

The art of inhalation is based on suction, not on the expansion of the body. Breathe to expand; don't expand to breathe. Inhalation should not be the machine activity of expansion; it should be suction, pulling outside air to the front of the mouth as if yawning.

Most players who get in trouble try to use their lip as a woodwind reed. You can't play by treating your lip as a wooden reed. Instead, it has to be used like the vocal chords of a singer. Then you have success.

You have to start each tune with great quality. Prepare the qualities of tone in your head before you play and you'll be better off. Prepare the sound and not the mechanics. Your body will respond as a result.

It's not about the embouchure or about muscles – they are already developed. It's how you think when you play your instrument that's going to help you improve.

One of the finest studies a brass player can undertake is the study of solfege. Assigning a name to a note builds a concept of pitch in the brain; as soon as we think of a word, we will hear a pitch. To excite the nervous system properly, we should have the musical thought in the brain; playing is simply a read-out of our thoughts.

Take large breaths based on suction with minimal friction, and keep it as simple as that. Pretend you are pulling a long spaghetti noodle toward you through inhalation.

Your goal is to constantly develop the mental aspects as a musician so you are not blowing a brass instrument at all, but instead you are singing.

If you have a song in the head and wind at the lips you'll find that playing will be much more fun.

Take charge of your music and not of your instrument.

I want to stress that the answers are all in simplicity, not complexity.

Your body doesn't understand complex rationalizations because they lead to the loss of the natural - childlike - connection between thought and action. If you learn to use your head by honest simple thoughts, you'll learn to communicate with your body.

Shallow breathers will also have playing problems with age, as they will experience a decrease of breathing abilities. In other words, they will use the same muscular activity with fewer results. Consequently, shallow breathers find it difficult to continue their profession by age 45-55. However, if you have formed your breathing habits correctly, you can get around that problem by simply taking large breaths. You develop correct breathing habits in the practice room and not in performance. If you follow through with the study of taking large breaths in an orderly fashion, you'll age gracefully as a player.

Shallow breathers will have trouble playing the end of their phrases. If they take a poor second breath, they will really be in trouble because their reflexes are going to be activated and they will start to tense up (or start to close) their throat. Their chest will also become tense and everything will go in a downward spiral from that point on.

You have to get into the spirit of tonguing based upon vowel and not based upon the consonant ... The tongue has to swiftly pronounce the consonant and learn to get out of the way of the wind by moving to its vowel form right away. When tonguing, the vowel has to be dominant over the consonant. The vowel is always open, and the consonant is always closed.

If you have a larger quality of sound, you'll also have a larger volume of sound. The tendency of putting larger physical effort for producing a larger sound is like lying to your own body. That approach has more to do with the methodology of how to produce sound. [L] [SEP]

Anything that influences the external environment in any way is "motor." When I talk to you, I am using motor systems for me to communicate messages to you, but you are hearing those messages through sensory nerves that travel through from the ear to the brain. While playing, we must make the dominant thought one that is motor oriented, not sensory; make statements, don't ask questions. [L] [SEP]

There is nothing wrong with experimenting with mouthpieces—different thickness and lengths. By experimenting you'll have greater control over your spectrum of sound. Switch around depending on your musical requirements. [L] [SEP] However, all your mouthpieces should have similar rims—either all flat rims or over-rounded rims. This has to do with the development of the protractors and the retractors in your lip. I used to change mouthpieces to keep things interesting in the orchestra in terms of variety of sounds. [L] [SEP]

When you change mouthpieces, you don't get as dependent on the feeling of the familiarity of the mouthpiece. If you play based on feel, you'll limit yourself because you would always have to have the same equipment and acoustics.

Using your imagination, you have to pretend you can feel and see the lips vibrating for each note you play. Do this from time to time to activate your lips. [L] [SEP]

Sound is the end product of what we do; I try to focus on the concept of sound and minimize the mechanical procedures that produce it. [L] [SEP]

You always must have the voice in your head because that is the signal that goes down the seventh cranial nerve to your lip. The ability to perform is tied into your sense of sending a message (as when you use your lips as vocal chords). That is the job of the seventh cranial nerve. [L] [SEP] The seventh cranial nerve {motor nerve} has to be completely convinced of what you are doing no matter what doubt the fifth cranial nerve {sensory nerve} sends back. You have to cover up the pictures of doubt with the pictures of success. [L] [SEP]

On a brass instrument, the player depends very much on the ability to conceive music in the brain. There is no reason to do the advanced technical work on a brass instrument before doing the ear training work. You must always get the "double sound," I mean the sound of the voice in the head and the one out the bell. The one in the head is the teacher. [L] [SEP]

As the creative part of your mind awakens, you'll find that it will make brass playing easier. [L] [SEP]

Once a century comes along a brass master whose teaching and performance concepts represent that century's collective approach. Often, that master's influence remains latent for generations after the master's passing. Whereas Jean Baptiste Arban is arguably the representative figure of the Nineteenth Century, many brass players regard Arnold Jacobs to be

the representative brass pedagogue of the Twentieth Century. Jacobs did not base his approach to embouchure change and development on the study of specific musculatures, but instead he based it on the correct choice and artistic interpretation of musical materials. Despite that Jacobs integrated what he learned from his physiological and psychological studies to his teaching, it is important to recognize that Jacobs based his pedagogical approach on the art form of music. ---Luis Loubriel, author of Brass Singers: The Teaching of Arnold Jacobs

The tongue is a villain in many ways and you have to make sure of its downward stroke—the vowel rather than the consonant. Always use a good vowel—AH, OH, or OOH---when you play. The vowel is where the tone is.

Asking questions is not undesirable. I do it too because that's the way we learn many things. However, when you play your instrument you should get into show business and be a storyteller of sound so you avoid self-teaching.

Can you discipline your brain to continue singing even when discomfort comes? The human brain won't want to do that. It won't want to cooperate because it likes to always be alert to know what the dangers are so they can be corrected. It's a survival instinct. In our art form, however, we must overcome that. I want for your survival in this profession to get the results. I want you to sing in your brain.

When I first learned to play a brass instrument (the bugle) there were no brass teachers in the small town where I lived. My mother, who was a fine professional pianist, played bugle calls on the keyboard. I learned them by ear, and I learned them well. I learned them by listening to the notes and then conceiving them. That was the training of my brain. I was not involved in playing correctly, just in sounding good; it went very well.

Take a mid-range note and give it a great tone and a beautiful singing line. Maybe play it with vibrato. Then you can approach fairly large dynamics with beauty of tone.

In your mind, you have to be a master musician. You have to be a master interpreter of style and phrase as well as one who communicates a message to someone else. The rest is just minor stuff.

There are players who have a horrible sound by the time they reach 108 dB. They have a very small embouchure—like a small reed—and when trying to play loud, they force it. They show signs of physical stress, but on the decibel meter they are not getting any louder. There is just more resistance and more push. Blow air from the lips, don't push air from the gut.

I need you to imitate artistry. To do that, you have to pretend to be a great artist. For example, if you have to pretend that you are dying, you can't do it by really dying. However, you've seen enough films of people dying so you can imitate the actors. If you want great joy, you don't need to eat an ice cream cone to attain it. All you need is to respond to a feeling of joy. This approach will pay off in our art form of music.

How our embouchures feel is not important, just how they sound. My lips haven't felt good in years, but I can still fool the audience.

We can play almost anything on a mouthpiece and get a great deal of practice benefit from it.

It is much better to have too much air than to have too little; as you grow older this becomes even more important. Air is free, it don't cost a thing; go ahead and waste it.

An embouchure that looks perfect might be silent because there is no signal along the nervous system ordering the sound. You have to order the note by the sound of it, not by shaping the lip and blowing against it as if it were a wooden reed.

A first trombone player with a major orchestra was a student of mine and had problems with Bolero until I picked up his trombone and played it for him. He stopped having trouble with it after that because he realized it couldn't be that hard. I did not play the Bolero well, but I got through it. He could have played it well from the start, but he was fighting himself.

There are a few people who are able to analyze phrasing, but you could find many who simply enjoy phrasing. By imitating others you are getting the materials so you can work on your own artistic ideas.

Weakness is your friend. Strength is your enemy.

Even when you are wrong, I need very much to ask for more authority in your interpretation. A positive attitude is very important for a musician in terms of confidence even when you know it's not deserved.

Don't prepare yourself to play your instrument. Instead, prepare the sound in your head.

You have to realize that you don't play by listening to yourself play. That's playing by asking questions. You have to play by issuing statements. We need to issue the statements with enthusiasm and as a product of our imagination. Be a storyteller of sound.

Get used to coming up from the low register with a round sound rather than coming down from the high register with a thinner sound. Let the low notes teach the high notes.

When missing notes, often the cause is that there is not enough singing going on in the brain. There should be two voices, one that comes out of the bell of the instrument (which is not too important), but the other you conceive in the head. That's the most important one. The sound coming out of the bell should be a mirror image of the sound you hear in your mind.

You have to train yourself so that all the ink spots on the page of music are converted into sounds in your head.

The notes have to be more in your brain and less in your lip.

The lack of musical imagination in the musical endeavors is the number one problem in most cases. You find that those students who crowd their brains with how to play their instrument from a technical standpoint, are not able to play music from a musical standpoint. One should learn first how to play music and by doing so, learn to play the instrument.

The use of your imagination is also important in rehearsals because you have to be able to transfer into musical sounds whatever the conductor is asking you to do (you must transfer the

spoken word into images of sound). In other words, you have to transfer the critique of something wrong in your playing into musical thoughts and not into mechanical thoughts.

The use of imagination is a strong tool for getting the body to react to whatever you are trying to accomplish. When playing, always imagine a great sound (even if you are sounding rotten at the moment). Imitate a player better than yourself.

The big thing about music—or any other art form—is that you can enjoy what you are doing, but others must also enjoy what you are doing. Its orientations should be like when you draw a beautiful picture on canvas for others to enjoy. When you are playing a solo, you are not playing for you, but for the people who are listening.

Be an actor and pretend to be someone else for a moment. Use imitation (or create your own model) and hear the different players in your head. Put great examples in your head and demonstrate how a great player sounds. Always start with the sound in your head and not with mechanical preparations.

One should have a great sound in the brain to imitate because if there is a great sound in the imagination but a horrible sound coming out of the horn, it won't be long before the horn sound becomes better.

Think of air-flow as “wind” and not pressure. With wind there will always be some amount of pressure, but with pressure there may not always be wind. Motivate your air by thinking wind, not pressure. When you blow wind from the lips you'll find that the air-flow increases while the pressure decrease

It doesn't have to feel good, it just has to sound great.

Always find the rhythm of your music in the buzz and not in the tongue. If you connect your buzz and your mind, your authority will increase right away.

When playing, you should be using your brain for the study of music, not the study of muscle groups.

You don't want to build up the air pressure behind the tongue. It's air and lip that plays music ... The psychology of it is that the air should be at the outer part of your lip, and not inside of your mouth. You want to play down as much of the interference of the tongue as you can. Your job is to connect the air with the lip.

It's the same concept of the ball riding on top of a water fountain. When playing loud, you simply use a bigger fountain. In fact, when I get very loud I don't get very physical, but I get very musical. If you get physical without getting musical, you might push against resistance. As a result, you increase the resistance and then you have to increase the push and pretty soon, they'll cancel each other out.

Don't be afraid of playing wrong and ugly. This is music and music making is like acting. You should make people laugh and cry, you can be a villain or you can be a hero. There are varieties of interpretation and sound is part of it. I wouldn't be afraid of playing with the wrong sound.

The body works on the concept of products. Leave the complexity alone, and go for the products of great tone, and great artistry ... A musician will learn so much from hearing. My only caution is don't listen to yourself too much while playing. Instead concentrate most on the message ... The worst thing is to be asking questions when you should be issuing statements. That's important!.

The big danger in the big fortissimo is that there is so much physical awareness of the effort involved, that you'll begin to use the effort to get the big tone rather than just going for the big tone (which will include big effort). You should give the priority to the tone and not to the effort. When practicing the large dynamics, you should pair them with pianissimo playing.

Your entire dynamic range has to be under control. You establish the norm somewhere in the middle dynamic and then you move it to the pianissimo and fortissimo. You have to establish the quality first. At any dynamic, your tone has to be a wonderful product.

Don't depend on a three-valve instrument to give you three or four octaves of chromatics. You have to sing perfect notes (with the lips) into the horn so it can resonate according to its acoustical laws – primarily based on sympathetic resonance ... Don't play by feel, play by sound.

When your lip is a little bit insecure, make sure your mentalization of music is louder in the head so you can increase your source of stimuli. You'll suddenly find that it's compensating in the lip end. Try not to force. If your lip is tired, let it rest. Sing in your brain so there is more artistry and you'll see that you get less fatigued. You have to keep your standards very high.

There is no way you can work like a weightlifter to develop your embouchure. Even weightlifters go by certain forms. In music, hypertrophy comes from the music you play.

You don't work on endurance for endurance's sake. Instead, work for the excellence in music so you gain endurance as a secondary factor. As you continue to work as an artist, you'll develop the endurance.

When you look for a beautiful tone based on lyricism, you are automatically cutting down on the overwork. Overwork won't be lyrical because it will sound forced and strained. The lovely love song is where you'll find the ability of producing sound for the least effort. The goal is to go for the product and not the method. The intelligence of a human being is always directed toward the product; while other areas of the brain go for the methodology.

The warm up is where you find the finest qualities of tone. That's the most efficient tone production. That's when you find the efficiency you are looking for. It shouldn't be done by looking for ease of playing, but instead you should be looking for the quality of tone. The fact that you are looking for the beautiful tone is what counts.

Every time you pick up your instrument you should search out quality. You must establish quality in your playing and then you transfer that quality to everything that you play throughout the day. Never allow yourself to be satisfied with poor quality in the name of "warm up." Your goal should be to play with great quality beginning with the first notes of the day.

We need to have more preparation in the Song aspects of brass playing ... Increase the strength of your mentalizations. Make sure you don't get distracted. The messages to the lip

must come from the brain. Always protect that. Make sure you are less aware of the feel of the embouchure and more aware of your mentalizations. Then all you have to do is take enough air so you have a surplus and sing.

Breathe to expand, don't expand to breathe. With a great inhalation there will always be shape change, but with shape change there is not always a great breath. The body can lie. Suck air at the lips, the rest will take care of itself.

Weakness is your friend. Strength is your enemy. Blow air, don't support it.

Air is free, so go ahead and waste it. It is better to use too much air than too little.

Your lips don't have to work just because you blow air. They are like vocal chords and it is the sense of having a constant renewing message in your brain—just like if you were a speaker reproducing sound from a stereo. You just can't do these things by the mechanics of brass playing alone. Instead, you have to stay focused on the art form.

When playing (buzzing) your mouthpiece, pretend that you forgot the instrument at home, BUT you still have to entertain your audience! Remember that you sing with your lips and the instrument merely serves as an amplifier of whatever sounds come out of your mouthpiece.

You can put the valve down, blow, and anything can come out. I learned this when I was sixteen years old and I thought, "This is no way to live your life!" I started to study these things, and the result is my career and the way I teach today, which is to have a song in the head and wind at the lips.

There is no such thing as wind without pressure, but there is such a thing as pressure without wind. [When inhaling] always order wind, not expansion. Breathe to expand, don't expand to breathe. In other words, when you take a breath, you must order suction of air from the tip of your mouth. The psychology of wind is at the lips.

On a brass instrument, the player depends very much on the ability to conceive music in the brain. You must always get the "double sound," I mean the sound of the voice in the head and the one out the bell. The one in the head is the teacher. Your goal is to constantly develop the mental aspects as a musician so you are not blowing a brass instrument at all, but instead you are singing.

Be a storyteller of sound. Don't ask questions, but instead make statements. You should teach the audience what's on the page displaying a lot of "show business".

Think of how you want to sound on your instrument and avoid thinking of how you are going to do it. Take charge of your music and not of your instrument!

I want to stress that the answers are all in simplicity, not complexity. You don't control meat (embouchure) to control sound; you control sound to control meat (embouchure). I need the adult mind for interpretation and for the qualities of musical styles, but I want the child mind for the brass playing applications.

We are so used to handling our embouchures, but in this case if you let go and handle the brain instead, you get better and easier results. It's not about the embouchure or about muscles. It's how you think when you play your instrument that's going to help you improve. You have

to start each tune with great quality. Prepare the qualities of tone in your head before you play and you'll be better off. Prepare the sound and not the mechanics. Your body will respond as a result.^[1]_[SEP]

Most players who get in trouble try to use their lip as a woodwind reed. You can't play by treating your lip as a wooden reed. Instead, it has to be used like the vocal chords of a singer. Then you have success.

[For brass players] The lips become vocal chords. Sing with them! Put the notes into the cup of the mouthpiece. By the time it reaches the throat of the mouthpiece, it is success or failure because everything on the other side of the mouthpiece is acoustics.

[Brass] Players must sing perfect notes into their instruments. Sing with your lips!

There is no way or reason to do the advanced technical work on a brass instrument before doing the ear training work.

Instead of setting rules for the procedures of playing, set rules for the results - sound great in your thoughts.

Don't correct what's wrong. Go for what's right.

Fast, full breaths should be based on the psychology of suction - suck air at the lips.

Controlling the embouchure is an illusion because you cannot control the embouchure by using direct commands. Nobody can! You can only control your sound (which then controls the embouchure). When you control the music you'll find that you have controlled the "meat" [embouchure].^[1]_[SEP]

I want the concept of air moving into the mouth, not the abdomen. Filling your lungs with air is not like filling a glass with water. Simply suck air at the lips. When communicating with your body while playing, keep things simple. Leave the complex thoughts for the art of communication through the language of music.^[1]_[SEP]

Breathing is not a complex subject. It shouldn't be a method. Do you want to take a breath? Then take a breath - suck air at the lips. It's simple.^[1]_[SEP]

Keep singing the notes in your head even if your lip is tired. If nothing comes out of the bell, I don't care. However, if your horn goes blank and your head goes blank at the same time, then I do care. Make sure your lips sing every note.^[1]_[SEP]

It's not about the embouchure or about muscles -- they are already developed. If Bud Herseth [Adolph Herseth] could put his brain into your skull and you play with his brain, your lips would do a much better job. It's how you think when you play that's going to help you improve.^[1]_[SEP]

Your body doesn't understand complex rationalizations because they lead to the loss of the natural – childlike – connection between thought and action.^[1]_[SEP] If you learn to use your head by honest simple thoughts, you'll learn to communicate with your body.^[1]_[SEP] You have to communicate in a language your body will understand. In other words, if you want to touch your nose, you simply touch your nose. Your body understands that because it is a clear goal you

want to achieve. If you start rationalizations and peripheral thinking, you'll lose the mind-body communication right away.

When blowing, order motion rather than pressure. It is helpful to spend a few minutes a day blowing out candles, blowing pieces of paper, etc. You must always remember that when talking about air, 15% is about air but 85% is about music. We play by song, not air. We need air to play, but music should always be the dominant thought.

I want to stress that the answers are all in simplicity, not complexity. You don't control meat [embouchure] to control sound; you control sound to control meat. This can be checked out. It's not just my statement. I need the adult mind for interpretation and for the qualities of musical styles, but I want the child for the brass playing applications.

Always order wind, no expansion. In other words, when you take a breath, you must order suction of air from the tip of your mouth. The psychology of wind is at the tip of your mouth. When you order suction of air, expansion will follow. But if you merely order expansion you may or may not get any air. The body can lie. Breathe to expand, don't expand to breathe.

You educate an embouchure by playing music and not by logic or peripheral thoughts of any kind. You have to actually play the notes. Bad sounds can be made into good sounds, but silence cannot. You develop an embouchure by playing music.

There is no way or reason to do the advanced technical work on a brass instrument before doing the ear training work.

We are so used to handling our embouchures, but in this case if you let go and handle the brain instead, you get better and easier results.

Think of how you want to sound in your instrument and avoid thinking of how you are going to do it.

You have to consider yourself elementary when you begin to study high range. Don't worry if you are successful or not. However, in your brain you have to be successful.

If you can thicken up your air column, it will be easier for you to play. When you sense your sound thinning out a bit, stop and get organized. Strive to get that thick air column and the round sound again. The round sound will indicate a slightly longer embouchure. When the embouchure gets too small, you begin to lose control and it will be hard to find your pitches. When your embouchure is longer, there are more fibers for shaping the lips than when the embouchure is short. You'll find that your general playing is always better with a little longer embouchure.

If you play a thousand notes a day but 800 are mediocre and 200 are magnificent, the brain will say, "God! Those two hundred notes were great and I am happy." Unfortunately, the 800 mediocre ones form the habit. Make sure you have 800 great ones!

Forced loud playing is brittle and hard. Many times when I put a decibel meter on, I see that when a person tries to play louder, they are actually playing softer, but it sounds more strained. They get more edge, but less tone. At home, get used to playing extremely loud as well as extremely soft every day. Do about 20% of your practice in the extremes. No more!

If your nose itches, scratch it. If you want to kick a ball, kick it. If you want to take a breath, breathe. I need simple, childlike thoughts to control the body. Complex thoughts do not fit the picture.

What you want is to have the release of the air toward the lip and not toward the tongue – this is what gives you thick wind. Otherwise, at that moment when the air hits the tongue, the brain will form a pattern of response based on the control of the tongue rather than of the needs of the lips. In other words, blow from the lips.

Don't play as if you are putting your toe in the water. That would be like listening to yourself as you play. Instead, you should go into show business and play like an artist. Imitate great artists. Pick great role models and use the power of imitation.

There is a continuity of procedures and we must start with the tongue. First of all, start with taking a deep breath because the shallow breath will have the brain assign a priority of closures in the mouth area (the tongue included) and it will close no matter what you do simply because you don't have enough air coming up your trachea. So take lots of air in and then play with a small tongue. Use the tongue as when you use it in speech – so use it for timing and diction purposes. Music is always a combination of air and the embouchure buzzing. Even a short note is a short buzz. You have to use the tongue but basic tone production is air and buzz.

Use the tongue as when you use it in speech – so use it for timing and diction purposes. Music is always a combination of air and the embouchure buzzing. Even a short note is a short buzz. You have to use the tongue but basic tone production is air and buzz.

I work with the player's concept; what the horn resonates and amplifies is but a mirror of the thoughts of the person who plays it.

You have to start each tune with great quality. Prepare the qualities of tone in your head before you play and you'll be better off. Prepare the sound and not the mechanics. Your body will respond as a result.

You have to communicate in a language your body will understand. In other words, if you want to touch your nose, you simply touch your nose. Your body understands that because it is a clear goal you want to achieve. If you start rationalizations and peripheral thinking, you'll lose the mind-body communication right away. It's not about the embouchure or about muscles – they are already developed. It's how you think when you play your instrument that's going to help you improve.

There is no way or reason to do the advanced technical work on a brass instrument before doing the ear training work.

I need the adult mind for interpretation and for the qualities of musical styles, but I want the child for the brass playing applications.

Keep singing the notes in your head even if your lip is tired. If nothing comes out of the bell, I don't care. However, if your horn goes blank and your head goes blank at the same time, then I do care. Make sure your lips sing every note.

We are so used to handling our embouchures ... if you let go and handle the brain instead, you get better and easier results.

Think of how you want to sound on your instrument and avoid thinking of how you are going to do it.^[L]_[SEP]

Shallow breathers will have trouble playing the end of their phrases. If they take a poor second breath, they will really be in trouble because their reflexes are going to be activated and they will start to tense up (or start to close) their throat. Their chest will also become tense and everything will go in a downward spiral from that point on.

The lower note is the teacher to the upper note. Study the lower notes not the upper ones. Don't concentrate so much on your embouchure, but right before you go for the upper note think the pitch very strongly. Don't go by the feel, go by the sound. Tune your brain. Make your mistakes. It's not important. I don't want this to be a study of meat [embouchure]. I do want it to be a study of the brain [thoughts] and of art [message].

On a brass instrument, the player depends very much on the ability to conceive music in the brain ... Most [brass] players who get in trouble try to use their lip as a woodwind reed. You can't play by treating your lip as a wooden reed. Instead, it has to be used like the vocal chords of a singer. Then you have success.^[L]_[SEP]

Can you discipline your brain to continue singing even when discomfort comes? The human brain won't want to do that. It won't want to cooperate because it likes to always be alert to know what the dangers are so they can be corrected. It's a survival instinct. In our art form, however, we must overcome that. I want for your survival in this profession to get the results. I want you to sing!^[L]_[SEP]

When blowing, order motion rather than pressure. It is helpful to spend a few minutes a day blowing out candles (imaginary or real), blowing pieces of paper, etc. You must always remember that in the order of thought, 15% is about air, but 85% is about music. We play by song, not air. We need air to play, but music should always be the dominant thought.^[L]_[SEP]

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When playing (buzzing) your mouthpiece, pretend that you forgot the instrument at home, BUT you still have to entertain your audience! Remember that you sing with your lips and the instrument merely serves as an amplifier of whatever sounds come out of your mouthpiece.^[L]_[SEP]

We need to have more preparation in the Song aspects of brass playing ... Increase the strength of your mentalizations. Make sure you don't get distracted. The messages to the lip (down the 7th cranial nerve) must come from the brain. Always protect that. Make sure you are less aware of the feel of the embouchure and more aware of your mentalizations. Then all you have to do is take enough air so you have a surplus and sing.^[L]_[SEP]

Every time you pick up your instrument you should search out quality. You must establish quality in your playing and then you transfer that quality to everything that you play throughout

the day. Never allow yourself to be satisfied with poor quality in the name of “warm up.” Your goal should be to play with great quality beginning with the first notes of the day.

The warm up is where you find the finest qualities of tone. That’s the most efficient tone production. That’s when you find the efficiency you are looking for. It shouldn’t be done by looking for ease of playing, but instead you should be looking for the quality of tone. The fact that you are looking for the beautiful tone is what counts.

When you look for a beautiful tone based on lyricism, you are automatically cutting down on the overwork. Overwork won’t be lyrical because it will sound forced and strained. The lovely love song is where you’ll find the ability of producing sound for the least effort. The goal is to go for the product and not the method. The intelligence of a human being is always directed toward the product; while other areas of the brain go for the methodology. You don’t work on endurance for endurance’s sake. Instead, work for the excellence in music so you gain endurance as a secondary factor. As you continue to work as an artist, you’ll develop the endurance.

You can’t control meat as meat (embouchure). But you can control what you are trying to do with it. As you control the note, you are controlling the embouchure. Go for the product not the method.

Challenge precedes development. Be patient with development. Don’t give up on doing something new, because you can’t do it right away; develop it. Anything you can’t do is difficult until after you have learned it, then it’s no longer difficult. The potentials of the human brain are enormous. You are a product of your past experiences and development. Skills can be developed; you don’t have to be born with skill. The instrument has no brains; the human does. So, the development of the person is our challenge.

In music, there is often too much emphasis placed on instrumental skills and not enough on musicality. The emphasis should be on being a musician, not on being an instrumentalist. As you learn the music, you learn the instrument. Don’t let the horn be the challenge, let the music be your challenge.

Think of air-flow as “wind” and not pressure. With wind there will always be some amount of pressure, but with pressure there may not always be wind. Motivate your air by thinking wind, not pressure. As you blow wind from the lips you’ll find that the air-flow increases while the pressure decreases.

By playing musically, your embouchure is learning to cooperate. In other words, the big increase in effort is for a big sound. Some players simply blow as a big physical effort, but they don’t get the big sound. Instead, they get big resistance and airy tones. They play with a great deal of physical efforts and their tones get rough and hard. That’s not right.

It’s the same concept of the ball riding on top of a water fountain. When playing loud, you simply use a bigger fountain. In fact, when I get very loud I don’t get very physical, but I get very musical. If you get physical without getting musical, you might push against resistance. As a result, you increase the resistance and then you have to increase the push and pretty soon, they’ll cancel each other out.

Forced loud playing is brittle and hard. Many times when I put a decibel meter on, I see that when a person tries to play louder, they are actually playing softer, but it sounds more strained.

They get more edge, but less tone. At home, get used to playing extremely loud as well as extremely soft every day. Do about 20% of your practice in the extremes. No more! [L] [SEP]

I've been a hobbyist on the structure of the body since the early 1940s and I had no idea at all that this would be helpful in teaching – it's just a hobby; the biological sciences have been intriguing to me ever since I was a little boy. But as I went in the studies I began to realize that there are very definite crossovers – the knowledge of one can help the other field, but I am very much against teaching science as a substitution for the art form. I always stress the programming of the musician in the art form.

I may use scientific investigative procedures for my understanding of a student's problems, but when I work with a student I, if there is a problem which has to be worked out in a body sense, I do it away from the instrument. We do it completely away from music until we establish normal activity and then re-apply it to the instrumental function. But when I am working with a man as a musician, I always work with his mind, not his body. And we don't stimulate the mind into asking a question, we stimulate it into issuing a statement. [L] [SEP]

The musician has to communicate to an audience, and has to know what to say to the audience with sounds, so the mind has to be flooded with sound and has to think in terms of that so the player doesn't go looking for what the various musculatures are doing. [L] [SEP]

Student after student comes to see me very much involved in the mechanisms of function, but the thinking part of the brain is not equipped to stimulate this type of function. You have to find the end product. With a musician, you have to realize that conditioned response demands a study of stimuli and we have to work with a stimulus. It's like a piano player roll, for a simple explanation, we don't operate the keyboard, we go directly to the roll and get the function right there and the keyboard will respond. [L] [SEP]

The study of any art form is the study of the mind – of the individual – the creative process. But for any musician who plays a brass instrument this is so especially important. The pitch source is part of you – controlled in one way or another by your nervous system and your mind. The instrument has no brain. The player has to put the pitch into the instrument and have it resonated. We have to send in a frequency that the tube length can respond to. That frequency comes from our thoughts, as if we were singing with our voice, but we use our lips instead.

We are a story-teller except that we use audio without words, but we use coloration and sound and so forth and we have a definite message. It does come from the mind through tissue, through amplification to the audience. But it is the instrument that is last in this chain of acoustical actions – the mind is first!

When I first learned to play a brass instrument (the bugle) there were no brass teachers in the small town where I lived. My mother, who was a fine professional pianist, played bugle calls on the keyboard. I learned them by ear, and I learned them well. I learned them by listening to the notes and then conceiving them. That was the training of my brain. I was not involved in playing correctly, just in sounding good; it went very well.

The body works on the concept of products. Leave the complexity alone, and go for the products of great tone, and great artistry.

Always order wind, not expansion. In other words, when you take a breath, you must order suction of air from the tip of your mouth. The psychology of wind is at the tip of your mouth.

When you order suction of air expansion will follow. But if you merely order expansion you may or may not get any air. The body can lie. Breathe to expand, don't expand to breathe. [SEP]

Don't be afraid of playing wrong and ugly. This is music and music making is like acting. You should make people laugh and cry, you can be a villain or you can be a hero. There are varieties of interpretation and sound is part of it. I wouldn't be afraid of playing with the wrong sound. [SEP]

If you can thicken up your air column, it will be easier for you to play. When you sense your sound thinning out a bit, stop and get organized. Strive to get that thick air column and the round sound again. The round sound will indicate a slightly longer embouchure. When the embouchure gets too small, you begin to lose control and it will be hard to find your pitches. When your embouchure is longer, there are more fibers for shaping the lips than when the embouchure is short. You'll find that your general playing is always better with a little longer embouchure. [SEP]

You have to get into the spirit of tonguing based upon vowel and not based upon the consonant ... The tongue has to swiftly pronounce the consonant and learn to get out of the way of the wind by moving to its vowel form right away

You don't control meat (embouchure) to control sound, you control sound to control meat. This can be checked out. It's not just my statement.

Even a short note is a short buzz. You have to use the tongue but basic tone production is air and buzz. [SEP]

It doesn't have to feel good, it just has to sound great.

Use the tongue as when you use it in speech - so use it for timing and diction purposes. Music is always a combination of air and the embouchure buzzing.

When tonguing, the vowel has to be dominant over the consonant. The vowel is always open and the consonant is always closed.

The worst thing is to be asking questions when you should be issuing statements. That's important! [SEP]

A musician will learn so much from hearing. My only caution is don't listen to yourself too much while playing. Instead concentrate most on the message.

I want to stress that the answers (to brass playing) are all in simplicity, not complexity.

When you play your instrument you should always wear the hat of the performer. When you teach you'll wear the hat of the investigator. Don't mix those up.

Don't play by the knowledge of anatomy. Play by the knowledge of music – phrasing, tone color, mood, style. It's the art form that should be at the center of your motivation, not your body. [SEP]

The abilities of the human must be challenged for development to occur. As a musician you are the product of the music you play and the quality with which you play it. You should focus on

“how it sounds”, not on “how to do it.” Order “what to accomplish, not how to accomplish it.” Order product, not method. Always accept the challenges of improving your sound and playing accurately.

The lips become vocal chords. Sing with them! Put the notes into the cup of the mouthpiece. By the time it reaches the throat of the mouthpiece, it's success or failure because everything on the other side of the mouthpiece is acoustics.

It's how you focus your mind that makes things difficult or easy.

You should develop your dynamics way up and way down to minimal levels. Both have to be studied musically so you don't blast. It's all based on music with excellent qualities.

Be an actor and pretend to be someone else for a moment. Use imitation (or create your own model) and hear the different players in your head. Put great examples in your head and demonstrate how a great player sounds. Always start with the sound in your head and not with mechanical preparations.

One should have a great sound in the brain to imitate because if there is a great sound in the imagination but a horrible sound coming out of the horn, it won't be long before the horn sound becomes better.

Your lips don't have to work just because you blow. They are like vocal chords and it is the sense of having a constant renewing message in your brain—just like if you were a speaker reproducing sound from a stereo. You just can't do these things by the mechanics of brass playing alone. Instead, you have to stay focused on the art form.

What you want is to have the release of the air toward the lip and not toward the tongue – this is what gives you thick wind. Otherwise, at that moment when the air hits the tongue, the brain will form a pattern of response based on the control of the tongue rather than of the needs of the lips. In other words, blow from the lips.

You don't want to build up the air pressure behind the tongue. It's air and lip that plays music ... The psychology of it is that the air should be at the outer part of your lip, and not inside of your mouth. You want to play down as much of the interference of the tongue as you can. Your job is to connect the air with the lip.

There is a continuity of procedures and we must start with the tongue. First of all, start with taking a deep breath because the shallow breath will have the brain assign a priority of closures in the mouth area (the tongue included) and it will close no matter what you do simply because you don't have enough air coming up your trachea. So take lots of air in and then play with a small tongue.

When playing, you should be using your brain for the study of music, not the study of muscle groups.

The use of imagination is a strong tool for getting the body to react to whatever you are trying to accomplish. When playing, always imagine a great sound (even if you are sounding rotten at the moment). Imitate a player better than yourself.

All brass players should develop the ability to hear music in their heads before playing. The lips act as vocal chords for brass instruments, but (through our thoughts) we have to furnish the message for them.

The lack of musical imagination in the musical endeavors is the number one problem in most cases. You find that those students who crowd their brains with how to play their instrument from a technical standpoint, are not able to play music from a musical standpoint. One should learn first how to play music and by doing so, learn to play the instrument.

When missing notes, often the cause is that there is not enough singing going on in the brain. There should be two voices, one that comes out of the bell of the instrument (which is not too important), but the other you conceive in the head. That's the most important one. The sound coming out of the bell should be a mirror image of the sound you hear in your mind.

Always find the rhythm of your music in the buzz and not in the tongue. If you connect your buzz and your mind, your authority will increase right away.

When you breathe you have to order how much air. You don't just order breath. That's non-specific. Order large quantities.

You have to train yourself so that all the ink spots on the page of music are converted into sounds in your head.

One of the finest studies a brass players can undertake is the study of solfege. Assigning a name to a note builds a concept of pitch in the brain; as soon as we think of a word, we will hear a pitch. To excite the nervous system properly, we should have the musical thought in the brain; playing is simply a read-out of our thoughts.

You have to realize that you don't play by listening to yourself play. That's playing by asking questions. You have to play by issuing statements. We need to issue the statements with enthusiasm and as a product of our imagination. Be a storyteller of sound.

The big thing about music—or any other art form—is that you can enjoy what you are doing, but others must also enjoy what you are doing. Its orientations should be like when you draw a beautiful picture on canvas for others to enjoy. When you are playing a solo, you are not playing for you, but for the people who are listening.

The notes have to be more in your brain and less in your lip.

It's most important to have melody in the mind and wind at the lips.

Shallow breathers will have playing problems with age, as they will experience a decrease of breathing abilities. In other words, they will use the same muscular activity with fewer results. Consequently, shallow breathers find it difficult to continue their profession by age 45-55. However, if you have formed your breathing habits correctly, you can get around that problem by simply taking large breaths. You develop correct breathing habits in the practice room and not in performance. If you follow through with the study of taking large breaths in an orderly fashion, you'll age gracefully as a player.

Breathe to expand, don't expand to breathe. With a great inhalation there will always be shape change, but with shape change there is not always a great breath. The body can lie. Suck air at the lips, the rest will take care of itself.^[L]_[SEP]

Your goal is to constantly develop the mental aspects as a musician so you are not blowing a brass instrument at all, but instead you are singing.^[L]_[SEP]

Your body doesn't understand complex rationalizations because they lead to the loss of the natural – childlike – connection between thought and action. If you learn to use your head by honest simple thoughts, you'll learn to communicate with your body.^[L]_[SEP]

Anything that influences the external environment in any way is “motor.” When I talk to you, I am using motor systems for me to communicate messages to you, but you are hearing those messages through sensory nerves that travel through from the ear to the brain. ... As a performer, you should be more involved in the message itself [motor], and less so in the evaluation of how you are sending [sensory] the message.^[L]_[SEP]

Get used to coming up from the low register with a round sound rather than coming down from the high register with a thinner sound. Let the low notes teach the high notes.

Controlling the embouchure is an illusion because you cannot control the embouchure by using direct commands. Nobody can! You can only control your sound (which then controls the embouchure). When you control the music you'll find that you have controlled the “meat” [embouchure].

The big danger in the big fortissimo is that there is so much physical awareness of the effort involved, that you'll begin to use the effort to get the big tone rather than just going for the big tone (which will include big effort). You should give the priority to the tone and not to the effort. When practicing the large dynamics, you should pair them with pianissimo playing. There are players who have a horrible sound by the time they reach 108 dB. They have a very small embouchure—like a small reed—and when trying to play loud, they force it. They show signs of physical stress, but on the decibel meter they are not getting any louder. There is just more resistance and more push, but not more sound.^[L]_[SEP]

When your lip is a little bit insecure, make sure your mentalization of music is louder in the head so you can increase your source of stimuli. You'll suddenly find that it's compensating in the lip end.

If you have a larger quality of sound, you'll also have a larger volume of sound. The tendency of putting larger physical effort for producing a larger sound is like lying to your own body. The other approach has more to do with the methodology of how to produce that sound ... Weakness is your friend, strength is your enemy.^[L]_[SEP]

I need you to imitate artistry. To do that, you have to pretend to be a great artist. For example, if you have to pretend that you are dying, you can't do it by really dying. However, you've seen enough films of people dying so you can imitate the actors. If you want great joy, you don't need to eat an ice cream cone to attain it. All you need is to respond to a feeling of joy. This approach will pay off in our art form of music. ... As the creative part of your mind awakens, you'll find that it will make brass playing easier.

Asking questions is not undesirable. I do it too because that's the way we learn many things. However, when you play your instrument you should get into show business and be a storyteller of sound so you avoid self-teaching.

Perfect your thoughts and you'll perfect your lip.

Don't prepare yourself to play your instrument. Instead, prepare the sound in your head.

If you play a thousand notes a day but 800 are mediocre and 200 are magnificent, the brain will say, "God! Those two hundred notes were great and I am happy." Unfortunately, the 800 mediocre ones form the habit. Make sure you have 800 great ones!

Even when you are wrong, I need very much to ask for more authority in your interpretation. A positive attitude is very important for a musician in terms of confidence even when you know it's not deserved.

Sound is the end product of what we do; I try to focus on the concept of sound and minimize the mechanical procedures that produce it.

How our embouchures feel is not important, just how they sound. My lips haven't felt good in years, but I can still fool the audience.

The breath should be used as if it were a fountain coming out of the ground and your tone is riding on top of it.

An embouchure that looks perfect might be silent because there is no signal along the nervous system ordering the sound. You have to order the note by the sound of it, not by shaping the lip and blowing against it as if it were a wooden reed.

The art of inhalation is based on suction, not on the expansion of the body. Breathe to expand, don't expand to breathe.

There should be a period of time during each practice session where you perform. Invite some friends in to your practice room and play a passage or a page of something. Or pretend there's a conductor on the other side of the door with a \$90,000 contract waiting for you to win based upon your performance. Or simply turn on your tape recorder and perform for the mic. What I'm trying to indicate is that each day should contain some amount of performing. You should deliberately engage in the act of story telling each day you practice. Don't only gather information when you practice, spend time imparting it. This is important.

You have to consider yourself elementary when you begin to study high range. Don't worry if you are successful or not. However, in your brain you have to be successful.

We [brass players] can play almost anything on a mouthpiece and get a great deal of practice benefit from it.

It is much better to have too much air than to have too little; as you grow older this becomes even more important. Air is free, go ahead and waste it.

If your nose itches, scratch it. If you want to kick a ball, kick it. If you want to take a breath, breathe. I need simple, childlike thoughts to control the body.^[L]_[SEP]

Have enthusiasm for the music without general states of tension.^[L]_[SEP]

Constantly reduce efforts without sacrificing the quality of your product, so that you are not playing by efforts, but by product. Find how easily you can do it.^[L]_[SEP]

Don't play by efforts, but concentrate on sound with "minimal motors," that is, without stiffness. Make muscle movements resultant and not causative of playing.^[L]_[SEP]

Weakness is your friend; strength is your enemy. Weakness will help you use all of your potential.^[L]_[SEP]

It's not about the embouchure or about muscles -- they are already developed. If Bud Herseth [Adolph Herseth] could put his brain into your skull and you play with his brain, your lips would do a much better job. It's how you think when you play that's going to help you improve.^[L]_[SEP]

I don't want a fixation on reeds or lips. I want a fixation on music.^[L]_[SEP]

When a person takes in a breath, if he enlarges his body, he can take a pseudo-inspiratory maneuver and substitute it for a valid one because there is shape change possible where he is not taking air, he is merely going through the motions hoping to take air. But if he is motivated to take in air, he will find it fairly easy to take it in; it doesn't take any great strength to do it -- in fact, the less strength involved, the better.^[L]_[SEP]

When a person takes in a breath, if he enlarges his body, he can take a pseudo-inspiratory maneuver and substitute it for a valid one because there is shape change possible where he is not taking air, he is merely going through the motions hoping to take air. But if he is motivated to take in air, he will find it fairly easy to take it in; it doesn't take any great strength to do it -- in fact, the less strength involved, the better.^[L]_[SEP]

There is no way or reason to do the advanced technical work on a brass instrument before doing the ear training work.^[L]_[SEP]

The lips become vocal chords. Sing with them! Put the notes into the cup of the mouthpiece. By the time it reaches the throat of the mouthpiece, it's success or failure because everything on the other side of the mouthpiece is acoustics.^[L]_[SEP]

Most players who get in trouble try to use their lip as a woodwind reed. You can't play by treating your lip as a wooden reed. Instead, it has to be used like the vocal chords of a singer. Then you have success.^[L]_[SEP]

We are so used to handling our embouchures, but if you let go and handle the brain instead, you get better and easier results.

It's not about the embouchure or about muscles -- they are already developed. It's how you think when you play your instrument that's going to help you improve.^[L]_[SEP]

You have to start each tune with great quality. Prepare the qualities of tone in your head before you play and you'll be better off. Prepare the sound and not the mechanics. Your body will respond as a result.

Your body doesn't understand complex rationalizations because they lead to the loss of the natural – childlike – connection between thought and action. If you learn to use your head by honest simple thoughts, you'll learn to communicate with your body.

The seventh cranial nerve [motor nerve] has to be completely convinced of what you are doing no matter what doubt the fifth cranial nerve [sensory nerve] sends back. You have to cover up the pictures of doubt with the pictures of success.

You always must have the voice in your head because that is the signal that goes down the seventh cranial nerve to your lip. The ability to perform is tied into your sense of sending a message (as when you use your lips as vocal chords). That is the job of the seventh cranial nerve.

Don't ask questions, but instead make statements. You should teach the audience what's on the page displaying a lot of show business.

Anything that influences the external environment in any way is "motor." When I talk to you, I am using motor systems for me to communicate messages to you, but you are hearing those messages through sensory nerves that travel through from the ear to the brain. ... As a performer, you should be more involved in the message itself, and less so in the evaluation of how you are sending the message.

Shallow breathers will have trouble playing the end of their phrases. If they take a poor second breath, they will really be in trouble because their reflexes are going to be activated and they will start to tense up (or start to close) their throat. Their chest will also become tense and everything will go in a downward spiral from that point on.

Always order wind, not expansion. In other words, when you take a breath, you must order suction of air from the tip of your mouth. The psychology of wind is at the tip of your mouth. When you order suction of air expansion will follow. But if you merely order expansion you may or may not get any air. The body can lie. Breathe to expand, don't expand to breathe.

When blowing, order motion rather than pressure. It is helpful to spend a few minutes a day blowing out candles (imaginary or real), blowing pieces of paper, etc. You must always remember that in the order of thought, 15% is about air, but 85% is about music. We play by song, not air. We need air to play, but music should always be the dominant thought.

You educate an embouchure by playing music and not by logic or peripheral thoughts of any kind. You have to actually play the notes. Bad sounds can be made into good sounds, but silence cannot. You develop an embouchure by playing music.

Can you discipline your brain to continue singing even when discomfort comes? The human brain won't want to do that. It won't want to cooperate because it likes to always be alert to know what the dangers are so they can be corrected. It's a survival instinct. In our art form, however, we must overcome that. I want for your survival in this profession to get the results. I want you to sing!

Work your tonguing based upon the concept of a “loaf of bread” and all its excellent ingredients. Now, you simply cut off slices from that loaf—those slices have the same ingredients as the big loaf. You have to work the same way with your long tones. That’s the basic principle behind it.

If you have a larger quality of sound, you’ll also have a larger volume of sound. The tendency of putting larger physical effort for producing a larger sound is like lying to your own body. The other approach has more to do with the methodology of how to produce that sound ... Weakness is your friend, strength is your enemy.

If you can thicken up your air column, it will be easier for you to play. When you sense your sound thinning out a bit, stop and get organized. Strive to get that thick air column and the round sound again. The round sound will indicate a slightly longer embouchure. When the embouchure gets too small, you begin to lose control and it will be hard to find your pitches. When your embouchure is longer, there are more fibers for shaping the lips than when the embouchure is short. You’ll find that your general playing is always better with a little longer embouchure.

There are players who have a horrible sound by the time they reach 108 dB. They have a very small embouchure—like a small reed—and when trying to play loud, they force it. They show signs of physical stress, but on the decibel meter they are not getting any louder. There is just more resistance and more push, but not more sound.

[Brass] Players must sing perfect notes into their instruments. Sing with your lips!

Loud playing doesn’t connote big physical efforts ... As you get used to playing extremely loud, anything less than that gets easier.

Think of how you want to sound in your instrument and avoid thinking of how you are going to do it.

Your goal is to constantly develop the mental aspects as a musician so you are not blowing a brass instrument at all, but instead you are singing.

I was a good brass player until my first analytical teacher came along and attempted to teach me how to play.

I always believe that it’s important to be somewhat unconscious of our physical maneuvers but highly conscious of our musical goals. What you want is to have the release of the air toward the lip and not toward the tongue – this is what gives you thick wind. Otherwise, at that moment when the air hits the tongue, the brain will form a pattern of response based on the control of the tongue rather than of the needs of the lips. In other words, blow from the lips.

Take charge of your music and not of your instrument! Be a storyteller of sound.

“Think sound, not mechanics.”
---Adolph Herseth

When playing (buzzing) your mouthpiece, pretend that you forgot the instrument at home, BUT you still have to entertain your audience! Remember that you sing with your lips and the instrument merely serves as an amplifier of whatever sounds come out of your mouthpiece.

Your lips don't have to work just because you blow. They are like vocal chords and it is the sense of having a constant renewing message in your brain—just like if you were a speaker reproducing sound from a stereo. You just can't do these things by the mechanics of brass playing alone. Instead, you have to stay focused on the art form.

Make sure the tongue doesn't lock the air away from the lip. Put the air at the lip, not the tongue.

There is no such thing as wind without pressure, but there is such a thing as pressure without wind.

There's nothing wrong with your chops. Your mind is messing them up.

---Adolph Herseth

The big danger in the big fortissimo is that there is so much physical awareness of the effort involved, that you'll begin to use the effort to get the big tone rather than just going for the big tone (which will include big effort). You should give the priority to the tone and not to the effort. When practicing the large dynamics, you should pair them with pianissimo playing.

You must handle your high register with kid gloves. In other words, don't bully it. You have to consider yourself elementary when you begin to study high range. Don't worry if you are successful or not. However, in your brain you have to be successful.

Every time you pick up your instrument you should search out quality. You must establish quality in your playing and then you transfer that quality to everything that you play throughout the day. Never allow yourself to be satisfied with poor quality in the name of "warm up." Your goal should be to play with great quality beginning with the first notes of the day.

You don't want to build up the air pressure behind the tongue. It's air and lip that plays music ... The psychology of it is that the air should be at the outer part of your lip, and not inside of your mouth. You want to play down as much of the interference of the tongue as you can. Your job is to connect the air with the lip.

In multiple tonguing, it is easy to slow down your playing to raise your standards of tone. Otherwise, if you face the immediate challenges of double-tonguing head on and at a fast speed, you might not achieve success. I hear so many players with deteriorated tone production as soon as they multiple tongue.

Your goal is to constantly develop the mental aspects as a musician so you are not blowing a brass instrument at all, but instead you are singing ... You can put the valve down and anything can come out. I learned that when I was sixteen years old and I thought, "This is no way to live your life!" I started to study these things, and the result is my career and the way I teach today.

The contest between air and lip is so unequal that the lip will always win over the breath and you lose the ability to function ... Think wind not pressure.

Shallow breathers will have trouble playing the end of their phrases. If they take a poor second breath, they will really be in trouble because their reflexes are going to be activated and they will

start to tense up (or start to close) their throat. Their chest will also become tense and everything will go in a downward spiral from that point on.

Shallow breathers will also have playing problems with age, as they will experience a decrease of breathing abilities. In other words, they will use the same muscular activity with fewer results. Consequently, shallow breathers find it difficult to continue their profession by age 45-55.

Breathe to expand, don't expand to breathe. With a great inhalation there will always be shape change, but with shape change there is not always a great breath. The body can lie. Suck air at the lips, the rest will take care of itself.