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## CLINIC

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## WHAT ABOUT PEDAL TONES?

BY FRANK G. CAMPOS

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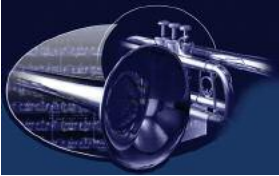
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## WHAT ABOUT PEDAL TONES?

BY FRANK G. CAMPOS

**P**edal tones are the notes below the lowest note on the trumpet; in other words, below low F-sharp on the B-flat trumpet. While they are highly regarded by many players, some have discounted them as being of little use or even claimed they are dangerous. It is the purpose of this article to look at what the greatest players and teachers have to say about pedal tones.

According to physicist Thomas Moore, the shape of the trumpet bell is "...almost perfect for every note except the pedal tone." Like many before him, Moore has spent time trying to find an ideal bell shape that would bring the pedal tones into tune, but to his knowledge, no one has figured out how to do it yet. "It seems that the pedal tone is doomed to be perpetually difficult to play."<sup>1</sup> At least four different fingering systems have been suggested for the pedal notes, but most players today use the same fingerings as the corresponding notes on the staff.<sup>2</sup>

Pedal tones are rarely heard in concert music today, however, at the turn of the century last century they were sometimes used by virtuoso cornet players. In his "The Cornet and the Cornetist" (1918), Herbert L. Clarke writes "...skilled cornetists can go a fourth below pedal C, to the G below this, making the compass or range six full octaves—seven Gs. I have heard several players do this stunt, with a musical tone in this extreme register, and also proved that it is possible myself." Among the performers of this period who made use of pedal tones in their solos are Alessandro Liberati, Bohumir Kryl (whose arrangement of *The Carnival of Venice* leaps between the notes on the staff to pedal C and the G below it), and the amazing but relatively unknown Ernst Albert Couturier, whose upper register was compared to a flute and whose pedal tones were compared to a "monster tuba."<sup>3</sup> How these players developed such extreme range is a good question, but it is likely that they started working at the bottom rather than the top of their register. Did the practice of pedal notes help them develop the extreme upper notes?

Nearly all of the so-called "high note methods" dating from the middle of the last century include extensive amounts of pedal exercises. The methods of Claude Gordon, Charles S. Peters, Roger W. Spaulding, and Roy Stevens/William Costello all appear to be heavily influenced by (and even copied note for note in some cases) from the work of Louis Maggio.<sup>4</sup> Ironically, the exercises in this highly influential method appear to

have originated from the practice material of one of the world's greatest virtuosos, Rafael Méndez. Méndez stated that Maggio "...studied my playing and watched me when I was warming up with those pedal tones, and developed that way of teaching his system. From me, not me from him. It was my father's style... As a matter of fact, when Mr. Maggio died, he left me all his material. I really didn't need it because he got that from my way of playing."<sup>5</sup> It appears that the father of Rafael Méndez may have been the father of pedal tone pedagogy, at least on the North American continent. If the Maggio book is a reflection of Méndez's practice, then it is clear that he was playing a significant amount of pedal

notes each day. Other methods with pedal exercises have appeared since then including those of Jerome Callet, Carmine Caruso, Rolf Quinque, Jeff Smiley, and James Stamp.

Some of the finest trumpet players in the world use pedal tones in their practice. Philip Smith, principal of the New York Philharmonic, said that he dismissed pedal tone practice until he joined the Chicago Symphony and noted that all of the members of the trumpet section used them daily. Smith stated that the three main parts of his warm-up are mouthpiece buzzing, lip bends, and pedal tones.<sup>6</sup> The late Armando Ghitalla, former principal of the Boston Symphony, stated that pedal tones increase flexibility, endurance, and range. "The proliferation of lip conditioning books (Gordon, Stevens, Schubreck, Maggio, Caruso, Quinque, Stamp, and others) attest to the remarkable improvement one can attain through lip buzzing, mouthpiece buzzing, pedal tones, bends, glissandos, etc. I used Stamp after a heart operation when I had not played for months and I was still very weak. In two and a half years I had a double high C that I never had previously in my whole life. By this time I was in my late 50s."<sup>7</sup> In his masterclasses, Ghitalla also said that one of the greatest benefits of pedal tones was the strengthening of air support due to the need to inhale and exhale large quantities of air.

Cuban soloist Arturo Sandoval, whom Dizzy Gillespie characterized as having "rhino chops," uses pedal tones daily. In an article in the now defunct *Brass Bulletin*, Sandoval described his warmup: "...I make literal explosions on pedal C (without changing position of the lips or the mouthpiece.) This test is very important as it tells me exactly if I am ready to move on. If the pedal C is not absolutely clear and pure, then some element of my sound production is not yet ready. I repeat the test

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until I've found the solution and the result is convincing." Sandoval said he uses exercises from the Maggio method, "which consists of descending from the high register to pedal tones in major arpeggios," as well as material from the books of Herbert L. Clarke and Claude Gordon. "When I am finished... I can play just about anything I wish and even precisely attack (distinctly separated) each note in the high and extreme high registers."<sup>8</sup>

When asked what he practices, Tony Fisher, the brilliant lead player from the United Kingdom whose work has graced everything from James Bond films to Tom Jones hits, said "The best things I practice are pedal notes, I do a lot of pedal notes. For some people it doesn't work, but for me it does... The more pedal notes I can play in a day, the better my chops are." Fisher also recommends the flexibility exercises of Charles Colin.<sup>9</sup> Frank Kaderabek, the former principal trumpet of the Philadelphia Orchestra, stated, "I also advocate pedal tones focusing on keeping the muscles of the face relaxed at all times."<sup>10</sup> Pierre Thibaud, former professor at the Paris Conservatory, believes the upper lip inside the mouthpiece must be completely soft and remain soft as one ascends into the upper register. Thibaud maintains that the softer his lips, the better he plays, and that pedal tones reinforce this. Like Sandoval, he believes that the embouchure must not change for pedals.<sup>11</sup>

In his *Trumpet Pedagogy*, American soloist and teacher David Hickman describes two common types of embouchure/jaw configurations, the "floating jaw" and the "fixed jaw," and suggests that players who have trouble playing pedal tones must take this point into consideration. The floating jaw player, or those who bring the jaw forward to play, will have better success tilting the bell slightly upward and firming the muscles below the mouth corners. The fixed jaw type, or those whose upper and lower teeth are naturally aligned, may find that firm mouth corners and a relaxed center will be most effective.<sup>12</sup>

There is much evidence that movement from the pedal register to the regular register and back again is one of the most valuable aspects of pedal practice. The current principal of the Chicago Symphony, Chris Martin, plays Stamp chromatic exercises to get into the pedal register. He goes on to say, "I will spend ten minutes going from middle C to the C above and down to pedal C. From there the rest just opens up for me."<sup>13</sup> Jeff Smiley, in his "Balanced Embouchure" method (<http://www.trumpetteacher.net>), maintains that it is the motion of "rolling in and rolling out" of the embouchure when playing between the regular register and pedals that produces the most benefit to the player. Smiley's "rolling out" exercises are very similar to the one Martin describes above.

The expanding interval exercise of Jimmy Stamp (#3C in his *Warm Ups + Studies*, Editions BIM, Switzerland, 1978) is one of the very best strength building exercises available anywhere, but players who have not developed a solid pedal technique may not be able to play it without forcing the tone. To do the exercise, start from pedal C (played with no valves), move to pedal D, then back to pedal C, then to pedal E, back to C, and so on, widening the interval step by step, going as high as possible. As the interval gets wider, it eventually turns into a glis-

sando. To avoid forcing, be sure that the glissando speaks freely and easily. In addition, always be sure to return each time to a full sounding pedal C. This exercise encourages and strengthens proper breathing and builds a very strong embouchure. Phil Smith reportedly swears by this exercise.

Ghitalla also advocated double pedals, (an octave lower than pedal C), which he said required an embouchure adjustment of drawing the lower lip out of the mouthpiece to allow the upper lip to unroll completely. (Ghitalla learned of double pedals from an early method by Jerry Callet, and Smiley is a former student of Callet.) Unlike the regular pedal register, it is generally not possible to maintain the normal embouchure when playing double pedals. The embouchure used for double pedals may appear completely wrong, with the chin bunched and much more of the top lip in the cup of the mouthpiece than normal. The brilliant cornet soloist Bohumir Kryl, whose fluency between six octaves was legendary, reportedly employed an embouchure that had the lower lip "turned out, while keeping it within the mouthpiece, in the same way that modern players do when they practice pedal tones."<sup>14</sup> This is a description of the type of adjustment that must be made for double pedals.

Many players have difficulty playing pedal tones initially. I have encountered fine performers who could not play pedals at all, or who played them incorrectly, with a hard, tight quality that sounded like it was painful to the lip. When practicing pedals, it is important to get the proper sound, which should be a full, resonant, fat rattle. This sound has been compared to a motorboat or large motorcycle, or perhaps unkindly, to a flatulent sound. (The sound of double pedal notes have even more of a loose rattle than the regular pedals.) Locating a good teacher who can demonstrate this sound is desirable, but failing that, one can find the proper pedal sound demonstrated on the audio CD included with some methods including Jeff Smiley's *Balanced Embouchure*, Clyde Hunt's *Sail the Seven Cs* (<http://www.bflatmusic.com>), and Bert Truax's DVD available from his web site (<http://www.whiterockmusic.com>).

There are some examples of players demonstrating pedal tones online including YouTube, but the quality varies widely. In an excellent video, master teacher Claude Gordon discussed the proper way to play pedal tones, especially the difficult pedal C.

The same types of physical skills that are reinforced in pedal exercises are found in lip bending exercises: using all open valves, bend the pitch by half steps down-

ward from second line G to F sharp, back to G, then to F natural and back to G, to E and back to G, and so on. Bill Adam's leadpipe buzzing exercises also require the player to play tones in a way that is similar to pedals: remove the tuning slide from a B-flat trumpet and with the mouthpiece in, buzz a resonant F on the staff. Buzzing on the mouthpiece alone is similarly very beneficial as long as one does not play with a sound that is overly closed and tight.

One area of benefit that has not been explored in the literature is the impact of pedal tones on posture. I believe this is one of the primary benefits of pedal work. Through a gradual and gentle process, playing pedal tones teaches us to play with greater efficiency. In other words, the pedal will come out loud

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**"There is much evidence that movement from the pedal register to the regular register and back again is one of the most valuable aspects of pedal practice."**

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In the end, learning to play pedal tones is a matter of trial and error over a long period of time. If the old players figured it out by themselves, then we can too. It takes patience and

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persistence—it cannot be learned overnight. Only trial and error experimentation will reveal whether pedal tones have any value for you. I will close with a quote from Rafael Méndez who, when asked how to play in the upper register, said, “If you wish to play high, you must first learn to play low.”<sup>15</sup>

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#### Endnotes

- 1 Thomas Moore. “The Lowly Pedal Tone.” January 2008 *ITG Journal*, 63 – 64.
- 2 For more on pedal fingerings, see Dale R. Olsen, “Trumpet Pedal Register Unveiled” in *Brass Anthology*, 360 – 61. Northfield, Ill: Instrumentalist Company, 1987. Armando Ghitalla used the fingerings a half step lower than the written note in his pedal practice.
- 3 Michael Galloway. “Ernst Albert Couturier: American Cornet Virtuoso.” May 1990 *ITG Journal*, 4 – 56.
- 4 Carleton MacBeth. *Original Louis Maggio System for Brass*. Bridge Publications, 1985.
- 5 H.M. Lewis. “Rafael Méndez: Trumpeter Extraordinaire.” October 1979 *ITG Journal*, 13 – 16.
- 6 Scott Apelgren. “The 1995 Florida Trumpet Festival with Phillip Smith.” September 1995 *ITG Journal*, 57 – 60.
- 7 Michael Tunnell. “Armando Ghitalla—Master Trumpeter, Master Teacher, Master Musician.” May 1997 *ITG Journal*, 4 – 16.
- 8 Pierre Mathez. “Arturo Sandoval: Free at Last!” *Brass Bulletin*, Vol. 71, III, 1990, 28 – 31.
- 9 Georgina Bromilow. “Tony Fisher talks to Georgina Bromilow.” *The Brass Herald*, May – July 2008.)
- 10 John Raschella, “A Tribute to Frank Kaderabek: 42 years of Great Music Making,” December 1996 *ITG Journal*, 4 – 11.
- 11 (Kevin Eisensmith and H.M. Lewis. “The 1990 ITG Conference: A Synopsis.” September 1990 *ITG Journal*, 13).
- 12 David Hickman. *Trumpet Pedagogy*. Hickman Music Editions, 2006, 205 – 06.
- 13 Thomas Bough. “On Top of the World: An Interview with Chris Martin.” *The Instrumentalist*. September 2007, 18 – 21, 60).
- 14 H.M. Lewis. “Antique Cornets and Other Frustrations: A performer’s Guide to Cornets by the C.G. Conn Company, 1888 – 1911.” *ITG Journal*, May 1995, 39 – 46.
- 15 Michael Meckna. “Entering the Sphere of Music: Advice from Some Trumpet Masters.” May 1994 *ITG Journal*, 51.



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and full when the player is using the body in the most efficient way, including stance, breathing, and head position. Rather than describe postural adjustments to my students, I prefer to let the pedals do the talking, but as a general suggestion, one can experiment in the direction of “chin in, belly out.” (Be sure

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“...playing pedal tones teaches us to play with greater efficiency.”

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the knees are unlocked to avoid tension in the low back.) I advise caution and good sense with this kind of suggestion, but the beauty of pedal tones is that only the right posture will produce the best pedal tone sound. After my first lesson with Jimmy Stamp, it took over two weeks of consistent practice to finally play my first pedal C. He made only two suggestions: blow like it is a high C, and experiment with tilting the bell of the horn up. The latter suggestion changed my playing position for the better, and over time, it became permanent. The wonderful low register exercises found in all of Allen Vizzutti’s method books (Alfred, 2004) works the same way. If the player is not using the body efficiently, the low notes will simply not speak.