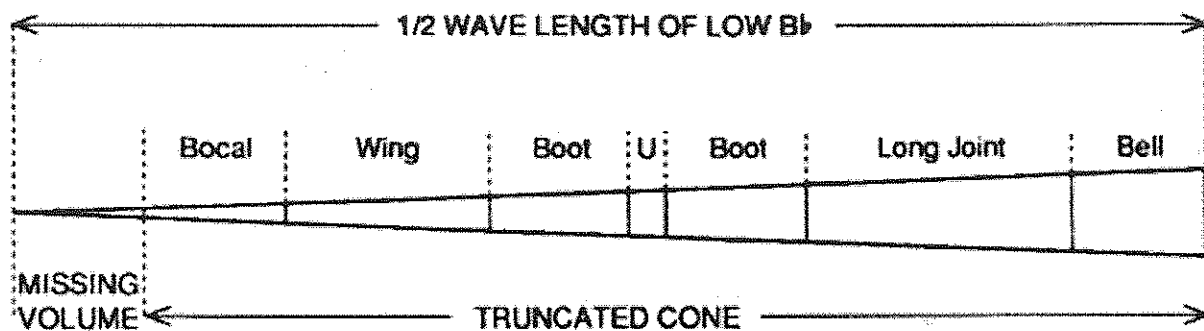




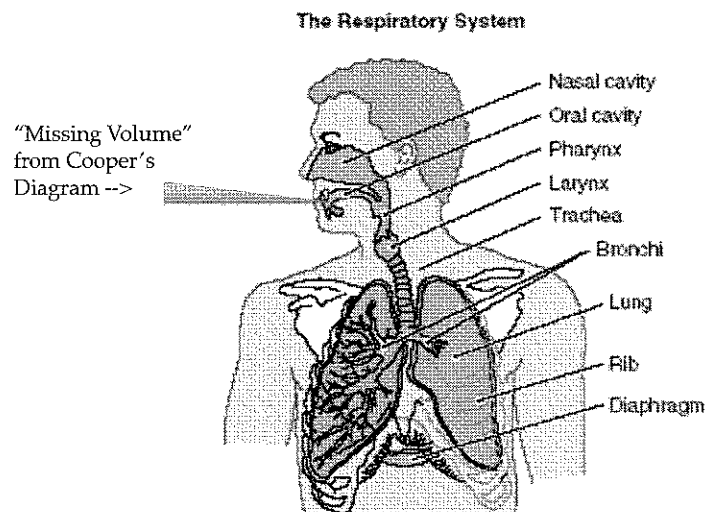
A Methodology for Reed Adjusting

Dr. Christin Schillinger - www.schillingerbassoon.com



Lewis Hugh Cooper's Coupled System

"The dimensions of an instrument's conicity directly affect necessitated bocal and reed dimensions. ... This is why a bocal matched perfectly to one horn could sound unstable, unresponsive, or out of tune on another. Similarly, a reed that plays dark and resonant on one model, could sound bright and sharp on another. The missing contribution of the reed is not created by conicity, but through volume, vibration, and resistance." -Schillinger 8/5/2014



Christin Schillinger's Complementary Coupled System

"The diagram presented does not conflict with Cooper's theory, but rather acts as a complementary system. For me, the ultimate "Missing Volume" is fulfilled not only by the reed, but also by the performer's physiology. This includes a player's embouchure, oral cavity, breathing apparatus, and support network. As the reed's internal volume enlarges, I begin a secondary Coupling through the physical body. The reed and the performer's physiology work in tandem to fulfill the "Missing Volume."

A Methodology for Reed Adjusting

VISUAL ASSESSMENT

Blade arch

- Too much? Flatten Wires.
- Too little? Round Wires.

Leaks

- Check by Covering Butt with thumb. Suck air from blades.
- No seal? Don't play.
- Can attempt to seal (dry) using paraffin wax, duco, or Teflon Tape. Better to make new reeds.

Splinters

- Sand gently with 600 grit sandpaper

Balance

- Use knife with exfoliating scrape
- Working perpendicular to grain will create a more blended scrape.

Tube Cleanliness

- Use rat-tail file
- Use pipe-cleaner

Discoloration

- Use pipe-cleaner for inside the reed
- Do "Morning Wake-Up"
- Discard Reed if Mildew is present (Make new reeds)

Tube Shape

- Insert Forming Mandrel/ Adjust by wires

Collar Cleanliness

- Use Razor Blade or X-acto Knife to clean collar
- Assess reed under light (&/or dial indicator) to assure blade back is correct dimension

TIP APERTURE

If a quadrant(s) is uneven

- Scrape the offending channel(s)

- Scrape the offending rail (check the rail first for balance)

If the closure is parallel

- Scrape the channels, careful to avoid the front rails

If the tip is overly de/regenerative

- Open at the second wire
- Discard reed/Make reeds.

THE CROW

Response:

Too responsive

- Tighten wires
- Check Wire Positions
- Channels (Back 1/2)

Strident/Wild

- Channels (All Thick)
- Non-de/regenerative tip opening
- Rails Too Thick

Unresponsive

- Resistance Bumps
Blend: Sdpr/Knife
- Tip too thick
- Back Too Thick
- Channels
• Front 1/2
- Entire Blade Too Thick

Resistance:

Needs Resistance

- Wires: Round/Tighten
- Channels: Thin Back 1/3

Blade/Bahn/Tube Length

- Play C-D-E forte, articulate forcefully
- If E sags: Tighten Wire 1
- If that fails, clip tip.
- Move First wire closer to collar.
- If mid-range is slightly flat unstable: Ream

Too Much Resistance

- Loosen/flatten Wires
- Channels Thin Front 1/3

- Check Response Factors
- Blade Dimensions Correct?
- Morning Wake-Up
- Thin-Entire Gently
- Check Rail Taper

Resonance:

Too High

- Check dimensions,
- Thin Front 1/3
- Thin Back 1/3
- Thin Channels
- Morning Wake-Up
- Flatten/Loosen Wires

Too Low

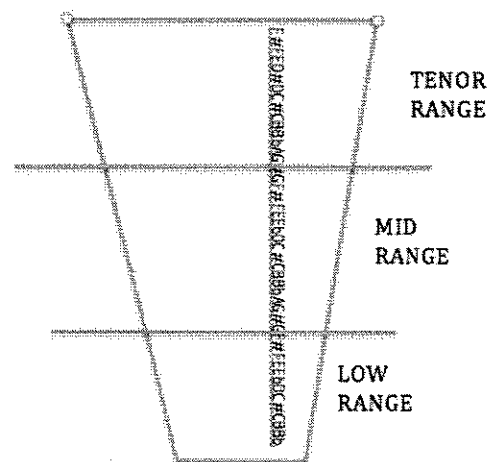
- Tighten/Round wires
- Can move first wire up
- Ream
- Thin Channels in Back 1/3
- Thin Rails in Front 2/3
- Clip Tip

Too Mid

- Thin Channels, back & mid
- Check rails for over-thickness
- Check for resistance bumps
- Check for symmetry and balance back-to-front

Christin Schillinger's Timbral Equivalency Chart

To be used as a rough-guide for balancing timbre. Not a replacement for a dial indicator.



The sources referenced for this research are too numerous to note in this bibliography. A full bibliography is included in my upcoming book with Indiana University Press.

Below are those sources directly referenced in today's lecture.

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