



April 2019

Baroque versus Renaissance Recorders - What's the Difference?

by Barbara Prescott

It is easy to distinguish one recorder from another based upon size. The difference between a soprano and a bass recorder is obvious. Did you know that you can also distinguish recorders by their bore sizes? A bore is the hollow space inside the length of the recorder, and they are different shapes and sizes depending on the type of recorder. Those bore sizes determine which music the recorders are best designed to play.

The different bore sizes correspond with three different musical periods and reflect the type and function of music during those time periods.

Tant Que Vivrai

Claudin de Sermisy

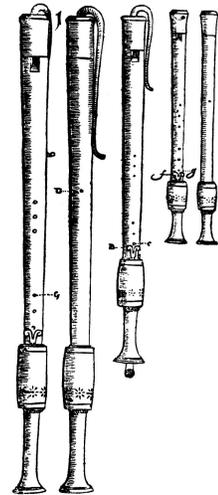
The image shows a musical score for the piece 'Tant Que Vivrai' by Claudin de Sermisy. It consists of four staves of music, each with a corresponding line of lyrics. The lyrics are: 'Tant que vivrai en a-ge flo-ri-sant, Quand je la veu ser-vir et hon-or-er.' The music is written in a simple, chordal style, typical of the Renaissance period.

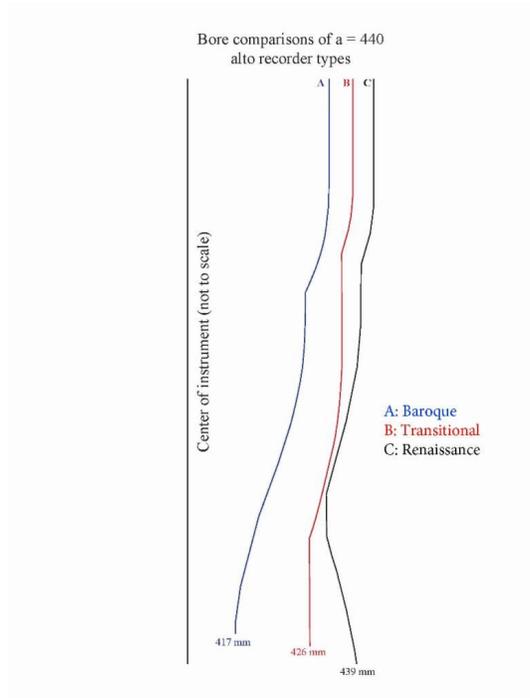
Renaissance Recorders

First, renaissance music, running from 1400 to 1600, was mostly written for consorts – groups of instruments playing together to create chordal music. Think of playing a chord on an organ, but with individual players for each

note. See [Tant Que Vivrai](#) by Claudin de Sermisy (c.1490-1562) as an example of chordal writing. The key signatures are simple, typically using one sharp or flat, or none.

Renaissance recorders, with their larger bores are suited to the music. They don't easily play in many different keys. The tuning system - quarter comma meantone (see inset below), which produces in-tune thirds and fifths, can't venture very far from the key of c without encountering tuning problems. This means that the instruments and the music they are designed to play blend wonderfully..





In the drawing above, note that the renaissance instrument bore (line C, in black) is larger than the other two, chokes down towards the bottom, and then flares at the end. These design elements favor strong bottom notes.

A brief note on temperaments: A temperament is a way of deciding just what the pitch will be for each note. The difference between two pitches is an interval. Mathematically, the interval between two pitches is the ratio of their frequencies. The ratio of one octave is $2/1$, and is an interval we are particularly attuned to hear. In general, intervals which are the ratio of two small numbers sound better to our ears than those that aren't. $2/3$ - a fifth, $4/5$ - a major third. These pure intervals are natural harmonics. When you play a note, these harmonics of the note are also present in the sound. Medieval music emphasized pure fifths. During the renaissance, the music called for pure major thirds. Meantone temperaments, prevalent in renaissance music, contain as many pure thirds as possible



Transitional period

After 1600, solo playing became more prevalent in works by composers such as [Jacob van Eyck](#) (c.1590-1670). This requires instruments that have a greater range (at least two octaves) and can play in more keys. During this period, the soprano and alto were typically played as solo instruments in mixed consorts. Transitional recorders were developed to meet these musical demands. Transitional recorders

have a somewhat smaller and more tapered bore than renaissance recorders (see diagram above), which results in an instrument with greater range and the ability to play accidentals. The smaller bore allows the toneholes to be smaller. The result is that when you close lower holes, the pitch drops much more than it would on a renaissance recorder. The greater pitch drop allows the player to use easier fingerings to get the same pitch drop when playing accidentals, improving the range of keys that can be played. The smaller and more tapered the bore, the more the upper partials are heard, allowing the recorder to play in the upper octaves. In contrast, the bigger the bore, the stronger the bottom notes and the rounder the tone.



Baroque Period

Finally, the age of the solo recorder was born, from 1650 to the mid 1800's. Composers such as George

Frideric Handel (1685-1759) wrote virtuosic pieces for recorder, such as his [Sonata in C major](#). Accordingly, the instrument adapted to satisfy the needs of the music. The temperaments evolved, becoming closer to equal tempered tuning, which is what we generally use now. The most popular temperament in the baroque period is sixth comma, a temperament that still permits the player to have good third and fifth intervals, but also permits playing in keys with a greater number of accidentals. Our eventual movement to equal temperament means that the octave is equally divided in pitch, so that every note is equally out of tune. The baroque bore, that narrows from the top all the way to the exit (see diagram above), allows the instrument to be shorter in length, and that shorter length helps make the top notes stronger, reflecting the musical demands of the baroque period.



A recorder is just a tool to produce the music, but in any given period there are recorders that are better tools for the specific music of the era. A renaissance recorder provides the satisfying sense of playing the music as if it is part of a chord played on an organ. It has a large bore that favors the lower notes. A transitional recorder lets the player expand into new repertoire and new types of consorts, while still typically using purer keys and harmonics. Its bore is smaller than a renaissance recorder bore, but not as tapered as a baroque instrument. Finally, baroque music demands an instrument that can handle multiple keys and accidentals, often playing as a solo instrument, and therefore needs a recorder with a smaller, heavily tapered bore to favor the upper register for solo work.

Barbara Prescott is a member of the ARS Board, and manager of Prescott Workshop, makers of high-quality recorders in Hanover, NH.