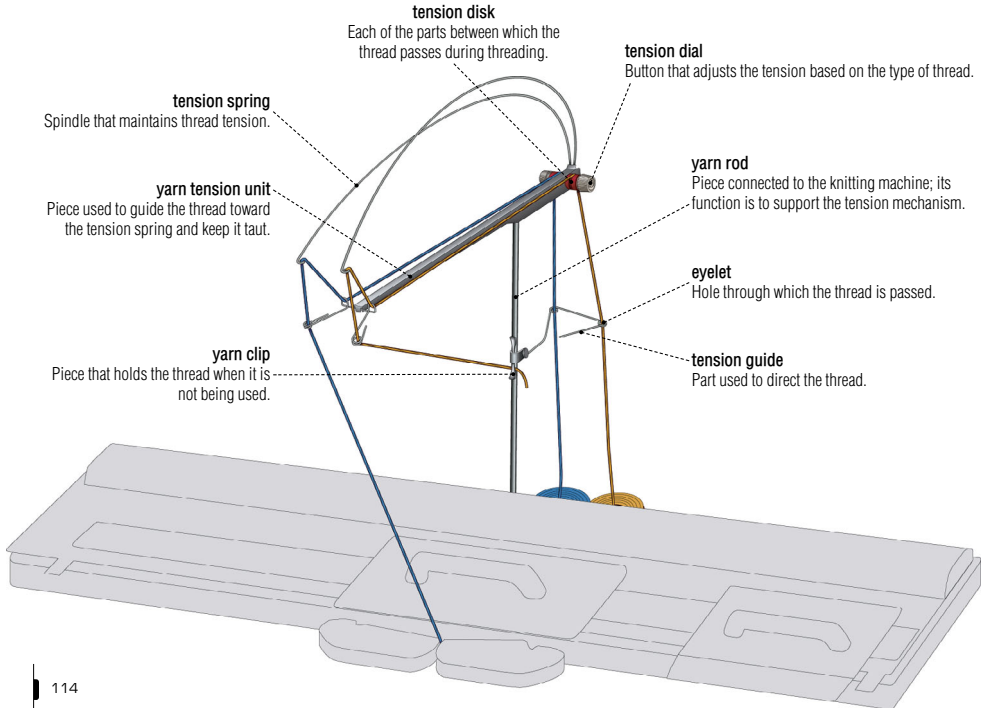
knitting machine

latch needle

Needle with a hooked end that is closed by means of a small articulated piece (the latch).

**tension block**

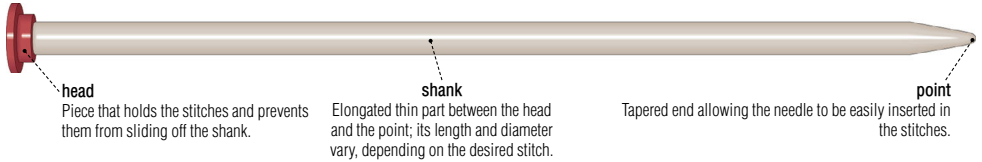
Parts used to control thread tension.



Creating fabric by using needles to form interlacing stitches.

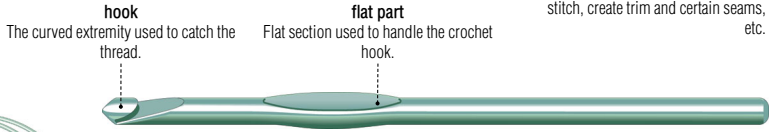
knitting needle

Rigid cylindrical rod used in pairs to knit a piece of fabric.



crochet hook

Instrument used to recover a lost stitch, create trim and certain seams, etc.



circular needle

Needle used for circular knitting, for seamless pieces or flat pieces with a great number of stitches.

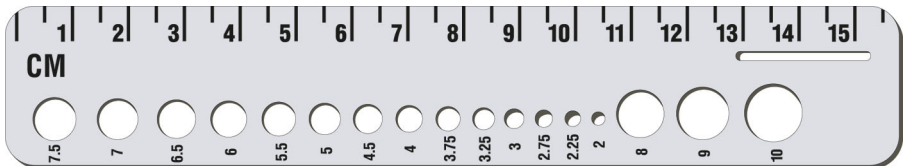
cast-on stitches

Loops that form the starting point of a piece of fabric.



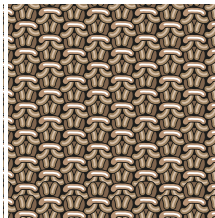
knitting measure

Instrument used to measure the diameter of needles and to take measurements of a work in progress.

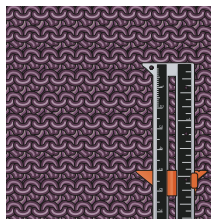


stitch patterns

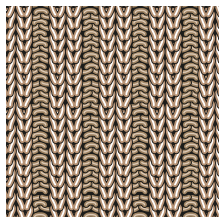
Arrangement of groups of stitches in one or several rows; they are worked until they form a regularly repeated design or feature.

**moss stitch**

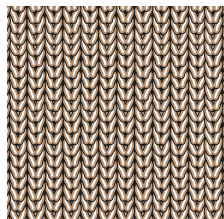
Stitch obtained by alternating a plain stitch with a purl stitch on one row, and then reversing the order on the next.

**sample**

Square sample used to calculate the number of stitches and rows on a 2 in² surface so that a consistent pattern can be established.

**rib stitch**

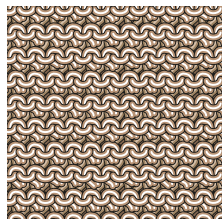
Stitch obtained by alternating plain and purl stitches and by repeating the same order on the following rows.

**stocking stitch**

Stitch obtained by alternating a plain row with a purl row.

**basket stitch**

Stitch obtained by alternating squares composed of plain stitches with squares composed of purl stitches.

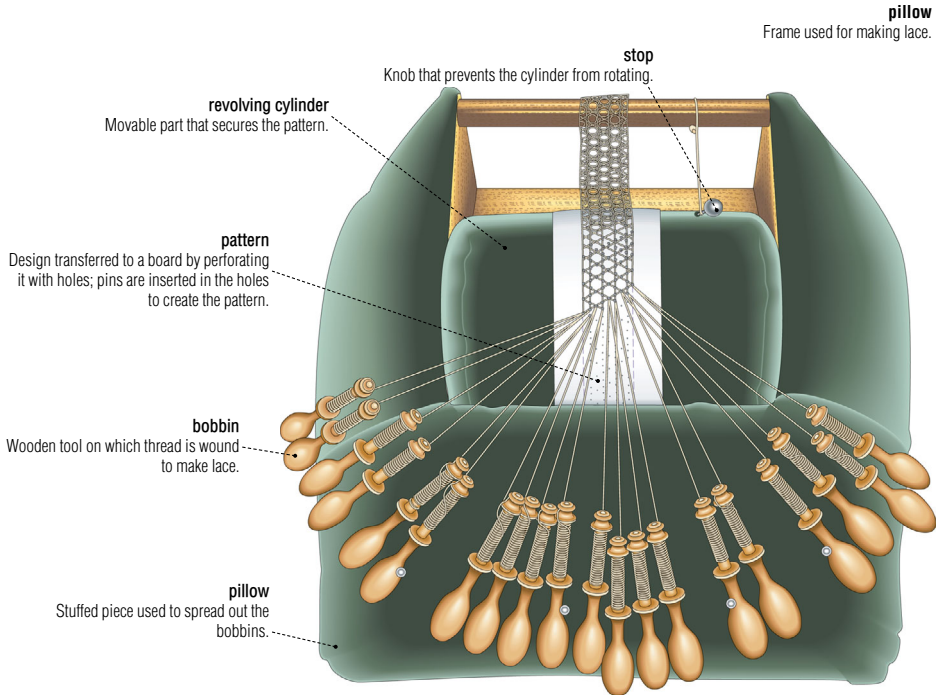
**garter stitch**

Stitch obtained by a succession of plain stitches on all the rows.

**cable stitch**

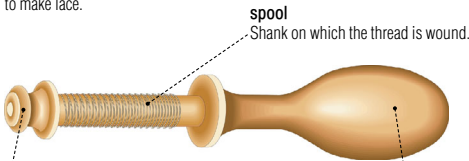
Stitch obtained by reversing the stitches on a row to form an overlap.

Openwork fabric created by interlacing thread on bobbins, using a pillow to secure the model to be reproduced.



bobbin

Wooden tool on which thread is wound to make lace.



head
The end of the bobbin where the thread is tied into a stop knot.

handle
Piece of wood held between two fingers to handle the bobbin.

pricker

Needle-tipped wooden tool used to perforate the pattern so that the pins can be inserted.

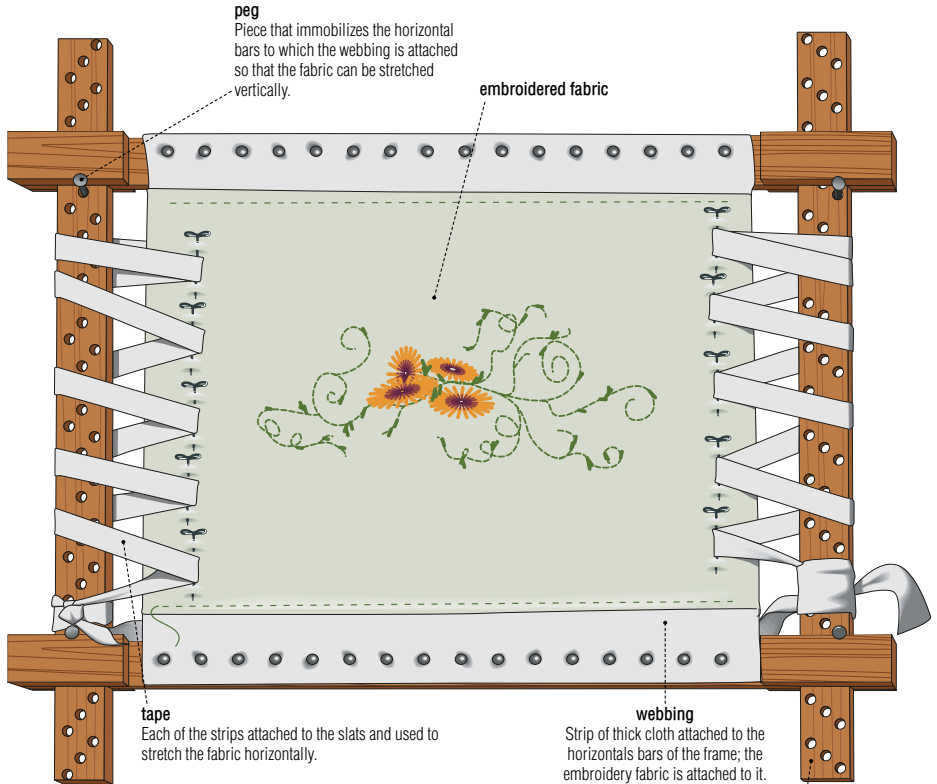


embroidery

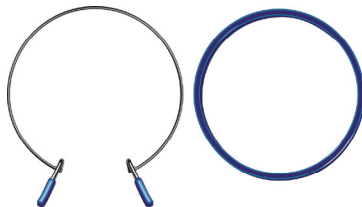
Art of stitching designs on fabric, usually using a needle and thread.

frame

Device on which embroidery fabric is stretched; it is used for work on a larger scale.

**hoop**

Frame consisting of two hoops; one fits inside the other and the fabric is stretched between them. The hoop is used for detail work.



Horizontal bar with holes used to regulate the vertical tension of the fabric.

stitches

There are more than 100 embroidery stitches, grouped into various categories.

cross stitches

Stitches made up of a succession of diagonal straight stitches that meet and then change direction.

**chevron stitch**

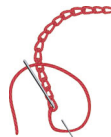
Stitch consisting of diagonal straight stitches that meet at the top and bottom of two parallel rows.

**herringbone stitch**

Stitch composed of intersecting diagonal straight stitches following two parallel lines.

loop stitches

Stitches forming an open or closed loop.

**chain stitch**

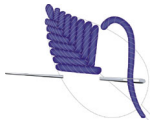
Stitch created by forming closed loops that are repeated like the links in a chain.

**feather stitch**

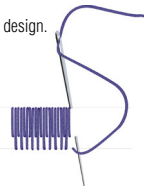
Stitch created by forming successive open loops, linked or unlinked.

flat stitches

Stitches usually used to fill in a design.

**fishbone stitch**

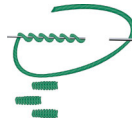
Oblique stitch alternately arranged on the left and right of an imaginary axis.

**long and short stitch**

Stitch consisting of overlapping rows of long and short stitches to cover a surface.

knot stitches

Stitches created by winding the thread around the needle.

**bullion stitch**

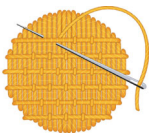
Stitch created by rolling the thread several times around the needle and reinserting the needle a little farther on to create a line of thread.

**French knot stitch**

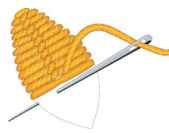
Stitch created by rolling the thread two or three times around the needle and reinserting it very close to the original point of insertion to create a cluster.

couched stitches

Stitches used to fill in and give relief to a design.

**Oriental couched stitch**

Vertical stitches are crossed with horizontal lines held together by isolated stitches staggered from one row to the next.

**Romanian couched stitch**

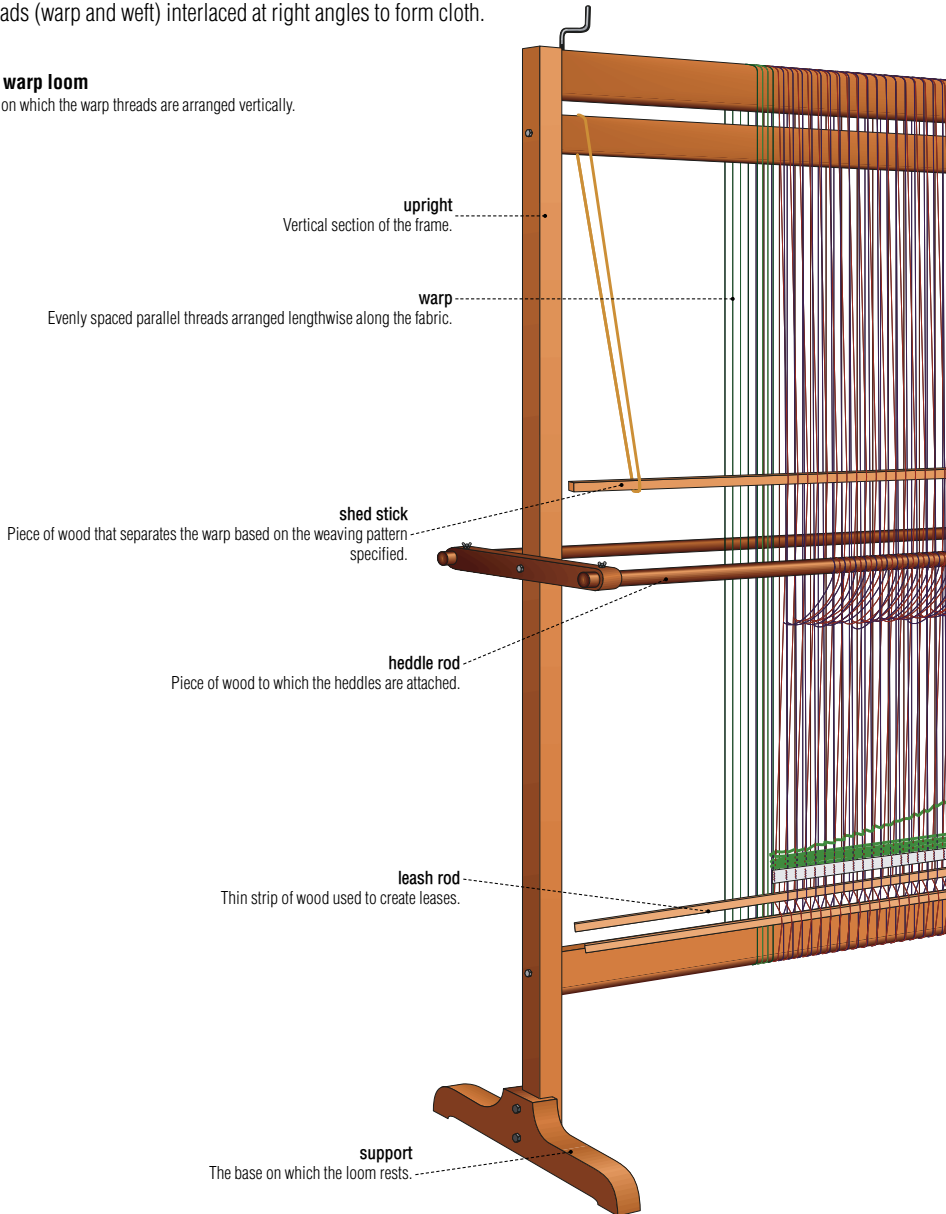
A stitch forms the base of the embroidery over the entire width of the line, and an angled or vertical stitch covers the center.

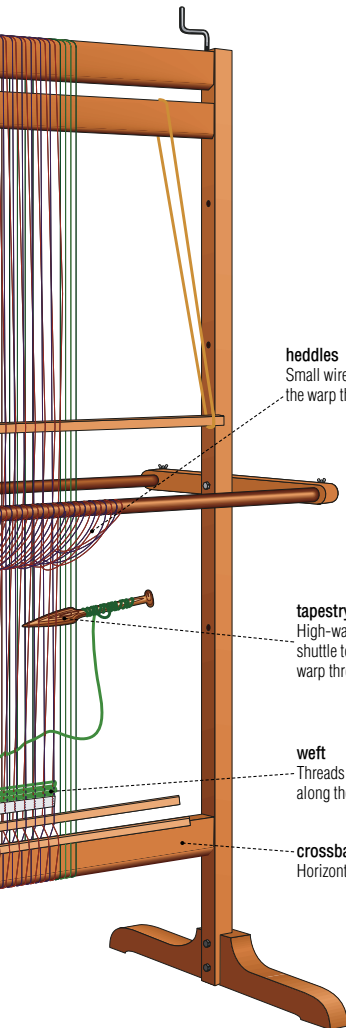
weaving

Threads (warp and weft) interlaced at right angles to form cloth.

high warp loom

Loom on which the warp threads are arranged vertically.



**heddles**

Small wires with an eye through which the warp thread passes.

tapestry bobbin

High-warp tapestry instrument used as a shuttle to introduce the weft between the warp threads.

weft

Threads woven across the warp thread, along the width direction of the fabric.

crossbar

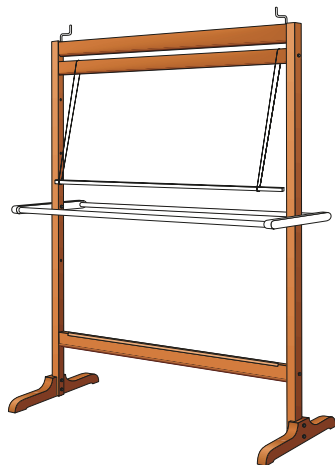
Horizontal section of the frame.

**tapestry bobbin**

High-warp tapestry instrument used as a shuttle to introduce the weft between the warp threads.

**comb**

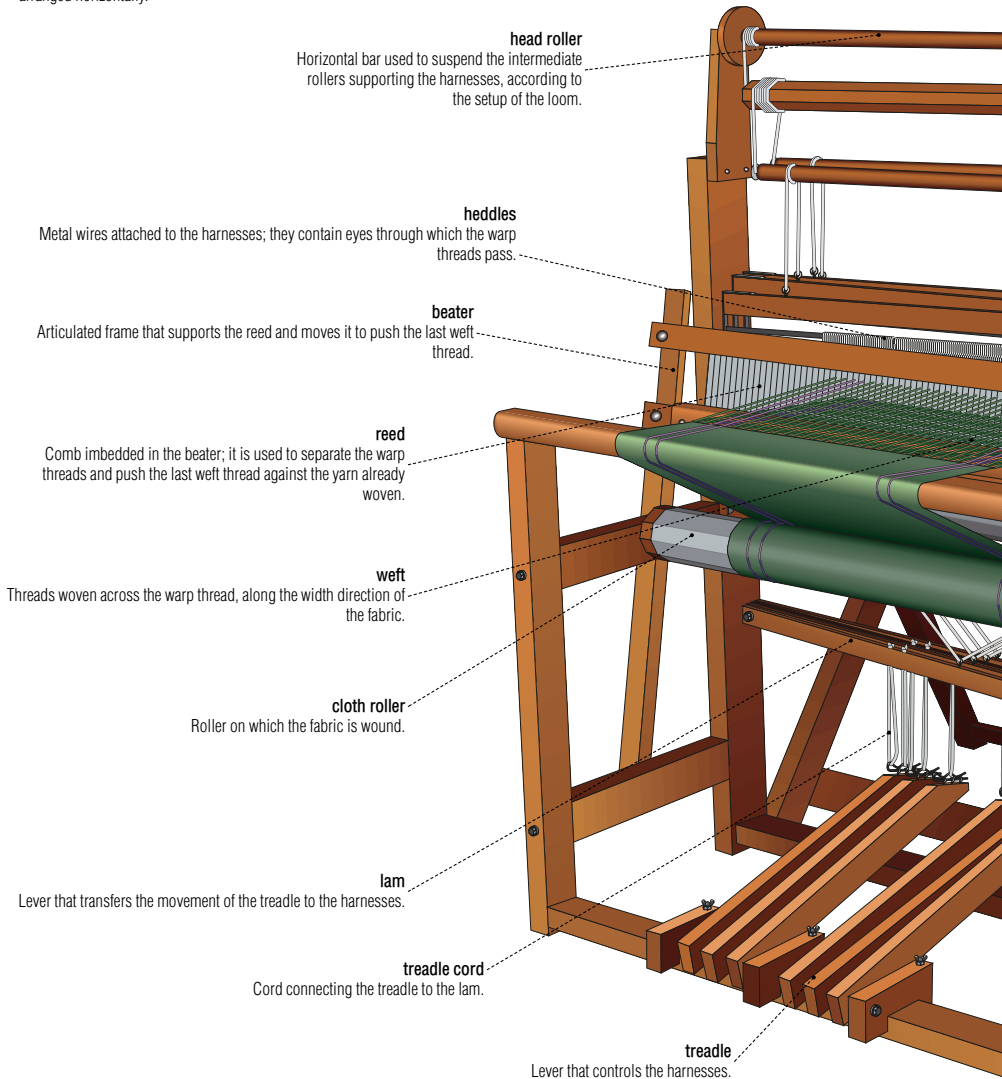
Instrument used to push the last weft thread against the yarn already woven.

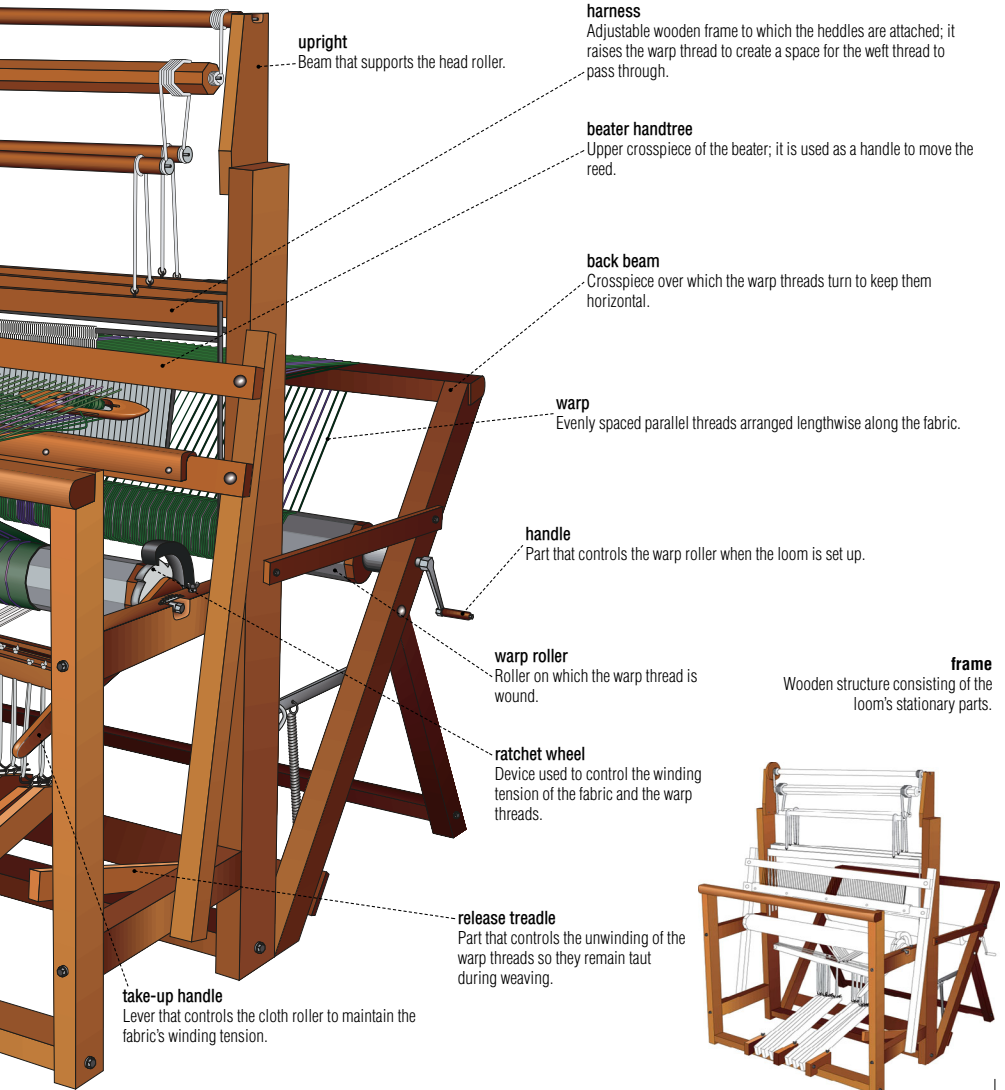
**vertical frame**

Wooden structure consisting of the loom's stationary parts.

low warp loom

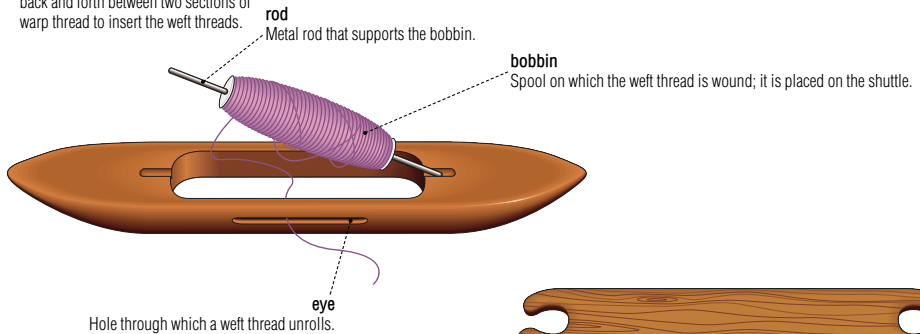
Loom on which the warp threads are arranged horizontally.



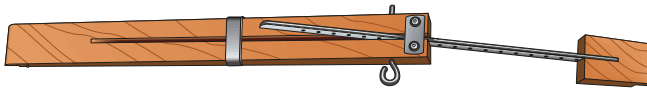


shuttle

Weaving instrument that is pushed back and forth between two sections of warp thread to insert the weft threads.

**flat shuttle**

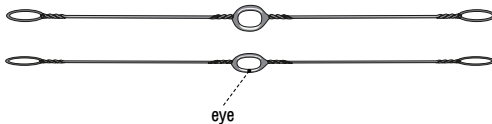
Wooden plate on which the weft thread is wound; it replaces the shuttle when the space between the layers of warp threads is too narrow.

**temple**

Instrument that maintains a constant fabric width during weaving.

heddles

Metal wires that attach to the blade; they have an eye through which a warp thread passes.



Hole through which a warp thread unwinds.

**reed hooks**

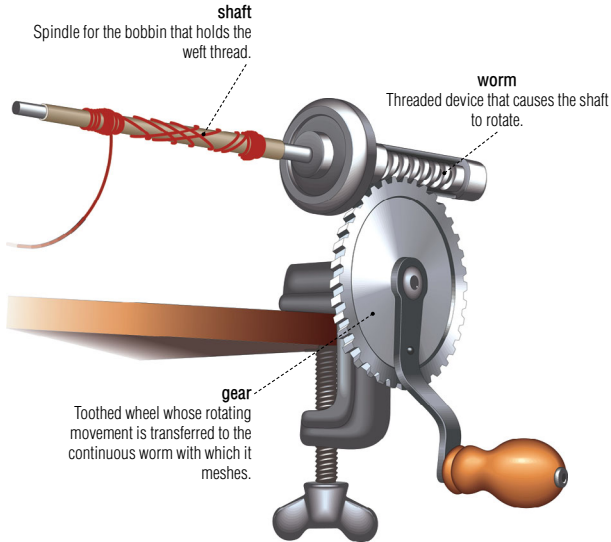
Hook used to pass the warp thread through the tooth of a comb or the eye of a heddle.

accessories

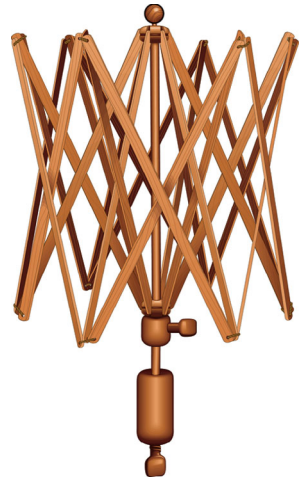
The tools used to facilitate various weaving processes.

bobbin winder

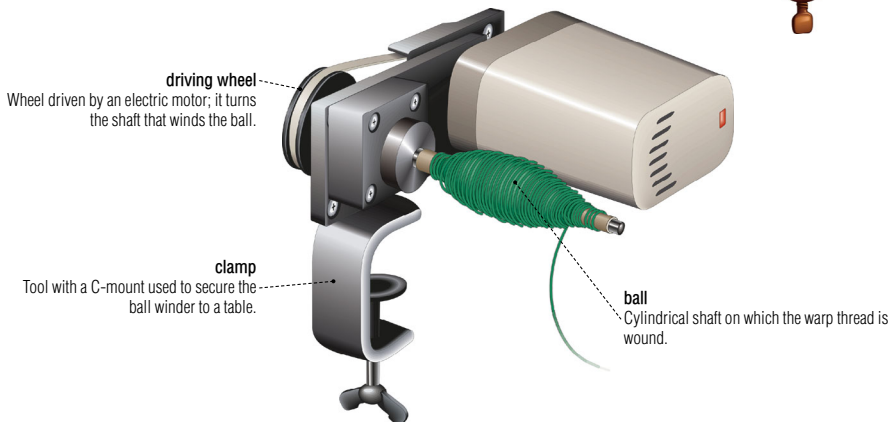
Device used to wind weft thread onto a bobbin.

**swift**

Device composed of articulated slats on which warp or weft threads are disentangled, making it easier to unwind them afterward.

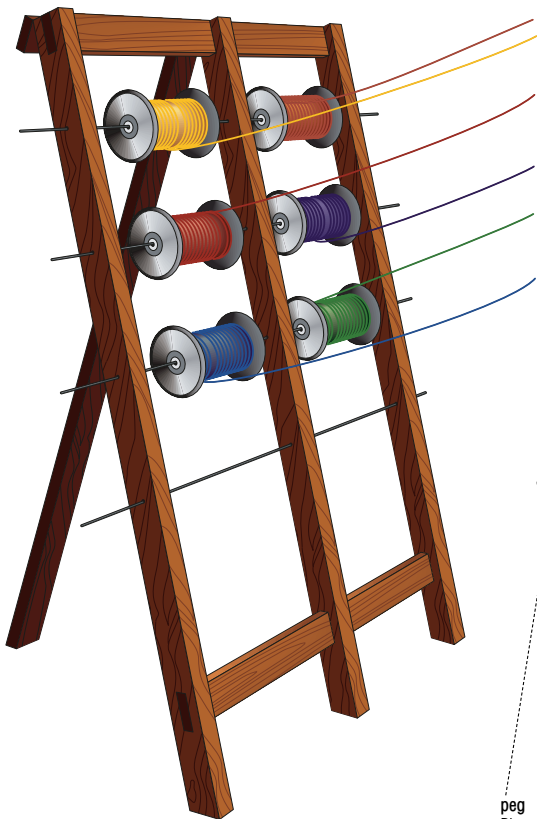
**ball winder**

Tool used to wind thread onto a ball.

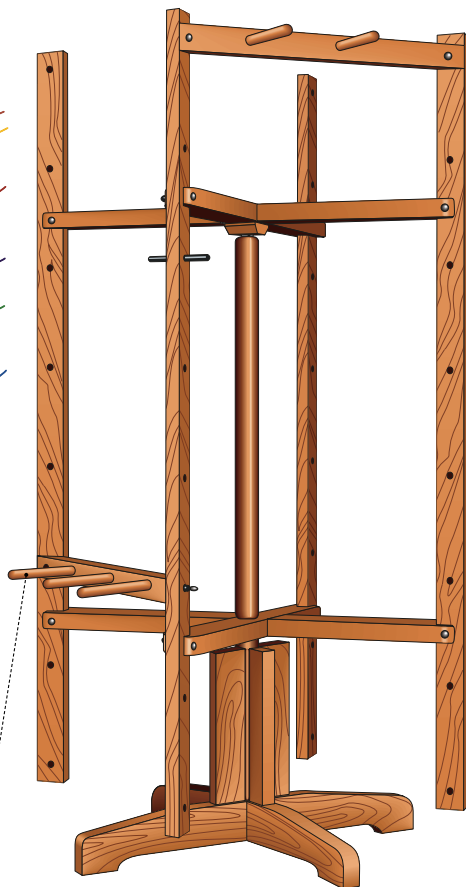


spool rack

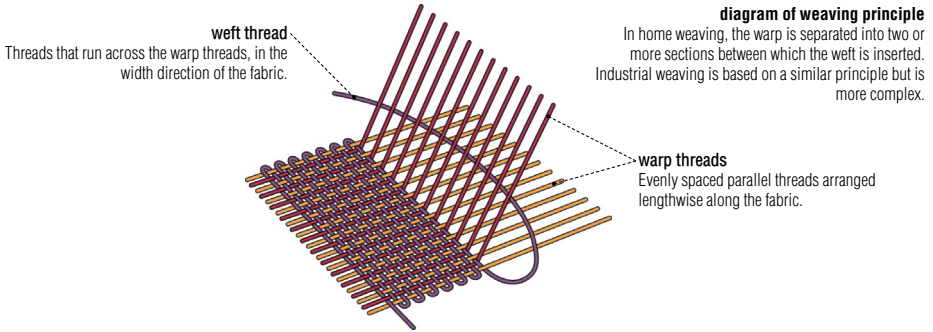
Wooden frame with crosswise rods used to unwind spools of warp thread in various colors.

**warping frame**

Device on which the warp threads are arranged in parallel hanks; this makes it easier to wind them onto the warp roller.

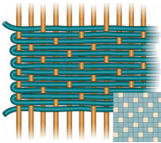
**peg**

Piece of wood used to create leases.



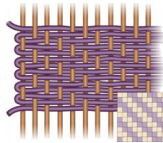
basic weaves

The principal types of weave.



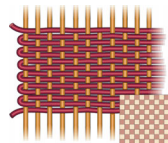
satin weave

Widely spaced weave forming a smooth surface; here, the weft thread passes over four warp threads and then under one.



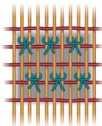
twill weave

Mesh forming oblique lines in the fabric; here, the weft thread passes over and then under two warp threads, and is staggered by one thread per row.



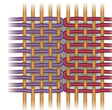
plain weave

Mesh forming a check pattern in the fabric; the weft thread passes over and under a warp thread, and is staggered by one thread per row.



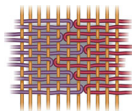
knot

Woolen yarn wound around two warp threads; its ends form the piles on a carpet.



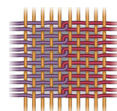
slit

The space where the thread colors change; weft threads and warp threads interlock and then return to their respective zones.



hatching

Technique used to mix colors: a weft thread enters a different color zone, interlocks with a warp thread and comes back to the original color zone.



interlock

Section where the colors change; two weft threads of a different color interlock and then return to their respective zones.

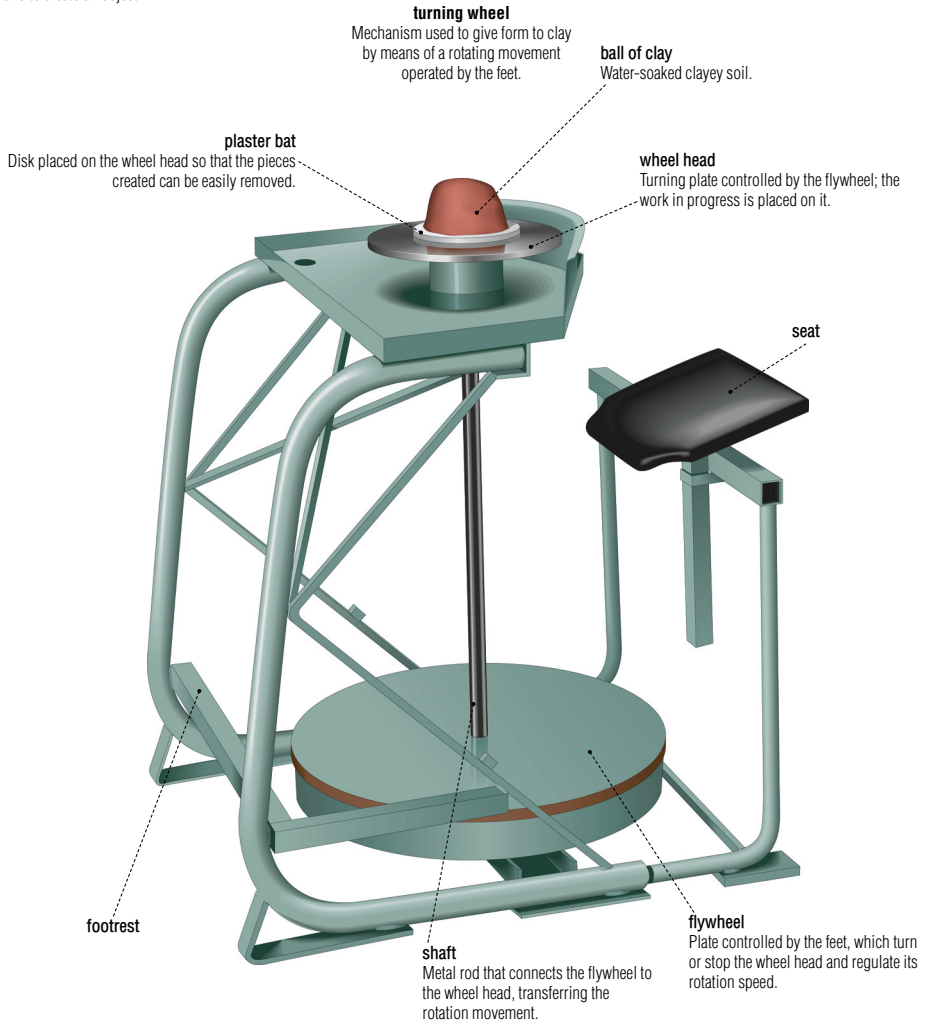
other techniques

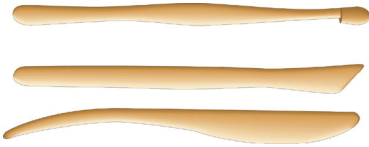
pottery

Art of creating objects from a clay paste, which is shaped by hand and cooked in an oven.

turning

Process of using a turning wheel to shape clay by hand to create an object.



**wooden modeling tools**

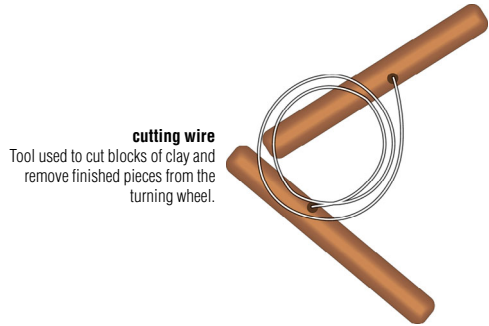
Tools used to decorate and smooth clay.

**needle tool**

Tool used to pierce clay and carve designs in it.

**fettling knife**

Tool used to cut and dig into clay.

**cutting wire**

Tool used to cut blocks of clay and remove finished pieces from the turning wheel.

**trimming tool**

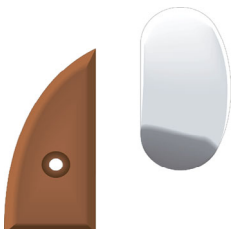
Tool used to dig into clay and create designs in it.

**still**

Stand on which an object is placed during firing to evenly distribute the heat around it.

pyrometric cone

Small earthen pyramid with a known melting point; it is used to determine the temperature of the firing chamber.

**ribs**

Wooden, metal or plastic tool used to smooth the surface of an object during turning.

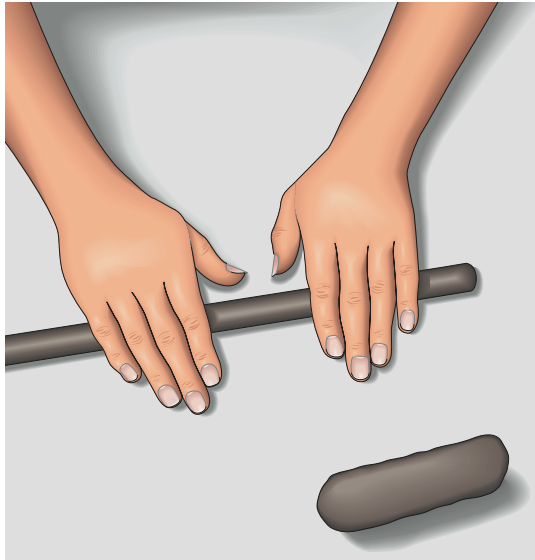
**banding wheel**

Hand-controlled turning plate used for processes that do not require continuous rotation speed, in particular for decorating a turned piece.

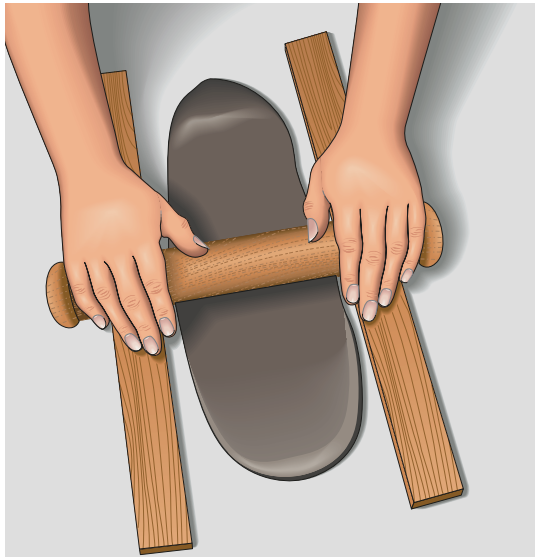
pottery

coiling

Process by which long rolls of clay are stacked and glued to create pieces without the use of a turning wheel.

**slab building**

Process by which clay is flattened with a roller, cut into slabs and then gathered together.

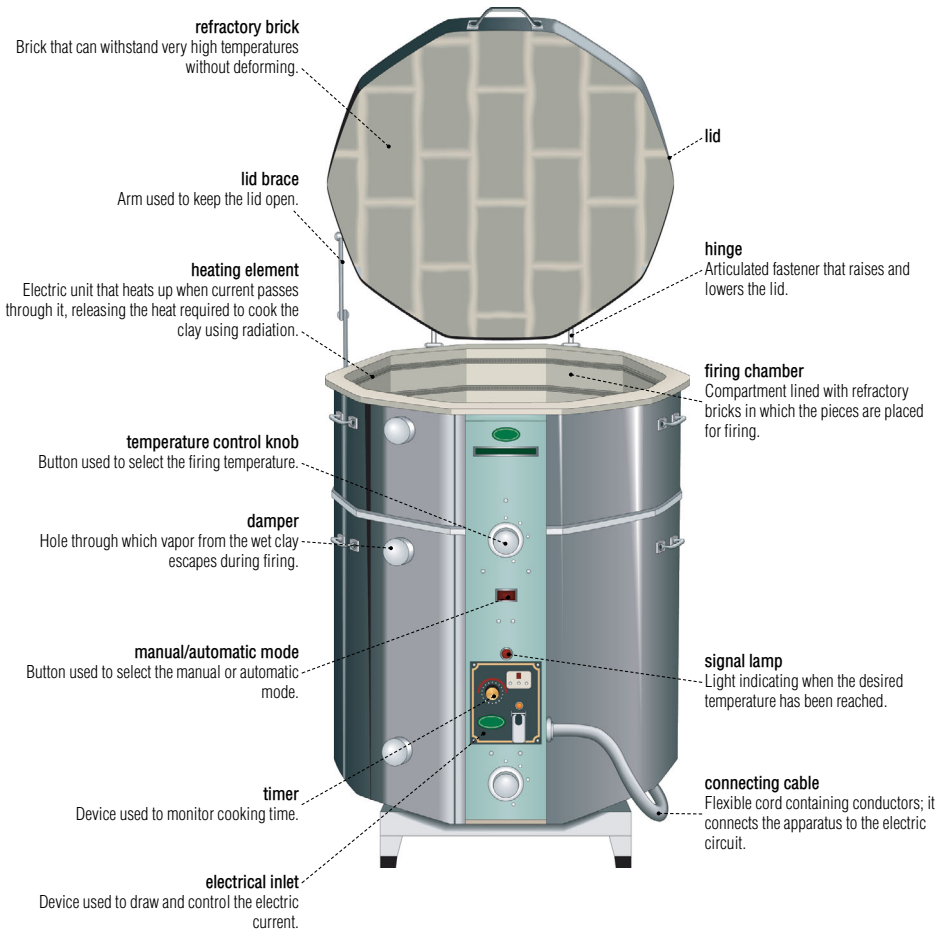


firing

Process by which clay is hardened by heating.

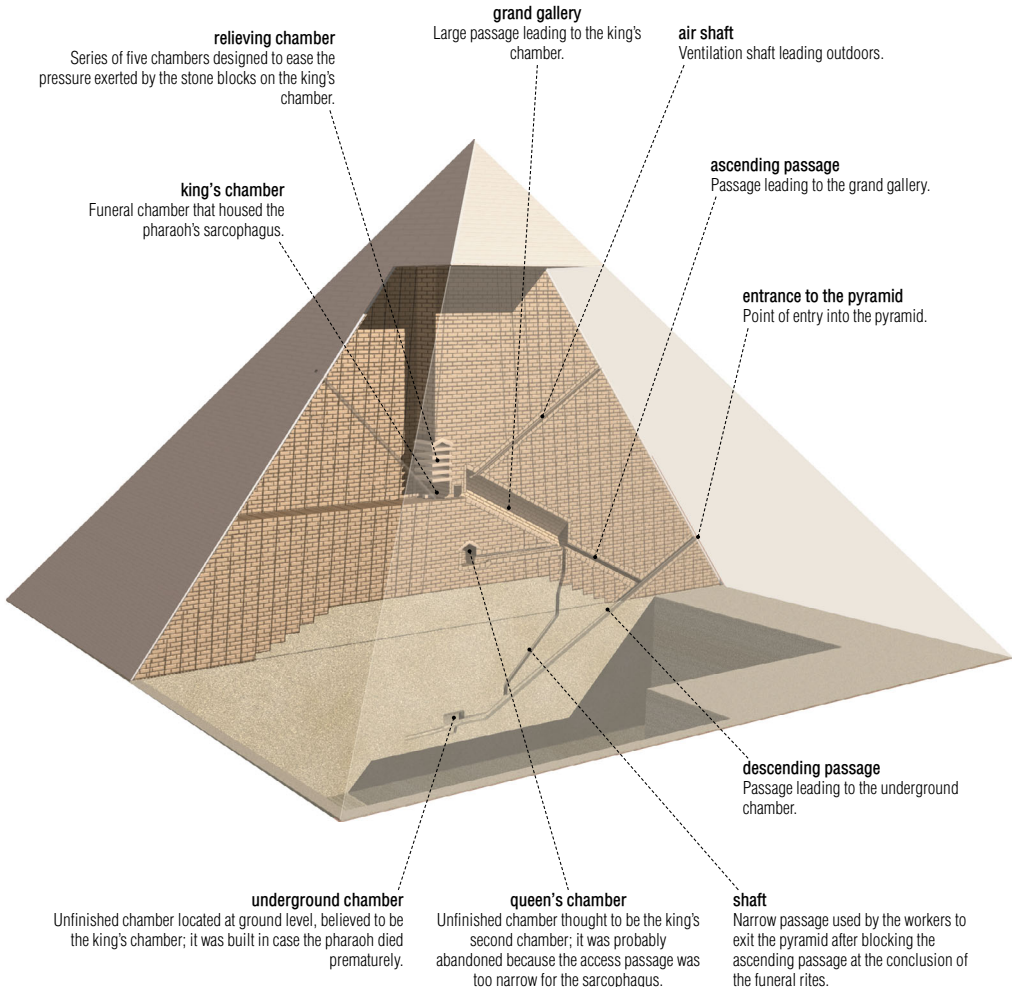
electric kiln

Apparatus that uses radiation to produce heat; it is used for firing clay.

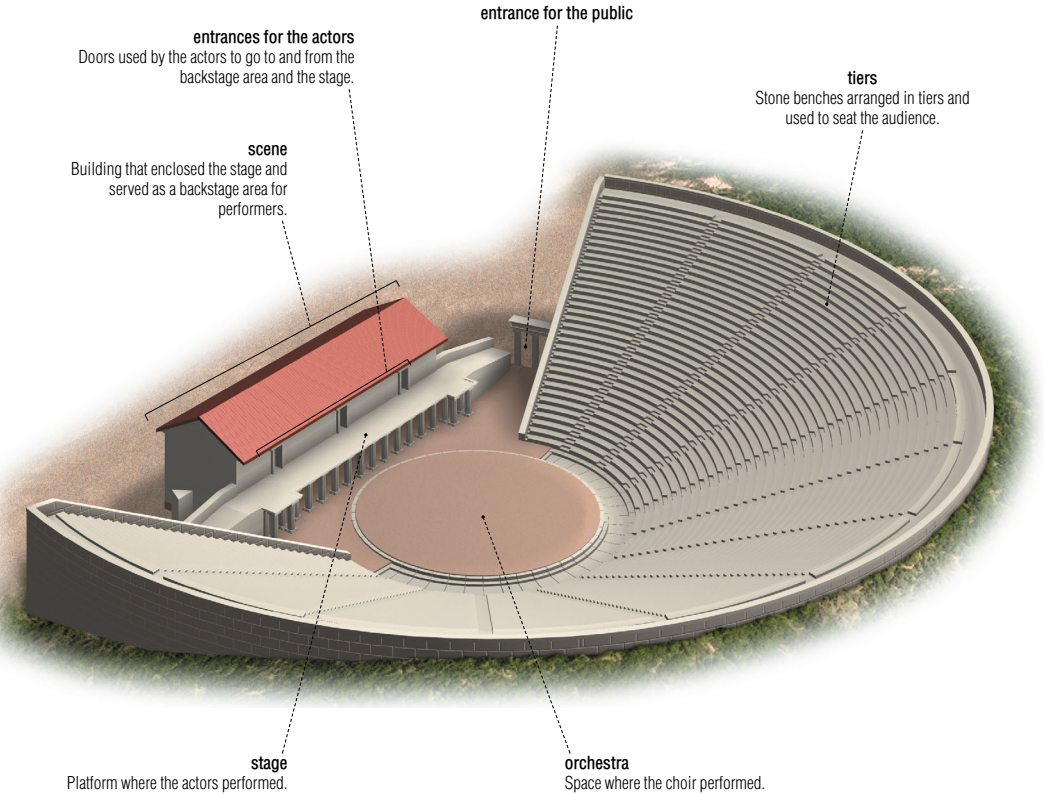


pyramid

Construction with a square base and four triangular faces; it served as a tomb for the pharaohs of ancient Egypt, represented here by the pyramid of Cheops.

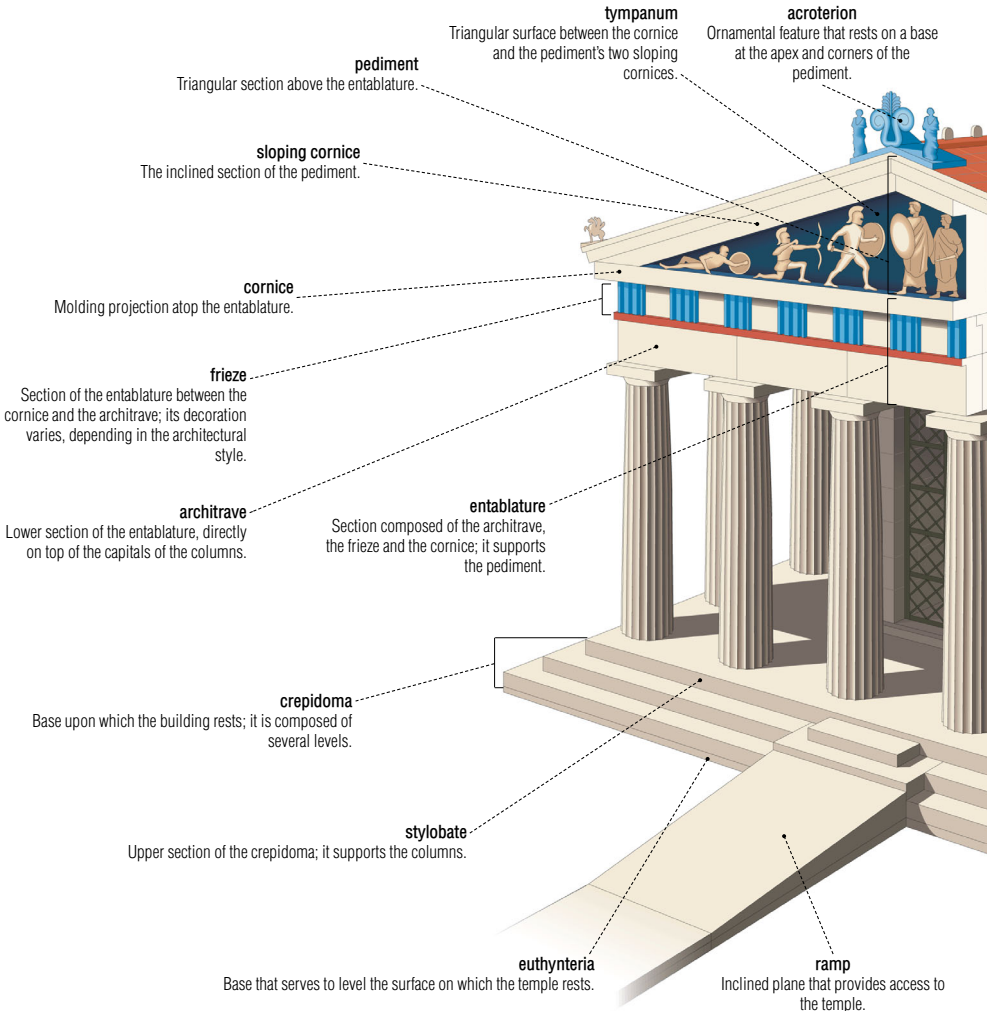


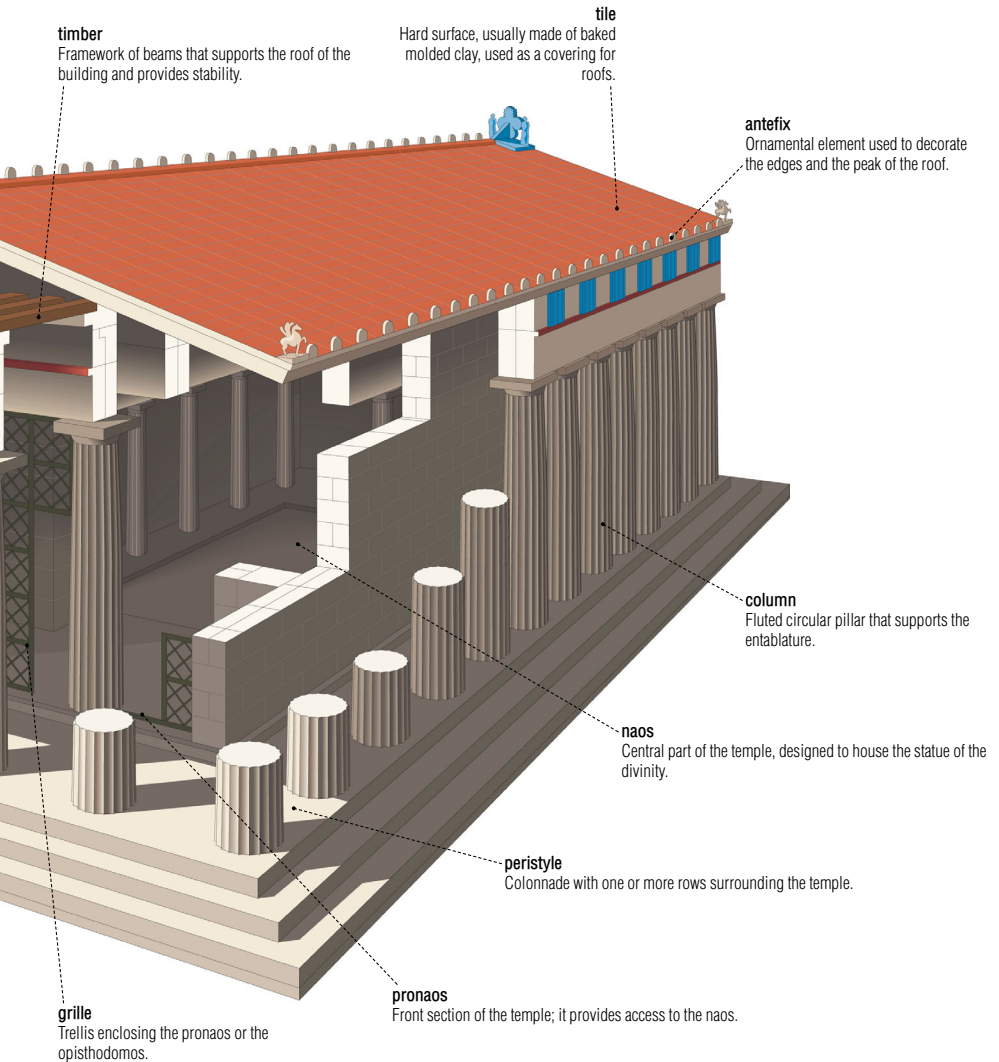
Open-air structure, often built on a hillside, where theatrical performances were staged during antiquity.



Greek temple

Building that, in antiquity, was dedicated to a divinity and featured a statue of that divinity.





timber
Framework of beams that supports the roof of the building and provides stability.

tile
Hard surface, usually made of baked molded clay, used as a covering for roofs.

antefix
Ornamental element used to decorate the edges and the peak of the roof.

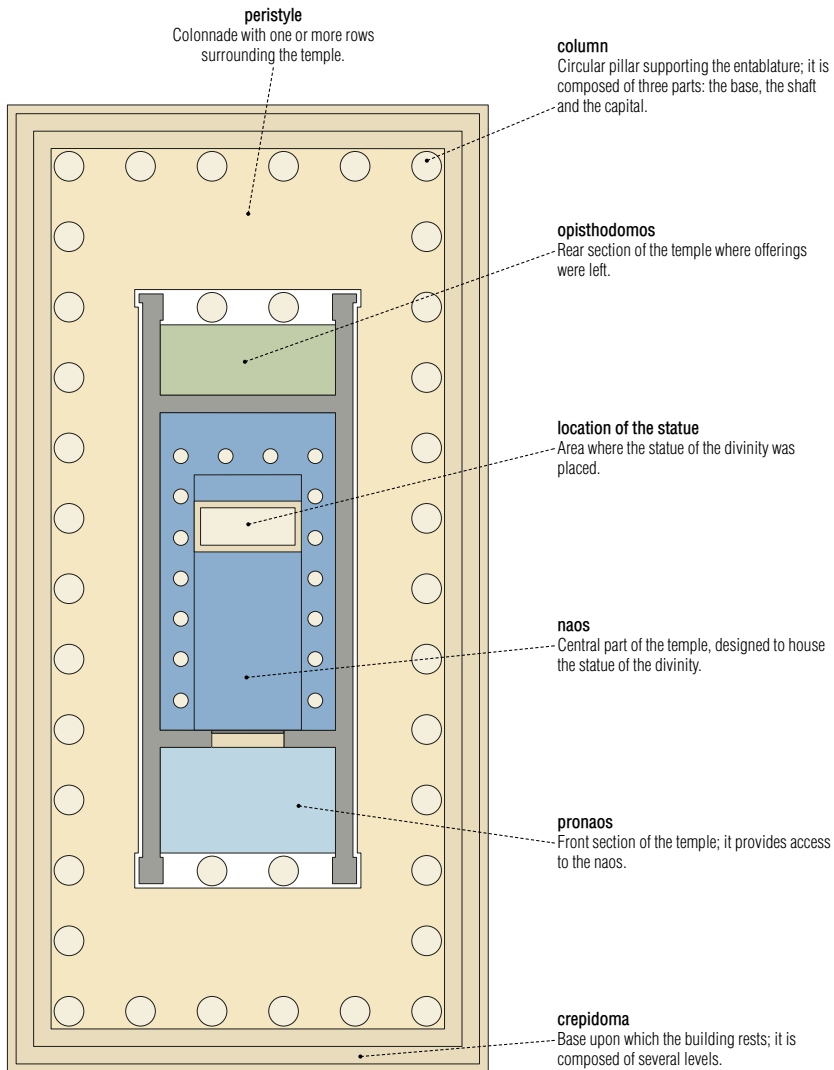
column
Fluted circular pillar that supports the entablature.

naos
Central part of the temple, designed to house the statue of the divinity.

peristyle
Colonnade with one or more rows surrounding the temple.

pronaos
Front section of the temple; it provides access to the naos.

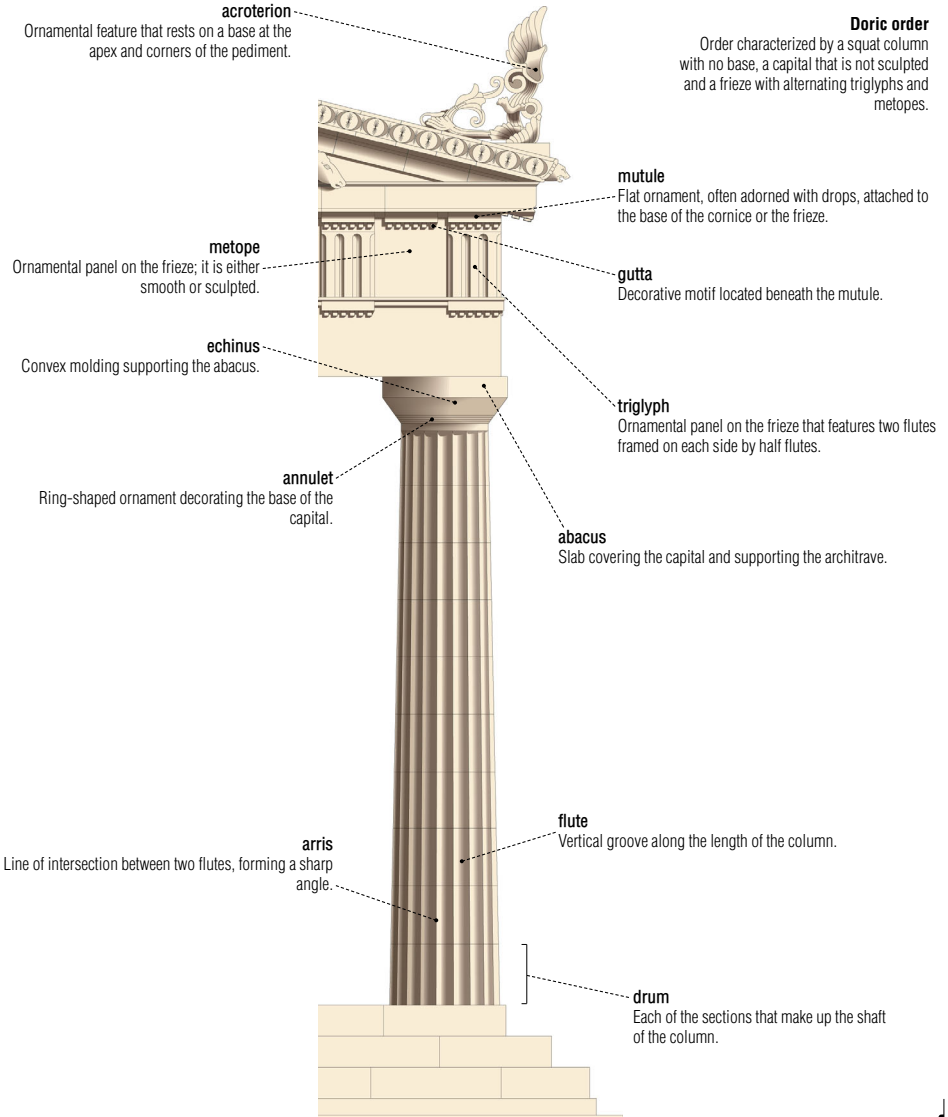
grille
Trellis enclosing the pronaos or the opisthodomos.



The architectural styles, or orders, of ancient Greece are distinguished by rules of proportion that govern a building's columns, entablature and pediment.

Doric order

Order characterized by a squat column with no base, a capital that is not sculpted and a frieze with alternating triglyphs and metopes.



Ionic order

Order characterized by soaring columns with molded bases, capitals with volutes and a continuously sculpted frieze.

tympantum
Triangular surface between the cornice and the pediment's two sloping cornices.

dentil
Rectangular ornament in relief.

abacus
Slab covering the capital and supporting the architrave.

flute
Vertical groove along the length of the column.

torus
Molding in the shape of a large ring, located at the base of the column.

scotia
Concave molding located at the base of the column.

sima
Decorated molding on the face of the pediment's sloping cornice.

cornice
Molding projection on top of the entablature. In the Ionic order, it is decorated with a series of dentils.

frieze
Section of the entablature between the cornice and the architrave. In the Ionic order, it is decorated with scenes sculpted in relief.

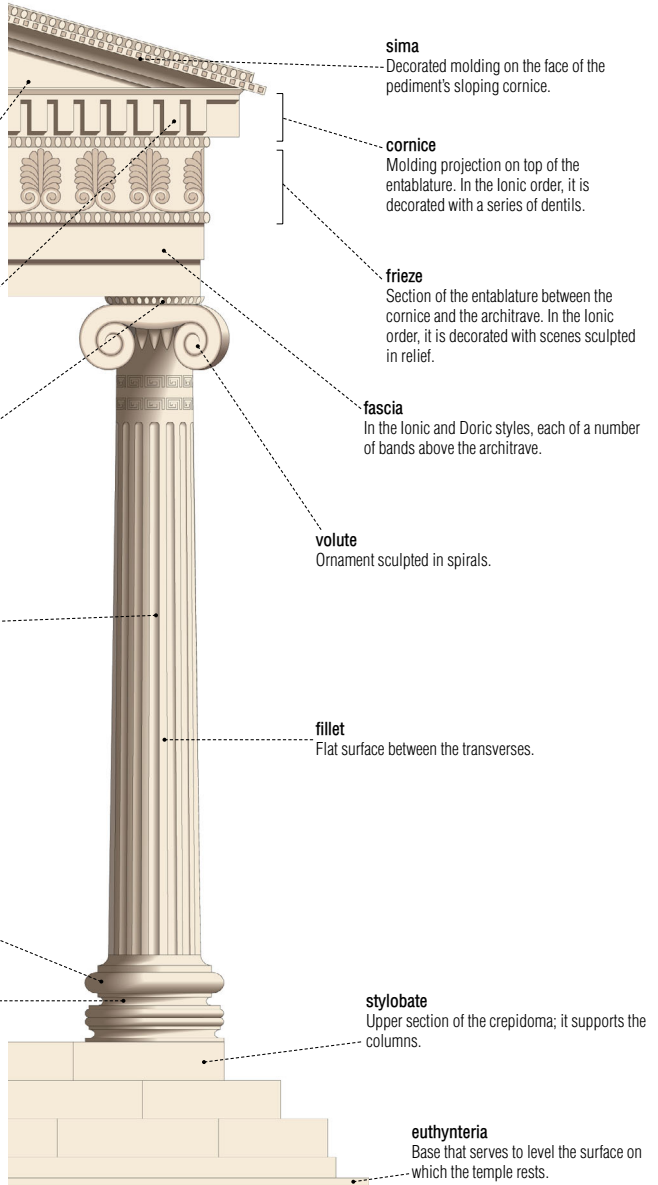
fascia
In the Ionic and Doric styles, each of a number of bands above the architrave.

volute
Ornament sculpted in spirals.

fillet
Flat surface between the transverse.

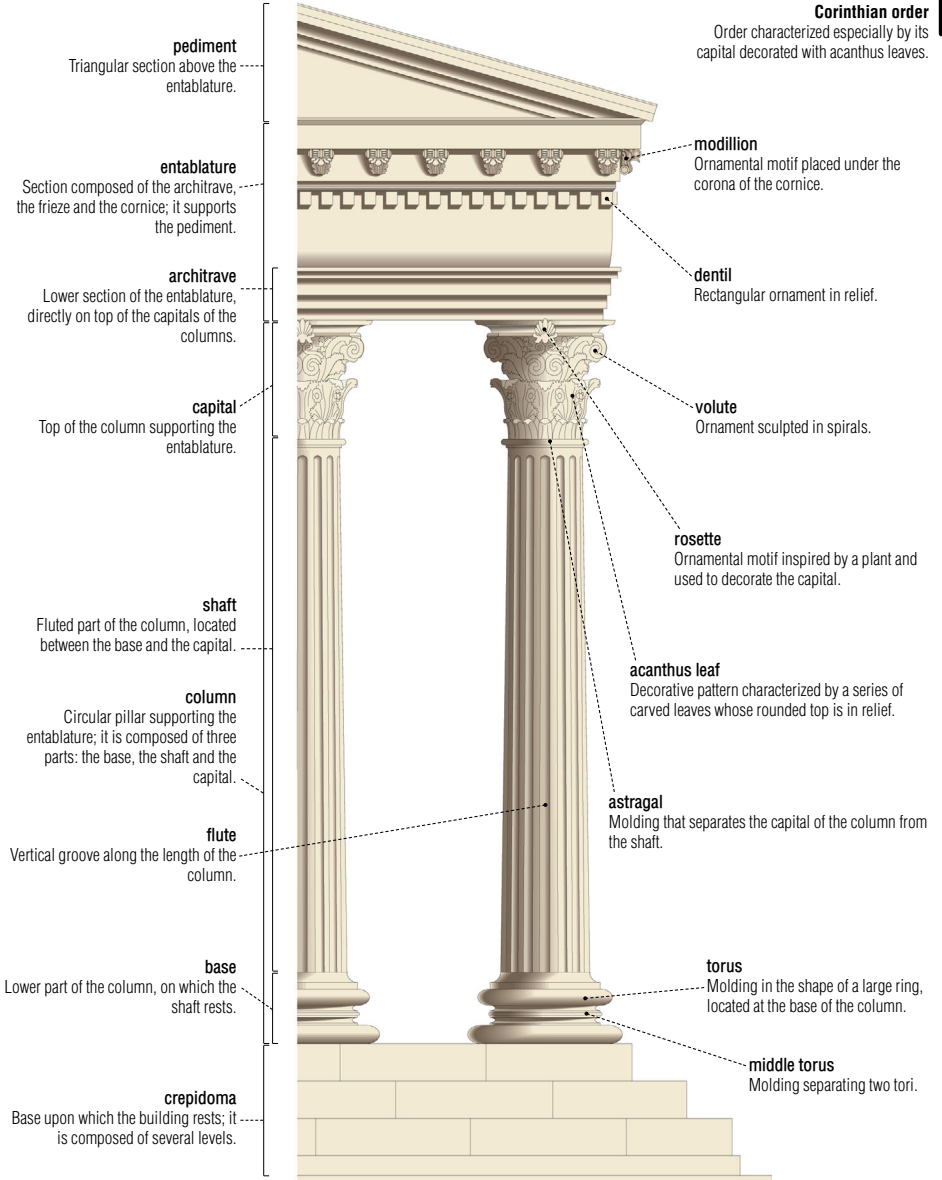
stylobate
Upper section of the crepidoma; it supports the columns.

euthynteria
Base that serves to level the surface on which the temple rests.



Corinthian order

Order characterized especially by its capital decorated with acanthus leaves.



pediment

Triangular section above the entablature.

entablature

Section composed of the architrave, the frieze and the cornice; it supports the pediment.

architrave

Lower section of the entablature, directly on top of the capitals of the columns.

capital

Top of the column supporting the entablature.

shaft

Fluted part of the column, located between the base and the capital.

column

Circular pillar supporting the entablature; it is composed of three parts: the base, the shaft and the capital.

flute

Vertical groove along the length of the column.

base

Lower part of the column, on which the shaft rests.

crepidoma

Base upon which the building rests; it is composed of several levels.

modillion

Ornamental motif placed under the corona of the cornice.

dentil

Rectangular ornament in relief.

volute

Ornament sculpted in spirals.

rosette

Ornamental motif inspired by a plant and used to decorate the capital.

acanthus leaf

Decorative pattern characterized by a series of carved leaves whose rounded top is in relief.

astragal

Molding that separates the capital of the column from the shaft.

torus

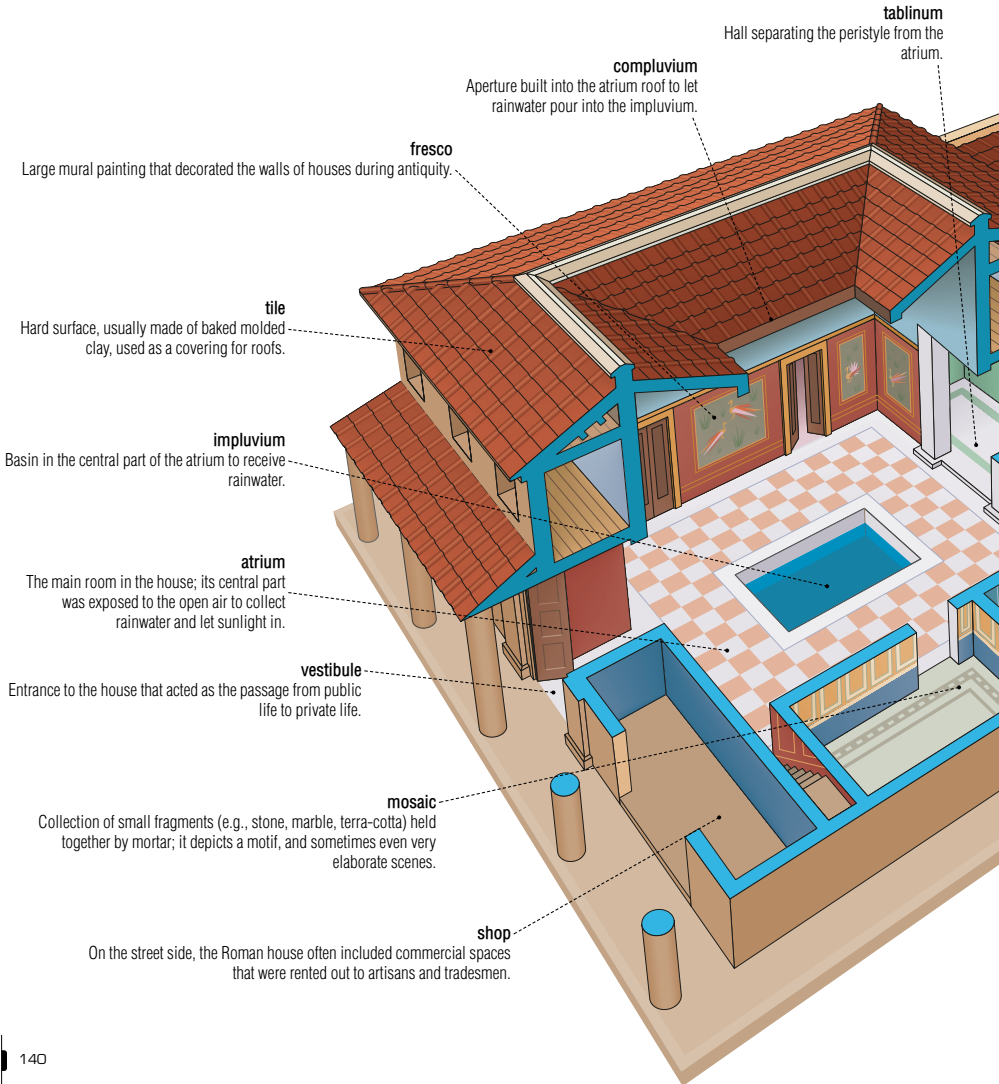
Molding in the shape of a large ring, located at the base of the column.

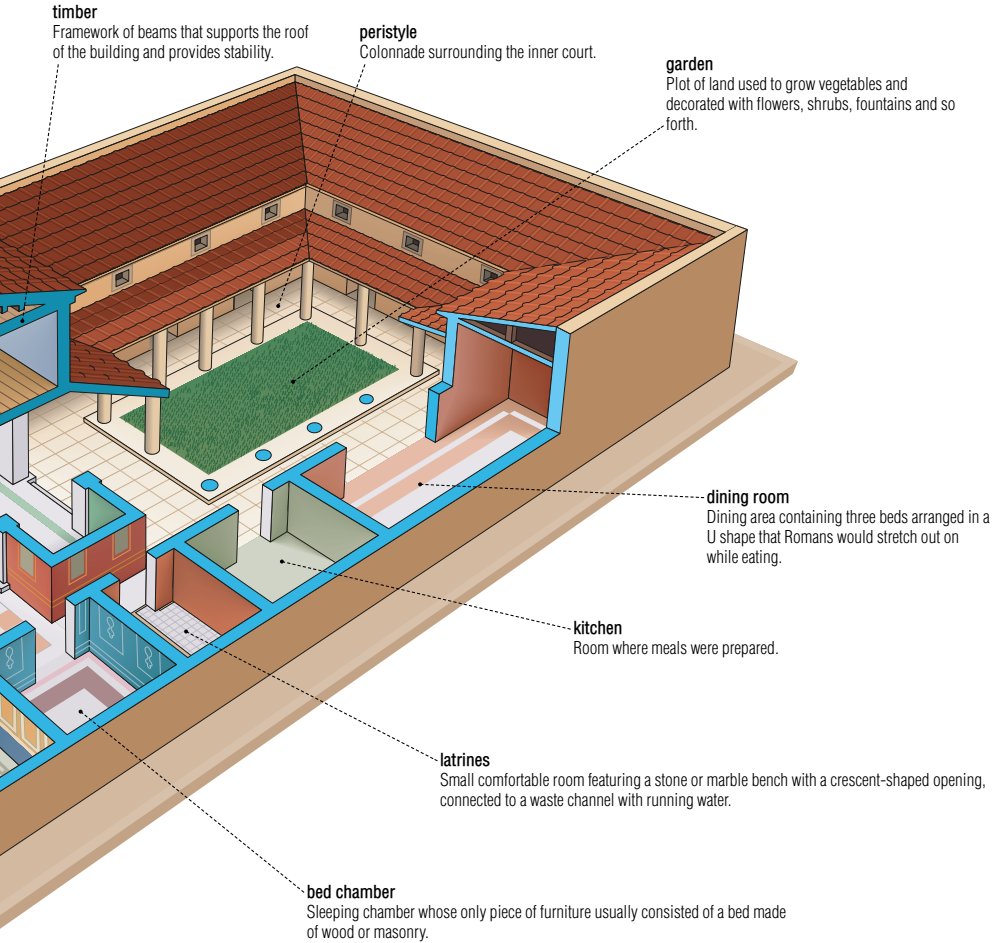
middle torus

Molding separating two tori.

Roman house

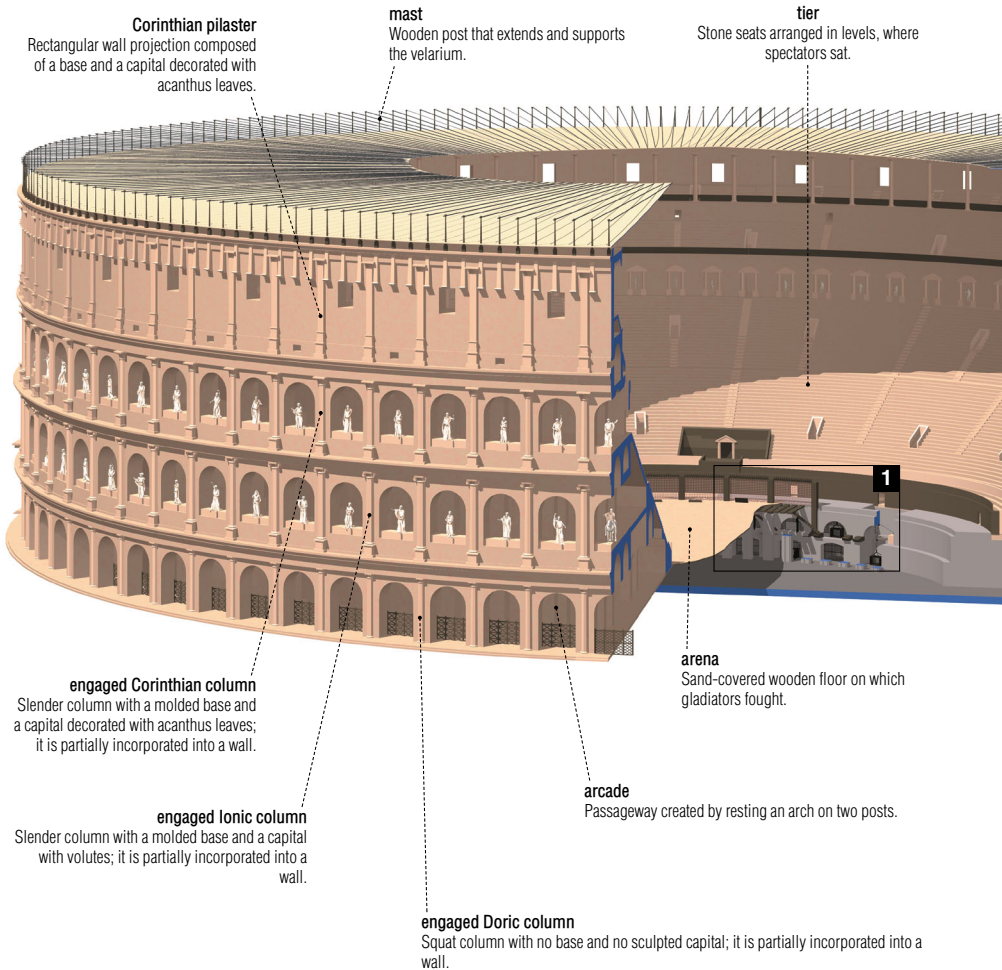
For wealthy Romans, family life unfolded in spacious luxurious houses whose rooms were arranged around open-air spaces.





Roman amphitheater

Oval or round building composed of an arena surrounded by tiers; it was used mainly to stage gladiator fights.



Corinthian pilaster

Rectangular wall projection composed of a base and a capital decorated with acanthus leaves.

mast

Wooden post that extends and supports the velarium.

tier

Stone seats arranged in levels, where spectators sat.

engaged Corinthian column

Slender column with a molded base and a capital decorated with acanthus leaves; it is partially incorporated into a wall.

engaged Ionic column

Slender column with a molded base and a capital with volutes; it is partially incorporated into a wall.

engaged Doric column

Squat column with no base and no sculpted capital; it is partially incorporated into a wall.

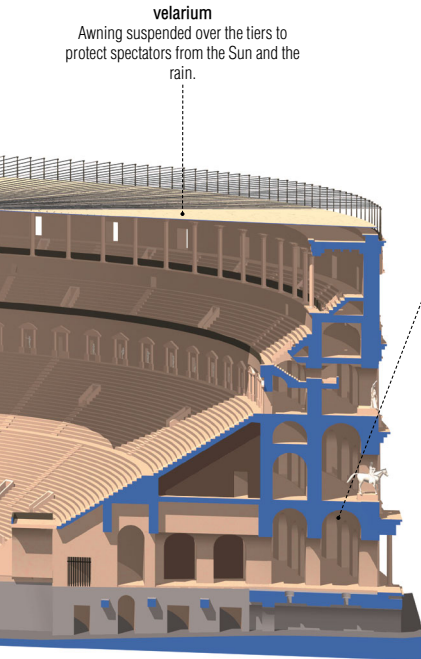
arena

Sand-covered wooden floor on which gladiators fought.

arcade

Passageway created by resting an arch on two posts.

1



velarium
Awning suspended over the tiers to protect spectators from the Sun and the rain.

barrel vault
Arched masonry construction resting on posts.

underground
Area located beneath the arena, designed for easy access for prisoners, gladiators and animals.

elevator
Device that used a counterweight system to raise the animals to arena level.

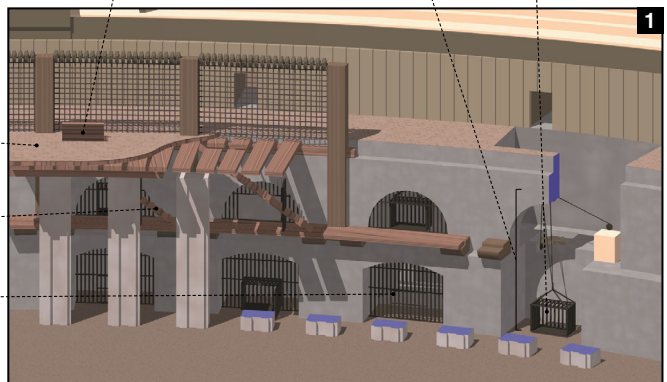
cage
Barred cell used to lock up and transport animals.

trapdoor
Lift-up door through which gladiators and animals entered the arena.

arena
Sand-covered wooden floor on which gladiators fought.

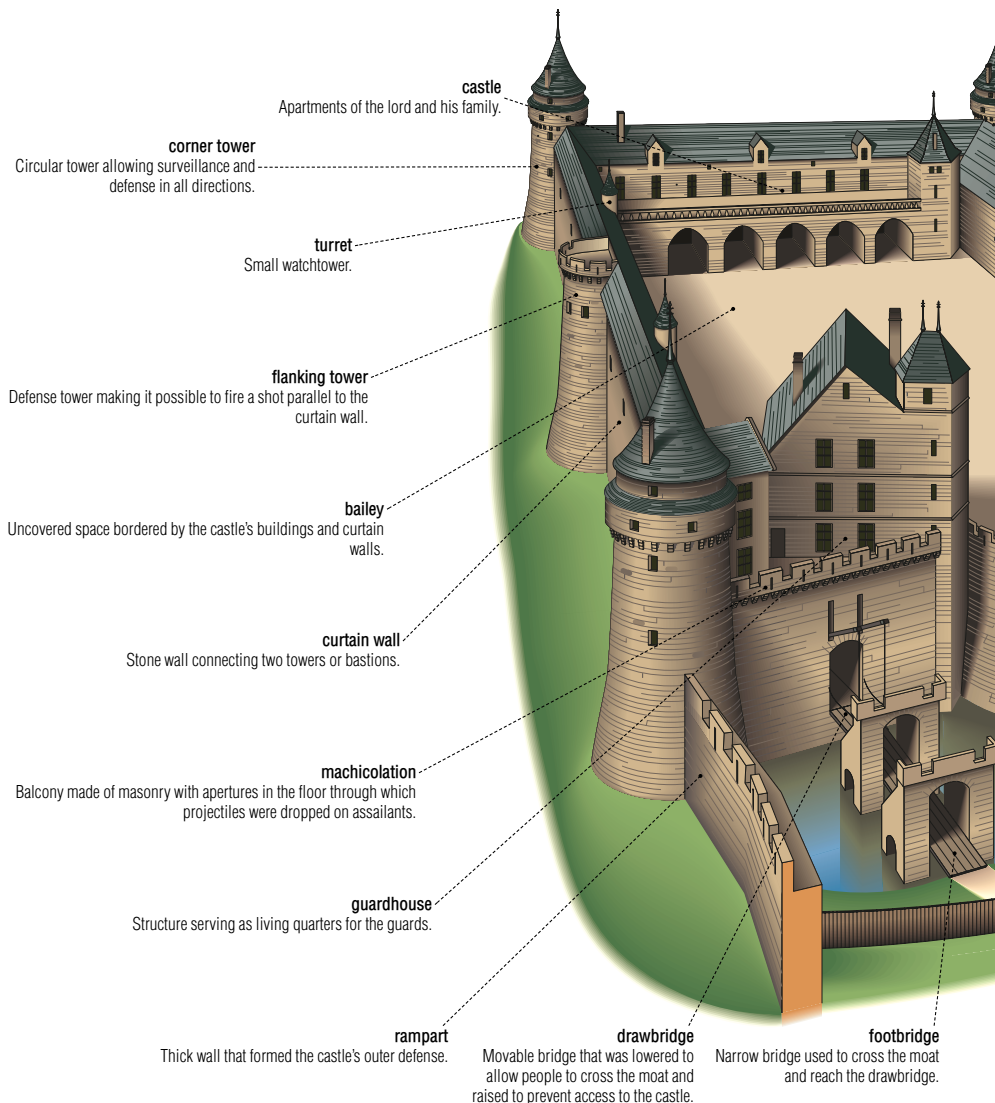
ramp
Sloping passage used to reach another level.

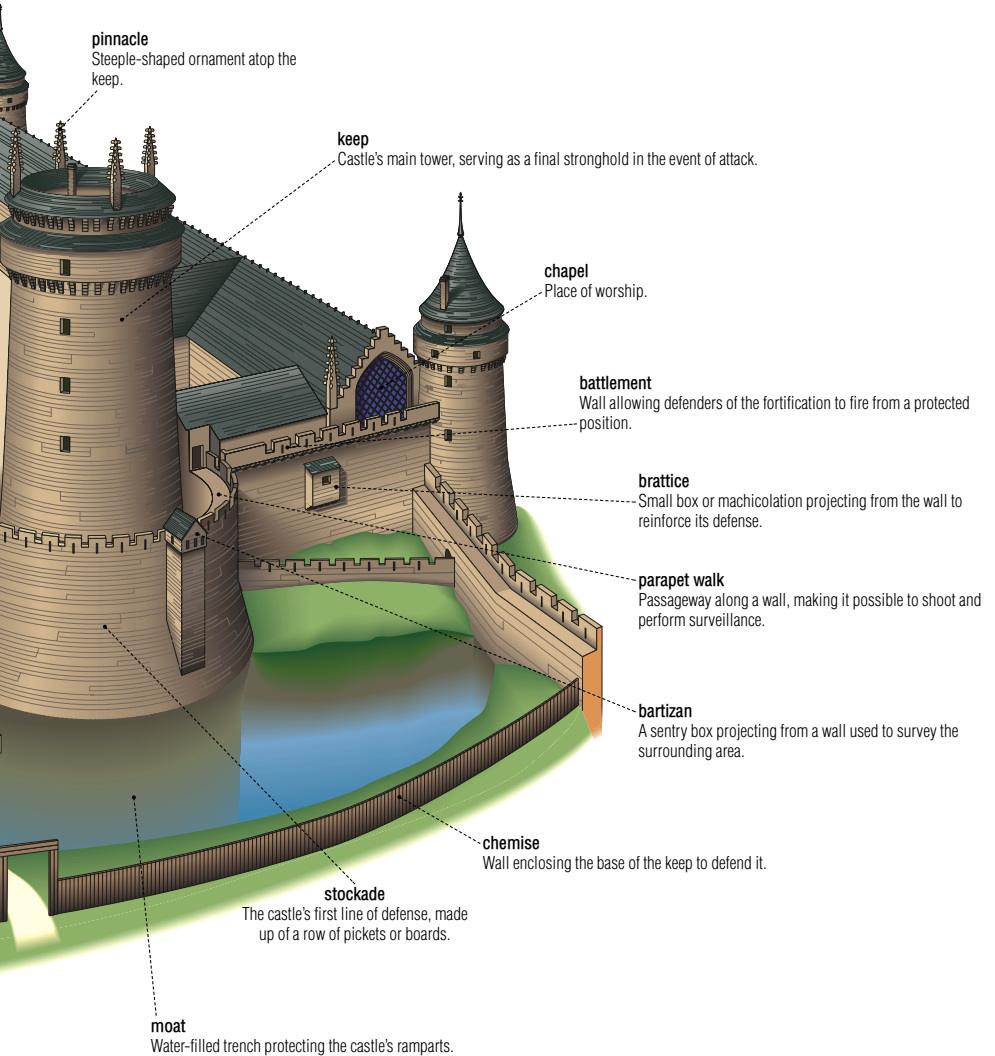
cell
Barred room in which prisoners condemned to take part in the games were held.



castle

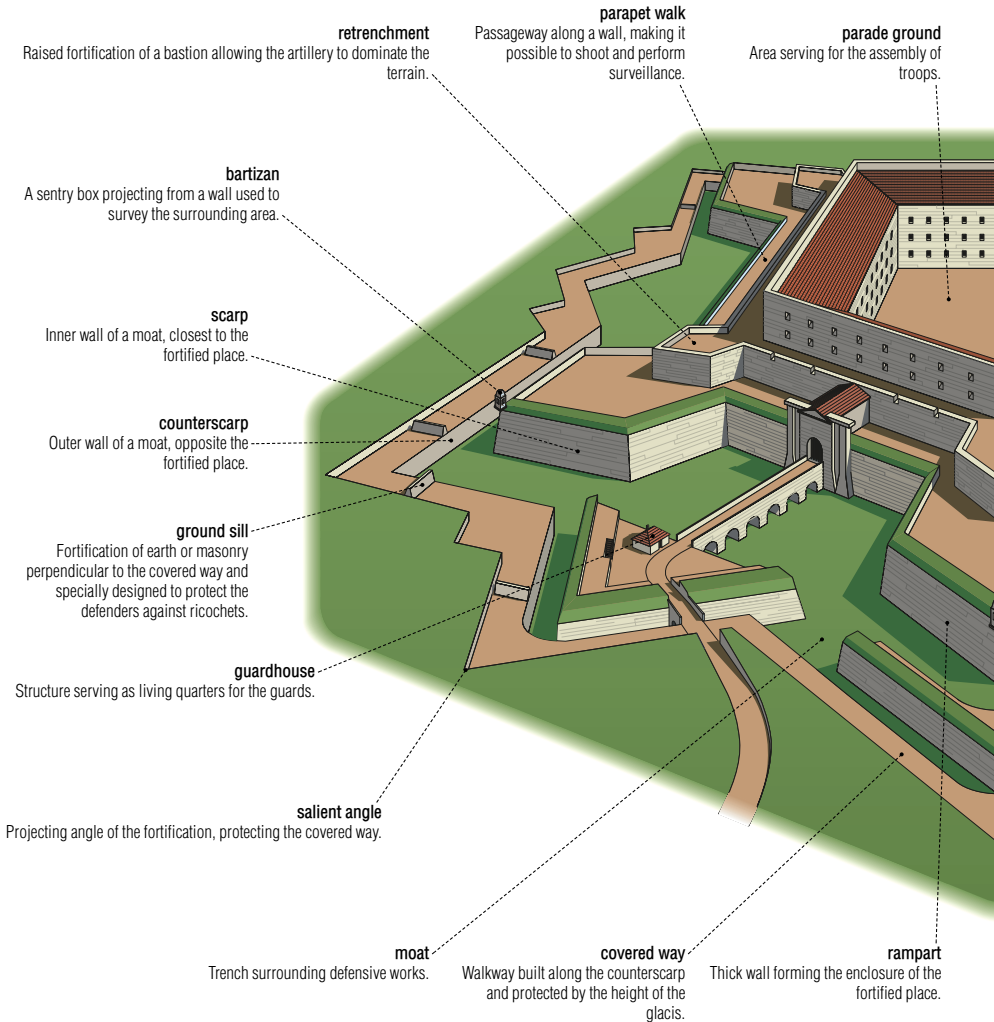
Fortified residence of a feudal lord, designed to protect against assailants.

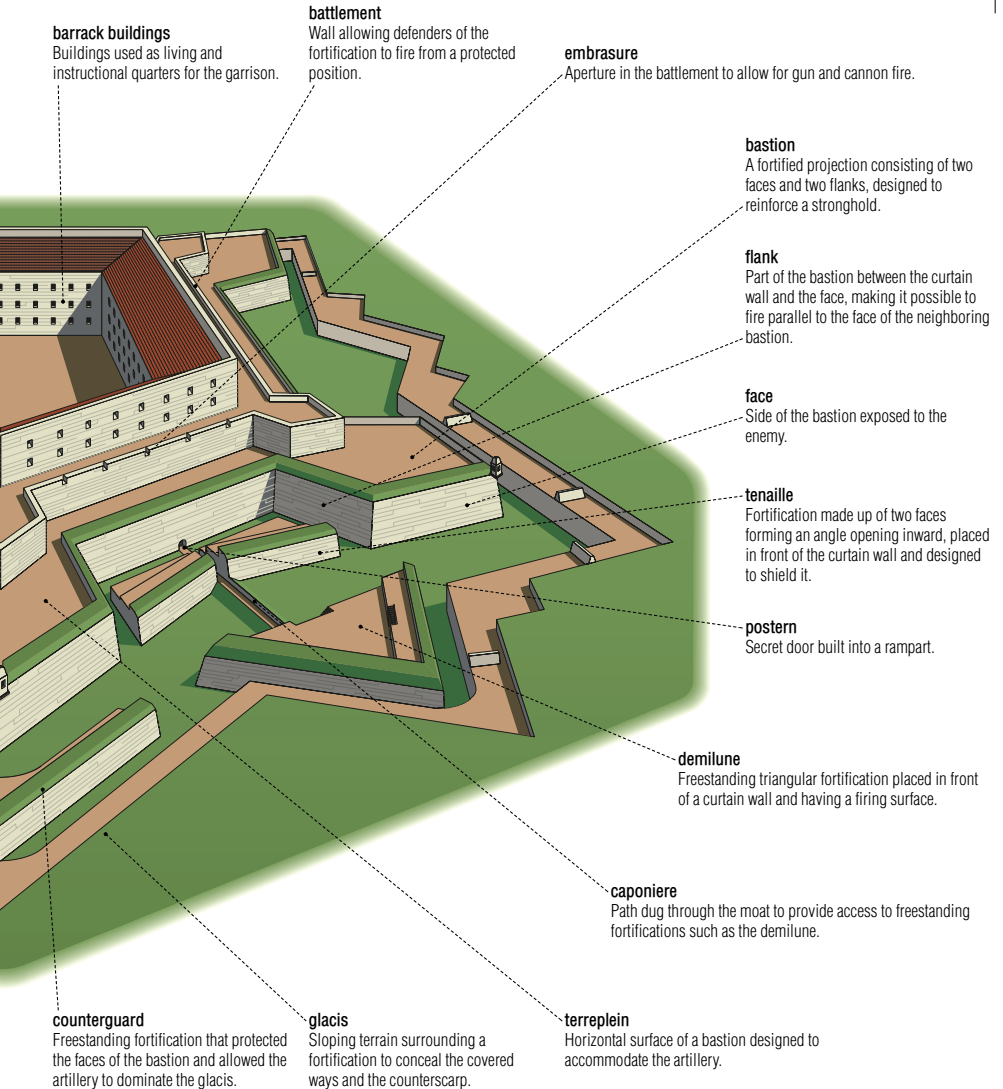




Vauban fortification

Star-shaped military fortification developed by the Frenchman Vauban in the 17th century.





barrack buildings
Buildings used as living and instructional quarters for the garrison.

battlement
Wall allowing defenders of the fortification to fire from a protected position.

embrasure
Aperture in the battlement to allow for gun and cannon fire.

bastion
A fortified projection consisting of two faces and two flanks, designed to reinforce a stronghold.

flank
Part of the bastion between the curtain wall and the face, making it possible to fire parallel to the face of the neighboring bastion.

face
Side of the bastion exposed to the enemy.

tenaille
Fortification made up of two faces forming an angle opening inward, placed in front of the curtain wall and designed to shield it.

postern
Secret door built into a rampart.

demilune
Freestanding triangular fortification placed in front of a curtain wall and having a firing surface.

caponiere
Path dug through the moat to provide access to freestanding fortifications such as the demilune.

counterguard
Freestanding fortification that protected the faces of the bastion and allowed the artillery to dominate the glacis.

glacis
Sloping terrain surrounding a fortification to conceal the covered ways and the counterscarp.

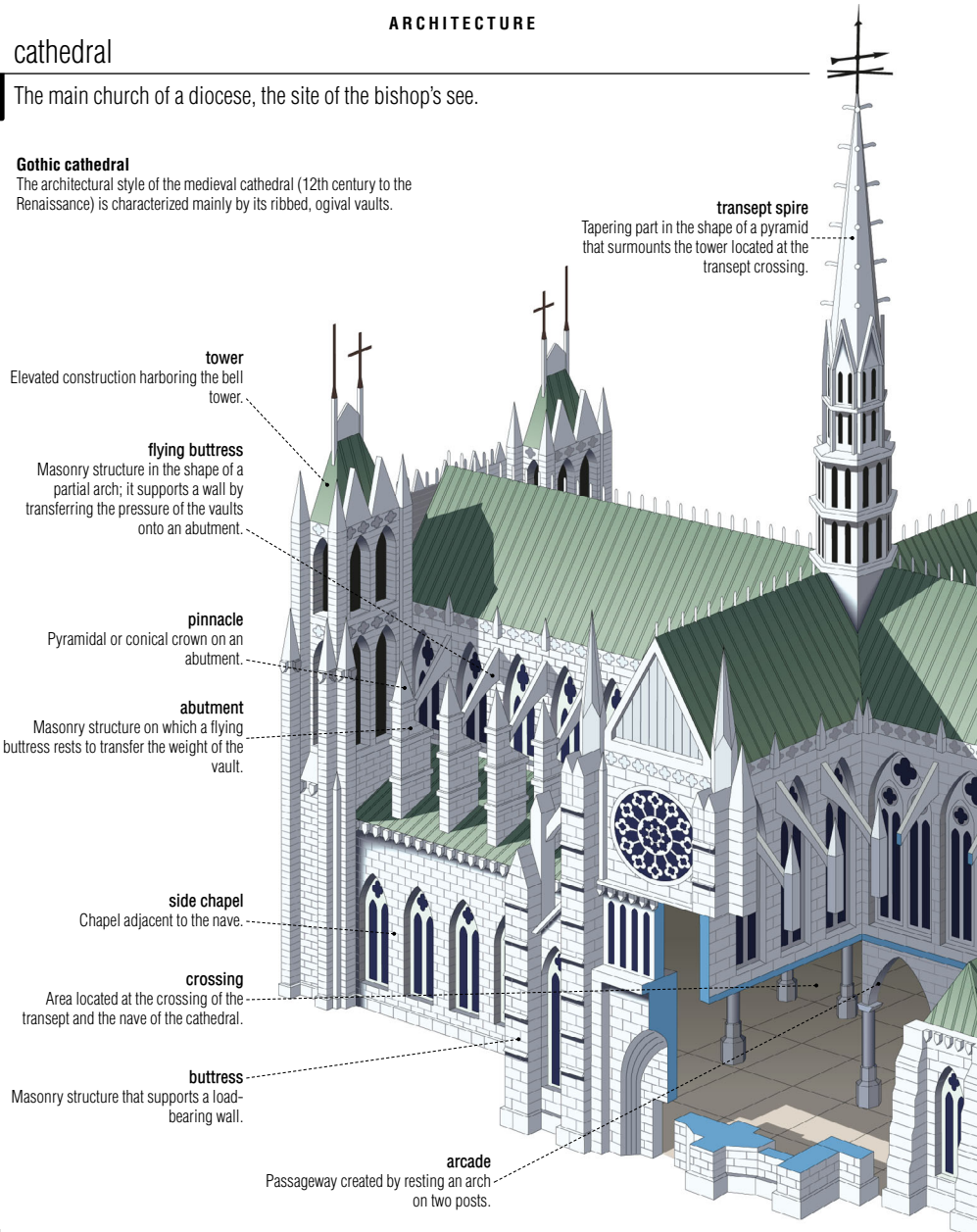
terreplein
Horizontal surface of a bastion designed to accommodate the artillery.

cathedral

The main church of a diocese, the site of the bishop's see.

Gothic cathedral

The architectural style of the medieval cathedral (12th century to the Renaissance) is characterized mainly by its ribbed, ogival vaults.



transept spire

Tapering part in the shape of a pyramid that surmounts the tower located at the transept crossing.

tower

Elevated construction harboring the bell tower.

flying buttress

Masonry structure in the shape of a partial arch; it supports a wall by transferring the pressure of the vaults onto an abutment.

pinnacle

Pyramidal or conical crown on an abutment.

abutment

Masonry structure on which a flying buttress rests to transfer the weight of the vault.

side chapel

Chapel adjacent to the nave.

crossing

Area located at the crossing of the transept and the nave of the cathedral.

buttress

Masonry structure that supports a load-bearing wall.

arcade

Passageway created by resting an arch on two posts.

vault

The vault of a Gothic cathedral rests on a series of arches that cross at the summit of the nave and are supported by lateral pillars.

keystone
Wedge-shaped stone above the nave where the arches meet; it supports the arches and stabilizes the overall structure.

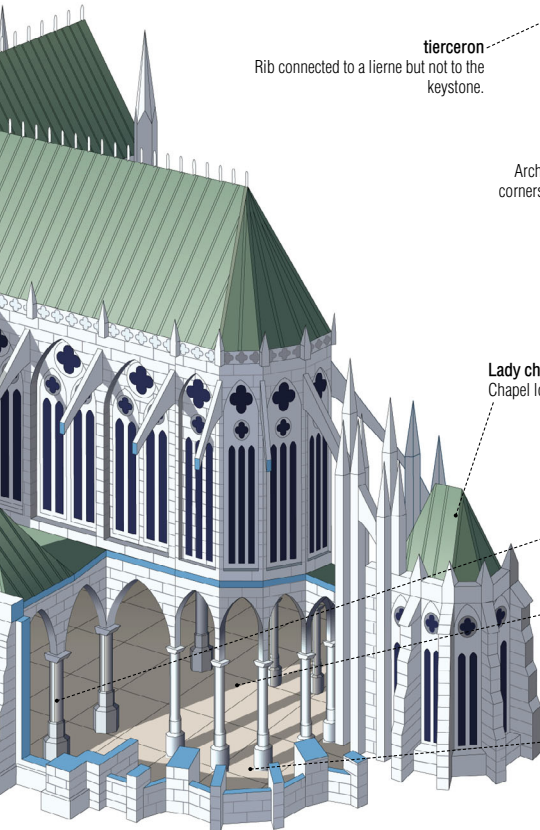
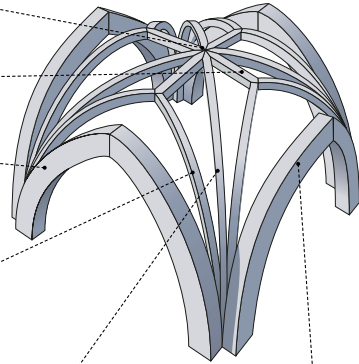
lierne
Rib connecting the top of the tierceron to the keystone.

traverse arch
Arch that supports the vault and is perpendicular to the axis of the nave.

tierceron
Rib connected to a lierne but not to the keystone.

diagonal buttress
Arch connecting two of the vault's corners through the keystone; it is also called an ogive.

formeret
Arch that supports the vault and is parallel to the axis of the nave.



Lady chapel
Chapel located beyond the walls at the back of the cathedral, in the axis of the nave.

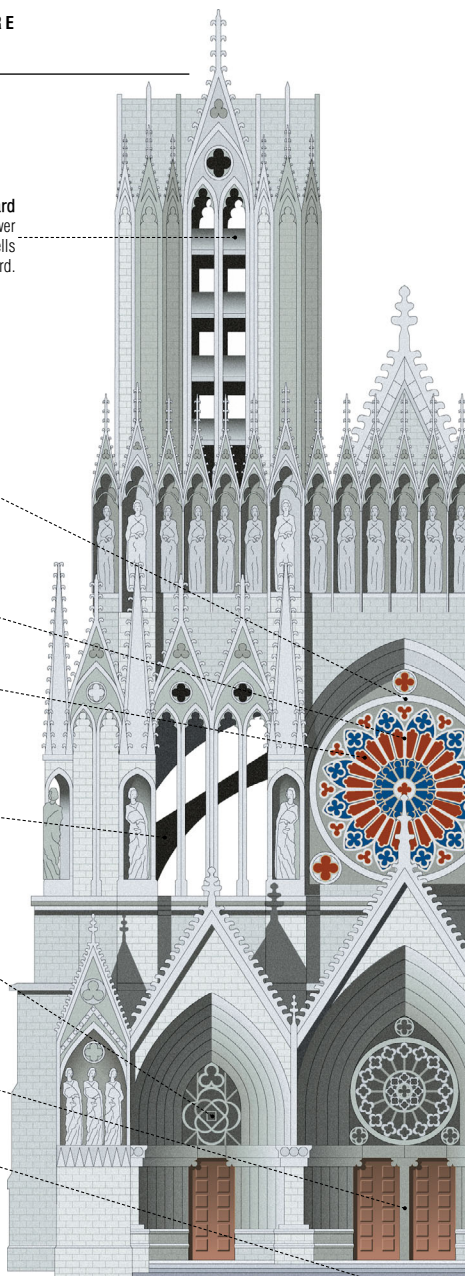
pillar
Column designed to support a masonry structure.

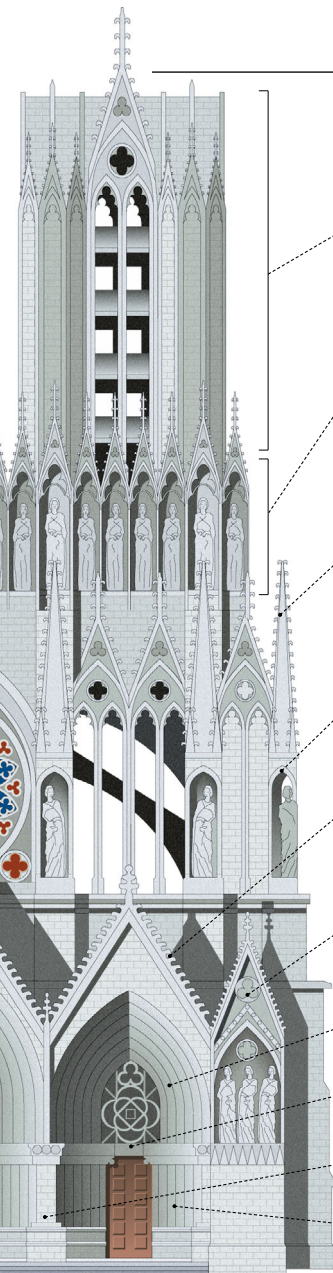
choir
Area just beyond the transept where the clergy stand during the liturgy.

apsidiole
Small lateral chapel arranged in a semicircle behind the choir surrounding the apse.

façade

- louver-board**
Inclined slat located in the bell tower bay; it projects the sound of the bells downward.
- rose window**
Large circular bay composed of decorative tracery and stained glass; it is also called a rosette.
- tracery**
Stone framework adorning the inside of a bay.
- stained glass**
Translucent decorative work comprised of an assemblage of glass pieces, usually colored, that fills a bay.
- flying buttress**
Masonry structure in the shape of a partial arch; it supports a wall by transferring the pressure of the vaults onto an abutment.
- tympanum**
Flat portion of the portal above the door and between the orders.
- pier**
Pillar dividing the portal in two and supporting the lintels.
- portal**
Ornamental architectural feature of a façade containing one or several doors.





bell tower

Tower with bays in which the bells are hung.

gallery

Covered passage along the cathedral's façade, decorated with statues.

spire

Tapering part in the shape of a pyramid that surmounts the belfry.

belfry

Small steeplelike ornament in the shape of a pyramid; it is found on the corners of the transept or on each side of the façade.

gable

Triangular decorative element with molded edges, located above the portal.

trefoil

Ornamental motif comprised of three lobes.

order

Each of the receding arches that form a vault over a portal.

lintel

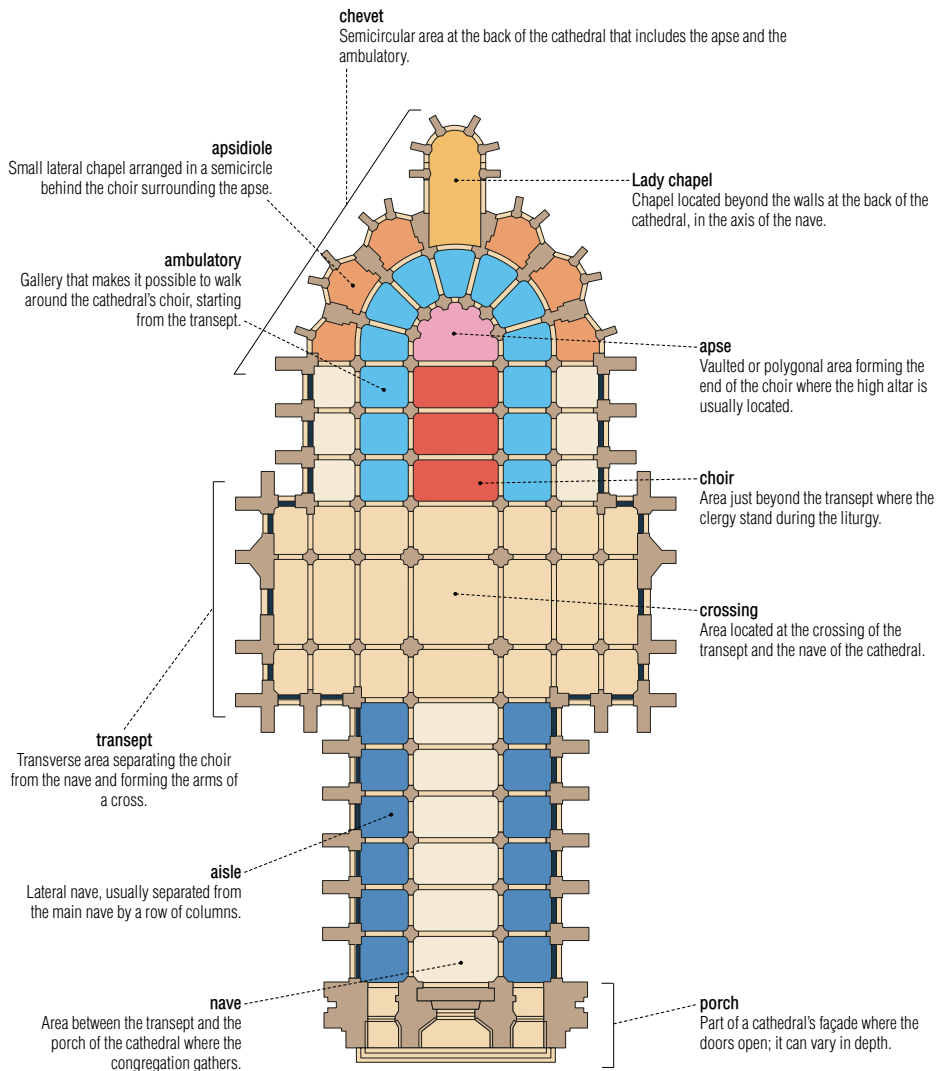
Horizontal section of the door frame that fills the opening above a door or portal.

pier

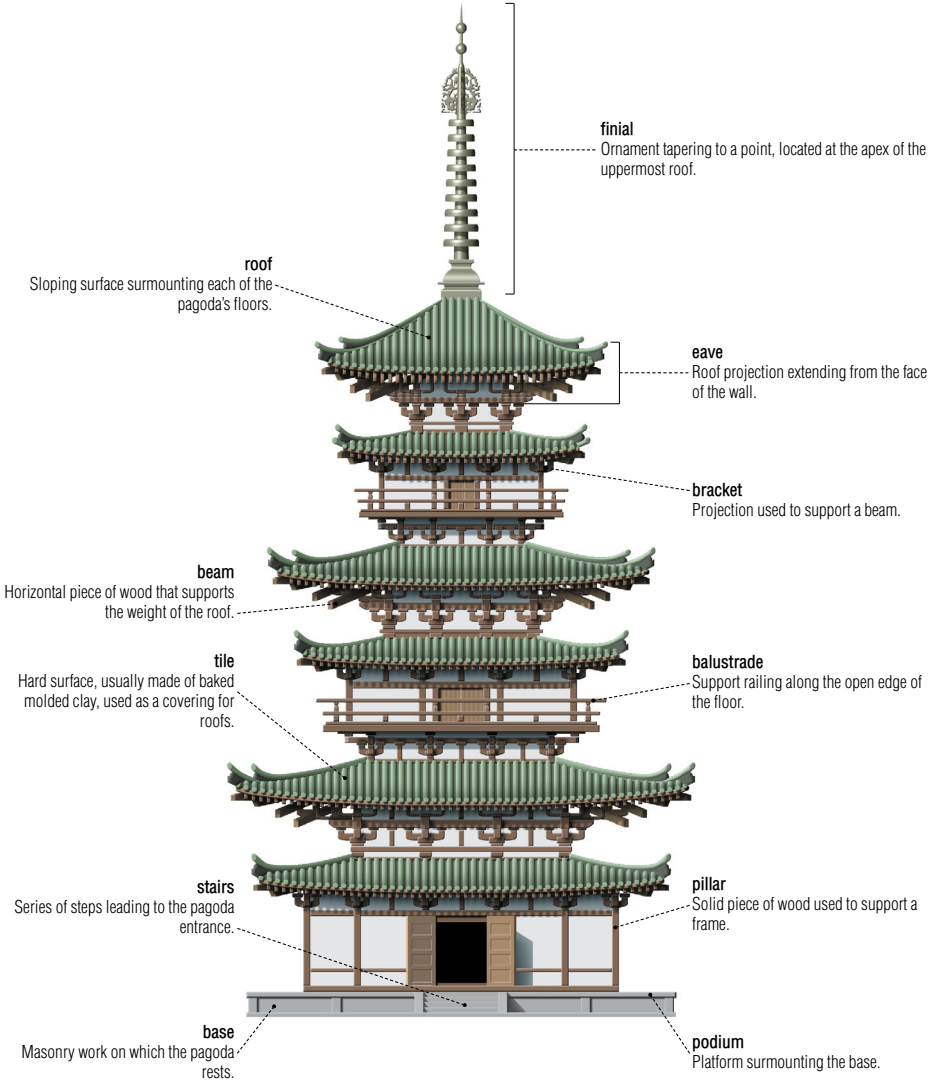
Masonry pillar supporting the orders.

splay

Recessed side of the portal that widens from its inside to its outside edge.



Place of worship for Buddhists of the Far East, usually made up of a series of stories, each with its own roof.



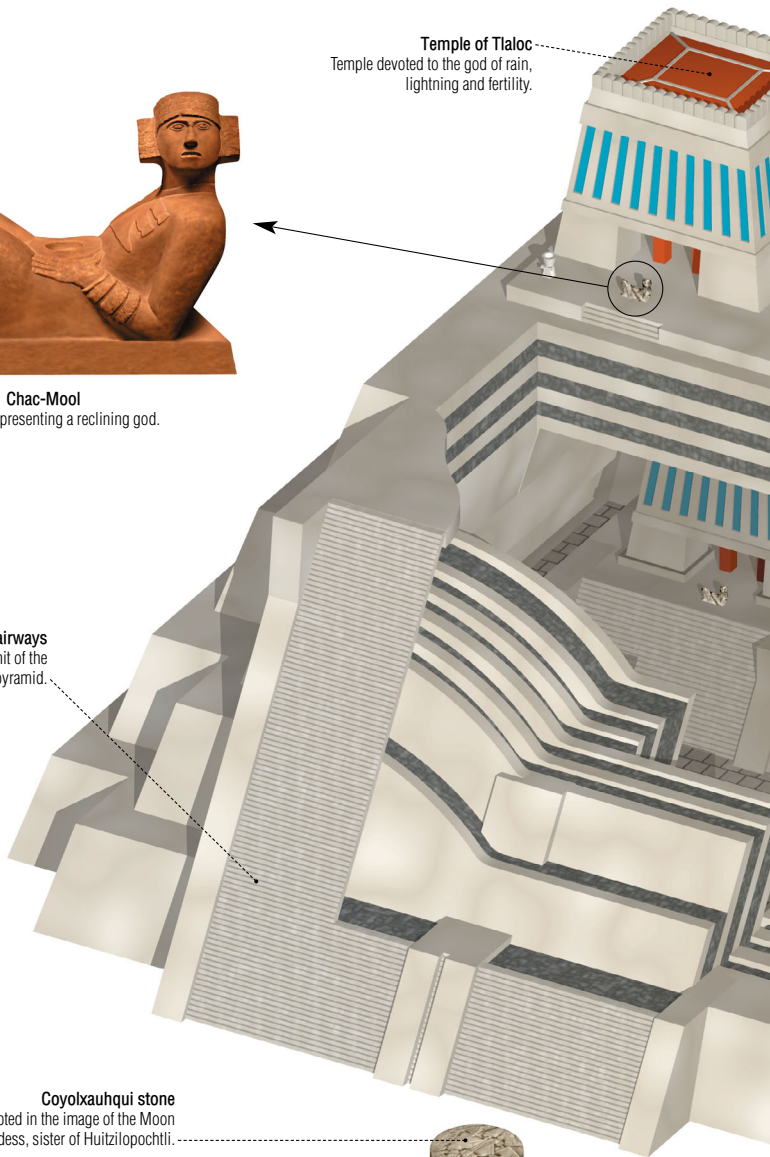
Aztec temple

Pyramid-shaped religious edifice of pre-Columbian Mexico featuring one or several temples.



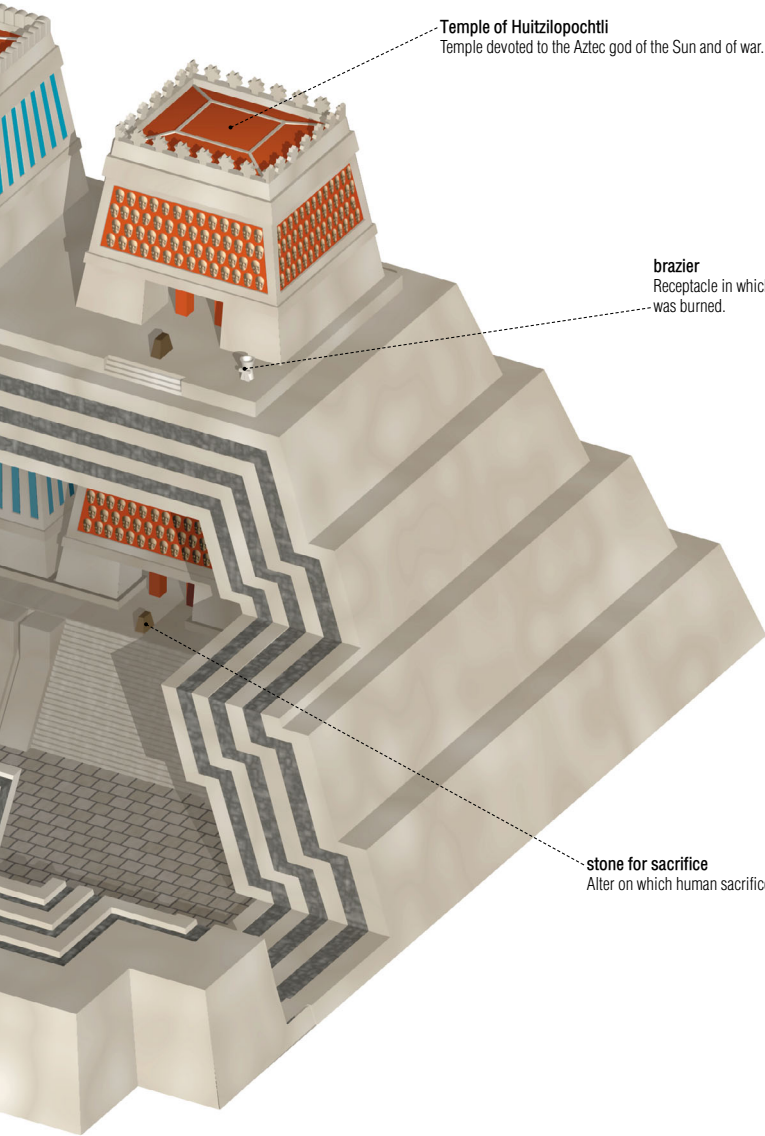
Chac-Mool
Sculpture representing a reclining god.

Temple of Tlaloc
Temple devoted to the god of rain, lightning and fertility.



stairways
Series of steps leading to the summit of the pyramid.

Coyolxauhqui stone
Block of stone sculpted in the image of the Moon goddess, sister of Huitzilopochtli.



Temple of Huitzilopochtli

Temple devoted to the Aztec god of the Sun and of war.

brazier

Receptacle in which the heart of the person sacrificed was burned.

stone for sacrifice

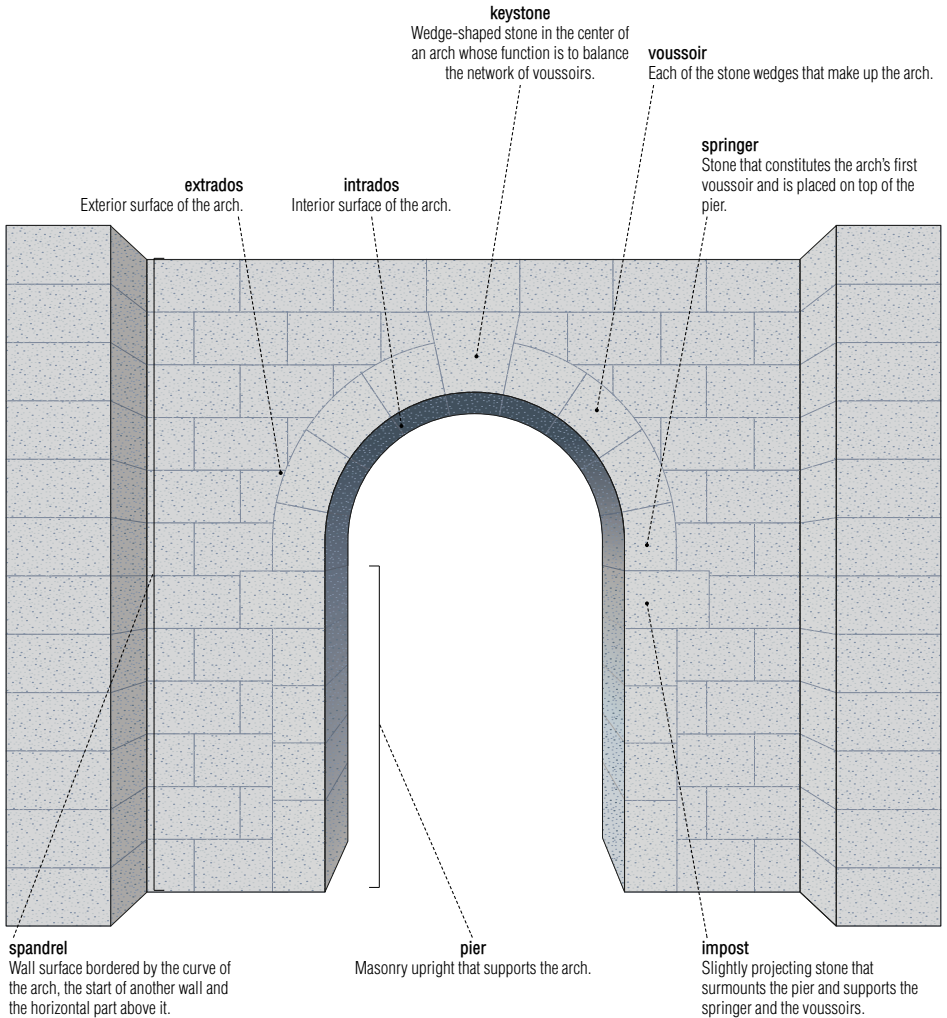
Alter on which human sacrifices were performed.

elements of architecture

Collective term for the components used in the construction of buildings.

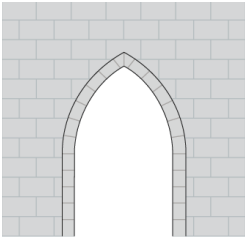
semicircular arch

Arch in the form of a semicircle.



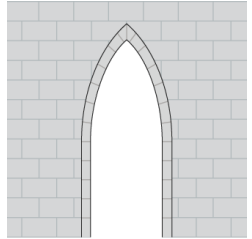
examples of arches

Arches: curved constructions supported on each side by piers.



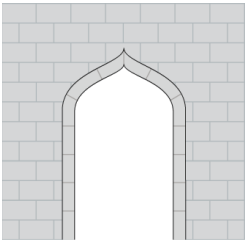
equilateral

Arch forming an acute angle that is characteristic of the Gothic vault.



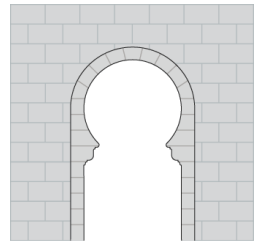
lancet

Equilateral arch whose span, or distance between the piers, is reduced.



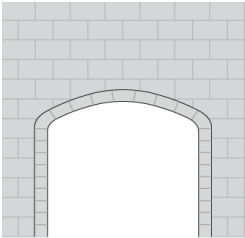
ogee

Arch comprised of two symmetrical curves that are alternately convex and concave.



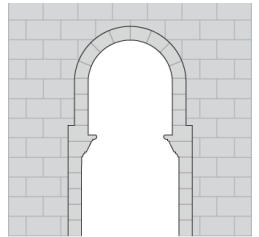
horseshoe

Arch whose extremities extend beyond a semicircle; it is characteristic of Arab architecture.



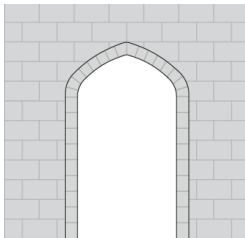
basket handle

Arch that is lower than it is wide and forms an ellipse.



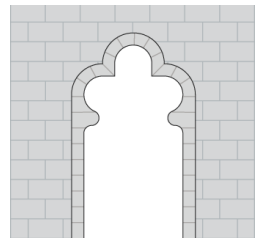
Tudor

Flattened equilateral arch that is characteristic of the style that flourished in 16th-century England.



stilted

Arch that takes the form of a semicircle but is higher than the semicircular arch.

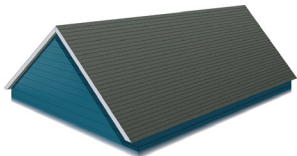


trefoil

Arch with three lobes.

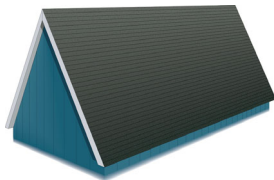
examples of roofs

Roof: the covering of a building that rests on the frame and protects it from inclement weather.



pitched roof

Roof with two inclined sides whose peak angle varies.

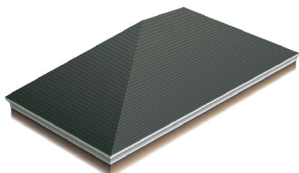


gable roof

Sloping roof whose peak angle is very sharp.

hip roof

Roof composed of two triangular sides (hips) and two trapezoid sides.



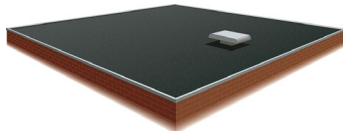
lean-to roof

Roof with one side only, usually covering a building that is supported by a higher building.



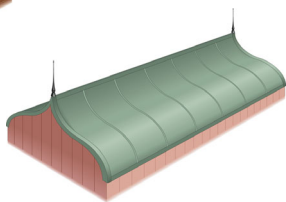
flat roof

Roof whose level surface slopes slightly allowing water to run off.



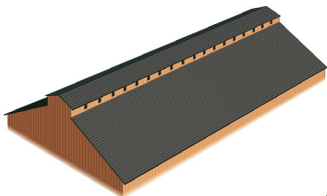
ogee roof

Two-sided roof that resembles the hull of an overturned ship.



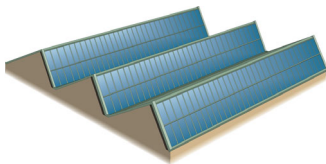
monitor roof

Sloping roof whose raised summit contains windows that let in light and ventilate the loft.



sawtooth roof

Roof composed of a series of small roofs with two asymmetrical sides, the steepest of which often contains a window.



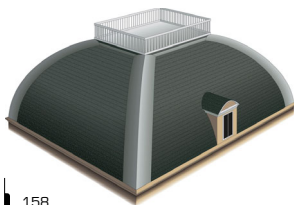
mansart roof

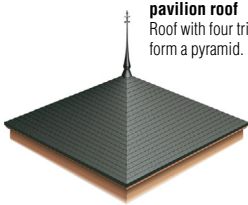
Four-sided roof whose slope is gentle at the summit and steep at the base.



imperial roof

Roof with curved sides that resembles a crown.





pavilion roof
Roof with four triangular sides that form a pyramid.



conical broach roof
Conical roof usually surmounting a turret.

helm roof
Pyramidal or conical roof that usually surmounts a tower or bell tower.



sloped turret
Many-sided roof whose slope is steep at the summit and gentle at the base.



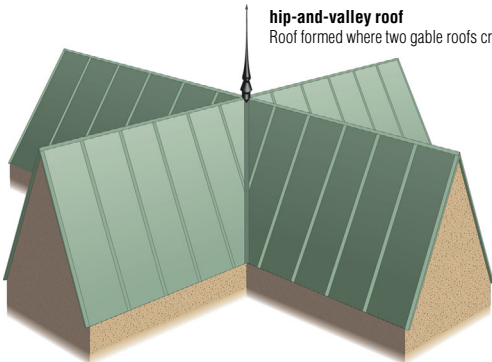
rotunda roof
Roof with several triangular sides on a polygonal base.



bell roof
Roof covering the hollow semicircular vault of a building (dome).



dome roof
Roof covering a large dome that sometimes rises above the rest of the roof.



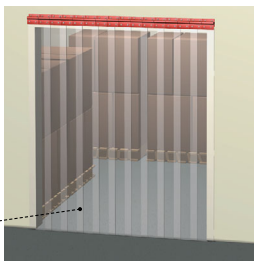
hip-and-valley roof
Roof formed where two gable roofs cross.

examples of doors

Doors: composed of a movable part, the wing, and a frame; their function is to close up a bay.

Each of the flexible plastic bands that overlap to close the bay and move apart to allow a person through.

strip



strip door

Door comprised of strips of flexible plastic; it allows easy movement between two rooms.



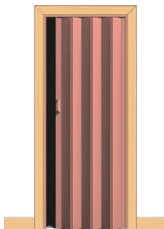
conventional door

Door made up of a wing that opens and closes by pivoting on hinges.



folding door

Sliding door whose wing is composed of two articulated panels that fold together when opened.



sliding folding door

Sliding door whose wing is composed of articulated panels that fold together when opened.



sliding door

Panel or panels of a door sliding horizontally along a set of tracks.



fire door

Fireproof door that delays the spread of flames and smoke during a fire.



sectional garage door

Door whose wing is composed of articulated horizontal panels that slide along rails into the roof of the garage.



up and over garage door

Door made up of a wing that slides toward the ceiling of the garage.

manual revolving door

Rotating door comprised of three or four plateglass wings that, when pushed, pivot around a vertical axis in the manner of a turnstile.



canopy

Metal ring forming the upper part of the enclosure, where the guide rail for the wings is located.

wing

One of the vertical sections of the revolving door.

push bar

Horizontal part that is pushed to move the revolving door.

enclosure

Intermediary space between two rooms or a room and the outside, where the door is placed.

compartment

Part bordered by two wings where one or more people enter and push the door to make it rotate.

automatic sliding door

Door activated by a motion detector that causes the wings to slide along a rail.



motion detector

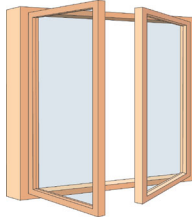
Device that detects the presence of a person and is set to open and close the wings.

wing

The part of the door that moves.

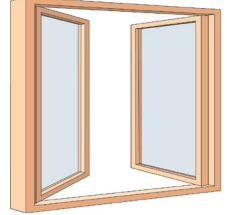
examples of windows

Windows: bays built into a wall and containing glass to let in light and air.



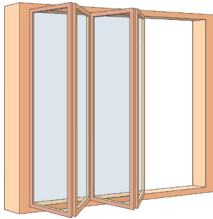
French window

Window with two sashes that open in, pivoting vertically along a hanging stile.



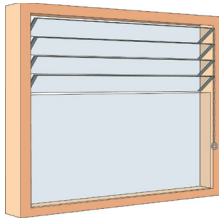
casement window

Window with one or two sashes that open out, pivoting vertically along a hanging stile.



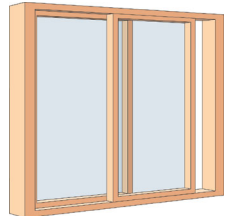
sliding folding window

Sliding window whose sash is composed of a series of articulated panels that fold together when opened.



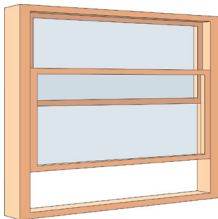
louvered window

Window whose glass louvers rotate along a horizontal axis.



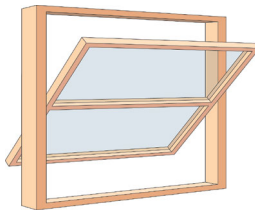
sliding window

Window with one or more sashes that move horizontally along a groove.



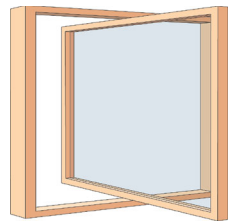
sash window

Window with one or more overlapping sashes that slide open vertically.



horizontal pivoting window

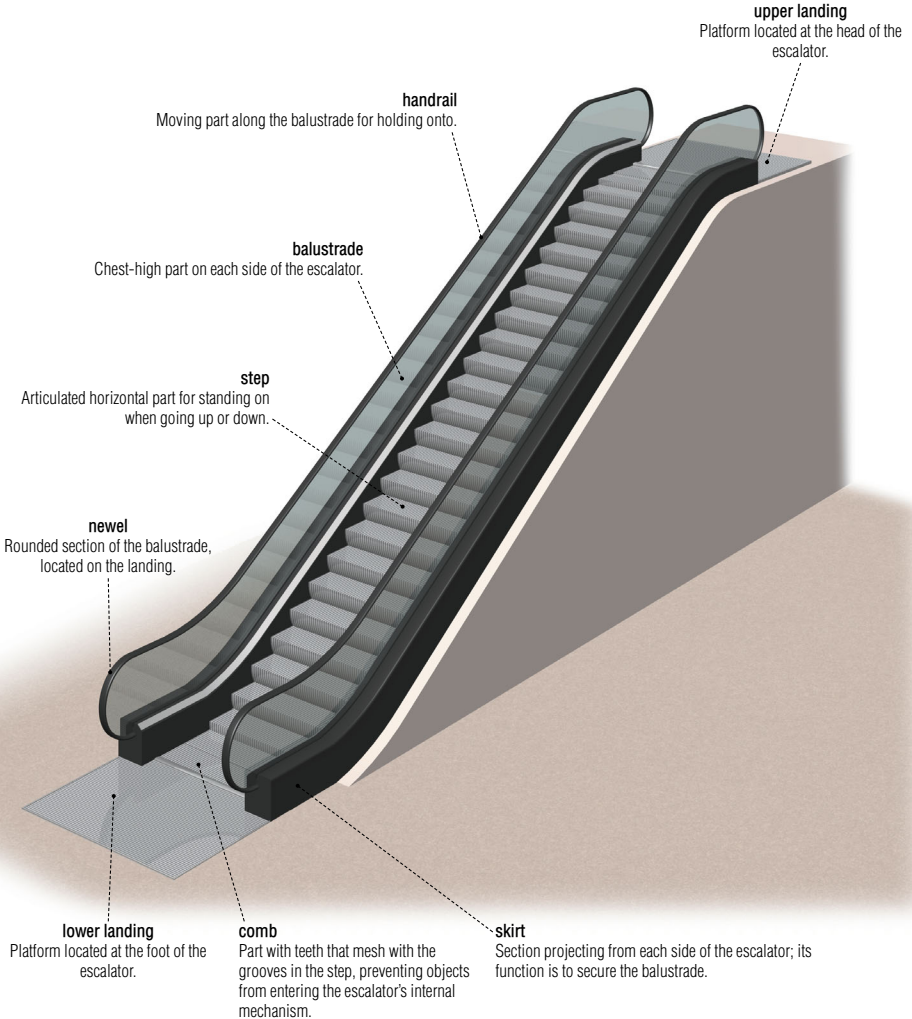
Window whose sash rotates along a horizontal axis located at its midpoint.



vertical pivoting window

Window whose sash rotates along a vertical axis located at its midpoint.

Installation that consists of articulated steps on a continuously turning chain; it allows movement between two levels of a building.

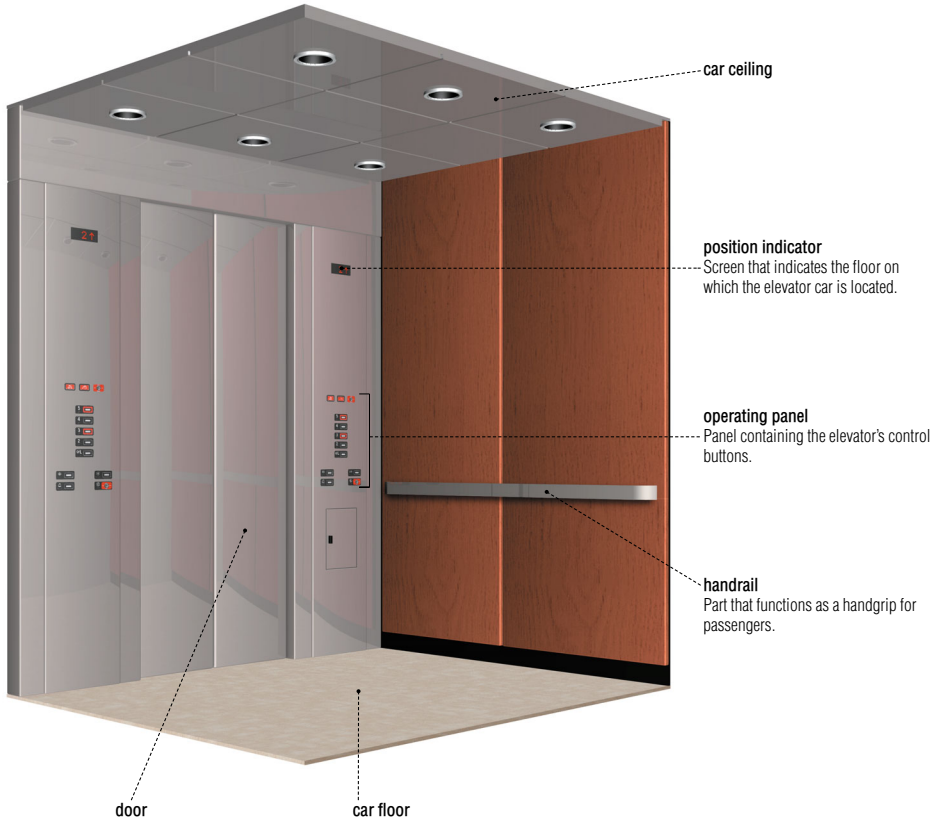


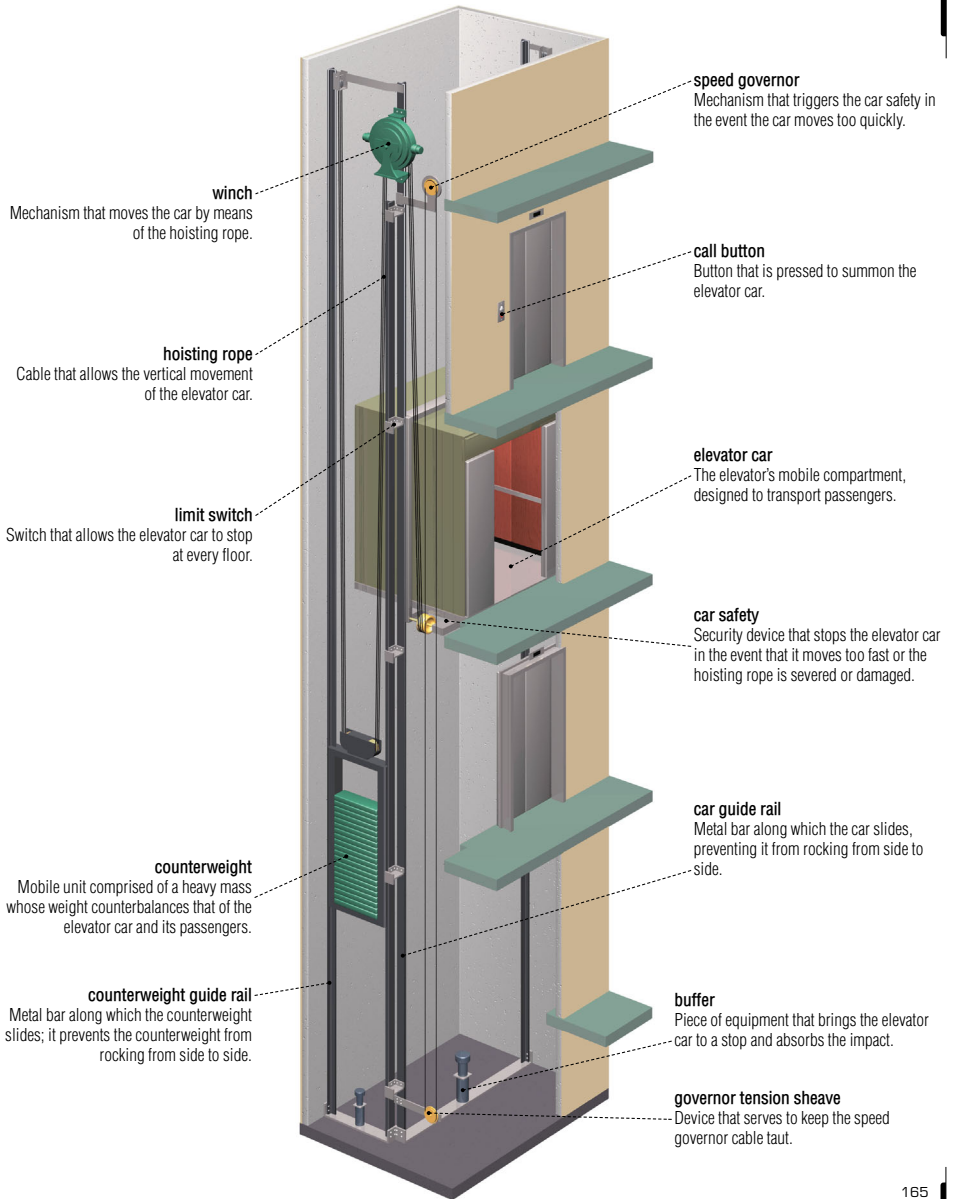
elevator

Mechanical apparatus with a car that provides automated movement of people between the levels of a building.

elevator car

The elevator's mobile compartment, designed to transport passengers.





traditional houses

The dwellings, current or of former times, that characterize a given culture.



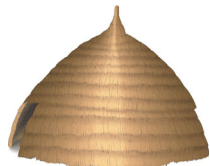
igloo

Dome-shaped Inuit dwelling made of blocks of snow or ice.



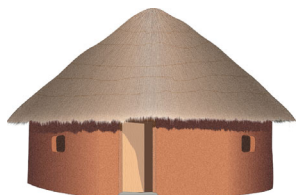
yurt

Portable dwelling of the nomadic peoples of central and northern Asia composed of a wooden frame covered with felt.



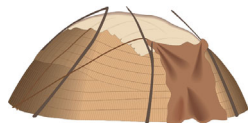
hut

Rudimentary dwelling made from tree branches and straw.



hut

Dwelling of African countries, usually made of straw and clay and covered with a straw roof.



wigwam

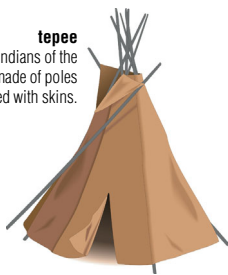
Round or oval dwelling of North American Indians made of poles covered with bark, matting and skins.



isba

Dwelling of various countries in northern Europe, especially Russia, made of the wood of the fir tree.

tepee
Conical dwelling of the Indians of the North American plains, made of poles covered with skins.



pile dwelling

Dwelling built over water or wet land and supported by posts.

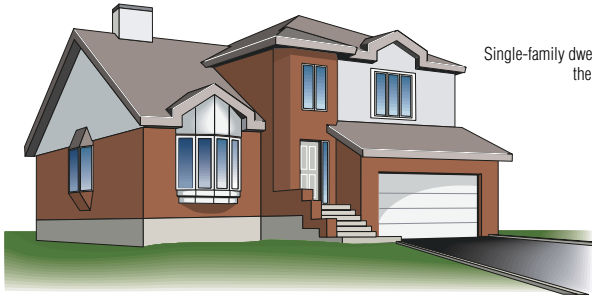
ladder
Movable wooden implement with rungs, for reaching the roof.

beam
Heavy horizontal piece that transfers the weight of the roof onto the support structure.

adobe house
Dwellings typical of countries in Latin America made of clay bricks and sun-dried straw.



Dwelling types found in large urban centers.

**two-storey house**

Single-family dwelling that contains two levels, the first floor and a second floor.

**one-storey house**

Single-family dwelling that contains only one level, the first floor.

**semidetached cottage**

Single-family dwelling separated from another dwelling by a party wall.

town houses

Houses of the same height built in more or less the same style and separated by party walls.

**condominiums**

Group of lodgings belonging to separate owners who share the building's maintenance costs.

high-rise apartment
Tall building containing multiple dwellings.



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