Help! My mouthpiece is killing me!!!

This is the second post of my blog and today I'll be writing about equipment: more specifically mouthpieces.

First of all the following statements that you have no doubt either quoted or heard on your travels are completely true in theory.

1. Playing a smaller mouthpiece ID or shallower cup depth does not make it possible to play higher than you already can.
2. You can perform any music on any mouthpiece.
3. Small mouthpieces are cheater mouthpieces.

These three statements alone have been responsible for my reluctancy to downsize more permanently. However I am glad to say I have taken the leap of faith and downsized and have no intention of going back. Let me take a moment to dispell the illusion of truth surrounding these theoritcally true statements.

1. Playing a smaller diameter does not allow us to create more compression in our embouchure, unless the rim diameter is significantly smaller that it alone isolates a smaller part of the vibrating area of the lips. Playing a smaller diameter or cup does however make everything much less effort. within a few weeks playing a smaller diameter, if the same amount of practice is maintained and even more attention to dicipline with regards to good habits is held, then the lips and muscles of the embouchure will be just as co-ordinated to perfrom the task, but they will simply be fresher and in fact more relaxed.
2. If you are prepared to practice upwards of 5 hours a day in an incredibly laborius and tedious manor then you probably will just about be able to survive a few lead charts on a Bach 1C sure, heres the thing: The amount of mental energy required to maintain such a practice regimine and still have the desire to play the trumpet don't really fit together. The likelihood of you having a healthy/ balanced life is also very low, but hey its your call.
3. A smaller mouthpiece makes playing more efficient and therefore higher notes and endurance easier, it doesnt make it easier to nake a great sound, that is something that needs to be developed by practicing on a smaller mouthpiece. Much like playing a large mouthpiece is a cheater mouthpiece just in the other directon, it allows you to have a fuller sound despite being to tense, and in fact even requires an excess of tension in order to play it.

Here is my take on mouthpieces, if you haven't read my article on embouchure mechanics (about how the chops should be moving to play most efficiently) then i'd highly reccomend you do that before going further.

Mouthpieces can be split up into categories, I like to use Big, Medium and Small. Here is how I see the various differnt sizes falling into categories. I will use the Bach rim sizes and Warburton rim sizes so that there are two points of reference. For me throat is a personal choice and backbore a good way to balance a rim cup and throat to the trumpet. For now I will only talk about rim size as that is the interface between the player and the instrument.

1. Large = 16.25mm and larger (17.00mm is the most widely used large diameter
Bach 1 1/2C to 7C
Waburton 6 and larger

2. Medium 16.25mm -15.75mm
7C, 10 1/2C and 12C
Warburton 6 - 8

3. Small 15.75mm and smaller (14.98 is the most widely used very small diameter)
12C and smaller
Warburton 8 and smaller

As you can see I havent included anything bigger than a 17.00mm. There are a great number of mouthpieces bigger than 17.00mm I will call of these Extra Large.

Now I will use the cup options as ofered by warburton as they are the most consistent way to discuss this.

1. Deep cups XD, D, MD

2. Medium cups MC, M, SV

3. Shallow cups S, ESV, ES

Here are some generalisations I will make about the vast majority of players using certain mouthpieces:

i) The vast majority of players using an inside diameter larger than a 7C have an almost slave like realtionship towards practice and the amount nessacery amount of practice ot maintain their embouchure. When they take a few days off, they suffer a considerable loss in endurance and range.

ii) The vast majority of players using a mouthpiece cup depth deeper than an MC have a similar slave-like relationship towards their practice as ther large ID counterparts. They also often hide behind the guise of prioritising the ability to blend over being able to play high notes.

Remember that this is a generalisation, there are in actual fact a great number of people that play large IDs and cup depths and sound fantastic on them. I am unable to comment on the amount of practice they require ot maintain their ability to support such a large mouthpiece but I am almost certain it is more than someone using a smaller ID and shallower cup depth.

If we examine the way I have classified mouthpieces with regards to the warburton mouthpiece system, we begin to see that our concept of Large, Medium and small is somewhat skewed in favour of the larger mouthoiece, which would explain why there are so many trumpet players using equipment too large relative to their demands and time constraints on practicing.

As a relatively new proponent of TCE (Tongue controlled embouchure) I consider mouthpieces in the 15.85mm to 15.00mm as small and mouthpieces larger than 17.00mm as Extra large. It is worth saying that a proponent of the more traditional method of playing and therefore outhpiece selection and classification may consider the sizes 17.00mm and larger as “Large” and anything smaller than 15.85 as extra small.

Actual size	**18mm-17mm**	**17mm-16.25**	**16.25-15.85**	**15.75 and smaller**
Size classiffication Traditional	Large	Medium	Small	Extra Small
Size classification TCE	Extra Large	Large	Medium	Small
Warburton size	1,2,3	3,4,5,6	6,7,8	8, 9, 10, (11)
Bach size	1X - 1 1/2	1 1/2 - 7	7-12	12 -18

Now comes a somewhat idealistic approach to choosing a mouthpiece. The same method can be applied to a player using a more traditional approach to playing but the cup depth is likely to be one or two sizes deeper than someone using TCE and aiming for the similar musical application. If we consider everyone’s varying amount of “chop engagement” into the a mouthpiece cup on any given rim size, we can create a theoretical model by which to determine whether we will be able to play a mouthpiece using our current technique without “bottoming out” Take a totally average player for example (I am aware of the fact that this “average player” probably doesnt exist)

If we look at the warburton sizes of rim and decide that 7 is in the middle and use that as our starting point. I will also look at the 9 cup depths Warburton offers: XD, D, MD, MC, M, SV, S, ESV and ES from deepest to shallowest.

						Middle point Traditional direction	**Middle point TCE direction**					
Deeper cup player				4XD	5D	6MD	7MC	8M	9SV	10S	11ESV	12ES
Average player			3XD	4D	5MD	6MC	7M	8SV	9S	10ESV	11ES	
Me		2XD	3D	4MD	5MC	6M	7SV	8S	9ESV	10ES		
Shallower cup player	1XD	2D	3MD	4MC	5M	6SV	7S	8ESV	9ES			

This explains why some players are capable of playing certain pieces and others not. If the rim diameter and cup depth doesen’t fit your level of “chop engagement” in to the cup then the ratio of lips in the cup to overall cup volume is not an acoustically effecient one. Another thing to consider is the sound colour attained, as an accoustically efficient ratio of lips to cup volume are objectively defined by the desired tone colour. While I might physically be able to perform on a 2XD, it is as far away from my mid point in a “bigger” direction, the odds of me ever needing to play that dark are very very low. When you compare a traditionally minded, deeper cup player a 4XD would be only 2 cups deeper than what he or she attains their middle of the road sound on.