

When is a recorder not a recorder?

Much has been written about early instruments believed to be recorders. They include Nicholas Lander's *A Memento: The Medieval Recorder* on his Recorder Home Page¹ which, as is the advantage with Internet articles, he updates periodically. In his 2012 update he describes, with some illustrations, seven archaeological finds said to be recorders, and lists as many as 137 references.² My own articles, in *Early Music* (especially November 2005)³ and in other journals,⁴ suggest why and when the recorder first came into being, and how it was used. Most writers⁵ generally refer to these instruments as 'recorders' unconditionally. But do they 'conform to the definition of a recorder'? If so, what definition?⁶ And are they true recorders?

An early French dictionary defines 'recorder' as 'a pype fleute a ix neuftre trous'.⁷ These nine holes are for the first three fingers of each hand, the upper-hand thumb, and the lower-hand little finger. The latter often has two holes, one off-set to the left and the other to the right, to allow players to choose between having their left or their right hand lower;⁸ the unused hole is then blocked with wax. When recorders were later made with moveable foot sections, these paired holes were no longer needed, but recorders then began to have doubled little-finger holes in order to play both C (tenor)⁹ and C#, and similarly for D and Eb. So a modern recorder has ten holes.

The French definition is also misleading as duct-flutes exist, even from Roman times,¹⁰ with seven to nine holes. The standard six-holed early medieval flageol (now our flageolet or tin-whistle), which was played solo to display the skills of jesters (jongleurs), or in lyrical mode by minstrels to accompany the voice of a troubadour,¹¹ can also have up to eight holes. The main purpose then of an added thumb-hole was to provide a stronger and more easily played middle tonic rather than using the awkward –23 456 fingering. The little-finger hole gave a leading note, much needed for the endings of melodies.¹² The 'home key'¹³ remained with six fingers down, as with some other wind instruments.¹⁴ Chromatics were not generally needed as players used different sized instruments for different pitches, as with our modern flageolets.

From mid-14th century more music appeared in notation. Machaut,¹⁵ for example, occasionally showed chromatic notes outside the range of the hexachords¹⁶ which, within the prevailing modal system, formed the melodic basis of medieval music. By the end of the century the three-part *ars subtilior* music was so chromatically and rhythmically complicated that it seems that singers found it difficult to hold their part in tune.¹⁷ If they needed help from an instrument, they would have wanted one which was portable, simple to play (ideally at a singer's own breath-pressure¹⁸), and which stayed in tune, not needing re-tuning before or between playing. The flageol would have been perfect for this purpose, except that it was diatonic, not chromatic. It could not even play both F and F# without recourse to half-holing, which produces uncertain intonation and affects tone-quality.

At some point, probably during the later decades of the 14th century, some makers²⁰ hit upon the idea of raising the pitch of the fourth by about a quarter-tone. This enabled accidentals to be played with acceptable tone-quality by putting two fingers down below an open hole in the lower octave, and by one finger in the upper octave. If the placing of the little-finger hole, and the bore profile, were then modified to give an interval of a whole tone, a tonic could then be played with seven fingers down. At the expense of the flageol's agility and two-octave compass,²¹ a chromatic duct-flute came into being which would play along with a singer. Eventually, with three instruments, the piece could be repeated ('recorded'²²) to give the singers a rest and a change of sound for the listeners.

I therefore think that, to be a true recorder, the little finger should lower the pitch by a whole tone. Duct-flutes with semitone little-finger intervals are in effect improved flageols. Unfortunately, most of the archaeological finds are too damaged to play them in order to test this, and attempts at

restoration are necessarily conjectural. But the placing of the holes²³ with these early instruments suggests that they may have been refined forms of flageols rather than recorders. Even the famous 'Dordrecht recorder' could be a misnomer.²⁴

But, even if the names are misleading, we should not value these archaeological finds any the less, as they show how early recorders developed from their predecessors.²⁵ The flageol had been an excellent instrument for its purpose in playing early medieval music but, with changing styles of music and performance, recorders became the dominant duct-flute. Renaissance and baroque artists even replaced the traditional six-holed shepherds' pipe with a recorder!²⁶



Shepherd with Recorder

Pastoral detail (supplied by Nicholas Lander) from the Garden Room ceiling in the Archbishop's Residenz at Würzburg painted by Johann Zack (1702–1761). The shepherd holds an elegant dark wood late baroque recorder in the place of a six-holed shepherds' pipe.

Notes

1. <http://www.recorderhomepage.net/medieval.html>
2. I would especially commend the writings of David Lasocki (shortly to be published in book form by Yale U.P.), Pierre Boragno, Dietrich Hakelberg, Hermann Moeck and Angelo Zaniol.
3. *Early Music* XXXIII/4, pp.557-574,, 'Iconography in the History of the Recorder up to c.1430 - Part 1'. Part II is in the next issue.
4. e.g. *The Recorder Magazine*, *American Recorder*, *Early Music America*, *Tibia* and *Early Music Performer*.

- 5 including me before I became more cautious.
- 6 quoted from Lander's *A Memento*, under 'Surviving Specimens', p.1 ll.1-2.
- 7 Palsgrave, *Lesclarcissement de la langue Francoyse* (1530). This definition was also used 'in a chanson collection published by Pierre Attaignant in 1553' (Lander, *A Memento*, p.7 ll.9-10 up).
- 8 about half the angels in paintings choose right-hand lower, and half left-hand.
- 9 anachronistically, all tones in this article are referred to as if on a tenor recorder in C.
- 10 Hermann Moeck in his *Typen Europäischer Kernspaltflöten* (Moeck, edn.4016), illustrates a Roman bone-flute from the Rhineland (ill.26), now in the Zentralmuseum at Mainz.
- 11 in expressivity (including dynamics and intonation control), the flageol was almost as responsive to articulation, breath-input variations and partial venting as the recorder.
- 12 especially at final cadences.
- 13 another anachronism as octave scales with keys came later.
- 14 e.g. the flute and the oboe.
- 15 Guillaume de Machaut, French composer and poet, c.1300-1377. He wrote in the flexible style of *Ars Nova*. Machaut often used F# because of its association with the G hexachord as well as Bb with the F hexachord (see n.xvi). C# was also sometimes used, but G# and even Eb had appeared elsewhere 'by about 1325' (Deryck Cooke, *The Language of Music* (Oxford 1959), p.49). These rare occasions, mainly passing notes, developed from the pull of an octave, which gradually affected the modes. Such usage was very different from the outright chromaticism of late 14th-century music.
- 16 the system which was developed from the hexachord pattern of Guido d'Arezzo (d.1050) of tone-tone-semitone-tone-tone basically depended on forming six-note hexachords, especially those starting on C, F (the 'soft' hexachord) and G ('hard'). They followed consecutively the white notes of the keyboard within a modal structure. Early keyboards had both B and Bb as white notes, giving the player a choice. Melodies stayed generally within one hexachord, but if they needed to go higher or lower they moved into another hexachord.
- 17 sung from written music and cultivated, especially in Spain and France, by aristocrats and musically skilled house servants, spreading to rich merchants and professional singers. The main composer called himself 'Trebor' (being 'Robert' backwards), and such music is found in the Chantilly Codex.
- 18 Giorgio Anselmi, in *De Musica* (Parma 1434), says that for a singer, but not for an instrumentalist, 'it becomes more difficult to keep the notes at the right pitch for a long time, even for one song.' Timothy McGee, in his *The sound of medieval song: ornamentation and vocal style according to the treatises* (Oxford 1998), cites this as suggesting that instruments at least occasionally helped singers to stay in tune. This might also be assumed from the fact that recorders in early paintings are frequently shown with singers.

- 19 because of its exceptional sensitivity to breath-input variations and to articulation, the recorder, as Sylvestro Ganassi says, in his *Opera intitulata Fontegara* (Venice 1535), 'it is possible with some players to perceive, as it were, words to their music'. Moreover, the recorder is better able than a six-holed duct-flute, which overblows for its second octave, to play high notes more softly than low notes. This is how vocalists were encouraged to sing in the medieval period, and probably later.
- 20 it is not possible to say where in Europe this happened, perhaps in more than one place at the same time.
- 21 the narrower compass of the Renaissance recorder did not affect its suitability to play vocal music of the period (see n.xviii above). For a detailed discussion of six- and seven-holed instruments and the music they played, see Wolfram Tuschner, 'Early woodwind instruments in the light of the medieval modes', *Tibia* (3) (1985) pp.401-6, in German, but with an excellent English summary.
- 22 the Latin 'recordare' means to remember or repeat
- 23 depending on the bore profile, with recorders (i.e. instruments giving a whole-tone interval with the lowest hole), the little-finger hole needs to be spaced slightly more below the sixth finger-hole than the distances separating each of the other holes. Thus on my Adriana Breukink/Mollenhauer 'Dream' soprano recorder, which is a Renaissance-type instrument, the distance from the bottom edge of the holes for the sixth finger to the top edge of the seventh holes is 24 mm., whereas the distance between holes six and five is 12mm; the first and second holes are 16mm. apart. The corresponding three measurements for my Hopf 'Renaissance' recorder are 29mm., 18mm. and 26mm. (the first hole is smaller than the others)
- 24 I am not convinced that any of the current archaeological finds is a true recorder. But iconographic evidence shows that recorders certainly existed in Europe before 1400, notably in the Royal courts of Aragon – see my series of four articles in *American Recorder*, including 'The First Recorder: How? Why? When?... and Where?' (XXXX/5, November 1999, pp.10-14 and 33). Hopefully an original from that period will in due course be discovered
- 25 some recorder-players believe that their instrument was 'invented' as something completely new. But recorders in fact evolved from their predecessors, as if by a process of natural selection
- 26 shepherds offering their pipes, representing the soul, to the infant Jesus are shown giving the tiny child a large recorder. And Mercury, pretending to be a shepherd, lulls the watchful giant Argus to his last sleep with a recorder.



The Tartu duct-flute, from some time shortly before 1400 or perhaps after

This archaeological find was slightly changed in shape by being under pressure from the deposits above it, and a little more during the conservation process. But it is still playable. As may be deduced from the spacing of the holes (see n. xxiii), the little finger lowers pitch by a semitone (see *Estonian Journal of Archaeology*, 11/2, Tallinn 2007, pp.141-154, article and this photograph by Andres Tvauri and Taavi-Mats Ut. See esp. p.149, ‘... produces a half tone ...’).