



The United States Army Band

Pershing's Own

Hyperflexibility: An Owner's Manual for Embouchure Development

by Sergeant Major Dennis Edelbrock

I. **Back to Basics:**

"You must be smarter than the trumpet" 1) isolate 2) exercise

A. Sound is Vibration (higher pitch is caused by a faster vibration)

Two ways to create a faster vibration:

1. Tension on the vibrating mechanism

- a. Pressure on the lips (pulling the horn toward you playing with mouthpiece too low)
- b. Compression on the lips (chin may come up, possibly "air pockets")
- c. Pulling corners "back" in the upper register

2. More air moving across the vibrating mechanism

B. Relaxation: training the embouchure so you can use it less and use air more

C. Flexibility: defined as firm corners, loose aperture (key to unlocking upper range and sound, developing endurance)

II. **Embouchure Structure:**

a delicate system of counterbalances (interlocking muscles) (envelope concept, pencil trick)

A. Firm corners - corners tighten toward gums while "moving" toward the center

1. corners should not change significantly from extreme lower to extreme upper register
2. try not to leak air out of corners, look for "flat line" between lips
3. both sides of the embouchure might look different but must be consistent with themselves from extreme lower to extreme upper range

B. Loose aperture the vibrating mechanism is approximately 2mm

III. **Pressure "outside" the mouthpiece:**

- A. Don't pull chin up in ascending passages
- B. Don't allow lower lip to be pulled up under upper lip
- C. Do learn to play back farther (3 rolls of muscle) work as far back as possible

IV. **Compression "inside" the mouthpiece:** (concerns: "tear drop", lips likely to roll in)

- A. Embouchure buzz (embouchure buzz is about 60% similar to actually buzzing in the mouthpiece (use a mirror to check that bottom lip doesn't roll inward) Keep the aperture "open" as much as possible; yes, it will shut a little in upper register check with visualizer
- B. Check downward slurs most difficult (impossible to eliminate compression after you have started to)
- C. Slurs are the final exam for all preparations; the wider the interval, the more noticeable the problems (slurs become the microscope)

V. **"User-friendly" techniques to develop "hyperflexibility"**

- A. A few suggestions:
 1. Watch corners, (work toward a minimum of movement - use a mirror)
 2. Overall goal is to encourage corners to tighten up while compression is released from the aperture
 3. Occasionally, learning to use the corners and releasing the aperture will result in grunting or gulping, (closing the throat)
- B. Clarke 1st Study - Arban pg. 12 slurred throughout; work for a seamless connection note to note (beware of Cross-grain slurs-laws of physics)

C. Standard "flexibility" drills:



D. Bend notes play "C" scale with no valves (use a "smart" tuner):



- E. "Arban Book Trick" (no pressure) watch for corners to tighten up and pressure to come off the aperture (aperture may feel "vibrant") use long tones & standard "flexibility" drills (see above)
- F. Use "no tongue attacks" (use easy repeated notes, easy scales, flexibility drills)

VI. "User-friendly" techniques to develop breath support:

A. Suggestions:

1. Slower (fuller and deeper) airstream (may cause a darker, richer "dull" sound involving more lower partials)
2. Again, the overall goal is to encourage corners to tighten up while compression comes off of the aperture during these exercises

B. Breath accents (watch corners tighten - use a mirror)



C. Embouchure "Buzz" (this will encourage deep breath support)

D. Balloons (be sure not to "lock" throat but adjust air from the lungs into the balloon)

Sergeant Major Dennis Edelbrock, founder of the National Trumpet Competition, has been a member of The United States Army Band "Pershing's Own" and The U.S. Army Brass Quintet since 1975. The Army Brass Quintet performs frequently at The White House and has toured in 36 states and 12 foreign countries. He is also a member of the George Mason University faculty where he has received the "Excellence in Teaching" award. As principal trumpet with the Kennedy Center's Washington Chamber Symphony, Dr. Edelbrock appears frequently as a featured soloist including performances on NPR.

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