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Recorder

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Recorder.

A woodwind instrument with a thumb-hole and (generally) seven finger-holes. It is the chief Western member of the class of duct flutes, i.e. flutes with a whistle mouthpiece, being distinguished from most other members particularly by its thumb-hole. Invented (or imported to Europe) during the Middle Ages, it was one of the most common wind instruments of the Renaissance and continued to play an important role in the Baroque. After being little used during the Classical and Romantic periods, it was resuscitated in the early 20th century and featured prominently in the early-music revival. Today it is a widely popular educational and amateur instrument and has attracted a skilled body of professionals.

Recorders are made in different sizes, with compasses corresponding to different vocal ranges. There are four main instruments in use today: the descant (known in the USA as the 'soprano'; lowest note *c*"); treble (in the USA 'alto'; lowest note *f*), tenor (lowest note *c*) and bass (*f*). Sopranino (*f*) and great bass (*c*) instruments are also fairly common. The treble and tenor are written for as non-transposing instruments, but music for the sopranino, descant, bass and great bass is customarily written an octave below their sounding pitch.

See also [ORGAN STOP](#).

I. The instrument

1. Nomenclature.

The verb 'to record', meaning 'to remember for oneself, to recall to another', derives from the Latin *recordari*, 'to remember'; thus a recorder was a rememberer or relater, such as a minstrel or, by extension, his instrument (E. Partridge: *Origins: A Short Etymological Dictionary of Modern English*, New York, 1958). The first known use of the word to refer to a musical instrument was in 1388, when the household accounts of the Earl of Derby (later King Henry IV) listed '*i. fistula nomine Recordour mpta London pro domino*' (the name of the instrument was misreported as 'Ricordo' by Trowell, D 1957). In English literature the term *recorder* first appeared in the poem *The Fall of Princes* by John Lydgate (written 1431–8) where it apparently referred to the pan pipes: 'Pan, god off Kynde, with his pipes sevene / Off recorderis fond first the melodies'. A Latin–English dictionary from 1440, *Promptorium parvulorum*, gave 'recorder or lytyll pipe' as the translation of *canula* (the *Campus florum* cited as the authority for the term has not been traced).

In most European languages, the first term for the recorder was the word for flute alone: in German 'Fleite' (von Aich, *LXXV–hubscher Lieder*, 1519) or 'Flöte' (Virdung, 1511, rendered as 'flute' and 'fluyte' respectively in the French and Dutch translations of 1529 and 1568); in Italian, 'flauto' (letter from G.A. Testagrossa, 1518) or 'fiauto' (Verona, list of city musicians, 1484); in Spanish, 'flauta' (testament of Antón Ancóriz of Saragossa, 1472). Beginning in the 1530s, an appropriate adjective was often added, describing either the nine holes of the medieval and Renaissance recorder (*flaute a neufte trous*; see J. Palsgrave: *Les clarissement de la langue francoyse*, 1530), the eight holes of the Baroque recorder (*flauto da 8 fori*, 'Tutto il bisognevole', ? 1630), the vertical orientation (*flauto diritto*, letter from Giovanni Alvisi, 1505), the soft or sweet

tone (*fluste douce*, Mersenne, 1636; *flauto dolce*, Küsser, *Erindo*, 1694; *flauta dulce*, Pedro Rabassa, *Miserere*, 1715), the supposed association with England (*fluste d'Angleterre*, Mersenne, 1636; *litui anglicani*, rector of the English Jesuit College in St Omer, France, first decade of the 17th century) or with Italy (*flauto italiano*, Bismantova, 1677, rev. 1694), the block (*Blockflöte*, Praetorius, 1619), the 'beak' of the Baroque recorder (*flûte à bec*, Hotteterre, *Pièces*, 1708; *flauta bocca*, Reynvaan, 1795), or the ability of the recorder in *c* to fit well into the hand (*handfluit*, Matthysz, Bc1649).

When the Baroque recorder was introduced to England by a group of French professionals in 1673, they brought with it the French names, 'flute douce' or simply 'flute', which overlapped with the traditional name until at least 1695. From 1673 to the late 1720s in England, therefore, the word 'flute', hitherto reserved for the transverse instrument, always meant recorder – a switch of terminology that has caused endless confusion among modern writers and editors. When the transverse flute overtook the recorder in popularity in England in the 1720s, the latter began to be distinguished further by the terms 'common flute' (John Loeillet, *Sonata's for Variety of Instruments*, 1722) or 'common English-flute' (Stanesby, c1732), later contracted to 'English flute' (*The Compleat Tutor for the Flute*, c1765). John Grano used 'German flute' and 'flute' interchangeably for the transverse instrument by 1728–9, although a few writers were still using 'flute' to mean recorder until at least 1765. Standard 20th-century names for the recorder include: *flûte à bec* or *flûte douce* (Fr.), *Blockflöte* (Ger.), *flauto dolce*, *flauto a becco* or *flauto diritto* (It.), *blokfluit* (Dutch), *furulya* or *egyenesfuvola* (Hung.), *flauta de pico* (Sp.) or *flauta dulce* (Latin–American Sp.) and *tatebue* or *rīkōda* (Jap.). The neologism *blockflute*, derived from the German *Blockflöte*, goes back at least to F.J. Giesbert's recorder tutor (Mainz, 1936). The German terms *Längsflöte* and *Schnabelflöte* have long since gone out of fashion.

Although several sizes of recorder have been known since at least the 15th century, a consistent terminology for them was not established until the modern revival. In 18th-century England the smaller sizes were named according to their distance from the treble (lowest note *f*) and notated as transposing instruments in relation to it: third flute (lowest note *a*'), fifth flute (*c*"), sixth flute (*d*") and octave flute (*f*'). The term *flute du quatre*, or fourth flute (*b♭*'), was used by Charles Dieupart, although curiously he treated it as a transposing instrument in relation to the descant rather than the treble. In Germanic countries, the equivalent of the same term, *Quartflöte*, was applied both to the tenor, with lowest note *c*' (Walther, 1732) – the interval being measured down from the treble in *f* – and to a recorder with lowest note *c*" (Speer, *Grunde-richtiger ... Unterricht der Musikalischen Kunst*, 1697; and as late as J.D. Berlin, *Musikalske elementer*, 1744) – the interval of a 4th apparently being measured up from a treble with lowest note *g*'. In the early 20th century, Arnold Dolmetsch established the standard British terminology of soprano (*f*'), descant (*c*"), treble (*f*'), tenor (*c*') and bass (*f*). In recent years the recorder with lowest note *f* has sometimes been termed the basset, because larger sizes have become more widespread: great bass (*c*), contrabass (*F*) and even subcontrabass (*C*) also called bass, great bass and contrabass, respectively.

2. Structure.

The physical characteristics of the recorder – the duct or whistle mouthpiece and the basic principle of seven finger-holes and a thumb-hole – have remained the same throughout its history (for terminology, see [DUCT FLUTE](#); but the details of construction have varied widely (see particularly Rowland-Jones, C1994, Van Heyghen, E1993, and Zaniol, C1986).

(i) Middle Ages.

The two earliest surviving recorders are dissimilar. The earliest seems to be a 14th-century plumwood instrument in Göttingen (Hakelberg, C1995). It is 256 mm long, in one piece, with a wide cylindrical bore (13.6 mm in diameter), narrowing between the first and second finger-holes, between the second and third finger-holes, and especially at the seventh finger-hole (11.5 mm); the bore expands to 14.5 mm at the bottom of the instrument, which has a bulbous foot. The obliquely cut finger-holes taper conically outwards (the opposite of the undercutting found in Baroque recorders). There are widely spaced double holes for the bottom finger, allowing for left-

or right-handed playing (according to Virdung, 1511, the unused hole in such instruments was filled with wax). The top of the Göttingen instrument is damaged. A reconstruction by Hans Reiners produced a penetrating sound, rich in overtones, and a range of about two octaves; opening the lowest finger-hole produced a semitone not a tone.

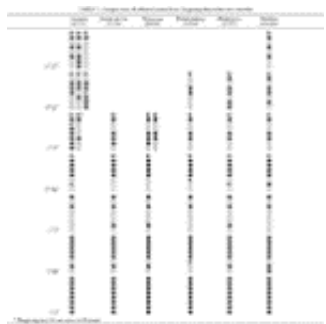
The second recorder, found in the former moat of the Huis te Merwede, near Dordrecht ('Dordrecht recorder'), probably dates from the time of occupation of the castle (1335–1418) and most likely the late 14th century (Weber, C1976). It is 270 mm long with a narrow cylindrical bore (about 11 mm in diameter), and double holes for the bottom finger. The labium is damaged and the instrument cannot be played. Such cylindrical recorders are depicted in many medieval paintings, the earliest of which are probably *The Mocking of Christ* from the monastery church of St George in Staro Nagoričano near Kumanovo, Macedonia (the painting of the church began in 1315); and the centre panel of the *Virgin and Child* attributed to Pedro (Pere) Serra (c1390), painted for the church of S Clara, Tortosa (now in the Museu Nacional d'Art de Catalunya, Barcelona; see Rowland-Jones, 'Recorders and Angels', 1997).

(ii) Renaissance.



Woodcut from the title-page of Ganassi's 'Opera intitulata Fontegara' (Venice, 1535).

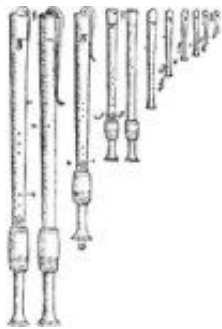
The 16th century produced a variety of new design features for the recorder. In his important treatise on the recorder, *Fontegara* (1535; [fig.1](#)), Sylvestro di Ganassi gave fingerings for an instrument with several specific features, the most important of which was that the 15th (i.e. the second octave above the base note) was produced as the 4th harmonic of the base note, using the same fingering (but with two half-covered holes) and thus sounding like a change of register (see [Table 1](#)). The instrument was presumably also to play the notes of the third octave given by Ganassi in a separate set of fingering tables, although the 16th is found only twice and the 15th only six times in the musical examples in *Fontegara*, and Ganassi excluded the high notes for tenor and bass recorders. A damaged boxwood treble recorder with lowest note *g'* (perhaps made by one of the early members of the Bassano family), now in the Kunsthistorisches Museum, Vienna, conforms to Ganassi's criteria, as does an ivory treble (*g'*) in the Musée de la Musique, Paris (perhaps made by a later Bassano). These instruments have a wide cylindrical bore with a marked flare at the bell end from about four-fifths of the way down the bore (to aid in producing the higher notes), large finger-holes, a sound weak in harmonics and a very large range.



The 'Ganassi' recorder seems to have been used only in the first half of the 16th century. Two of the three maker's marks shown by Ganassi (in his diagrammatic recorders with fingerings for the third octave) are associated with southern Germany: a stylized A, belonging to the Schnitzer family, working mostly in Nuremberg, and a trefoil, belonging to the Rausch family of Schratzenbach, near Munich; the third mark, a stylized B, has not yet been attributed but is likely to have belonged to a Nuremberg maker.

Most surviving Renaissance recorders are of a different type from that described by Ganassi, having a cylindrical bore from the blockline down to about the uppermost finger-hole, and an inverted conical part (the 'choke') to about the lowest finger-hole, then a slight flare down to the bell. The external shape is similar to the bore ('stretched hourglass'). The sound is warm, rich in harmonics, and rather introverted. The range is small, at most an octave plus a 7th.

This seems to be the type described by Praetorius (1619; [fig.2](#)), who



'Great consort' of recorders,
(from left to right) Grossbass (F),
...

remarked, however, that experienced players were capable of playing up to a 4th or even a 7th higher. The normal range is suitable for recorder parts in vocal music rather than purely instrumental music.

In 1556 Philibert Jambe de Fer introduced a set of fingerings for a hybrid instrument that had a narrow cylindrical bore like medieval exemplars but a choke foot like the Praetorius instrument. The 15th was now produced, as on most later recorders, as a variant of the 14th (Table 1 and fig.4 [not available online]). Two examples are in the Accademia Filarmonica, Bologna (the C^{***}RAFI and P.GRE/C/E recorders). Weak in sound but with good pitch stability favouring dynamic expression, they are suitable for Italian music of the late 16th and early 17th centuries.

(iii) Baroque.

Variants of the Jambe de Fer fingerings are found in every chart after Praetorius (Mersenne, Matthys, Blankenburgh, etc.). They correspond to a recorder similar to that described by Praetorius, except for a choke in the bore around and below the lowest finger-hole which allows for a considerably shorter foot section or joint, with higher harmonics resulting. Surviving examples are listed by Legêne (C1993), who coined the name Early Baroque for this type of recorder. They include: a boxwood treble with lowest note *g'* (Vienna, Kunsthistorisches Museum); a treble with lowest note *f* or *g'*, marked 'I.V.H' (perhaps Jan Juriaanszoon van Heerde; Shrine to Music Museum, Vermillion, South Dakota); the so-called Rosenberg recorders (Musikhistorisk Museum, Copenhagen); and a descant by Richard Haka (Russell Collection, Edinburgh). In at least ten surviving paintings of such recorders, a silver- or brass-coloured sheath is shown fitting over the head joint from top to labium.

Around the middle of the 17th century recorders began to be made in three joints: head, middle with seven finger-holes, and foot with the remaining finger-hole. This is the familiar Baroque recorder. It has a nearly cylindrical head joint, a slight taper up to the fourth hole in the middle joint, followed by a much steeper taper, prolonged into the foot joint. These changes in structure may have happened independently in Italy, France and perhaps elsewhere. The first depiction of such an instrument is the *flauto italiano* (lowest note *g'*) in Bartolomeo Bismantova's *Compendio musicale* (1677; rev. 1694). Such recorders, which had a bright high register that was relatively easy to play, continued to be made in Milan and other European centres.

In contrast, the French *flute douce*, a treble with lowest note *f*, had a full, resonant low register and a relatively weak high register. The first fingering chart for this type of recorder (Hudgebut, B1679) goes only from *f* to *d'''*. This type was made in Paris and, under French influence, in London. Its creation has often been attributed to the Hotteterres, and particularly to Jean Hotteterre (i) (*fl* c1628–92), although the evidence is extremely indirect. J.C. Denner and Johann Schell applied to the Nuremberg authorities in 1696 for permission to make the French type of instrument, which they believed had been developed in France about 12 years earlier. A few surviving examples by Peter Bressan have double holes to facilitate the playing of the lowest two semitones (Grosvenor Museum, Chester, fig.4 [not available online]; Kunsthistorisches Museum, Vienna), and one (Vienna) also has double holes for the third finger of the left hand; such holes are mentioned by Jacques Hotteterre (1707). The French type of Baroque recorder seems to have been first depicted in a *trompe l'oeil* with musical instruments (1672) by the Flemish artist Cornelis Gysbrechts when he was living in Denmark (Nationalmuseet, Copenhagen); the first French depiction dates from as late as 1691, in Pierre Mignard's *St Cecilia* (Louvre, Paris).

A double recorder was advertised by the Amsterdam maker Michiel Parent (1692): 'a combination of two recorders ... with which two different parts can be played at once'. An anonymous instrument survives (Grassi-Museum, Leipzig) in which two differently voiced recorders are joined

together at the head and foot joints by flanges; this is presumably the principle of the 'flute d'echo' (Loulie, 1696), 'echo flute' (Paisible, 1713) or 'fiauto d'echo' (J.S. Bach, Brandenburg Concerto no.4, 1721) (see [ECHO FLUTE](#)).

(iv) Modern.

The standard modern recorder was created by Arnold Dolmetsch (beginning in 1919) with further modifications by his son Carl. They began with the late-Baroque recorder of the French type, replacing the narrow, curved windway with a wide, straight one, reinventing the double holes for the lowest two finger-holes, and in the 1930s rescaling to modern pitch and equal temperament. Such instruments still tend to favour the low register and some have difficulty playing the 15th and 16th. The recorders with a long foot joint used in Germany in the 1920s and 30s (lowest note A or D) had an even more restricted range (about an octave) and a tone emphasizing the fundamental.

Carl Dolmetsch made a number of useful inventions to aid in the performance of the standard recorder: the thumb rest, the bell side-key (patented in 1958), the echo key (operated by lip or chin to help achieve dynamics; also patented in 1958), and the tone projector. Daniel Waitzman, who championed the bell key in the 1960s and 70s, proposed a specially designed bell end-key recorder (in which the high register would be in tune with the bell key closed).

Starting in the 1960s, makers such as Friedrich von Huene and Frederick Morgan started making more exact copies of historical instruments rather than (or as well as) the Dolmetsch-inspired modern types. Today, most makers of both handmade and mass-produced instruments make some kind of copy of at least one historical type.

A number of efforts have been made to modernize the recorder. Edward Verne Powell's 'Chromette' or 'Orkon', invented in 1943, was a modified descant recorder with simplified Boehm-system keywork. In 1975 Joachim and Herbert Paetzold patented plywood recorders (in sizes from bass on to subcontrabass) with a rectangular or square cross-section and a doubled-back bore like a bassoon, considerably reducing the length of the instruments; the keys are large flaps of wood. In 1988 Arnfred R. Strathmann patented the 'Strathmann flute', a recorder-like instrument with the elaborate keywork and fingerings of a saxophone, similar to the Boehm system and using an octave key rather than a thumb-hole; the block height is adjustable and the roof of the windway is removable. Strathmann has also patented a tiltable windway floor (1994).

One of the most promising developments, due to Maarten Helder, is based on an early 20th-century German type with a long foot joint. The head joint has a narrow cylindrical bore, the middle joint has a single taper, and the foot is again cylindrical, producing a recorder in which the harmonics are in tune up to the fourth harmonic. The instrument is louder than the standard recorder, has strong low notes and yet produces notes with ease in the third octave. Helder added an adjustable block, modified from Strathmann's, and a *piano* key, activated by the upper part of the left-hand index finger. In 1996 Klaus Grunwald's *Trichterblockflöte* (literally 'funnel recorder', but marketed as 'bell recorder' in English-speaking countries) began to be manufactured by Adler-Heinrich. This is a wide-bore recorder with a less developed conical bore than usual, large finger-holes with a raised tone-hole for the lowest finger, and a wide, funnel-like bell (in the case of the treble, made of brass) which improves the resonance of the recorder and makes the high notes easier to play. The instrument takes more air than the standard recorder, but for that reason enables a greater dynamic range.

(v) Innovations.

The most promising addition of electronics to the recorder is Philippe Bolton's electro-acoustical recorder (in which a microphone is screwed into the side of the head joint and connected to a PA system and, if desired, an effects processor). Synthesizers such as the Suzuki Wind Controller and the Yamaha WindJamm'r are less like traditional recorders. Michael Barker's 'modified blockflute' is a system linking a Paetzold contrabass recorder to two computer-controlled synthesizers, enabling the mixing of 'real' and synthesized sounds.

II. Technique and performing practice

1. Renaissance.

Most of what we know about recorder technique and performance practice before the 20th century has been obtained from early treatises and tutors, which were generally aimed at amateurs and gave away few professional secrets. The earliest recorder instructions (*Introductio gscriben uf pffifen*, c1510; Virdung, 1511; Agricola, 1528) say little about performance; Agricola advised that graces (*Mordanten*), which make the melody *subtil*, must be learnt from a professional (*Pfeiffer*). The first book entirely devoted to recorder playing was Ganassi's *Fontegara* (1535). It gives us tantalizing glimpses of professional standards, describing but giving little context for an astonishingly well-developed technique and expressive style of playing, founded on imitation of the human voice and achieved by good breath control, alternative fingerings, a wide variety of tonguing syllables, and extensive use of graces and complex diminutions. Girolamo Cardano (*De Musica*, c1546) confirmed Ganassi's account of the imitation of the voice as well as the importance of articulation, breath control and diminutions. He also described aspects of recorder playing otherwise undocumented before the 20th century: controlling intonation by closing the bell hole, partially closing the bell to produce a tone or semitone below the lowest natural note, varying the position of the tongue in the mouth to improve and colour the notes, and creating a kind of vibrato by repercussively bending back the tongue. Ercole Bottrigari (1594) noted that expert wind players, including those of the recorder, were skilful at playing in tune through breath control and shading the finger-holes.

2. Baroque.

Like the Renaissance authors, Bartolomeo Bismantova, a wind player in Reggio nell' Emilia and Ferrara, insisted that all wind instruments should be played 'in a singing manner and not otherwise' (*Compendio musicale*). His tonguing syllables are similar to the Renaissance ones, but in addition he placed importance on the 'smooth tongue' (*lingua legata*), or slurred pairs of notes, presumably reflecting the influence of violin technique.

Four English recorder tutors of the 1670s and 80s (Hudgebut, B1679; B[anister], B1681; Salter, B1683; and Carr, B2/1686) show that recorder players were using a tablature known as 'dot-way', derived from that for the **FLAGEOLET**. The tablature indicates a liberal use of ornaments, largely taken from the French style: the trill, beginning on the upper auxiliary or main note (at first called the 'beat', later the 'shake' or 'close shake'); the mordent, beginning on the main note or with a rising appoggiatura ('shake', then 'beat' or 'open shake'); the slur; the slur and mordent; and the 'double shake', a warbling trill across the registers on *g*" for the treble. The intervals involved in these ornaments are not always a simple tone or semitone. The use of such ornaments transforms the recorder music of this period, which can look dull on paper. By the time of the anonymous *Compleat Flute-Master* (1695), the tablature had been abandoned, and two ornaments were added: the 'sigh' (equivalent to the French *accent*) and the 'double relish' (trill with turn). *The Compleat Flute-Master* and the *Rules for Gracing on the Flute* (MS, c1690–1700, **GB-Lbl** Add.35043) each give a series of rules for adding ornaments on ascending, descending and repeated notes when they are not marked in the music. Curiously, the 1695 rules were incorporated into most English tutors until as late as 1780, when the ornaments must surely have greatly puzzled the performers of the Classical songs and dances contained therein.

The French tutors of the late Baroque (Loulié, B1680–90; Freillon Poncein, B1700; Hotteterre, B1707), all written by professionals, show that the French woodwind players were employing only two tonguing syllables, *tu* and *ru*. Freillon Poncein and particularly Hotteterre described a series of ornaments – *tremblement* or *cadence* (trill), *battement* (mordent), *flattement* (a fingered vibrato), *port-de-voix* (ascending appoggiatura), *coulement* (descending appoggiatura), and *double cadence* (trill with turn) – but in a manner which leaves their rhythm and accentuation open to interpretation; Hotteterre gave extensive fingering charts or descriptions of fingerings for the first three ornaments. Hotteterre's *L'art de preluder* (B1719) presents a method for learning

how to improvise preludes and includes many examples for flute and recorder as well as a set of *traits* or exercises, 'in the style of caprices, which one makes when one so-to-speak plays about [*badiner*] on an instrument'. The practice of 'preluding' or 'flourishing' – improvising a passage to introduce a composed piece of music, whether in private or public – was also found in England, where some simple written-out examples are given in *The New Flute Master for the Year 1729* (presumably originating in some earlier tutor, now lost).

Outside France, we know little of the articulation practices of Baroque woodwind players before Quantz (*Versuch*, 1752). In France and Germany, as the Italian violin style became the predominant influence on woodwind music, flautists such as Michel Blavet and Pierre-Gabriel Buffardin modified the French syllables and reintroduced double-tonguing. A similar modification of the syllables described by Bismantova must have happened in Italy, particularly for playing the virtuoso solo and chamber concertos of Vivaldi.

Recorder-playing was also subject to experimentation. Mersenne (1636) described the possibility of 'sounding an air or chanson on the recorder, and at the same time singing the bass part ... for the wind that leaves the mouth in singing is capable of making the recorder sound, so that a single person can create a duet'. This practice is confirmed by accounts of novelty performances of the late Baroque. The *Stanley Poem* by Thomas Stanley the elder (c1650) describes a player who 'would shewe in a single recorder pipe / As many partes as any in a baggepipe ... To heare two partes in a single recorder, / That was beyond all their estimations far'. Zacharias Conrad von Uffenbach described hearing a Scotsman called Cherbourn in a London tavern in 1710 giving 'a perfect imitation on the recorder of the bagpipes and of a transverse flute, and he could also make it sound like two recorders in harmony. One could scarce have observed that he was singing, if one did not look prodigious sharp upon him'.

3. Modern.

The revival of the recorder in the 20th century at first introduced little in recorder technique that had not already been practised in the Renaissance and Baroque. Even the modern double-tonguing, *teke* or *dege*, often considered a post-Baroque innovation, was noted as far back as Ganassi (1535). In the late 1950s and 60s, however, Michael Vetter, Frans Brüggen and other virtuosos shocked the recorder world with bold new techniques (Vetter, E1969). Because of its construction with open finger-holes and duct mouthpiece, the recorder came to be considered the woodwind instrument capable of producing the widest range of techniques and special effects. These have since been absorbed by professionals and employed in an increasing number of compositions. O'Kelly (A1990) made a valuable classification of the techniques and effects (slightly rearranged and extended in list form here). As already observed, not all of them are really new.

1. Non-standard fingerings*

- a. single sounds (heard as such although consisting of a fundamental plus related harmonics)
 - i. fingerings to produce dynamics
 - ii. fingerings to produce variation in timbre
 - iii. harmonics or 'flageolet tones' (weak single harmonics)
 - iv. microtones (produced by fractionally opening or closing the finger-holes)
- b. multiphonics (heard as a collection of discrete, frequently dissonant, pitches, the qualities of which vary with the type and make of instrument and the player)

2. Other techniques based on fingering*

- a. glissando (produced by sliding fingers on or off finger-holes; because of the absence of keys, the changes can be smooth and can also produce accurate microtones)
- b. random finger-play (usually over a group of finger-holes corresponding to an area of pitch which may be specified by the composer)
- c. trills
 - i. conventional
 - ii. using microtones
 - iii. using intervals larger than a tone
 - iv. coupled with multiphonics
 - v. coupled with flutter-tonguing

*Both classes of fingering techniques (1 and 2) can be used with three different 'registers', depending on the

extent of the closure of the bell-hole: normal or 'open', 'closed' and 'covered' (partially open)

3. Articulation

- a. single-tonguing
- b. double- and triple-tonguing
- c. flutter-tonguing

4. Vibrato (which can vary the tone-colour, intensity, dynamics, and/or pitch), produced by the

- a. diaphragm
- b. throat ('goat's trill'; 'chevroter')
- c. tongue (a rapid *lu lu*)
- d. fingers (*flattent*; lowers the pitch)
- e. labium (covered with one cupped hand; lowers the pitch)
- f. knee (shading the bell-hole; lowers the pitch, particularly of the high notes)

5. Tremolo

- a. aspirated
- b. uvular
- c. flutter-tongued
- d. tongued

6. Special effects

- a. rustle tones (muted notes accompanied by air noise)
- b. white noise (sounds encompassing a broad frequency spectrum; produced by overblowing, or blowing across the labium or any finger-hole)
- c. percussive effects (tapping on a finger-hole, with or without blowing; striking with the fingernail or ring; slapping with the palm of the hand)
- d. circular breathing
- e. vocal effects (singing while playing; may be syllables or words)
- f. mouth sounds (sucking, blowing, clicking, lip-smacking, kissing, laughing, etc.)
- g. playing flute-style by using a finger-hole as an embouchure-hole
- h. playing *shakuhachi*-style by blowing across the windway

7. Structural modifications to the instrument ('preparing' the recorder)

- a. modifications to the windway and labium (moving block up or down; inserting strip of paper into windway; putting gauze over windway; loosely covering labium; tightly closing labium; tape partly covering labium)
 - b. modifications to the pipe (e.g. closing the bell-hole with tape)
 - c. foot-joint removed (the lowest note cannot be played; also affects the tuning and timbre of other notes)
 - d. head-joint removed (blow across the top or as into a cornett mouthpiece; also humming, singing, or speaking into the pipe)
 - e. foot-joint alone (if the joint has a key, this can be the source of percussive noises)
 - f. head-joint alone (varying the breath-pressure; occluding or closing the labium or bell-hole; vocal effects)
 - g. a recorder head on a flute body
8. Two instruments one player (the range of pitches can be altered by sealing some finger-holes with tape)
- a. two recorders at the same pitch
 - b. two recorders at different pitches (e.g. $a' = 440$ and 415)
 - c. recorder and another woodwind instrument.
-

III. Social history and significance

1. Professionals.

Although professional use of the recorder may go back to at least the 14th century, it is first documented clearly towards 1500 when the recorder emerged as one of the regular instruments of professional wind players (along with shawm, cornett, sackbut and sometimes flute or trumpet). All over Europe, inventories of royal and noble households generally include vast quantities of wind instruments, mostly in sets to be played together by the household musicians. The most celebrated is that of Henry VIII of England (1547) which includes 76 recorders. Henry imported a consort of recorder players, five brothers of the **BASSANO** family from Venice, in 1539–40 (Lasocki and Prior, D1995). This consort, expanded to six members in 1550, lasted intact until the amalgamation of the three court wind consorts into one group in 1630; such a focus on the

recorder seems to have been an exception. A 'whole set of recorders' was acquired by the London waits in 1568, and the instrument gradually spread to the waits of Exeter (by 1575), Norwich ('five recorders, being a whole noise' by 1584–5), Chester (by 1591) and other cities. By the end of the 16th century, recorders were being used by the six-member consorts of musicians attached to all the London theatres.

Venice was a strong centre of wind playing by the early 16th century. Bernardin Bortolomeo, *piffaro* of the Doge, Alvise Bassano, Gasparo Bernardo and Yipolito de San Salvador played recorders as well as cornetts, trumpets and shawms for processions of the Scuola di S Marco in 1515; the latter three musicians later worked at the English Court. In 1559 Giacomo Bassano and Santo Gritti (Bassano), wind makers, entered into a contract with three *pifferi* of the Doge, Paulo Vergeli, Paulo de Laudis and Francesco da Zeneda, to provide recorders as well as cornetts, crumhorns, flutes and shawms, presumably for their own use; the *pifferi* also acted as agents for the makers.

In the Baroque period, almost all professional recorder players were primarily oboists or string players, occasionally concentrating on more unusual instruments. The 17th-century player about whom we know the most was Jacob van Eyck, composer of *Der fluyten lust-hof* and director of the carillons in Utrecht. He was engaged to play the recorder in the garden surrounding the Janskerk; his 'superhuman' ('boven-menschte') performance there is lauded in a poem by Regnerus Opperveldt (1640), and he was given a salary rise in 1649 'provided that he occasionally in the evening entertain the people strolling in the church garden with the sound of his little recorder'. In France the recorder, after being featured by the Hotteterres and other woodwind players in the orchestras of Lully, Charpentier and other prominent composers in the 1660s–90s, was quickly superseded by the flute. Etienne Loulié played the recorder for Charpentier and taught the Duke of Chartres (later Regent of France).

The playing of the handful of French performers who went to England around 1673 was singled out for praise by the French ambassador, Honoré Courtin (1676). One of them, James Paisible, settled in England, working at the court and later also in the theatre as a bass violinist and composer; in 1710 a visiting German, von Uffenbach, remarked that on the recorder Paisible's 'equal is not to be found'. Virtually all the recorder players in England during this period earned their living primarily on other instruments, and some also composed. An exception is Lewis Mercy, who began his career around 1708 and does not seem to have played other woodwind instruments until the 1730s, although he attempted to prevent the decline of the recorder as early as 1718.

Woodwind players at the German courts doubled on the recorder as well. Perhaps the most virtuoso was Johann Michael Böhm, Kapellmeister at Darmstadt 1711–29, who impressed Telemann as an oboist and also played the flute and recorder. J.C. Schickhardt, who published more recorder music than anyone else in this era, was a woodwind player who moved around the minor courts of Germany, the Netherlands and Scandinavia, and also visited England.

The first 20th-century professional to treat the recorder seriously was the German flautist Gustav Scheck, who took up the instrument around 1924 and used it extensively with the Scheck-Wenzinger Chamber Orchestra in the 1930s and on recordings into the 1960s. His students, especially Ferdinand Conrad and Hans-Martin Linde, have been influential as players and teachers. In England Miles Tomalin played an important role in the 1930s. After beginning on other instruments, Carl Dolmetsch became a recorder specialist and toured worldwide together with the harpsichordist Joseph Saxby from the 1930s to the 1980s. The Dutch school of recorder playing was founded by Johannes Collette in the 1930s and continued by Kees Otten in the 1950s and 60s. Yet, until the 1960s, despite the efforts of these and other players, the recorder was widely regarded as an amateur and educational instrument of little value to professionals.

This image was turned around by a student of Otten's, Frans Brüggen, who toured extensively and made numerous inspiring recordings in the 1960s and 70s. Through his musicianship, virtuosity and charisma, as well as his pioneering work with historical recorders, Brüggen demonstrated hitherto unsuspected lyrical and technical qualities in the recorder that attracted both audiences and students. At the same time, Brüggen and the German Michael Vetter developed many extended techniques for the modern recorder and commissioned new works to show them off. Brüggen's students and 'grandstudents', such as Kees Boeke, Walter van Hauwe, Han Tol and Marion Verbruggen, consolidated his work and amply demonstrated the possibility of making a successful career as a professional recorder soloist and teacher in the late 20th

century. Players of similar stature in several European countries include Hugo Reyne in France, Dan Laurin in Sweden, and Conrad Steinmann and Matthias Weilenmann in Switzerland. In his tragically short career David Munrow (1942–76), the English player of early woodwind instruments, did wonders to popularize the recorder among mainstream audiences through his concerts, recordings, broadcasts and writings. More recently, the Danish player Michala Petri, operating outside the early music movement, has successfully taken the recorder out into mainstream ensembles and audiences. David Bellugi (Italy) and Scott Reiss (USA) have incorporated elements of the traditional music of various cultures into their playing. Joel Levine (USA) and Jean-François Rousson (France) have demonstrated the potential for the recorder in jazz.

Professional recorder consorts may be said to have started with the Dolmetsch Ensemble, founded in 1925 and still in existence. Successful recordings have been made by ensembles under the direction of Hans-Maria Kneihls (Wiener Blockflötenensemble, 1972–85), Bernard Krainis, David Munrow, Kees Otten (Syntagma Musicum), and Clas Pehrsson (Musica Dolce), among others. More recently, the Amsterdam Loeki Stardust Quartet (founded 1978) and the Flanders Recorder Quartet have combined in their programming original works with skilful arrangements, including elements of popular music and jazz.

2. Amateurs.

15th-century paintings show the instrument in the hands of upper-class men and women, and Virdung's vernacular treatise (1511), which sought to present 'everything ... made simple', was clearly aimed at the amateur. Henry VIII of England was a keen player: in 1511 he was reported as 'exercising himselfe dailie in ... plaieing at the recorders'; and his 1542 inventory has a notation that seven recorders had been checked out 'for the King's Majesty's own use'. Some 16th-century Italian paintings show the recorder being played by the aristocracy, both men and women. Yet many gentlemen in both countries considered playing wind instruments unbecoming to their status, because it occupied the mouth; they preferred the lute and, later, the viol. On the effects of recorders and flutes in society, Castiglione in *Il Cortegiano* (1528) recommended that they be used only in private, especially in the presence of women, but with 'tact and good judgement, for it is, after all, impossible to imagine all the things that can happen'. In 17th-century Dutch art the recorder was one of the most frequently represented instruments, associated with both sexes and all social classes. The instrument is depicted alone and in ensembles, indoors and outdoors, but rarely with an audience. A Dutch amateur, Adriana van den Bergh, was the dedicatee of the solo recorder collection *Der Gooden fluyt hemel* (1644) and the second part of 't *Uitnemend kabinet* (RISM 1649⁸).

The late-Baroque recorder in all European countries was one of the most important amateur instruments for the rising middle class as well as the aristocracy. In England, those members of both classes who flocked to the theatres, concerts and 'music meetings' emulated the professionals to an unprecedented extent. A fascinating account of one amateur's discovery of the instrument is found in Samuel Pepys' diary: on a visit to the revival of Massinger's *The Virgin Martyr* in 1668, he was pleased 'beyond anything in the whole world' by 'the wind-music when the angel comes down, which is so sweet that it ravished me; and indeed, in a word, did wrap up my soul so that it made me really sick, just as I have formerly been when in love with my wife'. His purchase of a recorder six weeks later, 'the sound of it being of all sounds in the world most pleasing to me', clinches the nature of the wind instruments involved. Songs, and indeed whole operas, were printed with transposed parts for the recorder. The latest professional music, especially duets, solo sonatas and trio sonatas, was published for the consumption of the avid amateur. Professionals wrote some easy music especially for amateurs and gave away some token trade secrets in the recorder tutors that were issued in large numbers, replete with the latest airs and dances. Those amateurs who could afford to do so took lessons from professionals. This large and avaricious amateur audience transferred to the transverse flute during the 1720s (by 1710 in France), although a trickle of recorder tutors was published up to around 1780 and the instrument was played to a small extent throughout the 19th century.

Towards the end of the 19th century, the assembly of large museum collections of early instruments and the growing interest in pre-Classical music helped to produce a climate in which the recorder could again flourish. In Germany, the recorder revival began with amateurs, when

members of the Bogenhausen Künstlerkappelle performed early music on recorders and other instruments from 1899 to 1939, using original Baroque instruments and a copy of a Denner treble made by the Munich maker Gottlieb Gerlach by 1909. In England in the 1890s and 1900s the research and lectures of Joseph Cox Bridge, Francis Galpin and Christopher Welch drew amateur attention to the instrument which Arnold Dolmetsch soon capitalized on.

By the 1930s the recorder had become popular among amateurs in several European countries and has been a leading amateur instrument from the 1940s onwards. Recorder societies were formed to aid the process, such as the Society of Recorder Players (UK; founded 1937) and the American Recorder Society (1939), which hold regular meetings, sponsor workshops, publish magazines and certify teachers. Membership of these societies has held steady to the present day.

3. Music education.

Hints at the recorder's value as a teaching instrument are found in the recorder treatises and tutors of the Renaissance and Baroque. The second edition of Agricola's treatise (1545) was aimed at 'our schoolchildren and other beginning singers'. *The Most Pleasant Companion* (1681) announced 'plain and easy rules and instructions for young beginners'. Loulié's manuscript tutor (1680s) seems to have been written for Mlle de Guise's academy for children of the nobility. The educational role of the recorder was acknowledged by Shakespeare: 'Indeed he hath play'd on this prologue like a child on a recorder – a sound, but not in government' (*A Midsummer Night's Dream*).

In the 20th century, the German youth movement of the 1920s (co-opted by the Nazis in the 1930s) found the apparent simplicity of the recorder attractive. In several countries the recorder found its way into primary schools from the 1930s onwards, encouraged by the advocacy of Edgar Hunt and the manufacture of cheap descants in both wood and plastic, and has continued in this role to the present day. The recorder has also taken an important part in *Orff-Schulwerk*. The desire to raise playing and teaching standards encouraged the foundation of the European Recorder Teachers Association (ERTA) in 1990 (branches in Austria, Germany and the UK) and the American Recorder Teachers Association (ARTA) in 1993.

4. Symbolism in art.

From the Middle Ages the recorder, like other instruments, has been used symbolically in art. In many medieval and Renaissance paintings angels play one or more recorders, often grouped around the Virgin Mary. In several notable paintings there are trios of angel recorder players, perhaps a sign of the Trinity, although the music must have often been in three parts.



(a) Pair of recorders: detail from the 'Triumph of Venus',...

Beginning in the late 15th century, the symbolism of the recorder gradually shifted away from the sacred. A pair of recorders (as in Francesco del Cossa's *Triumph of Venus*, [fig.5a](#)) represented sexual union, whereas a single recorder tended to signify a self-gratifying aspect of sex. In pastoral paintings, recorders were commonly found in the hands of shepherds as well as courtiers and others in Arcadian guise and nymphs of the pastures and meadows. The erotic and the pastoral are combined in a scene by Abraham Bloemaert in which a shepherd is seen putting a recorder, an explicit phallic symbol, under the skirt of shepherdess. The recorder's frequent appearance in 'Vanitas' paintings ([fig.5b](#)), which depict the vanity of the pleasures of this world, presumably represents the transience of purely sexual love.

IV. Repertory

1. To 1600.

Recorder trios are depicted in several paintings of the 15th century, but no specific repertory for them has survived. Some of the earliest music must have been transcriptions of vocal repertory; in 1505 Giovanni Alvisi, a Venetian wind player, offered Francesco Gonzaga a motet to be played on eight recorders. The treatises of the first half of the 16th century (Virdung, 1511; Agricola, 1529; Ganassi, 1535) take it for granted that recorders should be played in four-part consorts, and the front cover of a set of dance choreographies, *S'ensuyvent plusieurs basses dances tant communes que incommunes* probably published by Jacques Moderne in Lyons in the 1530s, depicts such a consort. The first published collection specifying performance on recorders was *Vingt et sept chansons a quatre parties desquelles les plus convenable a la fleuste dallemant ... et a la fleuste a neuf trous*, published in Paris by Pierre Attaignant (RISM 1533¹), which contains 14 four-part chansons marked for recorders. Moderne's *Musique de joye* (RISM 1550²⁴) contains ricercares and dances intended primarily for instrumental performance on 'espinetes, violons & fleustes'. It is clear from this and other evidence that recorder players performed vocal pieces, gradually adding dances and instrumental music written in imitation of vocal styles.

Some repertory probably intended for the recorder consort at the English Court has survived, beginning with a pavan and galliard by Augustine Bassano from around 1550, and further pavans and galliards by Augustine and Jeronimo Bassano from the third quarter of the century. From these simple dances a significant step up was made to the fantasias of Jeronimo Bassano (c1580), four in five parts and one in six parts, containing elaborate counterpoint and expressive harmony. The Fitzwilliam wind manuscript ([GB-Cfm 734](#)), apparently the repertory of the court wind consorts in the early 17th century, contains wordless motets and madrigals as well as dance pieces in six parts (one part is lost).

Mixed consorts, too, were depicted in paintings as early as the 15th century, particularly one recorder with singer and a plucked instrument, or with some combination of harp, lute and fiddle. Larger mixed consorts are described in sources of the early 16th century: during the last course of a banquet given by Ippolito II d'Este in Ferrara in 1529, Alfonso della Viola conducted a composition with six voices, six viols, a lira, a lute, a 'citarà', a sackbut, tenor and bass recorders, a flute, a 'sordina' and two keyboard instruments. During the second half of the 16th century, consorts of unlike instruments became common in England, the practice perhaps having been transmitted through Italian musicians at court. The mixed consort usually consisted of treble viol (sometimes replaced by violin), bass viol, lute, bandora, cittern and flute (a recorder, probably a descant, is specified only in the Matthew Holmes consort books, c1595, [GB-Cu Dd.5.21](#)). Praetorius (1619), however, stated that the wind instrument in the English mixed consort was 'a flute or recorder', and two continental depictions of the mixed consort include the recorder (Adriaen van de Venne, *Celebration in Honour of the Truce between the Spanish and the United Provinces of the Netherlands*, and Simon de Passe, engraving, *Musical Evening*, 1612, reproduced in *EMc*, vi (1978), 611).

2. 1600–1690.

(i) The recorder in vocal music.

In Italy, the recorder was called for in only 17 published works between 1600 and 1670, although the instrument was presumably used in similar pieces that never found their way into print (Van Heyghen, E1993). In Florence and Mantua the instrument was used predominantly in pastoral scenes in dramatic music: Peri's *Euridice* (1600), Monteverdi's *Orfeo* (1607) and Francesca Caccini's *La Liberazione di Ruggiero* (1625). In Venice, the recorder was not found in opera but in the more conservatively scored music by organists at the Scuole Grandi and monastic churches, such as Francesco Usper's *Synfonia prima a otto* from his *Compositioni armoniche* (1619). The earliest surviving sacred music with recorders is Monteverdi's Vespers of 1610, scored in a similar fashion to the court music of the day. Monteverdi represented the 'blessed' quality of the Virgin in the short part for two recorders in the 'Quia respexit' part of the *Magnificat*.

In France, Cambert's *Pastorale d'Issy* (1659) was reported to have contained 'concerts de flutes,' or sections scored with recorder consort (Saint-Evremond: 'Les Opera: comedie', *Oeuvres meslées*, xi, Paris, 1705), apparently in emulation of the use of the 'flute' (more properly the aulos) in the classical theatre. Lully continued this practice by employing the recorder extensively in his operatic works, writing parts for two to four recorders (treble, tenor and bass) with at least two players to a part. In his ballets and *comédies-ballets* the recorder is featured almost exclusively in instrumental pieces. In the *tragédies lyriques*, in contrast, it is found mostly in vocal *airs* for male or mixed voices, often symbolizing death or lamentation, as in the famous funeral music from *Alceste* and the 'Plainte italienne' in *Psyché*. The instrument also accompanied pleas to the Gods (*Bellérophon*), and was linked with the Muses (*Alceste*, *Isis* and *Acis et Galatée*). Not surprisingly, recorders were used in scenes involving pipes (the shepherd's pipe in *Persée* and the pipes of Pan in *Cadmus et Hermione* and *Isis*). The celebrated sleep scene from *Atys*, which uses treble and tenor recorders, became a favourite of Charles II (who demanded it frequently from his French recorder players) and a model for similar scenes by Lully himself, Charpentier, Montéclair and others.

Little research has been done on the use of the recorder by 17th-century German and Austrian composers, although preliminary investigations have revealed a significant participation by the instrument in the vocal music of such well-known composers as Biber, Böhm, Buxtehude, Hammerschmidt, Keiser, Schütz and Zachow, as well as a host of minor composers.

(ii) The recorder in instrumental music.

The first independent recorder pieces of the 17th century were two canzonas – one for recorder and bass, the other for two recorders and bass – published in G.B. Riccio's *Primo libro delle divine lodi* (R/1612, first ed. lost). Riccio's *Terzo libro* (1620) featured the recorder in two further canzonas and a motet. The first recorder pieces in a collection of purely instrumental music were two sonatas and a canzona in Giovanni Picchi's *Canzoni da sonar* (1625). Biagio Marini wrote only one sonata for the instrument: *Sonata sexta* for two recorders or cornetts and continuo from his *Sonate symphonie canzoni*, op.8 (1626). Jacob van Eyck's *Der fluyten lust-hof* (Amsterdam, 1646–9) for descant recorder is the largest collection ever published of music for a solo wind instrument by a single composer. It consists of over 140 sets of variations (including many variation chains) on psalms and popular songs and dances, with a few original preludes and fantasias. The *Engels nachtegaeltje* from the collection is now his most popular set of variations, although the evocative tune was probably originally composed for the harpsichord. The consort tradition was continued in Moravia in the 1660s and 70s by Biber, Schmelzer and Valentini among others. Some of their works bear the designation 'pro tabula' or 'ad tabulum', indicating intended use as dinner music.

(iii) The recorder in the theatre.

The recorder was used in 17th-century Spanish and English theatre with various associations. In *La gran columna fogos*, *San Basilio el Magno* (Spain, 1596–1603), 'flautas' accompany the discovery of an altar. And in *El truhán del cielo y loco santo* (1620–30), they accompany the discovery of a Christ figure and the appearance of a Christ-child. In the Elizabethan, Jacobean and Caroline theatre, apparently representing 'the music of the spheres', recorders are associated with the supernatural, death and appearances of or portents from the gods. In William Davenant's *The Cruel Brother* (1627), recorders play while Corsa dies, and Fores remarks: 'Hark / As she ascends, the spheres do welcome her / With their own music'. The most curious association is with fake funerals (in which the deceased is later found alive), as in John Marston's *Sophonisba* (1606) and Thomas Middleton's *A Chaste Maid in Cheapside* (1613). In two plays, Fletcher and Massinger's *The Little French Lawyer* (1619) and Shirley's *The Grateful Servant* (1629), recorders are introduced for their aphrodisiac effect.

3. 1690–1750.

From the late Baroque, the extensive repertory of solo sonatas and the rather smaller number of pieces for recorder and orchestra have naturally attracted the most attention among modern

professional players. Yet the chamber music and especially the vocal music involving the recorder tend to display the instrument to better advantage.

(i) The recorder in vocal music.

In England, Henry Purcell wrote a great deal of vocal music featuring simple recorder parts, generally for two instruments. Perhaps influenced by both the earlier English theatrical tradition and French opera, Purcell associated the recorder with the supernatural and religious ceremonies. In his first music for the stage, the incidental music for Nathaniel Lee's play *Theodosius* (1680), two recorders accompany the bass aria 'Hark! Behold the Heavenly Quire' as an angel choir descends. In *Dioclesian* (1690), two recorders accompany the soprano aria 'Charon the peaceful Shade invites', which concerns crossing the River Styx. Recorders appear in a number of Purcell's odes as well. In *Hail! Bright Cecilia* (1692), the poet, Nicholas Brady, casts doubt on the recorder's ability to incite earthly love: 'In vain the am'rous flute and soft guitar / Jointly labour to inspire / Wanton heat and loose desire'; Purcell set this text as a duet for alto and tenor, with two recorders and continuo (presumably played by guitar). Purcell used the recorder for several texts involving shepherds, celebration of the pastoral life (the cantata *We Reap All the Pleasures*), the establishment of peace ('Return, fond Muse, the thoughts of war' from *Celebrate this Festival*) and the ability of music to heal ('Her charming strains expel tormenting Care' from *Celestial Music*).

In the vocal works of Handel, the recorder is used to represent death as well as the supernatural, often as liberation or a sacrifice for the sake of love (as in the duet 'Vivo in te' from *Tamerlano*). Of some 90 arias in which Handel included the recorder, about 30 are about love, often mixed with other elements, particularly the pastoral. Like Purcell, Handel generally used the recorders in pairs, as in the sublime 'Heart, the seat of soft delight', the expressive climax of the masque *Acis and Galatea* (1718). In the same work a single recorder contrasts with the bass voice of the lusting giant Polypheme in 'O, ruddier than the cherry'. In 'Vaghe fonti' from *Agrippina* (1708), recorders represent the murmuring fountains in the pastoral scene.

(ii) The recorder in instrumental music.

Little purely instrumental music was written for the recorder in France, although publishers from the 1690s to the 1750s often listed the instrument on title-pages as an alternative to the flute, hurdy-gurdy, musette and others. Hotteterre recommended that his suites, trio sonatas and duets for flute in mixed French-Italian style (1708–22) could be transposed a minor 3rd higher for the treble recorder. The sole French recorder sonata was written by Anne Danican Philidor (1712), presumably for himself to play at court. Lalande's *Symphonies (pour les soupers du Roy)* (1703) have a few movements that specify recorders. Michel Corrette's *Les voyages du berger fortuné aux Indes orientales* (1737), which shows some influence of Vivaldi's programme music, has a solo part for musette or recorder.

Corelli does not seem to have left original recorder music, although several recorder arrangements were published of his solo and trio sonatas and concerti grossi in London and Amsterdam. Justly the most famous is that of his variations on *La Folia*, op.5 no.12 (London, 1702). Effective solo sonatas were published by Bellinzani, Mancini and Veracini. Alessandro Scarlatti wrote chamber music and 12 *Sinfonie di concerto grosso* with recorder parts, as well as including recorder obbligatos in some of his solo cantatas. A manuscript in Naples (*I-Nc* 38.3.13) includes 24 concerti grossi for recorder and strings by Mancini, Scarlatti and others. Vivaldi's imaginative Concerto in C minor for treble recorder and strings, *RV441*, is probably the most virtuoso recorder composition of the Baroque era, full of rapid passagework containing large leaps and awkward cross-fingerings. The three *flautino* concertos, *RV443–5*, presumably written for sopranino recorder or flageolet, are also showpieces. Vivaldi featured the recorder in eight chamber concertos with combinations of oboe, violin and bassoon (*RV87, 92, 94–5, 101, 103, 105* and *108*) and a virtuoso trio sonata with bassoon (*RV86*).

Gottfried Finger, a German working in England, published duets, trios, divisions, solo sonatas, trio sonatas and quintet sonatas (for two recorders, two oboes and continuo) which helped to popularise the Italian style. Around 1724–6 Handel wrote six sonatas which are generally considered the finest in the Baroque repertory. Their strengths are inventive melodic lines in a

frequently vocal manner, unpredictable phrase-lengths, and interplay between melody line and bass. From about 1710 into the early 1730s there was a vogue for concertos for one or two small recorders in public concerts and interval 'entertainments' at the London theatres. The published concertos by William Babell, John Baston and Robert Woodcock are mostly Vivaldian in design, anglicised by conjunct passagework. The most important of these concertos, by Sammartini, remained in manuscript; its passagework is more virtuoso and varied, the lyrical fast movements are in da capo form, and the slow movement is an impassioned siciliana.

Probably the most prolific recorder composer of the Baroque was the German woodwind player J.C. Schickhardt who between 1709 and around 1732 turned out a steady stream of publications for the amateur market in a Corellian style. His best recorder compositions, which transcend his generally short-breathed phrase structure, are the concertos for four recorders and continuo, op.19; the quartet sonatas for two recorders, oboe and continuo, op.22; and *L'alphabet de la musique*, op.30.

(iii) Telemann and J.S. Bach.

Telemann, himself a recorder player, treated the instrument on a par with other woodwind instruments in his publications up to *Essercizii musici* (Hamburg, 1740, but probably written c1725–30). His manuscripts are specific about requiring the recorder, but in his publications he also offered transpositions so that the instrument could play music written for the flute, violin and bassoon. Telemann's eight solo sonatas, among the most popular Baroque recorder music, incorporate formal and stylistic procedures drawn from the operatic aria and concerto. Less well known, but at least as significant, are his trio sonatas with recorder, written between 1713–14 and 1737–44, in which the recorder is paired with obbligato harpsichord (one) oboe (five), another recorder (one), treble viol (five), bass viol (one) and violin (five). Telemann's quartet in G minor for recorder, violin, viola, and continuo (TWV43 g 4), written around 1710–15, is one of the earliest examples by any composer of the 'Sonate auf Concertenart' (concerted sonata), in which at least one movement exhibits features of ritornello form and has much in common with the chamber concerto. The three other quartets featuring the recorder (TWV43 d 1, G 6, a 3) and the concerto for recorder, horn and continuo (TWV42: F 14) are also examples of the concerted sonata. Telemann's A minor Suite for recorder and strings, one of the most frequently performed Baroque recorder works, mixes elements of the French and Italian styles and even Polish folk music in a tuneful manner. His two virtuoso recorder concertos in F major and C major make effective use of the instrument's high register. Telemann also employed the recorder in no fewer than 93 cantatas and vocal serenades, concentrated primarily in the years 1720–31. The best-known are the 13 in *Der harmonischer Gottes-Dienst* (1725) for voice, recorder and continuo, intended for home worship.

J.S. Bach employed a pair of recorders (sometimes one or three) in 19 cantatas. He generally placed the recorders in the orchestra, as in most of *Preise, Jerusalem, den Herrn*, BWV119, or else made them the only obbligato instruments in an aria, as in the opening alto aria of *Komm du süsse Todesstunde*, BWV161 (in the final chorus of which recorders represent the flight of the soul to heaven). Occasionally he gave the recorder unusual instrumental settings, as in the opening sinfonia from *Gleichwie der Regen und Schnee*, BWV18, for two recorders, four violas and continuo, full of striking suspensions; the opening sonatina from *Gottes Zeit ist die allerbeste Zeit*, BWV106, for two recorders, two bass viols and continuo; the pastoral alto aria 'Doch Jesus' from *Schauet doch und sehet*, BWV46, for two recorders and two unison oboes da caccia without continuo; and the soprano aria 'Die Seele ruht in Jesu Händen' from *Herr Jesu Christ, wahr'r Mensch und Gott*, BWV127, in which two recorders play an accompaniment of continuous staccato quavers against a florid oboe obbligato. In the *St Matthew Passion* (1727/9), the flutes are replaced by recorders (largely doubled by oboes da caccia) for the F minor recitative and chorus 'O Schmerz! Hier zittert das gequälte Herz', describing Christ's sufferings on the cross. Three recorders and continuo evoke a pastoral atmosphere in the opening tenor recitative 'Er rufet seinen Schafen mit Namen' and the alto aria 'Komm, leite mich' from BWV175.

Any solo sonatas that Bach may have written for the recorder are now lost. Perhaps the best-known recorder pieces of all time are his second and fourth Brandenburg Concertos (1721). No.2 in F major, BWV1047, treats a single treble recorder as an equal soloist with trumpet, oboe and violin accompanied by strings. No.4 in G major, BWV1049, matches two *fauti d'echo* (echo flutes) with a violin. This concerto also exists in a version in F major, BWV1057 (c1738), written for two

treble recorders with harpsichord.

4. From 1750.

Use of the recorder was rare between 1750 and the 20th-century revival. In the 19th century, Carl Maria von Weber seems to have scored for the recorder twice (*Peter Schmoll und seine Nachbarn*, 1801; *Kleiner Tusch*, 1806), and Hector Berlioz may have intended 'La fuite en Egypte' from *L'enfance du Christ* (1853) for the instrument. In its incarnation as the **CSAKAN**, the recorder had a repertory of several hundred pieces, which are beginning to be explored by modern players.

Before the 1960s, the 20th-century recorder repertory was largely tonal or modal. The most significant exception is Paul Hindemith's chromatic trio from *Plöner Musiktag*, written for himself to play at a music festival with two of his composition pupils in 1932. Perhaps not coincidentally, many of the other important recorder works of this period were written by pupils of Hindemith, including Stanley Bate, Arnold Cooke, Franz Reizenstein and Walter Leigh in England, Hans-Ulrich Staeps in Austria and Harald Genzmer in Germany. A key figure in inspiring the composition of new works in the late 1930s was Manuel Jacobs, a pupil of Edgar Hunt, to whom we owe a number of works by composers including Sir Lennox Berkeley, Peggy Glanville-Hicks and Peter Pope. But the greatest influence on English recorder music was Carl Dolmetsch who, with two exceptions, commissioned a new piece for each of his concerts at the Wigmore Hall, London, in 1939 (twice), 1941, then annually in an unbroken series from 1948 to 1989. The finest works are those by Gordon Jacob and Edmund Rubbra, whose *Notturmo*, op.106 (1962), for recorder quartet, was written for Carl's children. York Bowen's substantial sonata (1948) introduced the practice, later common, of a single player using more than one recorder in a piece.

The first avant-garde works of the 1960s introduced extended techniques and often a high degree of technical accomplishment. Among the best works are several written for Frans Brüggen: Rob du Bois's *Muziek* (1961), Louis Andriessen's *Sweet* (1964), Luciano Berio's *Gesti* (1966), and Makoto Shinohara's *Fragmente* (1968), which is influenced by the Japanese *shakuhachi*. The recorder music of the 1970s made more selective use of extended techniques and introduced theatrical elements, the interchange of different recorders, and the recorder player vocalising or using other instruments. The finest examples are Japanese, again influenced by the *shakuhachi*: Ryohei Hirose's solo *Meditation and Lamentation* (1975) for recorder quartet, and Maki Ishii's *Black Intention* (1975), in which the player uses two descant recorders played together, tenor recorder and tam-tam as well as vocalisation. The extensive repertory of the 1980s and 90s from Europe, the Americas, Australasia and Japan features a bewildering variety of styles, from minimalist (e.g. Leo Brouwer's *Paisaje cubano con rumba*, 1985) to microtonal. Some recent pieces are of staggering difficulty: Mathias Spahlinger's 30-minute *nah, getrennt* (1993), for solo treble, has a vast dynamic range, changing wildly almost from note to note, nuanced microtones, and a variety of articulations and tone qualities.

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