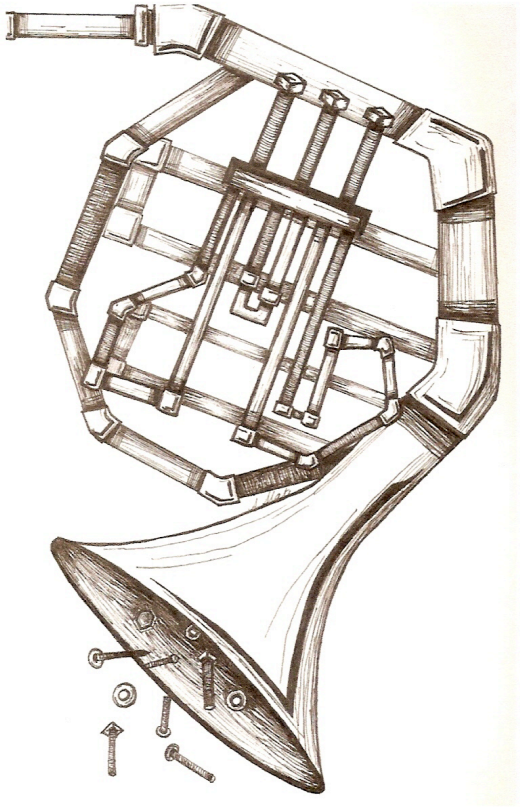
HORN PEDAGOGY 101

The Nuts and Bolts of Teaching Horn



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Reducing the whole to the most simple parts

Nut and bolts are the basic components of even the most sophisticated machinery. Likewise, the basic fundamentals of teaching the horn are essential to developing successful horn players. Even the most demanding literature can be learned by focus on tone, range, flexibility or facility. By creating good habits and muscle memory in these four basic "nut-and-bolt" aspects of horn playing, a player will develop in a creative and positive way.

This presentation will attempt to reinforce "ground-level" foundations of horn pedagogy. The formative years of horn playing are like carefully constructing the foundation of a towering skyscraper; once a strong, well-constructed foundation is built, the sky is indeed the limit.

Establish a correct playing position

The importance of playing position and posture must be considered in any discussion of basic pedagogy. Many problems which hinder progress of horn students in tone development, range extension, technical facility and flexibility, can be traced to faulty playing set-up. Insisting on correct playing posture from the first day can prevent problems in the future. A sloppy playing posture will likely lead to embouchure and tone productions problems.

It is helpful to establish an inventory of factors crucial to the playing set-up so a quick visual scan can identify potential playing problems.

A list of playing posture guides can be outlined as follows:

1. **Stand or Sit**
2. **Bell Placement**
3. **Right-hand shape and placement in the bell**
4. **Left-hand position**
5. **Embouchure Formation**
6. **Mouthpiece placement**
7. **Horn-to-head relationship**
8. **Wet or dry lip**
9. **Minimal pressure**

(This list is patterned after one from Prof. Paul Anderson, retired Professor of Horn Emeritus to the University of Iowa. A similar list by Dr. Patrick Miles is found in *Teaching Brass.*)

1. Sit or Stand

Beginners should sit at all times. As the player matures physically, standing for solo performances should be encouraged.

How to sit?

The student should sit as they stand. This assumes a posture in which the body is comfortably upright, in good alignment and without tension.

2. Bell placement

The bell should be placed on the right thigh and angled away from the body. The right leg can be shifted to facilitate a good angle between the head and the horn.

Taller students might tilt the head downward to reach the mouthpiece. This will result in too much pressure on the top lip and impede air flow.

Shorter students might "reach" up to reach the mouthpiece. The results here will be a poor angle for the lower jaw and general tension.

Hint: The right foot can be placed on a guitar stand to add "height." These are inexpensive and easily portable.

3. Right-hand placement in the bell

It is important to realize the horn is built on the premise that the right hand is a part of the acoustical equation. Without a good right-hand placement, it is not possible to play with good intonation.

The right hand should be placed along the side of the bell opposite the body. It should have only the slightest cup, almost like a "beauty-queen" wave or as if slapping a ball with the palm. It should be inserted to the knuckles on the back of the hand and not too deep so as to muffle the sound.

Never cup the hand on the bottom of the bell or grasp the bell on the top side of the bell throat.

Hint: Every horn has a brace on top of the bell. If you view this as the 12:00 position on a clock face, slide the thumb into the bell at approximately a 2:00 position.

4. Left Hand Position

Shape the hand as if you are going to toss a ball underhand; now, rotate the hand over the valve levers. Be sure the middle three fingers constantly stay in contact with the valve levers. The thumb should be placed on the change valve; the little finger should rest in or on the ring.

Hints:

- *Again, be observant to insure the fingers remain in contact with the valve levers. Many students develop a poor habit of letting the third finger, in particular, rest on the tubing.*

- *Another poor habit common among developing students is the "flying-finger" syndrome. This is allowing the fingers to fly off the valve levers rather than staying in contact with them. Technical facility can be hindered by this action.*

5. Embouchure formation and mouthpiece placement on the embouchure

Formation: As stated by Philip Farkas in the *Art of Horn Playing*, "the embouchure is in the shape of a "puckered smile." More detailed, this means there is a proper balance of the "pucker" and "smile" muscles. The balance provides the requisite firmness for a relaxed, vibrating mass.

This sensation can be simulated by pronouncing "M"; while gently holding this, form the letter "P." This demonstrates the balanced feel between the corner muscles of the corners and middle of the mouth.

Placement: The mouthpiece **must** be placed on the lips at a ratio of 2/3 upper-lip to 1/3 lower-lip. This as close to an absolute rule as it gets. Be particularly observant of this placement with converted trumpet players.

Suggestion: Take the time with beginners to place the mouthpiece on the student's face repeatedly to reinforce the "feel" and habit.

Embouchure definition: Consider the concept that the embouchure is more than the top and bottom lips. In *The Art of Brass Playing*, Farkas defines the embouchure as "the muscles of the mouth, chin and cheek formed in a cooperative manner…." The most efficient embouchure relies on all the muscles of the face working together.

Visual proof of a functional embouchure:

Again paraphrasing Philip Farkas, certain characteristics of "the brass player's face" are trademarks of the efficient and functional embouchure:

- Parentheses marks formed by the corners of the top lip.
- Cheeks firm as if smiling.
- A "U-shaped" appearance in the chin.
- The bottom jaw thrust slightly forward in a somewhat aggressive look.

7. Bring the horn to the head

Correct body/instrument alignment is the issue here. It is important to remember the body is the "fixed object" and the instrument is the moveable one. Prime concern is the mouthpipe-to-embouchure angle. The mouthpipe should be at a slight downward direction from the embouchure; too straight an angle or too much downward tilt will be detrimental to range development.

8. Play with a wet lip

Lick the lips and keep them moist at every opportunity. This will aid with response, flexibility and endurance.

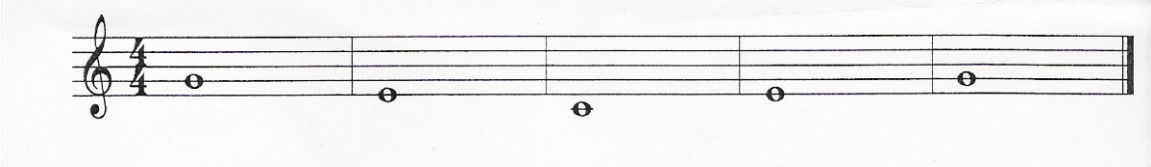
9. Use minimal pressure. Efficiency is the goal!

Pitch Accuracy 101

Perhaps the most difficult task facing the beginning horn student is pitch accuracy. A very simple, basic drill called the anchor point will help the beginning student overcome this obstacle. (This was coined by Prof. Paul Anderson, University of Iowa).

This is a simple C major triad: written middle c-e-g-e-c. A vast majority of beginner exercises begin on one of these notes or within a major second of one. Have the horn student play the anchor point before each exercise; this will begin to establish a basic aural anchor.

Anchor point:



PEDAGOGY 101

Tone, Range, Pattern and Flexibility

Horn pedagogy can be divided into four basic areas. Daily attention to drills in each group will help considerably in developing horn players.

TONE

Many factors contribute to tone production: relaxed embouchure, air flow and other physical aspects. However, where does sound actually start: Embouchure? Air? Mouthpiece? While all of these are important, I am convinced sounds starts in the brain with a definite concept of how you want to sound. Here are four descriptors to illustrate a great sound. Encourage the student to think of a descriptor appropriate to each category.

- Shape
- Temperature
- Size
- Color

To complete the basic concept add:

- Centered/focused and resonant.

Now, combine these and "hear/imagine" that great, characteristic horn sound in your mind!

Breathing

Any discussion of tone must address breathing. Air flow is, perhaps, the most important physical component of sound.

Instructions: **Keep it simple**! Avoid giving muscular/physiological instructions; such physical instructions tend to create tension and actually have nothing to do with moving air.

Example: "Push the air"; "Blow from the diaphragm"; "Push from the abdomen"

Always think in terms of wind:

- What is wind? Air in motion! Wind into the body and wind out!

Breathing is a two-part cycle. Inhalation and exhalation- these must take place with no interruption or pause. Interruption leads to tension!

Inhalation: it is defined simply as "suction with minimum friction."

Example: Inhale with through the corners while the teeth are held close together. This illustrates suction with maximum friction. Conversely, shape the lips and mouth in an "O" shape and place two fingers in front of the lips. Now, inhale being aware of the "wind" moving across the fingers as the air moves into the body. Which results in a larger quantity and quality inhalation?

Conclusion: Inhale with an "OH" inward. Others syllables which such as TO and KO are acceptable. Inhale until comfortably full!

Exhalation: Simply blow! Order both quantity and quality of air. Quantity will depend on range and dynamic. Quality will likely always be "warm."

Example: Blow directly and vigorously into the palm of the hand. Cold or warm air? Now, form the hand into a relaxed fist and blow through the thumb and forefinger. Warm air!

Air-to-Sound

Breathing must relate directly to tone production; remember, the air is the life-blood of sound!

Think of breathing as a **commitment! A good inhale indicates the commitment to produce a good sound!**

BREATHE TO CREATE A SOUND

Relate to the list of mental descriptors of a good sound to a good breath:

Shape = Round	Breath = "OH"
Size = Large	Breath = Full inhale; vigorous, steady exhale
Temperature = Warm	Breath = Warm

Tone development

The most important factor for the student in developing a great sound is listening! Listen to yourself and listen to others!

Listen to yourself: know what you want to sound like and produce it!

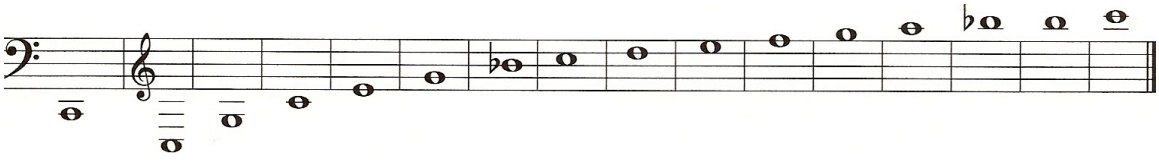
- Long tones (quality tones)
- "Magic note and matching": find that one magic, resonant, ringing, easy note that is full of "life"; next, match other notes to that standard.
- Mouthpiece buzzing (berp or vizualizer): strive for a centered, easy tone)
- Listen to others: listen to recordings of great horn players and "sample" a sound from these.

RANGE

Do not rush the student! It is imperative the student produce a relaxed, open, resonant tone with maximum efficiency in the middle register before extending the range!

Defining the registers on horn; While their will be some overlap, these are the guidelines:

Low: 2^{nd} – 4^{th} partial Middle: 4^{th} – 8^{th} partials Upper: 8^{th} – 16^{th}



Air stream direction is important is facilitating range extension: the air is blown **upward** for low register production; conversely, the air should be directed slightly **downward** when playing in the upper register.

Low register extension

The absolute most important fundamental in lower register performance is motion of the jaw. The lower jaw must move down and forward. It is not enough to simply drop the jaw; it must thrust forward as well. This motion is necessary to direct the air stream.

Example: Place the hand, palm down, under the nose and blow. Notice you feel no air in the palm. Now drop and thrust the jaw forward. Blow and notice the air stream has been directed upward!

A similar action by the horn player will facilitate low-register improvement. By pivoting the horn (or slight downward tilt of the head) and making sure the bottom lip "follows" the bottom edge of the mouthpiece forward, the low register will become easier.

Lastly, the embouchure must remain firm; it must not be too loose, flabby and excessively puckered!

Tone-bending is a great aid in extending the low range.

Upper range extension

Be sure the tone production is efficient and easy in the middle register before extending up.

Let the sound be the guide: the round, relaxed tone production of the middle range must extend into the upper register. If the tone color changes to an "ee" sound, that is an indication that something is not right.

Warning signs of problems with high register production:

- Thin, pinched sound: likely results from the embouchure being stretched too thin. The center of the embouchure must remain pliable allowing for as much vibrating flesh as possible. A visual indicator of this will likely be a "smile" embouchure with the corners pulled out. (**Remember this proverb: More upper lip in the mouthpiece and not more mouthpiece in the upper lip!**)

- Another common visual indicator of a problem is the "bunched" chin. Many students will allow the chin to dimple and take the appearance of a peach pit.

Playing into the upper register

- Scales: play scales, gradually ascending, with the goal to match the tone color and ease of production on each succeeding higher pitch.
- Lip slurs on the harmonic series: same principle as above.
- Mouthpiece buzzing.
- Increasing speed of the air stream as you ascend.
- Smaller, more focused size of the aperture (change of size, not shape!).
- Bring top-lip muscles forward and to the center.
- Minimal pressure! **More top lip in the mouthpiece, not more mouthpiece in the top lip!**
- Daily attention! If a student will practice exclusively on upper range extension five minutes a day, for five days a week; they will have spent about nine hours during the school term improving (hopefully) upper range production.

FLEXIBILITY

Having a smooth, facile flexibility is a must for the horn player. I equate flexibility with legato (slurring), that beautiful unbroken connection so identified with the horn.

Flexibility can be reduced to a phrase that comes from William VerMeulen, principal horn of the Houston Symphony, *"the integrity of the buzz."* This assumes the buzz never stops, that indeed, the air is continuous between the slurs. The embouchure and air are working in perfect unity.

One of the best ways of approaching is on the mouthpiece, b.e.r.p. or visualizer. Listen for a constant, continuous "buzz" between the pitches. Any break or even the slightest hesitation in response indicates the lips and air are not working in exact coordination.

There are two likely problems creating the break in the buzz. One, the lips are too tight to vibrate. Two, the air stream is not consistent enough to sustain a vital buzz. The remedy goes directly to wind, a relaxed embouchure and a commitment to sustain a steady "buzz."

Slurs on the harmonic series are the most efficient method to develop flexibility. The student should simply “bend” the pitch to the next step up or down on the series until it “glides” or “pops” in place. This should ensure maximum efficiency of the embouchure and air.

A common mistake made by developing horn students is the habit of “slotting” slurred pitches in place. This usually involves “huffing”, a “wah-wah” or "bulging” effect. Like any tone played on the horn, slurred notes should have the same color at the beginning, middle and end. Avoid the color change by simply buzzing and bending!

PATTERN

Pattern is the development of technical facility. The key here is fingerings must become reflex action just the same as any involuntary muscle-memory action of the body.

Begin with simple chromatic patterns as early as possible. As the student progresses, these chromatic patterns can be expanded. Naturally, scales can and should be used as well!

Sources for pattern development:

Technical Studies, Herbert L. Clarke. Carl Fischer (Trumpet method: especially, the first and second studies)

Daily Exercises and Scales. G. Pares. Carl Fischer.

Sixty Studies, C. Kopprasch.

Tips:

Use a metronome! It helps keep the student honest with tempo and reinforces the “internal pulse.” When a goal tempo has been reached, increase it!

While it may sound simple, do not stop when practicing pattern studies. This is not to say to accept mistakes, but this forces the student to continue and not stop the “pattern.” Of course, go back, slow down the tempo and correct the mistake!

As mentioned previously, be sure the fingertips remained in contact with the valve levers!

Do not ignore the B-flat fingerings on the double horn. Technical advantages are abundant beyond the typical “American” use of the double horn.

Tonguing

The attack is actually a release! Realize the percussive "ping" on the front of a tongued note results from a retraction of the tongue.

Pronounce this: "Ten turkeys trotting." How is the "t" sound produced? Does it happen when the tongue "strikes' the back of the teeth or as the tongue "releases" from the back of the teeth? Hence, a light, quick tonguing technique results from a quick retraction of the tongue rather than a machine-gun like forward piston motion!

Miscellaneous hints:

Space for the horn section: leave plenty of room for the tome to resonate; if bodies are too close, the sound will get muffled. Also, try to avoid placing the horn section on front of the percussion section.

Oiling valves: be sure to oil the back of the rotors with a heavier oil such as sewing machine oil or key oil.

Practice! Does "practice make perfect?" The answer is no!

Practice makes habit! Always create good habits!