

Glossary of technical terms

- Acer*: genus of trees, including the Norwegian maple (*acer platanoides*) and the sycamore (great maple or plane, *acer pseudoplatanus*), notable for its hardness, close grain and light colour.
- Adjuster*: a metal device located where the string is secured to the tailpiece; when operated by a screw mechanism, it facilitates fine tuning of strings (especially steel strings), particularly the E string.
- Amplitude*: the maximum displacement of a wave form.
- Annular rings*: red 'growth' lines of impacted resin in the wood which are crucial to an instrument's sound production.
- Antinode*: a point of maximum vibration.
- Archings*: the curved shapes of the table and back of a stringed instrument.
- Arpeggio*: the notes of a chord played in rapid succession, in ascending or descending order.
- Atonality*: a term for music in which no principal key is perceptible.
- Back-plate*: the strip of metal on the bow that extends along the back of the frog, ending on the underside next to the slide.
- Bariolage*: a slurred or separate bowstroke comprising repeated notes played alternately on two different strings, one stopped and one open.
- Bass-bar*: a thin, curved strip of spruce (usually about 265 mm long, 5 mm wide and 10 mm deep at the centre, tapering at both ends) set lengthways down the inside of the bass side of the instrument by the left foot of the bridge opposite the soundpost.
- Basso continuo*: see *Continuo*.
- Bee-sting*: the small projection of the black part of the purfling into the corner beyond the mitre; also, the fine cut which ends the spiral of the scroll by the eye.
- Belly*: the table, or top of a stringed instrument; it is normally arched and has two f-holes cut into it on either side of where the bridge is positioned.
- Block*: a piece of softwood glued inside the violin against the ribs where their ends meet to support them and hold them in shape. The top-block also strengthens the neck fitting and the bottom-block assists in relieving the tensions exerted on the table by the strings. See also *Corner-block*.
- Blue notes*: in jazz, the third and seventh notes of the key, which are often prominent and played deliberately out of tune, are known as 'blue notes'.
- Bottom-block*: see *Block*.

- Bouts:** an inward curve or bend in a rib or ribs of a violin. The curves of the waist of the violin are called 'middle bouts' or 'C-bouts'; those at the top of the violin are called 'upper bouts'; and those at its base 'lower bouts'.
- Bridge:** a thin piece of wood (usually maple) which supports the strings at the appropriate height above the table and fingerboard. Its two feet rest on the table, to which the vibrations are conveyed. The table acts as a soundboard and in turn transmits the vibrations through the soundpost to the back of the violin and to the column of air within.
- Button:** (1) the small half-round projection of the top end of the back, to which the bottom, or shoulder, of the neck is glued; (2) the round fixture let into the bottom-block. The tailgut is looped over it to secure the tailpiece.
- Cadenza:** a virtuosic passage in improvisatory style (normally drawing on some prominent thematic material) provided by a performer (generally a concerto soloist or soloists) near the end of a movement or composition and closing with an extended trill on the dominant chord.
- Canon:** a musical structure in which at least one line imitates another after a gap in time.
- Chaconne:** a kind of continuous variation (in moderately slow triple metre) in which the 'thematic material' comprises a harmonic sequence whose first and last chords are generally stable even though the intermediaries may be substituted.
- Chin rest:** a small piece of wood or vulcanite of varying size and shape clamped to the violin generally nowadays on the G string side of the tailpiece to enable the player to hold the instrument firmly with his jaw, thus allowing the left hand perfect freedom in shifting and the instrument to speak more openly without any obstruction of the vibrations by the chin.
- Col legno:** Italian for 'with the wood' – a direction to strike the strings with the bowstick as opposed to the hair.
- Concertino:** (1) the group of soloists in a concerto grosso; (2) a composition in concerto style but usually in a somewhat freer one-movement form.
- Con sordino:** literally, 'with the mute' – the direction to position the mute on the bridge.
- Continuo:** abbreviation for 'basso continuo', a bass line which may be 'figured' (hence 'figured bass') and which implies to the accompanying keyboard player (generally harpsichord, but possibly organ, fortepiano etc.; or possibly, in some contexts, a plucked instrument – lute, guitar, harp etc.) the harmonies he is expected to play above it. The bass line was normally doubled by a bass stringed instrument (cello or gamba, violone etc.).
- Contraction:** refers to when the fingers of the left hand are contracted to less than their normal span.
- Corner-block:** the wooden block at each corner of the violin to which are attached the table, back and ribs.
- Counterpoint:** the art of making two or more musical lines fit together satisfactorily at the same time; or a musical passage exemplifying this technique.
- Crémaillère:** an early bow-type with a movable frog. When the desired hair tension was attained, the frog was held in place by an iron catch or loop set into one of several indentations in the bowstick.
- Curls:** the waves in the veined wood.
- Damping:** mechanisms by which vibration energy is lost.

- Détaché:** literally, a 'detached', broad and vigorous bowstroke; in the eighteenth century the *détaché* was synonymous with *staccato*.
- Double:** a seventeenth- and eighteenth-century term for a simple form of variation common in certain dances of the *suite* or *partita*.
- Down-bow:** Drawing the bow so that its point of contact with the string moves from the frog end towards the tip.
- Dynamic:** loudness
- Extension:** refers to when the fingers of the left hand are extended beyond their normal span.
- Eye:** (1) the circular inset on the sides of the frog or nut of the bow, often of mother of pearl; (2) the 'ears' of the scroll, which project on either side and at which point the spiral of the volute ends.
- Ferrule:** the metal (commonly silver) band around the lower front of the nut which strengthens the wedge area and spreads the hair into a uniform ribbon.
- F-holes:** the f-shapes cut in the table.
- Figured bass:** see *Continuo*.
- Fingerboard:** the long piece of ebony, flat underneath but curved on top, against which the strings are pressed when the player's finger(s) contact them. It extends from the end of the pegbox over and above the table to roughly the beginning of the f-holes, and it is generally narrower at the pegbox end.
- Fluting:** a concave channel or groove, especially on the back of the scroll; or on numerous pre-Tourte bowsticks.
- Frequency:** the number of oscillations per second (Hz).
- Frog:** see *Nut* (2).
- Fundamental:** the lowest-order mode of a system.
- Glissando:** literally 'sliding'. A method of sliding up or down the string with a finger of the left hand, distinguishing in so doing each semitone of the slide.
- Grain:** the arrangement or direction of the fibres of the wood.
- Ground bass (basso ostinato):** a kind of continuous variation. A short melodic phrase is repeated continually as a bass line (but not necessarily unvaried), while one or more melody instruments exploit the principle of variation to good effect.
- Harmonic:** usually used to describe modes of vibration which have natural frequencies related by integer multiples of the fundamental. So-called 'natural' harmonics are produced by touching the string lightly (not pressing firmly) with a single finger at the appropriate 'nodal' point. 'Artificial harmonics' are produced by two fingers, the first finger of the left hand stopping the required note firmly (acting in effect as the nut of the fingerboard), while another finger (usually the fourth) produces the harmonic by touching the string lightly at the appropriate point.
- Input admittance:** amplitude of the velocity per unit excitation force.
- Lapping:** the protective band of leather, whalebone or silver wire that covers the bowstick at and just above the frog. It assists the fingers in gripping the bowstick and protects the stick from wear.
- Linings:** the thin strips of softwood glued to the side ribs and plates inside the instrument to provide sufficient glue area to hold securely the table and back to the side ribs.

- Martelé:** literally 'hammered'. A type of percussive bowstroke characterised by its sharp initial accent and post-stroke articulation.
- Microtone:** an interval smaller than a semitone.
- Mode:** vibration pattern in which all points on the surface move in the same direction or in opposite directions.
- Mortice:** a cavity cut into the wood into which another part fits or through which another part passes.
- Mute:** a device (metal, ivory, bakelite or wood), often in the form of a two-, three-, or five-pronged clamp which is placed on the bridge in order to absorb some of the vibrations and thus reduce the volume and alter the timbre of the sound produced.
- Node:** stationary point on a vibrating surface.
- Nuances:** the subtler, finer shades of expression.
- Nut:** (1) a small block of ebony attached to the neck of a violin and placed between the fingerboard and the pegbox to support and separate the strings as they are led from the tailpiece over the bridge and the nut to the pegs; (2) the heel of the bow where the tension of the bow-hair is adjusted.
- Open string:** an unstopped string which sounds its full 'open' length.
- Ostinato:** literally 'obstinate', 'persistent'. A phrase which is repeated persistently throughout a composition or section thereof.
- Passacaglia:** a kind of continuous variation based on a clearly distinguishable ostinato, normally in the bass but sometimes occasionally in an upper voice.
- Peg:** one of four substantial tapered wooden (ebony or rosewood) 'pins' which are inserted into holes in the pegbox to secure the strings and regulate their tension, and hence pitch. Each string is threaded through a hole in the shaft of the relevant peg, the shank of which is at right angles to the string.
- Pegbox:** the part of the neck extending from chin to scroll into which holes are reamed to receive the pegs.
- Period:** the time lapse between identical features in a wave form.
- Pizzicato:** a direction to pluck the string (or strings) with the fingers, usually of the right hand.
- Plates:** the table and back of the violin.
- Polyphony:** music in which two or more lines are sounding at the same time.
- Portamento:** a continuous slide between two pitches which does not distinguish the intermediate semitones.
- Portato:** a bowing in which two or more notes are played in the same bow stroke, but detached.
- Position:** refers to the 'position' taken by the left hand along the fingerboard. In 'first position', the first (index) finger stops the note a tone above the open string; in 'second position' it stops the note a major or minor third above; in 'third position', a perfect fourth above, and so on.
- Purfling:** a narrow inlay of wood set into a channel carved around the border of the table and back of a violin. It normally comprises three narrow strips, the outer two of a white or yellowish wood sandwiching one of ebony. It helps to protect the edges of the instrument and is also ornamental.
- Quarter-cut:** wood cut radially from a tree so that the grain (annular growth rings) run perpendicularly through the thickness of the specimen.
- Quarter-tone:** interval comprising half a semitone.

- Resonance:** the enlarged motion which occurs when a vibrating system is excited at its natural frequency of vibration.
- Ribs:** the sides (generally of maple or of equivalent hardwood) that connect the table and back of the instrument.
- Ricochet:** involves at least two notes being played in the same 'bowstroke' (either up or down), the bow being 'thrown' onto the string and the relevant notes articulated (usually in the upper third) through the natural 'bounce' of the stick.
- Ripieno:** the full orchestral forces in a concerto grosso.
- Ritornello 'form':** a type of structure commonly employed in the first, and sometimes the last movements of Baroque concertos. It comprises an alternation of sections for tutti and soloist(s), in which the tutti sections (in a variety of closely related keys) are based for the most part on similar material (the so-called ritornello) while the content of the solo sections is freer and more varied.
- Rosin:** a hard, brittle material obtained from the distillation of oil of turpentine. It is applied to the bow hair, giving it the requisite 'bite' to set the string(s) in vibration.
- Saddle:** the small piece of hardwood (usually ebony) over which the tailgut is fitted to protect the bottom of the table edge.
- Sautillé:** a short, rapid bowstroke taken around the middle of the bow so that the bow rebounds lightly off the string.
- Scordatura:** refers to any tuning of string instruments other than the established tuning (g–d¹–a¹–e² in the case of the violin).
- Scroll:** the curved head at the end of the neck, beyond the pegbox of a violin usually carved to resemble a scroll.
- Senza sordino:** literally 'without the mute'; a direction to remove the mute from the bridge.
- Serialism:** a technique of composition in which the twelve notes of the chromatic scale are arranged in an order that is binding for the work.
- Shifting:** the act of moving from one left-hand finger-position to another.
- Slide:** the rectangular plate of mother-of-pearl that covers the bow hair on the lower face of the frog, between the ferrule and the back-plate.
- Soundpost:** a small piece of wood (generally of pine or spruce), about 6 mm in diameter, which fits vertically between the table and the back of the instrument, directly in line with and slightly below the right-hand foot of the bridge.
- Spectrum:** a graph showing the relative proportions of the different frequencies making up a wave form.
- Staccato:** a detached, well-articulated stroke, normally indicated by a dot (or stroke) over (or under) a note. In modern violin playing, staccato involves the playing of several *martelé* strokes taken rapidly in one bowstroke (either up or down). When the bow is allowed to spring slightly from the string, the stroke is known as 'flying staccato'.
- Sul ponticello:** Italian for 'on the bridge'; a direction to play with the bow very near to the bridge, in order to produce a nasal sound-quality.
- Sul tasto:** Italian for 'on the fingerboard'; a direction to play with the bow further up the strings than usual, over the fingerboard.
- Table:** the belly or top arched portion of the violin, with two f-holes cut in it and with an outline similar to the back.

Tailgut: a loop of gut, wire or nylon attached to the tailpiece, which is in turn anchored to the button.

Tailpiece: a piece of ebony (or metal for high-tension metal strings) fastened by a loop (*tailgut*) to the button at the lower end of a violin and to which the four strings are attached before they pass over the bridge and to the pegbox.

Transient: the initial, non-periodic part of a wave form.

Twelve-tone: see *Serialism*.

Una corda: literally 'one string'; employed when a composer/performer wishes to exploit the uniformity of timbre offered by the execution of a particular passage on one string.

Underslide: a thin metal plate attached to the upper surface of the frog. It protects the bowstick from wear from friction between the movable frog and the stick.

Up-bow: 'Pushing' the bow so that its point of contact with the string moves from the tip towards the frog.

Vibrato: an oscillation in pitch within a small range produced by 'rocking' the finger which is stopping a string.

Volutes: the spiral-shaped sections of the scroll.

Wedge: the small block of wood that secures the hair in the frog and the head of the bow.