

## HOW TO BUY A BASSOON

By Wendal Jones

Most people think the bassoon is the most unique wind instrument of all. Unmistakable in sound and appearance, it is more easily recognized than the other woodwinds. The flute, clarinet, oboe and saxophone families are

comprised of several different sizes but each family generally has the same look, from small to large, yet none look remotely like the bassoon. A close relative of the bassoon, the contra-bassoon is twice as big, so it must be doubled up a couple of times so that the instrument may be held more easily. Although there are miniature bassoons that have gained some popularity in Europe, they are used mainly for teaching very young players who cannot manage to hold or finger a regular bassoon, let alone a contra-bassoon. There is no sizable repertoire for these small instruments and they are unknown in orchestras or bands.

For the most part, the bassoon is an ensemble instrument with an occasional solo passage providing just the right touch (oftentimes humorous) to a composition. The bassoon is also known for its plaintive voice in the orchestra. Solo passages like those found in the slow movement of Tchaikovsky's Fifth Symphony and several in Scheherazade by Rimsky-Korsakov come to mind here. The bassoon is found in the symphony orchestra, concert bands, and in chamber music groups and there are some dazzling concerto soloists, too. The instrument is not generally found in jazz bands, although there have been some wonderful jazz bassoon soloists in the second half of the 20th century, notably Stuart McKay of Florida. Are bassoons found in marching bands? Good heavens no, not in the traditional sense anyway! However, each summer for over 20 years, this writer has played in a "Royal Band" comprised of 24 oboes, 18 bassoons, two contra-bassoons, 12 horns, eight trumpets, and percussion for a performance of George Frederick Handel's Music For The Royal Fireworks. The group marches, while playing, through the crowd of about 40,000 spectators toward the performance stage on a floating barge so there are exceptions. The bassoon is a bit awkward to hold in playing position while marching, and also is fairly heavy, so extended playing while standing or marching is unusual.



### Background

The bassoon family dates to medieval times and there are many early works of art depicting groups of musicians usually in a homelike or church setting including one or more bassoon players. Various ancestors of the bassoon were often made in one piece, from a very long piece of wood. The Pommer was a bassoon-like instrument that found its place as a bass instrument to accompany church choirs and other ensembles.

Pommers were cumbersome instruments so they were gradually replaced by the bassoon, which finally was constructed as a long conical tube made of wood, with two holes bored lengthwise. When the bottom was stopped with a u-tube, the instrument was reduced to a length suitable to play low notes and yet it eventually had nearly a three-octave range, but in a size that could be managed by the players.

Larger ensembles, such as military or civic bands, frequently played for outdoor functions such as concerts and parades, and there are even a few illustrations showing bassoonists and other wind players performing on horseback! The earliest bassoons had no keys at all so the bigger the instrument, the harder they were to play. This is because the holes had to be placed far apart, therefore making fingering a real stretch. Even today, construction of the bassoon relies on boring of the finger holes at angles so that three or four notes of the scale can be within a hand's reach. A few manufacturers today produce a "short-reach model" and these are a big help to young players or even professionals with small hands.

During the Baroque period, the bassoon emerged as one of the main wind instruments, usually doubling the bass line of choral, opera and early symphonic pieces. Also, the bassoon became one of the most popular solo concerto instruments in that time. For example, the great Italian composer Antonio Vivaldi composed 37 concertos for the instrument and countless other composers of the time wrote solo pieces, too.

The late 17th and early 18th centuries saw an organized effort to have wind instruments play together in a group, and this was especially true of the court of Louis XIV of France. His ensembles produced a forum for many

outstanding musical works that even today are recognized as masterpieces. The standard woodwind octet of two oboes, two clarinets, two horns and two bassoons (called a woodwind octet even with the addition of French horns) was developed first in the French court. Later, Haydn, Mozart, Hummel and others used this instrumentation. Over time, the format became a standby for outdoor concerts and entertainment, a tradition that carries on to this day nearly everywhere in the world. Increasing activity for the bassoon made the addition of keys imperative, especially as composers became more interested in exploring and expanding tonality. The idea of playing an instrument in any key was fairly easy for string players but was, for the most part, nearly impossible for early wind players. Early brass instruments were made to be played in specific keys, but this was not the usual thing with bassoons, oboes and other woodwinds.

Well into the Classical period, players were used to inventing all kinds of unusual fingerings, which were sometimes sonically unbearable. Gradually, fingering charts were published that helped unify playing technique, but inevitably the musicians themselves encouraged instrument-makers to add a key here and there until a full chromatic scale could be played.

Thanks to Theobald Boehm and some other innovators in the 19th century, entire key systems were developed to make fingerings easier for woodwind instruments.

Unfortunately, to this day, bassoon and oboe players have not widely accepted these "modern" developments. The flute became a standardized instrument under Boehm's guidance and the saxophone, invented in 1840 by Adolphe Sax, relies on a scale with fingerings very similar to the Boehm system. The clarinet family is still divided with the French and the Americans using the Boehm system while the Albert system is still in vogue in parts of Europe, especially Germany and Austria. The oboe and bassoon families have become extremely sophisticated but do not follow the Boehm system. One of the main differences that Boehm developed was to have the distance between the left hand (upper joint) and the right hand (lower joint) be a whole-step. Raise the first finger on the right hand and you get a whole step. Therefore, the scale of the clarinet employs a major scale with B-flat to C between hands in the low register and F to G in the upper register. For the flute it is F to G in two octaves; same with the saxophone. So is it any wonder that saxophonists double on flute? No such luck in the case of the oboe or bassoon. The oboe has a half-step between hands: F-sharp to G in two octaves and the bassoon B to C in two octaves. This may not seem like a big deal, but it is one of the reasons you see so many keys on oboes and bassoons. For example, on the bassoon, to play notes a step apart (B-flat to C), three fingers are used, not just one, as in the Boehm system. On the oboe, to play F to G you raise three fingers. Or you can use one of two other contraptions commonly found on modern oboes. Another unusual complication for the bassoonist is that, unlike the other woodwind families, no real octave or register key exists. Bassoon players rely on no less than four ways to cause notes to speak in a higher octave including the use of the "whisper key," the "half-hole technique" and the "flicking" technique, all of which can be learned as part of the music education process.

Happily, an octave key does exist on the contra-bassoon and, just in case, the contra has two of them one for medium-high notes and another for even higher notes.

At the present time oboists do not seem to be interested in changing from the system perfected over time, but a move is afoot among bassoonists to change the key system. The goal is to possibly simplify the fingering and to make the instrument more versatile.

### **French or German system?**

The key system for the modern bassoon is, quite simply, a descendant of the Baroque bassoon. Keys have been added over time, especially after 1825, when two German bassoon makers, Heckel and Almenraeder, collaborated on a design that has to this day become accepted nearly worldwide. The Heckel factory is still located in Biebrich, a suburb of Wiesbaden, Germany, and has been at the same location since 1831. The German system is known as the Heckel system, and although instruments produced by Heckel still conform somewhat to the early system, a rather standard key system has been used since the early 20th century. It is also possible to order an instrument with choices from a large variety of special keys, wood finishes, and even tuning options. A visit to the Heckel museum (by invitation only) is a surprise indeed. It includes prototype instruments from various eras, along with experimental instruments, some that seem like hybrids. All are fascinating and they pique one's interest in instrument



manufacturing trends. There are other manufacturers, some in business for many years, in Europe, the United States, Japan and China who openly copy the Heckel system as standard. Some of them also offer a variety of specialized keys and the like. All seem to be getting better as time goes on. To this day another bassoon system, the French bassoon (basson), commonly known as the Buffet system after its principal manufacturer, exists alongside the German system. The instrument looks generally like other bassoons, but the key system is somewhat different. Acoustically speaking, the French and German instruments are similar, yet distinctive in sound, and have the same lowest note, B-flat below the bass clef staff, but the French instrument is capable of playing more easily in the highest register. As can be imagined, the French orchestral, chamber music and solo repertoire can provide some difficult challenges for players of the Heckel system. The construction of the French bassoon and its key system make the extreme high notes much more accessible. This reminds the author of certain "career moments," including a week-long tour with a fine chamber orchestra where the repertoire included Suite For Small Orchestra by Jean Francaix. The slow movement features a lone bassoon wailing up very high. Even though the "wailing" went fine, it is still something not to be forgotten having played the piece on the German bassoon. Any principal bassoonist who has played the opening to Stravinsky's Rite of Spring can easily recall the details of those performances. Even though Stravinsky was a Russian, he wrote this famous ballet for a French orchestra. Ever since that time the solo passages have been a good challenge for bassoon players, especially those playing German system bassoons, because the high register is emphasized. Another valid question could be: "Why not use the French system instead of the German system?" The answer lies in preference of sound. There are probably no bassoonists in North American orchestras that regularly play the French system in professional orchestras while in France the German system has only recently received some acceptance.

### **How hard is it to play the bassoon?**

For starters, the bassoon is the only mainstream instrument besides the piano that uses all 10 fingers. The bassoon is a bit large for youngsters, mainly because of the stretch for the fingers. Most every professional teacher would agree that previous musical experience can be very helpful and transfer from any of the other woodwinds would be a plus. The author has also had excellent results switching players from brass instruments, the embouchure being surprisingly similar. Of the woodwinds, the bassoon is the most difficult to play in tune, so some simple testing of pitch discrimination would be beneficial for the student before getting started.

### **Acquiring your first bassoon**

Very few beginning bassoonists are able to buy their own instruments because of the initial cost, so school systems often are required to furnish a bassoon if they want to round out the instrumentation of performing groups. Having a real professional bassoonist try the instrument before the student proceeds with instruction can be worth a lot. A professional can spot problems immediately (ranging all the way from bent keys to loose pads or cracks) and will make recommendations for adjustment and repair. Most professional players are not repair technicians, but they can spot problems quickly. Almost no school-owned bassoons are in playable condition when they are checked out to students.

Assuming that the student has used a school instrument for a few months or years, buying an instrument should be considered, especially if the student intends to pursue further study in college or beyond. A top quality used instrument can be very useful and satisfying but usually will require restoration. This work is often beyond the normal concept of adjustment and repair and could cost considerably more than the original price of the bassoon. The author has experienced this with his own instruments and also when helping students in this process. There are several very talented instrument repair people who now specialize in restoring bassoons. Some are so skilled that they are capable of making keys to add or replace on an instrument, to work on the bore of a bassoon and to possibly completely refinish the wood and silver keys.

The process is much easier if the student is able to purchase a new bassoon because of the variety of excellent instruments available. Prices vary considerably but the main problem is in finding one or more to

try out. Few music stores or mail-order vendors actually stock even one new instrument, but some dealers specialize in woodwinds so this kind of store is probably the best source.

#### **What to look for**

When trying an instrument, look down the bore of the "wing-joint" (the first joint made of wood). If the bore is straight and shows no scratches, this is a plus. Many used, and even a few new instruments have a scratched bore due to faulty swabs. Quite a few bassoons are furnished with the type of swab that has fuzzy yarn wound on a metal wire. It's usually quite scratchy, and this is a very bad thing to use on a valuable instrument.

Another important thing is the condition of the pads, corks and felts. The pads must seal so that the instrument will play notes properly, while the corks and felts are commonly used as bumpers or cushions for keys and rods as they work up and down or back and forth. When you finger the instrument, check to see if the keys make a lot of noise. If they do, chances are good that extensive repair work may be needed. If the long rods have play from side to side, excessive wear has occurred and the pads may not seat down properly on the tone holes. Periodic lubrication of the pivot screws will help prevent this typical problem. If the large pads seem to be unusually open above the tone holes, this may indicate that one or more corks or felts are worn down and this will cause the instrument to be strangely out of tune, usually on the sharp side. Also a very important part of the bassoon, the bocal(s) should have no dents or other damage, since intonation and tone quality will surely suffer.

#### **What to expect in a new instrument**

The body of a new instrument can be made of wood or polypropylene and it should be sturdily constructed. The bassoon should have two bocals, normally a #1 and a #2 for tuning options. The key system should have a full 22-key format with a range from B-flat below the bass staff up to at least high C, equivalent to third space, treble clef. In addition to normal key-work, the instrument can be greatly enhanced by adding some keys and other fixtures: Whisper-key lock (right or left hand), hand rest mount, seat-strap mount, high D key, high E key, left-hand E-flat trill key, body lock, high A bridge plate, A-flat trill key, right-hand E-flat trill key, low C extension plate, extra rollers on right-hand thumb keys. Other options are available, but these, in preferential order, are the most common.

#### **Accessories and helpful supplies**

Most new instruments come with a small flannel cloth, which is normally used to polish the keys and also to place between the wing joint and long joint while the instrument is stored in the case, thus preventing scratches in the wood. Another crucial item is a swab, and the very best are the silk swabs that can be pulled all the way through the wing joint and also through the boot joint (around the u-tube). A good seat-strap is essential and a cushioned neck-strap is very helpful when playing standing. Every player should have a reed-case to store reeds.

Even though a player may not make his/her own reeds, it is also worthwhile to have a small pair of pliers to adjust reed openings, a reamer to make reeds adaptable to the bassoon's bocals, and a knife or file to help in modifying reeds. A reed soaker that attaches to a music stand is also very useful.

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