

The Horn

Historical Sketch

- The horn, like the trumpet and all other brass instruments has its earliest heritage in simple instruments such animal horns, hollow sticks, or other items with which the player produced a sound by buzzing the lips within an aperture. However, those instruments considered the closest ancestors of the horn are more conical in nature than those of the trumpet. One example of such an instrument is the Alphon (you've seen these on the "Ricola" commercials).
- The horn's immediate ancestor is the hunting horn, used from the Middle Ages on in order to sound various calls during while hunting. The circular design of the instrument came about in an effort to make the instrument easier to manage during the hunt.
- The French are largely responsible for lengthening the horn during this period so that more notes would be available in a single harmonic series. Hence the (now considered inappropriate) name "French" horn.
- The horn was gradually welcomed into the orchestra during the early eighteenth century, often playing hunting horn call-like passages, but slowly gaining acceptance as a legitimate instrument in its own right, as well.
- After joining the orchestra a crook system was developed so that hornists could play in a variety of keys. Because valves had not yet been invented, each instrument was limited to the notes available in a single harmonic series. Crooks, which were essentially tubing extensions of various lengths, allowed the adapting of a single instrument into a variety of keys. At about the same time the technique of adjusting pitch using the right hand was developed, allowing at least a moderate degree of chromaticism.
- The development of the valve began in the latter part of the eighteenth century, but the idea was perfected during the first quarter of the nineteenth century by individuals including Stözel and Sax. Specifically concerning the horn, valves were for some time used only as "quick crook change" devices, with players still sticking to the natural harmonics of a given valve combination. In fact, in some areas the practice of using the valves to play chromatically was not fully accepted until the early twentieth century! The valve also made the placement of the right hand in the bell "technically" unnecessary, but the sound created by inserting the hand in the bell had by then come to be the accepted timbre of the instrument.
- In the twentieth century the horn was used effectively in orchestras, bands, and chamber ensembles. Its place as a member of the brass section of both orchestras and bands is fully secure. Prominent composers from the time of Mozart on have written solo works for the horn, though not with the same frequency as violin, piano, etc.
- The timbre of the horn in F has come to be regarded as the "characteristic" horn sound, though the closeness of overtones in much of the playing range makes pitch accuracy difficult. The invention of a F-Bb "double" horn with an extra Bb "side" allows players to employ a shorter instrument in the lower parts of its harmonic series to facilitate greater pitch accuracy. A few players prefer the single Bb horn for high register playing, and some even use a Bb-high F "descant" horn. Still, the majority of players seem to prefer the versatility afforded by the F-Bb instrument.

Instruments

F-Bb double horns are the most desirable for American students and professionals (in most cases). The others to be discussed here are used only for auxiliary purposes in this country or, in the case of the single F horn, out of necessity.

- Single F horn. Used by young students in many American bands, these instruments provide the characteristic horn sound in the middle register, but tend to falter in the extreme upper and lower registers. Their light weight and relatively low cost makes them a necessity for many young students and band programs, however.
- Single Bb horn. The sound of these instruments is typically not considered to be characteristic, as it tends to be brighter and more trumpet-like than that of the F horn. It is usually considered to be a specialty instrument to be used only by professionals.
- Single Eb horn. While these instruments turn up from time to time in the inventory rooms of band programs, they are almost never used today and should be avoided.
- F-Bb double horn. The standard instrument in use today by both students and professionals, the double horn allows for optimum tone quality and ease of playing, as the player is able to switch between practically two separate instruments, taking full advantage of the best qualities of each.
- F descant horn. A specialty instrument used mostly for extremely high Baroque horn parts, the F descant horn is pitched an octave above the standard F horn. The relationship between the two is similar to that between the soprano and piccolo trumpet.
- Bb/F descant double horn. Another specialty instrument used for high parts, but somewhat more versatile than the single descant horn.
- F/Bb/F descant triple horn. Although one might think this instrument offers the utmost in versatility, its excessive weight both strains the player physically and greatly hinders response.
- F Vienna horn. A nineteenth-century-style instrument in use today almost exclusively by members of the Vienna Philharmonic Orchestra. This instrument has a very warm, pure sound at low and medium dynamics, but brightens significantly at louder

dynamics, producing a rather “heroic” sound. It can be recognized visually by their use of the double-piston valve invented in the nineteenth century by Leopold Uhlmann. This instrument is mentioned here only for reference purposes, as it is not used in America (or anywhere else but Vienna, for that matter).

Choosing Students for the Horn

- Facial structure. An extremely large mouth and/or fleshy lips may make the student a better candidate for a lower brass instrument. Extreme overbites or underbites can be a problem on brass instruments but can in some cases even be beneficial for woodwind players. A student with a lisp may have difficulty articulating properly on any wind instrument, but more so with the brasses.
- Physical stature. Physical size is not the issue with horn that it is with the low brass, though a very small individual might have a hard time managing the difficulties of the instrument. A student that has small hands, and parents with small hands, might have difficulties with hand-stopping later on, though this can be alleviated by the use of a stopping mute.
- Intelligence. Check the grades of a potential horn player. While band/orchestra students are usually among the brightest in the school, the horn presents significant difficulties compared to the other brass instruments and requires a keen intellect.
- Ear. Likewise, the horn player must have a good ear in order to enable proper “slotting” (generating the correct overtone). Check diagnostic test results (most schools administer these) to see if the student qualifies in this way.
- When allowing students to try instruments, have them try to create a buzz first of all. No really special embouchure formations – just buzz the lips, and then do it in the mouthpiece. If a student can get at least an octave or so within the normal playing range of the horn, they may be a good candidate. If they favor extreme high or low notes, at least try cornet/trumpet or low brass— however, if they can play a wide range in both directions, that’s great for horn! If they can’t buzz at all, strings, percussion, or woodwinds may be better.
- After letting them buzz the mouthpiece, you can let them play the instrument while you hold it and manipulate the valves.
- Again, if they get a reasonably good sound on the mouthpiece and/or instrument, and they LIKE the horn, they’ll probably be ok (with practice, of course).
- A student that shows promise for the horn might show similar or equal promise for the cornet/trumpet. A number of factors can help to determine which of the two a student should play, including financial situation (the child may *need* a school-owned instrument) and personal preference (if you’ve done your job in demonstrating and promoting all the instruments, some students will probably *choose* the horn). You will most likely have better luck getting good hornists by starting students on the instrument, rather than transferring second-rate trumpeters later on. That said, a student that plays another instrument and decides to switch may become a good horn player with sufficient practice.

Pedagogical Concepts

- Instrumentation. If available, students should play the F-Bb double horn from day one. If this is not feasible, have them begin with the single F horn and move to an F-Bb instrument as soon as possible.
- If students do wish to purchase their own instruments, they need to personally try as many double horns as possible. While Conn, Holton, and Yamaha make quality, reasonably-priced instruments, some advanced students may wish to pursue one of several “boutique” brands. This should be undertaken only with the advice and guidance of a qualified professional hornist.
- Muting and stopping. Horn players will eventually need to acquire a straight mute for passages so marked. An effect unique to the horn, called hand stopping, produces a very brassy, muffled effect. Traditionally, this is accomplished by completely closing the bell throat with the hand, though special mutes are available to make this easier. Stopping causes the pitch of the instrument to be altered, and notes will have to be fingered one half-step lower to compensate.
- Mouthpieces. Students that use school-owned instruments should still own their own mouthpieces, as they will be more likely to care for their own belongings, and will be able to get the best individual mouthpiece for each student.
- A daily warm-up routine of some sort is a must for all brass players, as these not only prepare the player for the day’s playing, but also reinforce the fundamental aspects of playing and even help prevent injuries from overexertion. Finding class warm-up exercises that exploit the best ranges of all the instruments is difficult – horn players are often left using difficult fingerings or playing in extreme ranges. One possible solution is to have the horn play in harmony with the other instruments in order to put hornists in a more “medium” range.
- Make sure players learn at least a short chromatic scale as early as possible. This will help to avoid a great many difficulties later on, as students will be familiar with a fuller spectrum of notes and fingerings.
- Intonation can be especially problematic on these larger instruments, and players should be aware that the 1-3 or 1-2-3 valve combinations are VERY sharp, and need to be compensated for by adjusting the hand position, using an alternate fingering, or “lipping” the pitch in order to correct intonation.
- Teach players to take a deep, low breath, and make sure they are blowing as efficiently as possible. Often students will try to do more work with the embouchure than with the air and tongue, producing a thin, strident sound. Have students use the air to manipulate the embouchure, rather than putting a great deal of direct pressure on the lips. This will help maintain a better tone quality and also gives students more playing stamina.
- Also, do NOT press the mouthpiece into the face. Use no more pressure than is necessary to create a proper seal between the lips and mouthpiece – to do otherwise is physically taxing and can cause long-term damage. As stated above, let the AIR do most of the work.

- Tonguing should be simple – just say “tah” (or “toh,” “tee,” or other manipulations). For multiple-tonguing use “tu-ku” for double tonguing and “tu-tu-ku” or “tu-ku-tu” for triple tonguing.
- Scales and arpeggios should be learned, memorized, and practiced EVERY day.
- As with all instruments, individual practice is a MUST, and obtaining a private teacher is HIGHLY desirable.
- Clefs and transposition. Horn music in bass clef is sometimes encountered, with most newer bass clef parts having the sounding pitch a perfect fifth lower than written, just like in treble clef parts. Occasionally a bass clef part in “old notation” will be encountered, with the sounding pitch a perfect fourth higher than written. Horn parts transposed for keys other than “F” are sometimes encountered in older orchestral and solo works (and band works for horn in E-flat), so advanced students will eventually want to develop transposition skills. Learning bass clef and transposition is perhaps best undertaken with the guidance of a qualified professional hornist. Besides, only the most advanced students will need to address these.

Assembly, Lubrication, Care

- Assembling the horn is simple – place the mouthpiece in the receiver and twist. Do NOT hit the mouthpiece. If you have a screw-bell instrument, attach the bell flare to the throat and thread them together.
- Lubrication. Lubricate rotary valves by placing rotor oil on the spindle under the valve cap and under the stop screw, and on all moving parts. Remove the valve slides and squirt some regular valve oil down into the valves for even faster action (excess will have to be emptied). Do NOT allow students to remove rotary valves. You can do this to clean them if you so desire – instructions for the process can be found on various Internet sites. If in doubt, leave this to repairmen. Tuning slides require just a small amount of tuning slide grease to keep them moving.
- If you have to restring a rotary valve (some horns today have mechanical linkages, though), follow the instructions at the following site: http://www.morehead.edu/files/fs/l.hammon/restring_valve.pdf.

Suggested Method Books for Individual Practice

- Galla: *12 Studies*, Op. 57
- Galla: *30 Studies*, Op. 13
- Getchell, R.W.: *Practical Studies for Horn*, vols. 1 and 2
- Kling, H.: *40 Characteristic Etudes*.
- Kopprasch, C.: *Sixty Selected Studies for Horn*, vols. 1 and 2
- Pottag, M. and Andraud, A.: *Selected Melodious, Progressive, and Technical Studies*
- Pottag, M. and Hovey, H.: *Pottag-Hovey Method*
- Schantl, F.: *Grand Theoretical and Practical Method*
- Skornicka: *Rubank Elementary Method for Horn*

Suggested Reading

- Farkas, Philip. *The Art of Brass Playing*. Rochester, New York: Wind Music, Inc., 1962.
- Farkas, Philip. *The Art of French Horn Playing*. Evanston, Illinois: Summy-Birchard, 1956.
- Fasman, Mark J. *Brass Bibliography*. Bloomington, Indiana: Indiana University Press, 1990.
- Hill, Douglas. *Collected Thoughts on Teaching and Learning, Creativity, and Horn Performance*. Miami, FL: Warner Brothers Publications, 2001.
- Morley-Pegge, Reginald. *The French Horn*. New York: W.W. Norton, 1973.
- Reynolds, Verne. *The Horn Handbook*. Portland, Oregon: Amadeus Press, 1997.
- Schuller, Gunther. *Horn Technique*. London: Oxford University Press, 1962.
- Tuckwell, Barry. *Horn*. London: Kahn and Averill, 2002.
- Tuckwell, Barry. *Playing the Horn: A Practical Guide*. London: Oxford University Press, 1978.

Suggested Instruments

- Single F Horns
 - Yamaha YHR-314
 - Conn 14D

- Professional Double Horns
 - Conn 6D, 8D, 9D, 10D, 11D
 - Holton H-177, H-179, H-180, H-181
 - Yamaha YHR-567, YHR-668, YHR-668V

Suggested Mouthpieces

- Bach 11, 15*
 - Holton MDC
 - Holton VDC
 - Schilke 27*, 30
 - Giardinelli C12, C10, S15, G17
 - Yamaha 30C4*
- *These are recommended beginner mouthpieces.

Prominent Players (worth listening to)

- Dennis Brain (deceased)
- Dale Clevenger
- Verne Reynolds
- Philip Farkas (deceased)
- Philip Myers
- David Ohanian
- J.D. Shaw
- Barry Tuckwell
- Douglas Hill
- David Jolley
- Eric Ruske
- Gail Williams
- Frøydis Ree Wekre

Online Resources

- International Horn Society. <http://www.hornsociety.org>
- Hornplayer. <http://www.hornplayer.net>
- The Horn Player's FAQ. <http://www.boerger.org/horn/faq.shtml>