

Getting Down to Brass Facts: A Roundtable

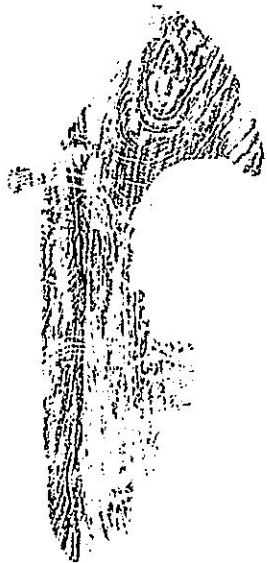
The basic skills and techniques of playing the horn, trumpet, tuba, trombone, and other brass instruments are quite similar. A brass player must master embouchure, breathing, articulation, and, on valved instruments, fingering. But the methods and concepts teachers use to help students develop these skills vary considerably. Differences in both philosophy and methodology are apparent in the following comments MEJ solicited from seven well-known brass teachers.



Woodcuts by Ila Mackell Neadra

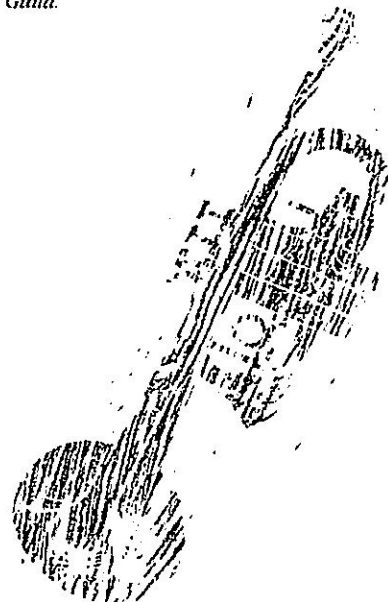
Michael Hatfield is adjunct professor of music at the College-Conservatory of Music of the University of Cincinnati. He is also principal horn of the Cincinnati Symphony. Since 1974 he has played co-principal horn in the Aspen Festival Orchestra and has served on the faculty of the Aspen Music Festival.

Abe Torchinsky is professor of tuba and euphonium at the University of Michigan. Previously he taught at Temple University, the Curtis Institute of Music, the Philadelphia Musical Academy, and the Catholic University of America. From 1946-49 he played solo tuba in the NBC Symphony Orchestra under Toscanini, and from 1949-72 he played solo tuba in the Philadelphia Orchestra under Ormandy.

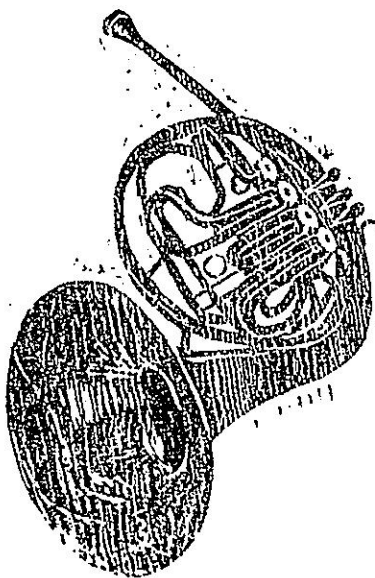


Tom Ervin is professor of low brass at the University of Arizona at Tucson. He is also president of the International Trombone Association and principal trombonist with the Tucson Symphony and the Arizona Opera Company.

Vincent Cichowicz is professor of trumpet at Northwestern University. He has played in the Houston Symphony Orchestra, the Grant Park Symphony Orchestra, and the Chicago Symphony Orchestra and Brass Quintet. He has served as a clinician in various colleges and universities and was on the founding committee of the International Trumpet Guild.



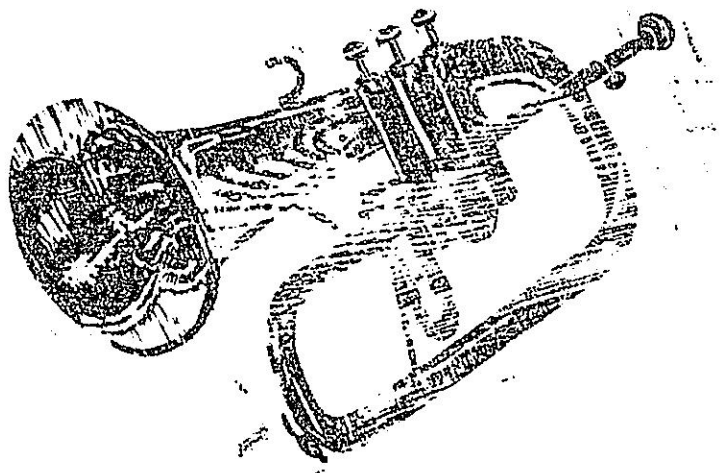
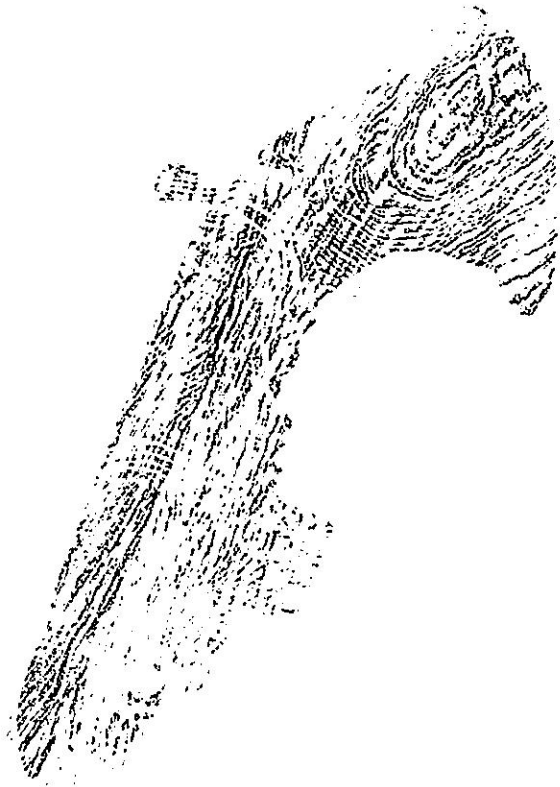
Betty Glover is adjunct associate professor of brass instruments and conductor of the brass choir at the College-Conservatory of Music of the University of Cincinnati. She also has played bass trombone and tenor tuba with the Cincinnati Symphony Orchestra since 1952. She teaches privately in the Cincinnati area and previously taught trombone and euphonium at the College-Conservatory of Music.



Philip Farkas is professor of music and horn at Indiana University, Bloomington, Indiana. In the past, he has played principal horn with the Chicago Symphony, the Cleveland Orchestra, the Boston Symphony Orchestra, and the Kansas City Philharmonic.

John Marcellus is professor of trombone at the Eastman School of Music of the University of Rochester, New York. Formerly principal trombone for the National Symphony Orchestra, he also has played with the Baltimore Symphony Orchestra and the U.S. Navy Band. He has taught at American University, North Carolina School of the Arts, and Howard University.





Q. How do you teach breathing to a beginning brass player?

Glover

If the beginning student is quite young, I introduce the breathing technique with minimal explanations and many demonstrations. The teacher needs to be most alert at this stage of development to prevent the student from forming incorrect breathing habits. As the student progresses and matures, I find that greater emphasis and a more detailed explanation of the breathing process is in order.

If I am teaching an older beginner, it is quite possible and usually beneficial to explain the breathing process in depth during the first lesson. Often students can relate the sensation of deep breathing so necessary for low brass instruments to the type of breathing they know from athletic participation.

Cichowicz

All the skills required of a brass player are based on the technique of respiration. Basically, it consists of two phases, inhalation and exhalation. The inhalation process consists of drawing air into the lungs in much the same way as in sighing or yawning, except in

a deeper and more expanded way. This process is the correct physiological activity that is necessary to fill the lungs properly, and it enables the respiratory system to properly expel the breath.

For the exhalation of the breath, I ask the student to imagine blowing out a candle through pursed lips. The air stream must be continuous and directed toward some distant object. Since music is notated vertically on the page, I emphasize that the air stream must be directed horizontally for all tones. This helps the student maintain the energy necessary to produce notes clearly in all registers. I prefer goal-oriented instruction to a discussion of specific physiological activity, which can be confusing rather than helpful to the student.

Farkas

I remind the student that breathing is a natural activity so it will be no great problem to breathe correctly while playing a brass instrument. I believe that often too much stress is placed upon this quite natural act, to the point that the student becomes terrified that he or she cannot do it correctly. My advice to students is, "Relax, this is very similar to ordinary breathing except that we are going to use bigger quantities of air and we are going to inhale quickly and exhale slowly."

For inhalation, I emphasize the idea of taking in a copious quantity of air

quickly and silently, using the same type of inhalation you would take if you were suddenly doused with ice water on a hot summer day. I also remind the student that it is not always wise or necessary to inhale deeply for short, soft passages. He should learn to judge how deep the breath should be for a forthcoming passage—a skill that becomes accurate with practice. Too deep a breath is as bad as one too shallow, because having stale air left over before the next breath is detrimental to the music as well as to the health.

For the exhalation part of the breathing cycle I explain that the muscles used for pushing the air through the horn are the same as those used for coughing. I ask the student to cough once or twice and observe which muscles contract spontaneously. Then I ask for a long, steady, extended "cough," reminding the student to use the same muscles as were used for the short, spontaneous cough. These are the muscles to be used when blowing the horn.

But more important than dwelling on the muscularity involved should be the desire to obtain the tone, volume, and steadiness necessary to make the music beautiful. If I can get students to play with a big, round, steady, resonant tone, I do not really worry as to how they achieve it, since it only can be correctly obtained through the support of the diaphragm and intercostal muscles. I emphasize the needed musical result and



assume that the musical instinct of the student, plus the sensation of the sustained "cough," will bring about the result.

Torchinsky

I teach breathing in these steps. (1) Sit on the edge of a chair, bend over, and place the elbows on the knees. (2) Take in a full breath of air quickly, as if to gasp or sigh. (3) Hold the breath and observe how the back and abdomen have expanded to hold the air in the lungs. (4) Quickly exhale all the air in the lungs using a hissing sound. Notice how the back and the abdomen have contracted from the release of the air in the lungs. (5) Sit up straight and place the thumbs and fingers of both hands around the body at the lowest rib and repeat the procedure. The next step I teach is how to sustain the air stream.

Hatfield

Breathing divides itself into inhalation and exhalation. When inhaling, all throat passages should be as open as possible so that the air can freely enter the lungs. The abdominal muscles also should be relaxed so that as the diaphragm descends and the internal organs are pushed lower, an expansion in the abdominal area results. The shoulders should not rise nor should the chest pull up. This combination should give the feeling of "breathing low."

In exhaling, the abdominal muscles contract to aid the diaphragm as it pushes the air from the lungs. In order to avoid holding the air, exhalation should occur as though the two parts were one continuous motion. Holding air can cause throat closing or tension, and it consumes energy and is generally nonproductive.

It is most important for the student to understand that a balance among air support, points of resistance (glottis and embouchure), and desired note and dynamic level is the goal. These factors determine the volume and velocity of air.

Ervin

Proper breathing has to be developed gradually, double checked frequently, and practiced specifically. I first explain the physiology with some simple drawings and photos from anatomy texts. A student lying on the floor will almost always breathe with the diaphragm. Then I ask him or her to tighten everything up just a little bit and breathe the same way. Using the metronome, we breathe in for six beats, out for six; in for four beats, out for four; then two, then one. I slow the metronome and we pant in eights and triplets. Then we repeat it all standing up. There's almost never a problem in this transition. Finally the student plays short etudes on the horn, breathing only this way under careful scrutiny.

Marcellus

With a student in the beginning stages, I usually just point out that air from the lungs will produce the tone through inhalation and exhalation. Most beginners will not be able to support a full tone because they take shallow breaths. It is necessary for them to learn that during inhalation the stomach expands outward, there is a continuing expansion centered around the bottom part of the rib cage, and there is a slight expansion at the top of the chest cavity. These three processes of inhalation are accomplished in one complete motion with no raising of the shoulders, and the time involved is dependent on the musical phrase.

During exhalation, there is a tendency for beginners to release too much air too soon at the initial impact of the sound. Students must learn how to release the air stream so that it fully supports the tone for a given phrase. Remind them that constant air supply should be firmly supported by the stomach muscles and that the entire rib cage should not collapse too quickly. Some of the most helpful studies and readings include Remington's *Warm-Up Exercises* (Fairport, New York: Pyraminx Publications); chapter 18 of Fink's *The Trombonist's Handbook* (Athens, Ohio: Accura Music), and chapter 20 of Kleinhammer's *The Art of Trombone Playing* (Evanston, Illinois: Summy-Birchard Company).



Q. In developing embouchure, do you consider it as an isolated aspect of brass technique or do you teach it in conjunction with other aspects?

Torchinsky

I teach embouchure in conjunction with the use of the tongue and breathing. It is a package deal; they are not separate items. One cannot play a low brass instrument without proper embouchure, but one can breathe without having proper embouchure or proper tongue position. A big mistake some students make concerns the attack. They seem to think that they have to use the tongue as an attack device rather than a release device, and as a result they get a hard sound. The tongue actually releases the air, and perhaps if they thought of it that way they could play with a softer tongue. I take care to make sure that when students are playing exercises they pay close attention to the articulations printed in the book.

Marcellus

Sometimes embouchure has to be taught by itself, but in most situations I teach embouchure development along with study of supplying air to the lips. The basic embouchure problem I notice is a lack of developed strength in the corners of the mouth. Without this firmness, it is difficult to open and close the center of the aperture to produce harmonic overtones. It is common to relax the corners too much when approaching a lower note. Enunciating the syllables "tee-aw-ee" can help to open the mouth cavity for the lower note. Lip slurs must be practiced slowly, and care must be taken not to bump into the

lower note and instead to gently place the low note with more air flow.

Embouchure development also can be studied with ascending tone exercises. Upper notes are harder to produce easily. One reason is that more air pressure but not necessarily more air volume is needed for the upper notes. Beginners tend to use more stomach muscle support when playing longer, but this firmness from the stomach area needs to be produced without playing louder. Too much air has a tendency to overwork the embouchure and waste efficiency. Students should be reminded to repeat the notes that do not speak easily, keep their stomach muscles firm to support the tone, strive for a relaxed approach to the next higher pitches, and not to force the air to make the embouchure work. Helpful studies and readings include Farkas's *Art of Brass Playing* (Bloomington, Indiana: Brass Publications), Reinhart's *The Pivot System*, chapters 3 and 4 of Kleinhammer's *The Art of Trombone Playing*, and chapters 4 and 15 of Fink's *The Trombonist's Handbook*.

Cichowicz

The development of embouchure is achieved quite directly by playing. Aside from instruction of proper mouthpiece placement on the lips and the setting of the facial muscles to form an embouchure, I do not treat this area as a separate entity. The insistence on good sound, smooth legato, clear articulation, smooth register change, and control of dynamics guarantees a healthy embouchure. At the beginning, demands are modest, with limited range and dynamics and simple intervals. But then skills should gradually evolve toward more demanding music. If the standards are monitored at each step, the embouchure will develop according to the capabilities of the performer.

Many young players have difficulty achieving a smooth lip slur, which is

slurring within the harmonic series. I first have the student sing the interval and then "buzz" the proper pitch on the mouthpiece. If there is evidence of portamento or glissando, I point out that too much time is being spent moving from one note to the next. The student must understand that changes in embouchure tension are done quickly and without hesitation, as in singing.

Often the player will block the air stream in ascending, and this habit also must be corrected. We may return to the singing method to emphasize air flow rather than abdominal tension. When the quick and accurate adjustment of lip tension is coordinated with a free-flowing air stream, the problem is usually resolved.

Other problems often are encountered in the upper register. Again, the mouthpiece alone can be used to focus the embouchure to the increased tension required to vibrate the higher pitches. At this point, we must pay particular attention to breathing, because many players will lock and go into isometric contraction as they ascend. Little breath thus is left to reach the embouchure and vibrate the lips, which will result in a tight, pinched sound or no sound at all. Obviously this problem must be dealt with but isolated attention to the embouchure alone will not be effective.

Farkas

I do not believe it is possible to teach the development of embouchure separately from the other aspects of brass playing. It would be similar to teaching violin by considering only one hand at a time. If you formed an excellent and correct embouchure and did not put some air through it you would have a funny face but no sound whatever. On the other hand, one could not teach the use of the air without forming an embouchure, as the air would simply come rushing out of a wide-open

mouth with no resistance to hinder it. The teacher can, of course, discuss and illustrate how the embouchure is formed by isolating it from other aspects of technique. Many points can and must be made in explaining the embouchure to the student, but soon he should be directed to blow air through the embouchure. Until he tries this, neither the student nor the teacher will have the slightest idea of whether or not the embouchure is being formed successfully.

Glover

Since correct embouchure is a necessity for good tone production, I approach it immediately in relation to producing the initial tone. From that moment forward the player merely expands upon the basic embouchure for additional range and tone color. However, a correct embouchure without adequate breath support and reasonably good articulation cannot produce decent sounds. For this reason, I teach embouchure in conjunction with other technical aspects.

Ervin

Embouchure can be discussed in isolation, but it must be coordinated with other aspects of technique. Fortunately, the lips, jaw, teeth, cheeks, tongue, and throat each can be, and sometimes must be, discussed separately. Students can focus on these individual elements nearly as easily as they can focus on their hands, and specific problems usually can be solved efficiently with such focus.

But the business of balancing systems to achieve a multitude of results can be difficult indeed if the student tries to think about every little thing. I find it easier to have the student emulate a good model than to teach a score of specific dos and don'ts in hopes that they will somehow add up to a great sound.



Q. What are some of the misconceptions beginning brass players get about articulation?

Glover

The most frequent articulation misconception I have found is the stopping of air and tone with the tongue. Occasionally I also find students who have been told that one particular syllable is the only way to achieve a certain effect, whereas a variation of the basic syllable could perhaps enable them to overcome weeks, months, or even years of frustration and limited achievement.

Ervin

Articulating the following syllables eventually can become crutches for the player: "guk," "toot," "hoot," "hoo," "dyoo," "dyoot," "dear-dear-deart," and "poop." Other incorrect practices include tonguing between the lips, too much tongue in motion, too much tongue in contact with the roof of the mouth, too much effort, and excess jaw



motion. I usually can hear any of these and often see them, but I cannot always fix them. A difficulty in solving the problems is that the student often can play better with the bad habit than he or she can with proper articulation.

Farkas

I need to define the word "articulation." I believe that articulation refers to the combination of tonguing and slurring. The most prevalent articulation misconception I see among beginners is the ignoring of articulation marks. Often they slur when they should tongue, but even more often, they tongue when they should slur. I remind the student that only two ways of starting a note are possible on a brass instrument: it can be tongued or it can be slurred into from the previous note.

A beginner is often guilty of tonguing too hard and making every attacked note an accented note. It is important to explain that a note can be attacked in several ways without necessarily creating an accent—the consonant "d" can be used as well as "t." And even the "t" attack can be modified in intensity by several degrees. The beginner's proclivity to place the tongue between the teeth or between the lips should be checked at all times, even though the student, in striving to avoid this, may develop a sloppy or weak attack. With care and patience, this problem can be avoided.

The articulation of slurs seems to come naturally to most beginners, although they should be instructed to keep the slurs smooth. They must be shown that the right combination of air support plus embouchure tensing or relaxing can produce these smooth slurs, whereas too much dependence on a push of air will create a slur that ends with an accent. Too little air support and too much dependence on embouchure movement will create mushy slurs that have other harmonics intervening between the two desired notes.

Once students have learned slurring,

tonguing, and all the shadings inherent in these techniques, as well as the absolute necessity of observing whether a note is tongued or slurred, they usually become overly enthusiastic and too graphic about applying the articulation. Properly done, articulations should enhance the music rather than exhibit an obvious technical feat.

Hatfield

Some beginning students will use an extremely hard attack on tongued passages, accented notes, or those marked sforzando. Sometimes the fault is that the tongue is placed between the teeth, so upon release it causes the air that has built up behind it to explode. Placing the tongue higher to make the "tu" sound can help.

Cichowicz

I dislike the term "attack" in reference to tonguing or articulation. It often implies an assault upon the note, and nothing could be further from the proper way of approaching articulation. I teach this aspect of technique with dual considerations: the initial release of sound and rhythmic division through tonguing.

The simplest and most effective device for determining tongue placement is language. The word "too" defines the tongue's activity simply and without unnecessary anatomical considerations. To aspirate this syllable into the instrument provides the basic technique of releasing the sound into the instrument. I use the term "rhythmic division" to describe the use of the tongue in dividing the air stream into a specific rhythm pattern. The syllable "too" again can be used to enunciate the rhythmic task continuously rather than isolating the passage into separate blasts of air for each note. This technique enables the student to play with continuity, good response, and agility.

Staccato tonguing can be thought of as a sequence of clearly articulated initial releases momentarily suspended. The length of each note and its corre-

sponding space is determined by the character of the music. Rapid staccato must be achieved differently. As certain speeds are attained it becomes impossible to isolate individual notes, so the player must tongue distinctly and sharply on a continuous air stream to achieve the effect of staccato. By trying to put space between notes in a rapidly articulated passage, the player is unable to achieve any regularity, speed, or agility.

Although I use the basic "too" syllable, these factors apply to all ranges and nuances of release from the sharpest sforzando "too" to the most legato "doo" and all the possible shades in between.

Marcellus

The most common problem with articulation on any brass instrument is the quality of sound that is produced for a series of staccato or legato articulations. The general tendency is for students to lower the intensity of the air stream, resulting in a weak lip vibration. One way to help correct this insufficient supply of air is to blow into the mouthpiece and hold a small sheet of paper in front of the mouthpiece to observe the flow of the air stream.

Teachers also should stress the following concepts about articulation. Tone is started by air, rather than by the tongue. The tongue should release the air stream. For beginners who may have a tendency to be too explosive with their attack, I recommend that no attack be used and that the students substitute a "hah" or an "H" attack. Tone is not stopped by the tongue (as in the syllable "tut"), but by the fast decay of the air stream (as in "tah"). Placement of the tongue should be behind the upper teeth. In multiple tonguing the "K" needs to be practiced by itself first, then in a series of "tktktktah." This technique is best practiced on the mouthpiece as mentioned earlier. The duration of a detached tone has a natural tendency to be held longer in the upper register than in the lower.

Q. How do you convey to students what is meant by "acceptable" tone quality?

Hatfield

Definition of acceptable tone quality is not always consistent among teachers, so it is useful to play for the student, to demonstrate your concept of tone. Then, show the differences between brighter and darker sounds but emphasize that professional players stay within certain limits of tone color. Listening to recordings of established artists is beneficial to this understanding.

Ervin

I give the student many examples to follow—not just mine, but plenty of recordings. Prompt criticism and correction of nonstandard sounds is important. The student should listen carefully for good and bad tone quality, and should begin judging early on what is good and bad tone quality.

Torchinsky

I usually prescribe long tone exercises. I ask my students to practice controlled long tones using crescendo and diminuendo very carefully. This exercise also helps develop dynamic range and vibrato.

Marcellus

I convey acceptable tone quality by demonstration, and I encourage students to listen to various artists. Also, I remind them to actually hear the sound they are performing. This skill is one of the last to come to a musician. Using a tape recorder when practicing also helps development of this ability.

Cichowicz

Although tone quality can be subjective, I believe certain criteria can be established. The most important factor in developing a good sound is to hear one. Without a strong aural image it is difficult, if not impossible, to develop a good sound. Deaf children who are taught to speak almost always exhibit an unnatural quality in their speech because they have not heard a human voice. So it is with a wind instrument. Therefore, demonstration is important.

Primarily, a good sound should have no evidence of distortion, which consists of fuzziness or air in the tone, brittleness, harshness, a lack of resonance, or an unfocused tone quality. A good sound should be produced through proper breath support and embouchure. As students progress, the sound is evaluated by their ability to play all the tones in the instrument's range clearly with an even quality. A bright tone or dark tone is a matter of individual preference and equipment rather

than of distortion. Selection of proper materials to guide and develop the student's rate of progress is also an important aspect in achieving an acceptable tone quality.

Farkas

The saying, "One picture is worth a thousand words" is applicable here. One *hearing* is worth a thousand words. I urge all my students to form their concept of a good tone by listening to any and all horn tones through recordings, live performances, or radio. Each time the student hears a horn he or she is to consider, "Is that tone too dark? Too bright? Too smooth? Too rough?" Or he can ask, "How would I improve that tone for this particular solo?"

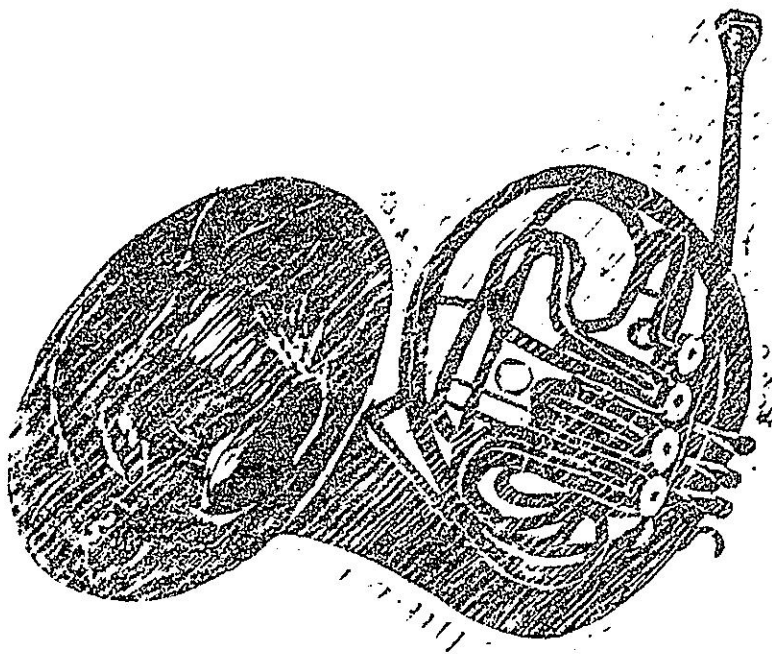
I always want the student to analyze the tone he is criticizing in relation to the music being played. I want him to realize that what is a beautiful and acceptable tone for Mozart is not necessarily the ideal tone for Tchaikovsky. I expect my students to know that in Mozart's time the horn had no valves, so it was played with skillful use of the hand. They also should know that the seventeenth-century horn was a small-bored instrument weighing just a little over a

pound, whereas the modern horn has valves, is much heavier, and has a darker tone. The horn student also must know the various techniques for darkening or brightening the tone using the right hand, the embouchure, or the direction in which the bell is pointed. Finally, he needs to know what type of tone color suits a particular style of music and how to use various techniques to achieve that particular tone.

All instruments have the ability to alter the tone color, and I remind my students that horn players have one important technical aid that no other instrumentalist has—the wonderful varieties of tone available through skillful use of the right hand.

Glover

Acceptable and beautiful tone quality is, above all, a mental concept. If the student has not heard fine symphony orchestras or world-acclaimed instrumentalists or vocalists, then he or she probably will not have developed an acceptable concept of tone. It is, then, the responsibility of the teacher to demonstrate an exemplary tone that can serve as the basis upon which the student will ultimately develop his or her individual timbre.



Q. How do you achieve balance in an ensemble of students of varying abilities? How do you get students to expand overall musicianship in addition to technical proficiency?

Marcellus

In order to achieve balance within a student ensemble of varying tone quality abilities, the musician has to be able to hear himself and others on a broad level.

I believe that technique is a means to an end, which is music. Not only do students have to learn the notes, but they need to acquire sensitivity and expressivity appropriate for the style of music. With beginners, a lot of time has to be spent on the basics, but total musicianship also needs to be introduced at beginning stages.

It is more important to first present a musical concept of a composition, no matter how simple, and then work out the control that is necessary for playing the work. This strategy can change with the different stages of an individual's development.

Cichowicz

Musicianship is a combination of knowledge, care, and sensitivity. I insist that all playing, including the most mundane technical studies, be played with style, nuance, and good phrasing. This philosophy should be cultivated at all levels of playing. An exploration of a wide variety of music and exposure to both good and bad performances of all types of music are the only ways that the evaluation process can be developed and a basis for a growing artistic personality can be established.

Glover

If the instrument distribution of the student ensemble is adequate and proportionate, tonal balance can be achieved by indicating which lines are dominant and which are secondary, which sounds are preferable and which are undesirable, what dynamics are required, and so on. This can be done first within sections and then with the full ensemble.

Musicianship is learned through the combination of examples, constant insistence on musical awareness in performances, constant listening to performers in solo and orchestral settings, constant listening to many kinds of music, and theoretical study. However, the conductor is undoubtedly the most influential in the development of the ensemble's overall musicianship.

Farkas

I presume that the first question refers to dynamic balance and tone color balance. As far as tone color is concerned, I insist that my students grasp the skill needed to darken or brighten their tone automatically, according to the nature of the music. This adjustment has to be made with concentration at first, but with constant practice it becomes almost an involuntary part of producing a tone. Therefore, with this concept strongly built in, tonal balance is achieved artistically and with instinctive consideration and desire to match the tone color of the ensemble. If each member of the ensemble has the same motivation, the changes required are slight because the players meet each other halfway. Concerning dynamic balance, only critical listening will help. The conductor, from his perspective, can give helpful signals, but the performer has to adjust his dynamics to the rest of the ensemble with understanding, musicianship, and the ability to control the instrument so that the desired result can be achieved. Supervised duet playing is helpful because it is easy to adjust dynamics one to another. Hopefully, this training will carry over to the dynamics required in larger groups.

The second part of this question is not easy to answer. In order to expand overall musicianship, it is necessary for the student to have the technical ability to control the instrument so that the music can be interpreted without too much difficulty. So proficiency must come first, but if that proficiency is modest, the musical ideas expressed are also going to be modest. After the student has considerable technical ability and control, it is time to stress that this ability be put to musical use. Listening to great and not-so-great artists is the best way to develop artistic maturity and feeling for the phrase. Listening to great performers will teach and inspire, but listening to poor performers, with the understanding of why they are not successful, can be valuable, too.

Hatfield

In order to achieve balances, both the players and the conductor must listen. Knowing what line should be brought out is a starting point, and knowledge of texture and tone characteristics also is needed.

To expand overall musicianship students must be taught the fundamentals, then encouraged to listen to themselves play with the idea that the sounds they hear are produced by someone other than themselves. Hopefully this process will lead to more objective listening and accurate analysis.

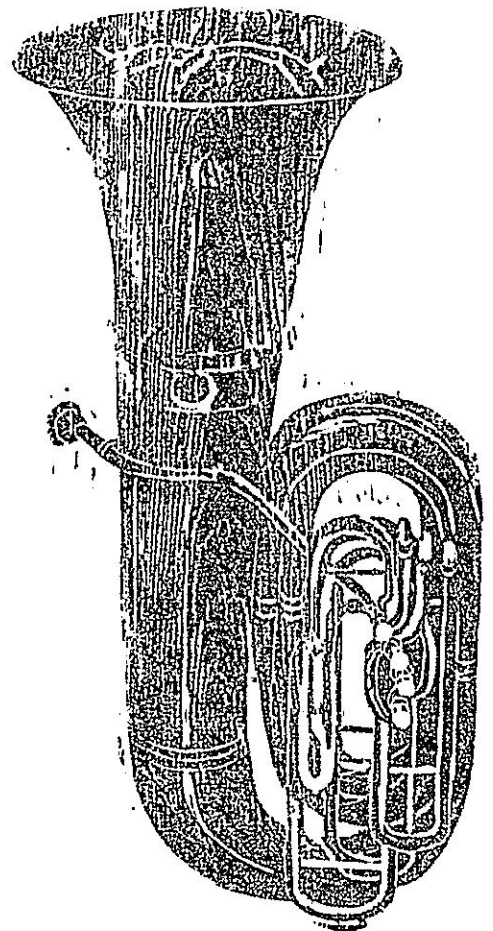
Ervin

Balance problems in student ensembles are difficult to correct. I have tried unusual seating arrangements, overconducting, altering written dynamics, cutting or augmenting sections, doubling, and, of course, begging the students to remember to care about balance.

Improved musicianship generally evolves some time after technique is developed and assimilated. There are people who are capable of amazing technique and satisfactory craftsmanship but who seem unable to develop dynamic sensitivity, ensemble playing, rhythm flexibility, or tone color variety. If musicianship does not blossom when or as I expect it to, the student probably needs examples, prodding, or both.

Torchinsky

I have never taught a beginning ensemble, but if I did, I would stress listening to each other and working together. They must realize that balance is a system of practice and that they should set aside a certain amount of time each day to devote to tonal development exercises. Those who want to play will practice, but if students are forced to play they may not practice.



Q. What vocal techniques are applicable to the teaching of brass instruments?

Farkas

One would guess that there are many parallels between singing and brass playing, but my fear is that there are differences among what seem to be obvious similarities, and these differences are subtle enough to be misleading rather than constructive. We may immediately think that there is a similarity in the breathing of a singer and that of a brass player. We must both inhale copious amounts of air quickly and silently. But on the exhalation I believe that there is a pronounced difference. Brass players must push out all the air through a relatively small aperture in the mouthpiece (the bore), and this air must vibrate an instrument weighing, in the case of the horn, five or more pounds. Thus, the air exhaled by a brass player meets with much more resistance than that used by the singer to vibrate the vocal cords. However, the study of fast, silent inhalation can be usefully shared by a singer and a brass player. It is the process of how to support the air column on the exhalation that differs between the two musicians.

An instrumentalist has much to learn about phrasing from a good singer. The singer has to contend with the phrasing of the music as well as the word phrases and, therefore, must give much thought to phrasing. And both the singer and the brass player must consider carefully where to breathe so the musical phrase is not interrupted. Since singers do not have keys to press or a harmonic series to create "bumps" in a legato style, they can more easily achieve the best possible legato and portamento. By emulating this smoothness of legato, brass players can greatly improve their own concept of legato.

Cichowicz

The techniques of respiration are of primary importance to both disciplines. And the pedagogical techniques are surprisingly similar in many ways. The vocalist causes the vocal folds to vibrate; with the brass player it is the lip tissue. Although specific differences exist in quantity of air used, breath pressures experienced, and resistance encountered, the techniques of inhalation and the free release of the air stream are quite similar. The goal of singing should be one of the overriding considerations in playing a brass instrument. The vocalises of Concone and Bordogni are among the finest available materials to develop a singing legato tone and artistic expression. Conscientious use of these types of materials achieves these results and has a therapeutic effect on a

player who has overindulged in the strenuous and percussive types of playing so common in brass literature, particularly in contemporary music. If a player complains of a stiff, unresponsive embouchure or a tight sound, I invariably prescribe a generous amount of vocal material to set things right. I like to believe that bel canto is possible on a brass instrument.

The parallel goal of the vocalist and the brass player is to produce a beautiful, clear, resonant sound in all registers at every dynamic level. It is at this point that the artist can emerge and convey a message to an audience.

Ervin

Brass players and vocalists have a lot in common, certainly, but each is also required to provide skills that are not required by the other. There are many similarities and many differences, so I wish to sidestep the question and instead make an observation on vocal teaching techniques, which I think might help some of us brass teachers.

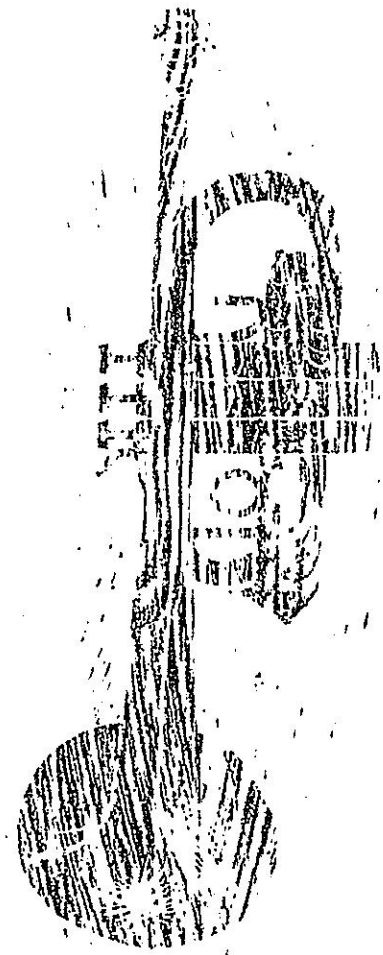
The voice is a hidden instrument, and because of its constant use, voice may be harder to teach than other wind instruments. I feel that voice teachers have been more inventive than we and have created some indirect concepts which, although sometimes physiologically incorrect or not applicable, can produce excellent results. Probably many wind teachers have borrowed or adapted a few of these phrases such as, "Place this sound just inside the front teeth," or "The tone starts here," and if they work, they work.

Marcellus

The early literature for brass instruments was developed through the use of the instruments to add depth, blend, rhythmic definition, pitch, and color to vocal ensembles. This tradition continues through emphasizing to brass players the importance of a "singing" tone quality. The use of the vocalises of Bordogni, Bona, and Concone are among the most important literature a musician can study. Some other vocal techniques I use include practicing vowel sounds, resonators, and falsetto.

Vowel sounds are great in helping students understand the production of the overtone series. Pronouncing "aw" for the low register and "ee" for the upper, with graduations in between, works well. Using a vocal resonator such as the chest can be helpful when playing in the upper register. I have found that raising the chest cavity slightly before an upper register passage helps to relieve the air column from being locked in with too much air pressure. Another valuable vocal technique is the concept of using the falsetto voice when changing from the low register to the upper register. In the high range on

a brass instrument little volume of air is needed to produce a singing quality, and using the concept of falsetto to get across the breaks in the harmonic partials can be helpful. For instance, buzz a low note on the mouthpiece and glissando upward to your highest note. For advanced players this point will center around D-flat above high B-flat. By using the concept of moving from a full voice to a falsetto to help get across this break, the upper register notes will speak more easily.



Q. How do you develop dynamic range and vibrato with students?

Cichowicz

In teaching dynamics from a strictly technical point of view, I state that soft playing is achieved by using a gentle, steady air stream, and that loud playing is accomplished by using a vigorous air stream. In other words, dynamics are related to velocity of air. This ex-

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planation helps dispel the inclination of many players to hold back or block the air when playing softly or to prevent the tone from being played forte. If the air flows at regulated speeds, dynamic change can be achieved with control and proper quality of sound. Once these basics are established, nuances can be applied to the music demands. Music should be chosen that explores the full dimension of dynamics, such as a fanfare contrasted with a lullaby. Only through the musical message can expressive techniques be achieved in an artistic and meaningful way.

I have not been able to arrive at a pedagogical approach to vibrato that is completely satisfying to me. Vibrato is personal; it can be appropriate or inappropriate, but ways of attaining it seem to defy conscious instruction. It is often achieved by manipulation of the breath or by an undulating action of the right hand on the instrument. My advice to a player is to listen to many performers and become sensitive to the nuances of sound. Vocalists offer excellent examples.

Glover

Dynamic range demands great breath control and an understanding of the possible extremes of piano and forte, which teachers can demonstrate. Also, I urge my students to listen to the extensive dynamic ranges exhibited by members of fine orchestras. It is imperative for the teacher to insist that the student play the full gamut of dynamics, rather than only the all too familiar and deadly constant mezzo forte.

The majority of students must be taught how to produce and control vibrato, and vocalists offer the best examples. A talented student who has not been taught vibrato but already uses it to enhance the tone may be unable to sustain a tone without the vibrato. Hence, the teacher must give directions for controlling the vibrato and instruct the student when to use it.

Farkas

I think it is an accepted fact that one of the last facets of brass playing to be accomplished is sufficient dynamic range. Those students who habitually play loudly never seem to get a good pianissimo and, conversely, those gifted with a fine pianissimo seldom achieve a rousing forte. But these are the exceptions. By far the majority of students settle down to a dynamic range of a soft mezzo forte to a loud mezzo forte. Continual correction when the dynamic level is not satisfactory is probably the best solution to the problem, as well as demonstrating the desired dynamic lev-

el. I also remind my students that they usually practice in a little cubicle, and if they close their eyes and imagine a huge auditorium stretched out in front of them with the stage crowded with about ninety-nine other musicians, they might begin to play the dynamic level much differently.

My answer to part two of this question—how I develop vibrato with my students—is simple: I do not. Some of the greatest horn soloists do not use a vibrato. Dennis Brain did not, nor does Barry Tuckwell or Ib Lanzky-Otto. There are also some fine horn players who do use a vibrato, but they use it so delicately and with such finesse that the listener is not at all conscious of it. This delicacy is beyond the ability of most students, I believe. At any rate, I do not like vibrato played on the horn. The entire question is difficult to answer because there are as many ways to create a vibrato as there are players. I have, on occasion, used a vibrato, but only to conform to the style of the moment. In this case, I produced the vibrato by lightly moving the right hand back and forth in the horn bell, in much the same way that trumpet players get their vibrato by oscillating their left hands on the valve casings. If a student really wants to use vibrato I do not object. But I do oppose the excessive use of it, particularly when the music in question is strictly classical.

Hatfield

Dynamic range can be developed gradually by expanding both ends of the spectrum while carefully watching the embouchure, breathing, and throat to be certain no bad habits form. A few things to watch include excessive closing of the glottis in soft playing, clenching or raising the jaw in the upper register, and overtightening the abdominal muscles on loud playing with resultant choking in the throat.

Vibrato can be achieved in several ways. My preference is to move the hand in the bell to produce variations in intensity of the sound rather than variations of the pitch in horn playing. This technique is not to be confused with the variation in intensity produced by pulsating the air. Trumpet and trombone players may use slight jaw motion in addition to slide movement for trombones and right-hand movement for the trumpets.

Ervin

Most students have to be forced to play extremely loud or extremely soft, and if they are not forced to play both dynamics regularly, the dynamic range will not develop. Etudes abound for this purpose. Students and teachers simply have to discuss possible neglect of dynamic range.

I achieve vibrato with my hands on

the trombone. The player has manual control over vibrato speed and width. I think that a player can make a slide vibrato sound like any other vibrato; the old prejudices against a slide vibrato are evaporating rapidly. But I do not argue with students or other teachers about this item. When I double on the euphonium, the hands do not work well at all, and I prefer a jaw vibrato.

Torchinsky

To develop dynamic range with my students, I use long tone exercises called range expanders. I ask students to play the fundamental pitch of the instrument as softly as possible and crescendo on the count of one to five, and then diminuendo back to one. When they have returned to the soft level of one, they slur down a half step and let the sound disappear. I ask students to repeat this procedure by slurring up a half step above the fundamental pitch. This exercise can be practiced on every tone of the student's range and, as a result of steady practice, will increase the dynamic shading capabilities.

I do not teach vibrato to a beginning student. I am more concerned with good tone production. I do not introduce vibrato until a student is more advanced and able to use it with good taste, and at that point I then teach jaw vibrato.

Marcellus

Dynamic range requires good control of both slow air speed and fast air speed. For a slow air speed, care must be taken so that each note speaks easily with a constant and steady support from the stomach muscles. For a fast air speed, the corners of the mouth must always be firm in louder passages. Keep the body relaxed and maintain steady support.

Vibrato is a personal element of music tone and different musicians need to develop their own ideal vibrato. In general there are traditional places where vibrato should not be used, so it is essential to be able to control vibrato.

I use two methods of vibrato because they can give a different character to various music styles. In the jaw vibrato, the jaw motion should be practiced on one note quite slowly and gradually accelerated, similar to practicing lip trills. Then the student should practice scales slowly with various rhythmic jaw pulses on each note.

The other method of vibrato on the trombone is the slide vibrato, which is similar to the hand vibrato on the trumpet. The best approach is to listen to various musicians and decide which speed agrees with your musical taste. On the trombone it is necessary to keep a relaxed wrist and to practice slide vibrato at various speeds and widths. #

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