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Queen City Brass

Brass Quintet Performance



Classroom photo by Rich Sofranko

STUDY GUIDE

Written by Queen City Brass

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Artists on Tour

PROGRAM

Queen City Brass will tailor their performances to meet educators' needs. Below is a selection of topics to choose from:

- **John Williams, Super-Composer!**—Queen City Brass performs music by TV and movie soundtrack composers Lalo Schifrin (Mission Impossible), Monty Norman (James Bond Theme), Henry Mancini (Pink Panther), and selections from John Williams. Throughout the performance, they will discuss the elements of music that help to convey a variety of emotions such as excitement, happiness, grief and fear.
- **Gershwin and All That Jazz**—Queen City Brass performs a medley of music by George Gershwin and other jazz composers. They intersperse the performance with discussion of musical terms such as syncopation, improvisation and blues notes, and talk about the powerful influence of African and African American music on the jazz idiom.

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QUEEN CITY BRASS

Steve Pride, Trumpet

Steve joined the Queen City Brass in 1980, and the same year was appointed second trumpet with the Cincinnati Symphony Orchestra.

Christopher Swainhart, Trumpet

Chris is the Principal Trumpet of the Kentucky Symphony and the Lebanon Symphony Orchestras. Chris founded the Queen City Brass in 1979 with former horn player Dennis Hanthorn.

Charles Bell, Horn

Charles Bell plays French horn with the Cincinnati Symphony Orchestra. He is a graduate of the University of Cincinnati College-Conservatory of Music.

Peter Norton, Trombone

Former Principal Trombone with the Montreal Symphony Orchestra, Peter Norton currently plays Bass Trombone with the Cincinnati Symphony Orchestra. He is a graduate from the University of Cincinnati College-Conservatory of Music.

Walt Zeschin, Tuba

Walt Zeschin is a former Principal Tuba with the Colorado Symphony, and is currently Personnel Manager of the Cincinnati Symphony Orchestra.

WHAT IS A BRASS INSTRUMENT?

Before getting into the history of how brass instruments and music originated and developed it is necessary to be clear on what a brass instrument actual is. The technical term for a brass instrument is aerophone, which means the musician must blow air into the instrument. The musician produces the tone by buzzing his lips into what is generally a cup-shaped mouthpiece. It does not mean that the instrument is necessarily made of brass, since instruments that are made of other metals, wood, horn, or even animal bone are included in the family of brass instruments. Likewise, other instruments that are made of brass or metals, such as the flute or saxophone, are not members of the brass family of instruments.

Brass instruments, as all instruments, are dependent on the overtone series which the Greek philosopher Pythagoras studied and analyzed. It basically states that a string or, in the case of a brass instrument, tube will tend to vibrate at certain frequencies based on the length of the string or tube. The fundamental pitch is the lowest natural note. Other possible notes are, following Pathagorus' formula, one octave above the fundamental, followed by a perfect fifth above that, followed by a perfect fourth, and on up.

Because the overtone series leaves a lot of gaps between pitches, musicians and instrument manufacturers developed ways of playing the notes in between. Modern brass instruments usually alter the length of the tubing through valves. The slide, still used by trombonists today, was one of the earliest methods of changing the length of tubing. Other methods of producing additional pitches include replacing different lengthened crooks in the instrument and placing the hand deep into the bell, in the case of early horns, to alter the pitch.

VOCABULARY

CROOK– a curved segment of tubing that can be inserted into a brass instrument, especially a natural horn or trumpet, in order to alter its fundamental pitch

DIATONIC – of or relating to a major or minor musical scale comprising intervals of five whole steps and two half steps

OCTAVE – a musical interval embracing eight diatonic degrees; the whole series of notes, tones, or digitals comprised within this interval and forming the unit of the modern scale; the interval between two frequencies having a ratio of 2 to 1

FIFTH – the musical interval embracing five diatonic degrees; a tone at this interval; the harmonic combination of two tones at this interval

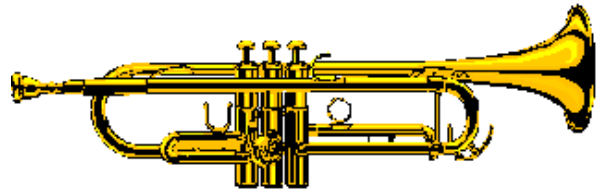
FOURTH – a musical interval embracing four tones of the diatonic scale; a tone at this interval; the harmonic combination of two tones a fourth apart

OVERTONE – one of the higher tones produced simultaneously with the fundamental and that with the fundamental comprise a complex musical tone

(Merriam-Webster Dictionary)

TRUMPET

The trumpet has evolved more than any other instrument known to modern day society. Its long history began with ancient people using hollow materials such as animal horns and sea shells to amplify sound. Since then, many alterations have been made, and the trumpet is almost a whole new instrument from what it was thousands of years ago. The trumpet has been used in numerous settings, ranging from war battles to weddings.



The oldest evidence of trumpets has been found in Egyptian drawings, dating to 1500 BC. They have been found in King Tutankhamen's tomb, among others, which dates back to about 1353 BC. In Egypt, they were probably used for communication purposes, like signaling in battle, or announcing someone's arrival. Trumpets continued to be used for these purposes because it was restricted to playing only the natural tones (the overtone series), until the 1800s when valves were added. In the 1600s, musicians developed the ability to play very high in the range of the instrument. In the high range, the notes of the natural or overtone series are closer together, thus enabling the performer to play compositions utilizing a full scale.

Early versions of the trumpet have been found in Rome, Israel, Greece, South India, China, Tibet, and Japan. The dung, the version of the trumpet used in Tibet, is still in use today. It is almost 15 feet long. The Olympics in Greece included a trumpet playing competition. In Rome, Tibet, and Israel, the instrument itself was considered sacred. These areas only allowed priests to play the trumpet. In the Bible, trumpets are symbolic for the voices of angels.

The Middle Ages started off a major revolution of the trumpet. Although trumpets continued to be used as devices for frightening opponents in battle, during rituals, for signaling over long distances, and making announcements, trumpeters started to compose music for their instrument as entertainment. However, it was not until the Renaissance when trumpeters seriously began to make music, instead of just playing fanfares and battle calls. At this time, trumpeters gained status in society, and were employed more often in the royal courts. A new kind of trumpet, the slide trumpet, was invented, allowing it to play a wider range of notes. The problem was that composers wanted the trumpet to be quicker and more agile than a slide would allow. Because of this limitation, the slide trumpet was never widely used.

In the 17th and 18th centuries, the natural trumpet gained popularity. The natural trumpet was a valveless tube, coiled up like a garden hose, with a bell at one end. Famous composers like Bach, Michael Haydn, Leopold Mozart, and Handel wrote for this instrument. As trumpet players performed more composed songs, a new style of playing called clarino developed. Clarino playing was done in the high range of the instrument, high enough in the natural scale of harmonics that notes formed a

complete scale. Trumpeters were trained specifically for this high playing. Keep in mind that the natural trumpet was made of valveless hollow metal tubing, wound up in a circular fashion, with a bell coming out one end. How musicians were able to play clarino concertos well on this instrument still amazes the best trumpeters of our time.

Instrument manufacturers in Germany and England made trumpets in different keys, usually D or E-flat, with a shallower mouthpiece. These new ideas helped the trumpet to play more in tune and easier to hit the high notes. Nevertheless, the instrument still lacked the wide range of repertoire present for other instruments at the time.

The early 1800s saw a decline in the popularity of the trumpet. The same notes and sound were growing out of style, and were said to be too courtly. To solve this problem, Anton Weidinger of Vienna invented the key trumpet in 1801. Although they were an improvement, they never gained in popularity. The keys were like those of a saxophone, and the instrument produced an uneven, muffled sound. Thus, they were never widely used. In order to develop a nice sounding instrument that could play more than just the natural tones, valves were added in 1813. The trumpet now was able to play a full scale in a comfortable and practical range, and its use in orchestras was greatly increased. Composers like Berlioz and Rossini, and later Stravinsky and Shostakovich, now wrote trumpet parts into their works. Their parts could contain anything from a gentle, soothing sound, to a mean, brash tone. The inventing did not stop at the B-flat valved trumpet. Among those trumpets produced were valved trumpets in different keys, bass trumpets, piccolo trumpets, rotary trumpets, cornets, and even pocket trumpets.

From the late 19th century into the 20th century, many new styles of music were appearing, such as folk blues, big band, ragtime, and swing. The trumpet, being a melody instrument, became a part of many of these new art forms. Starting around World War II, the trumpet began to be used extensively in jazz. It became the lead instrument, because of its versatility in playing both mellow sounding parts, brassy parts, and just about everything in between. When necessary, the trumpet can be loud enough to be heard clearly in almost any setting, from concert halls to noisy night clubs. The style of jazz playing and jazz techniques truly pushed the limits of the instrument and the player. Techniques developed for jazz are now increasingly being seen in new classical works, making it more essential for trumpeters to have knowledge of both musical styles.

How VALVES WORK

With none of the valves pressed down, the air travels the shortest possible route through the instrument. If a valve is pressed down, the air is rerouted through the valve to an extra piece of tubing, and then sent back to the valve and out the other end of the valve. The whole process lowers the pitch. If more than one valve is pressed down, the air goes through the valve and tube farthest from the player first, and works its way through the other valves and finally out through the final piece of tubing connected to the bell.

THE HORN

The horn is a somewhat large, coiled wind instrument that produces a mellow, velvet tone. The horn is usually keyed in F and B-flat. Three valves on the horn lower the tone a half tone, whole tone, and a one and one-half tone. The horn is also referred to as the F Horn, the double horn, and to complete beginners and non-horn players as the French Horn. Although, the modern horn isn't French, it did derive from France.

In the late 16th century, the hunting horn emerged in France. This is the type of horn you might see on TV with the bloodhounds and the hunters on horses. Although this example might be referring to the British, it is the same type. In 1650, the hunting horn began to show up in the French opera and orchestra halls. In the mid-17th century, the hunting horns were used in operas, notably by Pietro Cavalli and Jean-Baptiste Lully. These horns were also used in the 18th century by Handel in *Water Music* and Bach in *Mass in B Minor*.

The hunting horns were then developed musically with the addition of crooks. Crooks are pieces of different sized coiled tubing that are attached to the lead pipe of the horn. They lower the horn to the desired key. The more crooks added, the lower the key.

The 18th century was a time of change for the horn. Musicians, blacksmiths and many others tried several ways to add types of valves to arrive at a chromatic series. Many types of piston systems and rotary systems were used, none of which were readily accepted. In 1815, a two-valved system came about and was later replaced by the three-valve system of today. The first opera to use the valved horns was *La Juive* by Fromental Halevy. Also, Wagner used them in his early operas along with a pair of valveless horns.

In about 1900, Fritz Kruspe came out with the modern, standard horn. It combined the horn in F with the horn in B-flat. The double horn invention was probably the greatest thing that happened to the horn. The double horn provided a good high register with the B-flat horn and a good low register with the F horn. Together, these two horns provide a very wide range of possible notes with no chromatic gaps. Eventually, horn makers began making variations on the Kruspe design. The Geyer wrap, introduced by Carl Geyer, is probably the next most popular of horn designs. This wrap placed the thumb valve on the far side of the Horn, next to the third valve. Kruspe's wrap placed the thumb valve on the near side, close to the first valve. The more popular wrap is the Kruspe design.



CHROMATIC – the scale that includes all of the 12 pitches (and thus all of the 12 semitones) contained in an octave (*The New Harvard Dictionary of Music*)

Source: *The New Harvard Dictionary of Music*

TROMBONE

The earliest evidence suggests that trombones first appeared in southern France or northern Italy sometime in the 15th century. Their ancestry, though vague, probably lies with the longer medieval trumpet.



By the 16th century, the trombone was well established in England and on the Continent; and Nuremberg, Germany had become a center of trombone making. The earliest surviving trombones are by Erasmus Schnitzer (Nuremberg, 1551) and Jörg Neuschel (Nuremberg, 1557). The first half of the 17th century is represented by many more surviving specimens as well as by good written descriptions by Michael Praetorius, Marin Mersenne, and Daniel Speer.

Trombones of the 16th and 17th centuries are surprisingly similar to modern instruments. Not only are the basic proportions the same, but they were made in the same sizes, with the tenor in B-flat, then as now, being the most common member of the family. The bell was not flared as widely, loose stays with hinged clasps held the instrument together, and the slide may not have worked as freely. But a modern performer would have little difficulty understanding the instrument and negotiating parts written for it. During this period, trombones were regular members of town and court bands. With cornets they were the principal instruments used to support singing in many churches and were most effectively used in works of Giovanni Bardi and Schütz.

During the 18th century, the trombone received a more widely flared bell, and loose stays were replaced by firmly soldered braces. The earlier part of that century also saw a general decline in the use of the instrument. But this trend was reversed later in the century when military bands found the trombone useful and when its ecclesiastical and supernatural associations drew it into the opera orchestras of Gluck and Mozart.

In the late 18th and early 19th centuries, some communities of Moravian immigrants in the U.S. used the trombone choir extensively for community and religious activities. Until the invention of the valve, trombones and some slide trumpets were the only brass instruments capable of performing the parts of a chorale.

By the 1830s, valve instruments flourished in most military bands. The valve trombone without slide was made as early as the late 1820s, and F valve attachments for the tenor slide instrument were invented by 1839. In the U.S., slide trombones with bells pointing to the rear over the player's shoulder were in use by the late 1830s.

Slide trombones in alto, tenor, and bass sizes were regular members of the symphony orchestra by the mid-1800s, though even then the alto part was sometimes played on a tenor. The use of a larger-bore B-flat trombone with valve attachment to F or E-flat bass instead of the regular bass trombone

begin in Germany in the early 20th century. This, together with the neglect of the alto, led to the present practice of using two B-flat tenor instruments and a B-flat/E or E-flat bass trombone for the usual three orchestral parts. The second and sometimes even the first player may also have a valve attachment to F because of its technical advantage as an alternate to the lower slide positions. The soprano trombone was revived briefly in the early 20th century for dance-band and novelty use, but was not very successful.

TUBA

The tuba (Latin “trumpet”) is derived from the ophicleide, a type of keyed bugle used in the 1800s before the musical community embraced valved brass instruments, the ophicleide itself the successor to the serpent. The Prussian bandmaster Fredrich Wilhelm Wieprecht and the German builder Johann Gottfried Moritz patented the tuba in 1835. It first gained popularity in the brass bands of Great Britain where a precursor to the modern sousaphone called the helicon was used for easier portability.

A variant based on the French horn was created by Richard Wagner for his *Ring* cycle of operas, and has since been called the Wagner tuba. In the 1860s John Philip Sousa commissioned an audience-friendly version of the helicon from C. G. Conn, and the instrument later called the sousaphone was born.

Since then, the general design has remained the same. The tuba as it is today is the lowest pitched of the brass wind instruments, with a wide conical bore, three or four valves and deep cup-shaped mouthpiece. Some interesting variations have appeared, including five and six valve instruments, rotary valves, fiberglass sousaphones and convertible tubas, designed exclusively to be used as both marching and concert instruments. Tubas now have the most diverse range of shapes and designs of any instrument, and the number increases drastically when tenor tubas (another name for the euphonium) are added.

Tubas are made in five different “keys” (BBb, CC, Eb, F, and the GG contrabass bugle.) All tubas are actually in the key of C (that is to say, they’re all in concert pitch). The key designations associated with different tubas refer to their ranges and fundamental pitches. Tubas feature bells up or front, 14 - 30 inches in diameter. They can be lacquered or silver-plated, with rotary or piston valves (or both), two to six valves, convertible or student



SERPENT – a wide-bore, lip-vibrated wind instrument made in an undulating serpentine shape of wood covered with leather; a relative of the Cornett (*The New Harvard Dictionary of Music*)

BORE – the cross section of the column of air contained in the tube of a wind or brass instrument (*The New Harvard Dictionary of Music*)

or professional models. Sousaphones add to that, as do tenor tubas (baritone or euphonium, bell up or front, one or two bells (the rarely-seen double-belled euphonium), three or four valves, compensating or non, silver or brass), obsolete instruments (ophicleide, bass saxhorn), and the ambiguous Wagner tuba. To see all this variety, one needs only to attend a Tubachristmas – the selection of instruments people bring to play is simply staggering.

EMBOUCHURE

The embouchure is made up of the oral cavity, lips, and facial muscles. To get a sound on a brass instrument, the lips must create a “buzzing” sound. This “buzz” occurs when a stream of air passes across the lips, and the lips are firm enough against one another to create friction as the air escapes. The hole where the air escapes the lips to enter the mouthpiece is called the aperture. As the lips buzz in the mouthpiece, the brass instrument amplifies the buzz, creating a tone. The faster the lips buzz, the higher the tone will be. The muscles surrounding the lips, and the muscles of the cheeks and jaw, work in tandem to control the amount firmness in the lips. To form a good embouchure, for any brass instrument, you must keep several things in mind:

1. The inside of the mouth, called the oral cavity, must be open and relaxed.
2. The tongue should be positioned on the floor of the mouth, as to not interfere with the air stream.
3. The jaw should be down and firm. Think about trying to point the tip of your chin down and diagonally in front of your body.
4. The aperture (the opening in the lips where the air escapes) should take the shape of an oval.
5. The corners of the mouth should be firm. The center of the lips should be together, but not forced against one another.
6. The mouthpiece should be placed on the lip correctly: for Trumpet, Trombone, Euphonium, and Tuba, the ideal placement is centered both vertically and horizontally. For the Horn, the mouthpiece should be centered from side-to-side, but it should be positioned 2/3 on the top lip, and 1/3 on the lower lip.
7. The lips should be moist, as to allow for flexibility.

EMBOUCHURE — 1. The mouth of a river; 2. Music. a. The mouthpiece of a woodwind or brass instrument. b. The manner in which the lips and tongue are applied to such a mouthpiece. (French, from emboucher, to put or go into the mouth, from Old French : en-, in; see en-1 + bouche, mouth (from Latin bucca, cheek).)

(The American Heritage® Dictionary of the English Language)

A BRIEF HISTORY OF BRASS INSTRUMENTS

Since the beginning of time, man has composed music, both instrumental and vocal. The very first instruments were probably part of the percussion family, used for tapping in a rhythmic beat. After that, people looked for things to amplify their own voice. Hollow wood, bones, grass stems, animal horns, and sea shells were spoken or sung into for this purpose. In order to produce any sound on a brass instrument, the player needs to “buzz” his or her lips. Somewhere along the line, it is believed that the first ancestor of the trumpet was played while trying to blow a sea animal out of a shell. Instead of blowing, the person buzzed into the shell. After this discovery, people started buzzing into hollow things to call from one person or group of people to another. Its primary use was for signaling and communication, in peacetime and in battle.

BRASS INSTRUMENTS AND MUSIC IN ANTIQUITY AND THE RENAISSANCE

Brass instruments have been around for a long time. Some of the earliest examples of brass instruments were straight trumpets made of wood, bronze, and silver, such as the salpinx found in Greece, and the Roman tuba, lituus, and buccina. Other instruments were horns made of bronze and animal horns. In Scandinavia the lur was one such instrument, as was the Roman cornu. The schofar is an ancient Hebrew brass instrument which is still used in Jewish ceremonies today.

During the Renaissance brass instruments began to develop more like the instruments used today. Around 1400-1413 the earliest known S-shaped trumpet was developed, which was later followed by the folded trumpet and slide trumpet. It was out of the slide trumpet that the trombone developed around 1450. This new instrument, commonly referred to as a sackbut, was a vast improvement over the awkward to play slide trumpet. Improved slide design also allowed a practical tenor range instrument, which has become the most common instrument of the trombone family. Also during this time, around 1500, large European courts would maintain corps of trumpeters used mainly for heralding. This early trumpet ensembles eventually progressed to include five part music, but there was little harmonic variety. Players tended to specialize in either the high range or low range. In 1597 Italian composer Giovanni Gabrieli, then the organist at Saint Mark's cathedral in Venice, composed the earliest known piece to call for specific brass instruments, *Sonata pian'forte*.

DEVELOPMENTS OF THE 17TH CENTURY

Around 1600 some instrument makers in Nuremberg improved the design of the natural valveless trumpet to function better in the upper overtones. The pitch of the instrument was changed by inserting terminal crooks for lower keys and tuning was accomplished by inserting small lengths of tubing to extend the mouthpiece. Music composed for these instruments was written in the upper register where the overtone series are closer together and capable of playing more scale-like passages. This is generally referred to as the clarino register. This clarino style of playing reached its peak near the end of the 1600s with solo concertos composed by Giuseppe Torelli, Domenico Gabrielli, and Giacomo Perti. Many of these pieces, along with music by Maurizio Cazzati and other composers associated with the basilica of San Petronio in Bologna, are still performed today.

Trombones continued to be widely used during the 17th century. They were regularly employed in all kinds of ensembles, such as court and municipal bands. Trombones were frequently used in churches to double the voices. A vocal-like style of playing developed for the trombones that was in contrast to the contemporary trumpet style.

The horn was still not frequently heard as a purely musical instrument during this time, although hunting horns were used on stage in some operas to help depict a hunting scene. The hoop-shaped cor de chasse became a common feature in the French hunting tradition.

DEVELOPMENTS OF THE 18TH CENTURY

In the 18th century the horn began to develop as an instrument capable of high musical expression, rather than as a mere novelty. Around 1700-1710 a Viennese instrument maker named Michael Leichnambschneider may have been the first person to put terminal crooks on horns in order to play in different keys. Around 1750 a hornist from Dresden, Germany developed the technique of adding pitches to the overtone series of the horn through various degrees of handstopping, which soon became standard practice for horn players.

Composers soon began taking advantage of the new technical facility developed by horn players and instrument manufacturers. Reinhard Keiser may have been the first composer to call for the horn with the orchestra in his 1705 opera *Octavia*. George Frederick Handel called for two horns on his 1717 composition *Water Music*. Franz Joseph Haydn composed his first horn concerto in 1762.

Composers also began writing solo works for the trombone during this time. Christoph Wagenseil, Johann Albrechtsberger, Michael Haydn, and Leopold Mozart all wrote solo pieces for alto trombone, which was the preferred solo trombone of the time. With the sacred associations of the trombone from the previous century it was natural for composers to utilize trombones to help portray religious

or supernatural effects in their operas of the late 18th century. Two of the most easily recognizable examples of this were Wolfgang Amadeus Mozart's *Don Giovanni* and *The Magic Flute*.

In the first half of the 18th century Baroque trumpet works reach its peak through the compositions of J.S. Bach, who wrote for trumpet virtuoso Gottfried Reiche. By 1760 the clarino style of trumpet playing began to decline due to changes of musical tastes and compositional styles. Ernst Altenburg wrote a treatise on natural and clarino trumpet playing called *Trumpeter's and Kettledrummer's Art* in 1795. The trumpet concerto by Haydn was composed in 1796 for the Viennese trumpet player Anton Weidinger.

DEVELOPMENTS OF THE 19TH CENTURY

The 19th century was the period of the greatest amount of literature and design developments for brass instruments. Although there is some controversy over exactly who developed valved brass instruments, it was around 1826 when a German valve trumpet was brought to Paris where it was copied. Hector Berlioz was the first known composer to use this instrument in his overture to *Les franc-juges* in 1826. In 1835 Halevy's *La juive* was the first score to call for valve horns. The custom of the period began to be to score for two valved horns and two hand horns. The cornet was developed around 1828 by Jean-Louis Antoine. This new instrument quickly gained popularity for its chromatic agility. The valve trombone was developed around 1828 and gain wide use in bands, but little use in orchestras. In 1835 the first tuba, a five-valved instrument pitch in F, was invented by Berlin instrument makers Wilhelm Wieprecht and Johann Gottfried Moritz. A tenor tuba was produced by Moritz in 1838 and the euphonium was invented by Sommer of Weimar in 1843.

By around 1890 the modern form of the orchestral trumpet became established. In France, England, and the United States piston valves were generally used, but rotary valves were more common in Germany, Austria, and Italy. It was around this time that the trumpet pitched in B-flat became most common.

With better designed brass instruments and improved technical abilities of brass musicians many composers began writing works that included more brass or solo works for brass instruments. Ludwig von Beethoven was the first major composer to include trombones in his symphonic works, scoring for three trombones in his 5th and 9th symphonies. This influenced other composers to add trombones to the brass section in their symphonic works. Beethoven also wrote his *Horn Sonata, Op. 17* for Giovanni Punto in 1800. Carl Maria von Weber wrote his *Concertino for Horn* in 1806. The *Concertino for Trombone* was composed in 1837 by Ferdinand David. Richard Wagner and Hector Berlioz begin to champion the use of the tuba in their works.

In 1864 one of the most influential methods of brass playing was published, J.B. Arban's *Complete Conservatory Method*. Although initially written for trumpet and cornet students, this method book has been transcribed, published, and used for almost all members of the modern brass family today.

THE 20TH CENTURY AND BEYOND

Brass music and instruments continued to be developed and innovative in the 20th century. The Belgian firm of Mahillon produced a piccolo B-flat trumpet around 1905 which was developed to assist trumpet players with Bach's *Second Brandenburg Concerto* and other works intended for clarino trumpet playing. Around 1950 American bass trombonists began experimenting with adding a second rotor valve to eventually produce the double trigger bass trombone.

Major composers continued to write solo works for brass instruments. Richard Strauss composed his *Second Concerto for Horn* in 1942. In 1954 Ralph Vaughan Williams composed his *Bass Tuba Concerto*. Brass musicians began to establish their instruments as major solo instruments as well. From around 1950 to 1957 English horn virtuoso Dennis Brain brought the horn to the forefront before an auto accident cut his career short. French trumpeter Maurice André began to popularize solo trumpet music and Swedish trombonist Christian Lindberg has developed a career as a trombone soloist.

Beginning around 1920 the jazz styles of trumpet and trombone playing became popular and began to influence how European art composers wrote for brass instruments. Trumpeter Louis Armstrong and trombonist Tommy Dorsey are only two of the jazz brass players whose technical abilities astounded classical musicians and helped to raise the standard of technical ability for brass musicians.

Performers, composers, and instrument designers continue to innovate brass music today. New instrument designs come out each year, new works are written for brass instruments, and many performers continue to stretch the boundaries of what is considered playable on the brass instruments. In spite of improvements in electronically produced sounds brass music continues to grow and thrive.

ACTIVITIES

1. Play a segment of a classical music song. Have student describe what emotion the music portrays. What do they think of when they hear the music?
2. Create a drawing or other artwork based on a piece of classical music. Listen to the music and draw what it makes you think of.
3. Create a movement piece based on a selection of classical music.
4. Name films, TV shows or commercials that use classical music. What is the name of the piece used?
5. **Research**

Pick a composer from the list below or another one and write a paper about him – background information about his life, what era did he live in, style of music, what are some of his major works, etc.

Johann Sebastian Bach

Ludwig van Beethoven

Johannes Brahms

George Frederick Handel

Joseph Haydn

Wolfgang Amadeus Mozart

Franz Schubert

Giuseppe Verdi

Richard Wagner

6. Sounds

- a. The human ear can only hear a particular range of sounds. It is more sensitive to middle high frequencies. Animals also have a particular range of sounds they can hear. Two examples: dogs can hear high pitches that humans cannot and elephants can hear pitches lower than humans can. Have the class compose a list of several different types of animals. Then have each student research one or two animals to find out what range of sounds (pitch and frequency) those animals can hear. Have the students place their animals on a chart (one for the entire class) so they may compare which animals can hear what range.
- b. Take a wooden spoon and hit/tap it against different objects, e.g., a pillow, a table, a metal desk, a wall, the window, etc. Have students compare the different sounds: Is it clear or muffled (quality/timbre)? Does it echo? Is the pitch high or low? How long does the sound last? Does it sound like more than one sound (overtones)?
- c. Water in glasses: fill several glasses of the same shape with different levels of water. Tap the glass near the rim with a knife or other piece of silverware. Students should compare the different pitches. Is the pitch higher or lower when there is more or less water in the glass?

7. Composing Sounds

- a. Patterns: Have students work in groups to create patterns with clapping and snapping. The teacher may want to do a few patterns with the class to get the students started. Examples: “clap-clap-snap-clap-clap-snap” or “clap-snap-clap-clap-snap-clap-clap-snap.” You may also want to throw in a slap on the thigh.
- b. After the groups have had time to experiment, have the students translate their clapping patterns into visual patterns using different colors, shapes or sizes. Example: if clap = red and snap = blue, then “clap-clap-snap-clap-clap-snap” would be “red-red-blue-red-red-blue.” Or shapes, “square-square-circle-square-square-circle” or combine the two. Then have students repeat the process experimenting with making the sounds faster or slower and translating that into a visual pattern. Then try longer and shorter sounds, or higher and lower pitches.
- c. Have students take the patterns they have created and put them together to create a composition. Students may also want to incorporate different sounds, such as, vocal sounds, a shaker can or drum.
- d. Either take a story the students are familiar with or have students write their own, and have the story correspond to the composition they wrote.