



Mouthpiece Meditations, Part 1

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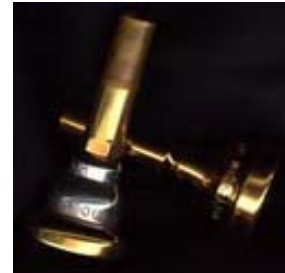
Until recently, I had not given mouthpieces much thought; then I began playing in a 40's style big band. After years of orchestral work with the occasional marching or pit band job thrown in, I began switching from the Conn 88H I'd been using to a smaller Conn 32H for the big band work. Perforce, I also began switching between a Remington mouthpiece in the 88H and a Conn 2 in the 32H.

I began to experience changes in both my range and sound on both instruments. While some of this was due to the music I was now playing, the trombones, and increased playing time, some of it also seemed to be traceable to switching between mouthpieces. Trying to understand what was happening, I realized that none of the teachers I'd had over the years had had much to say about mouthpieces or how they do what they do.

This is initially surprising when you consider that the mouthpiece in some respects is the most critical element in determining what sound will ultimately come out of the bell. After all, the mouthpiece is where "Boy (or girl) Meets Horn"; you'd expect it to be an area that has been thoroughly explored and all the issues settled. As it happens it isn't, due to the relative importance of the question to different players and the complexity of the subject.

For a student just starting out, there are so many things to master in playing a trombone (or any instrument for that matter), a mouthpiece that isn't physically painful probably isn't going to get a lot of attention as long as it's a reasonable fit. For amateurs, fiddling about with mouthpieces may fall into the category of a hobby or luxury, especially for those who feel they are already playing "good enough."

For a pro, the right mouthpiece or mouthpieces is an essential. For a teacher, making sure students have the right equipment for their needs and abilities can make a difference between them struggling or making progress-but how does one judge what is the right mouthpiece, other than going by how it feels and sounds? Just how important is the mouthpiece among all the other things that go into making someone a trombonist? Asking the brass players in my circle what they look for in a mouthpiece produced a mix of answers, with one general theme. Most were going by what felt comfortable and worked for



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them.

A few had tried several mouthpieces and were open to experimenting. One was using a custom design created by a teacher he'd studied under. One had three different mouthpieces, depending on which kind of music he was playing, and which trombone (bass or tenor). One of the trumpet players would look at the piece he was about to play, and grab the mouthpiece he thought would let him do the best job on it. One of the French horn players was planning to have a custom mouthpiece made for himself.

A selection of knowledgeable musicians queried for their thoughts on mouthpieces responded thusly:

According to *Online Trombone Journal* columnist [Sabutin](#), "A good mouthpiece is one that works for you, on your equipment, on the range of music you're playing. DO play a mouthpiece that helps you to play the way YOU want. DON'T play a mouthpiece that OTHER people think will help you to play the way THEY want you to." [Tom Ervin](#), Professor of Music at the University of Arizona, wrote "the mouthpiece MUST be comfortable, like shoes, or there will not be [a] happy ending."

[Douglas Yeo](#), Bass Trombonist, Boston Symphony Orchestra, mentioned he has answers to mouthpiece questions on his [web page](#), and added "The only other advice I can give is that people should use a mouthpiece that feels comfortable, and not one that some famous player uses. Everyone is different, and I repeat here my oft used adage, "different strokes for different folks." Many a bass trombonist has ruined their playing by feeling they "had" to use a Schilke 60 when a Bach 1.5 G was doing very nicely."

John Hemmingford, trumpeter, director of the HMS Marching Band, and author of a master's thesis on mouthpieces summed it up this way: "Use it, if it works."

Turning to the Internet uncovered more information about mouthpieces. The [trombone listserve](#) run by Eric Nicklas proved to have a number of relevant postings. The web pages of the [International Trombone Association](#) provided a number of useful links and information, as did the *Online Trombone Journal*. Commercial web sites such as those of [Selmer](#) and [Giardinelli](#) have information on mouthpieces; several independent mouthpiece makers (ie: David Monette, John and Phyllis Stork, Ellis Wean) go into quite a bit of detail on mouthpieces on their websites.

Using assorted search engines to explore the World Wide Web yielded additional data, some of it apocryphal (messages from assorted newsgroups, personal web pages, etc.) and some quite specific (scientific papers, references to print materials like Fink's *Trombonist's Handbook*, etc.). Much of the information will be described in subsequent installments, but for the moment the focus will remain on mouthpieces from the player's point of view.

Based on the research described above, the group that appears most obsessed with mouthpieces is trumpet players ("Trumpet playing is an athletic event-play to win!" - slogan of Van Cleave mouthpieces), with tuba players a distant second. This is not too surprising considering that these instruments mark the extremes of putting lips to a mouthpiece to make music, and the extremes are where small differences would be expected to have the largest effects. Oddly enough, there appeared to be little directed at the mouthpiece needs of French horn players, at least from a commercial point of view.

There was comparatively little directed at trombone players, bass trombone players, or baritone/euphonium players either. A possible explanation is that the physical constraints of playing a trombone are such that there is a bit more margin for error in terms of what a mouthpiece can or can't do-trombone players aren't pushing the limits quite as hard as tuba or trumpet players, and are less likely to be swayed by mouthpiece ads promising some magic solution. This is not to say that trombone players can afford to be casual about what they are putting to their lips though.

But What Do Trombone Players Really Want?

Let's start with a deceptively simple question. What does comfort mean exactly and what happens when a mouthpiece 'works'? What qualities should the ideal mouthpiece have?

- It should be physically comfortable, and should still seem so after hours of playing. This means it should be the right size and shape to fit the face of the player and should be able to accommodate the embouchure adjustments needed to cover a player's full range of notes, articulation, and dynamics.
- It should be consistently playable. That is, it should allow the trombonist to play across his or her entire range with a relatively uniform effort (and not too much of one), without a tendency to wander off the pitch at any portion of the player's range, during changes in dynamics, tone coloration, etc..
- It should be matched to the horn and the music. That is, the acoustical characteristics and response of the mouthpiece should complement those of the trombone it is being used with, and the combination should in turn be appropriate for the job at hand, whether it be studio work, a concert hall performance, lead trombone in a jazz group, out in the field in a marching band, or whatever.

That's the ideal; in the real world there are always trade-offs. For reasons spelled out below, no single mouthpiece design will work for everybody in every situation. There is also a mixed consensus on just how important a mouthpiece is, which further contributes to the uncertainties surrounding this subject.

Based on comments which have appeared in postings to the trombone listserver, there are those who would give little or no importance to the role of the mouthpiece, ranking ability and good technique far higher. Conversely, there are those who would consider selecting the right mouthpiece to be an important element of good technique. Some players prefer to restrict themselves to a single mouthpiece/trombone combination, concentrating on maximizing what they can do with it. Others routinely switch around based on what they feel best fits the job at hand.

Further, everything said above about mouthpieces can just as easily be applied to the trombones with which they're used. What's a poor trombonist to believe?

Try this analogy: finding a good mouthpiece is a bit like finding a good pair of running shoes. (You can easily spend as much or more money on running shoes as on a mouthpiece.) For a casual jogger, almost any running shoes the right size and width that feel comfortable will probably be good enough. For a competitive world-class runner, finding the right shoes can be a question of selecting from a whole range of elements: soles, padding, internal shape, composition of the





uppers, cleats or non-cleats, running surface, distance being run, weight of the shoes, and so on.

While shoes alone don't make a runner, the wrong shoes can unmake him or her; the runner needs shoes that will allow them to make maximum use of their ability and training. So too for mouthpieces. Gordon Cherry, Principal Trombone, Vancouver Symphony Orchestra, Adjunct Professor of Trombone, University of British Columbia puts it this way: "A mouthpiece is a vital part of every player's equipment. The wrong mouthpiece can cause terrible intonation, endurance problems, accuracy problems, poor sound and poor articulation. A mouthpiece cannot make you a better musician, it cannot change your basic sound, or improve your technique."

Just as top athletes try to find equipment that enables them to make fullest use of their ability and training, the goal for the trombonist is to find a mouthpiece and instrument combination that will minimize the effort needed for the results desired. Between that goal and the trombonist however, there is some rough terrain.

Finding the Right Mouthpiece: How Tough Can It Be?

Translating comfort and functionality into specific mouthpiece hardware is complicated by a number of factors, some of which are general to the whole question, others of which are specific to individuals. Going from the general to the specific . . .

There are a lot of variables in mouthpiece design, and only limited consensus on which elements are important or exactly how they work to affect the end result. There is no systematic theory of mouthpiece design and selection backed up by convincing experiments. Every manufacturer uses their own system of cataloguing mouthpieces, making it difficult to tell from a maker's product ID just what size or shape it is, and even more difficult to compare two from different makers. Further, manufacturers may make differing claims about what is important in a mouthpiece; there are some rather exotic designs on the market based on whatever peculiarity the maker has seized on as the critical factor.

There are fashions in music which come and go. The accepted sound for a particular style of music changes over time and so too the equipment deemed suitable for producing it. Career trombonists, that is people making a living at trombone and related matters, generally develop a pretty good sense of what they want, based on their needs, experience, and training. This doesn't mean they necessarily agree with each other -or else they'd all be using the same mouthpieces, the same trombone models, and teaching the same theories from the same books.

The instrument the mouthpiece is inserted into will have an effect. A small bore tenor horn like a Conn 32H is going to play and feel rather different from an 88H, which has an F attachment, a larger bore, greater weight, and a larger bell. A mouthpiece which works well with one horn may not do so with another.

Everyone's physical equipment is different. Lips can be thick or thin; mouths wide or narrow. Someone able to move a lot of air is going to need a mouthpiece that can accommodate that air flow; conversely someone who can't, won't. Mouthpiece selection has to account for these differences. Consider just the problem of teeth; normal growth for young players will cause embouchure changes. Braces are a further complication. Aging can also bring changes, especially if dental adjustments have occurred. A mouthpiece that

works at one point in a person's life may not be the right choice at a later stage.

How much time is put into playing makes a difference. Someone playing 4 to 5 hours a day is going to get quite different results from someone who puts in a casual 4 to 5 hours of playing in a week or month. The demands made by the kind of music being played are a factor too.

Finally, there is a great deal of subjectivity involved. Everyone has their own idea of how they sound and how they'd like to sound. Along with that are the physical sensations involved, i.e.: how much effort does it take to hit a particular note, how responsive is the horn, how do the lips feel after a long session of playing, etc. etc. Sorting out just what a particular mouthpiece is doing to your playing is an intrinsically difficult task to perform objectively.

So, where to start? Let's begin by trying to nail down some of the physical parameters of mouthpiece design, and go on from there. There is a lot of lore detailing what various mouthpiece elements can do, so the next installment of this series will try to sort it all out. To quote John Hemmingford again, "Everybody's looking for something, especially the ones that can't play."

About the Author...

Larry Roth began playing the trombone in the fifth grade, and has yet to succeed in getting away from it. A technician for a State Health Department, Roth is a "Weekend Warrior" with the Delmar Community Orchestra, the H-M-S Marching Band, the Starliters Big Band, and the Greg Nazarian Big Band. Contact: xaxnar@aol.com.