

Song and Wind in Canada: The Impact of Arnold Jacobs's Teaching on Canadian Tuba Pedagogues

by

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Abstract

The purpose of this study is to investigate the impact of Arnold Jacobs on the pedagogical approaches of prominent tuba teachers in Canada. Nine tuba teachers from different Canadian universities participated in this study. Each participant was interviewed digitally using Skype or FaceTime and asked nine questions designed to understand their personal pedagogical approach and how it relates to Arnold Jacobs. These questions cover important pedagogical ideas including sound concept, breathing, articulation, and embouchure.

Arnold Jacobs is considered to be one of the most influential brass pedagogues in history. His method of teaching, referred to as Song and Wind, is a pedagogical concept frequently implemented in contemporary applied tuba teaching. The interview findings of this study demonstrate that the Arnold Jacobs legacy is very present in Canadian tuba pedagogy. The approaches to articulation and sound concept demonstrated by the interview subjects are consistently Jacobs inspired. The approaches to breathing and embouchure, however, are much more varied. Although these elements are not as tightly embedded in the Jacobs pedagogical

approach, the results of the study demonstrate that the majority of the interview subjects are fully aware of the ways in which their current approaches have been adapted.

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Chapter 1

Introduction

Arnold Jacobs is considered to be one of the most influential brass pedagogues in history. His method of teaching, referred to as Song and Wind, is a pedagogical concept frequently implemented in contemporary applied tuba teaching. This research is intended to explore how active Canadian tuba teachers approach the instruction of university-level tuba students and how each teacher's individual pedagogy relates to the concepts of Song and Wind.

Nine Canadian tuba teachers were interviewed in an effort to understand how they approach the teaching of university level tuba players. This dissertation will present an overview of Jacobs's pedagogical approach, looking at the specific ideas surrounding sound concept, breathing, and physical aspects of playing. This will be followed by a similar overview of the pedagogical approaches found in interviews with Canadian tuba pedagogues. The goal of this study is to compare and contrast the pedagogy of the interviewees with that of Arnold Jacobs in an effort to understand Jacobs's impact on current Canadian tuba pedagogy.

Each of the nine interviewees is a professional musician currently teaching at a Canadian university that offers at least a Bachelor of Music degree. Each teacher is a full-time faculty member at their respective universities or teaches as a part-time sessional instructor while holding a position in a professional symphony orchestra. The following teachers were selected to be interviewed: Mark Tetreault, tuba instructor at the University of Toronto, Jane Maness, tuba instructor at Wilfred Laurier University, Karen Bulmer, Associate Professor of Low Brass at Memorial University, Chris Lee, tuba instructor at the University of Manitoba, Gregory Irvine, Associate Professor of Brass at the University of Prince Edward Island, Sasha Johnson, tuba instructor at McGill University, Michael Eastep, tuba instructor at University of Calgary and Mount Royal University, Peder MacLellan, tuba instructor at University of British Columbia, and Paul Beauchesne, tuba instructor at the University of Victoria.

This chapter has provided a summary of the research goals of this paper as well as an introduction to the interview subjects. Chapter two will provide an overview of Arnold Jacobs and provide context for his pedagogical approach.

Chapter 2

Song and Wind - An overview of Arnold Jacobs's Teachings

In this chapter I will provide an overview of who Arnold Jacobs was, beginning with an overview of his life and musical development. Additionally, an in-depth look into his teaching philosophy and the pedagogical concepts in *Song and Wind* will be investigated. In an effort to contextualize Jacobs's approach to breathing more broadly this chapter will also provide a summary of the brass pedagogical approaches to breathing that preceded Jacobs as well as selected current vocal approaches to breathing. This investigation into Arnold Jacobs and the context of his pedagogical approach will provide the necessary background to assist with the analysis of interview subject responses in chapter three.

Arnold Jacobs Biography

Born in 1915 in Philadelphia, Arnold Jacobs grew up in a musical family. "Arnold's mother, Mary Singer Jacobs, was, according to Arnold, 'A very fine professional pianist.'" (Frederiksen, *Arnold Jacobs: Song and Wind* 1) His musical training began under his mother's tutelage, beginning with piano lessons until his father purchased him a trumpet. With no trumpet teacher or instructional material, "Arnold figured out the valve positions by listening to the pitch his mother would play on the piano, imitating it and writing down the fingerings. His connection was directly from the ear to the brain, such as the Suzuki method developed many years later." (Frederiksen, *Arnold Jacobs: Song and Wind* 3)

His love of music continued to grow and eventually led him to the Curtis Institute of Music at the age of 15, graduating from the prestigious school in 1936. The teachers from Curtis that strongly impacted Arnold Jacobs were Philip Donatelli, tuba, Renee Longy-Miquelle, solfege, Fritz Reiner, conductor, and Marcel Tabuteau, phrasing. While at Curtis Jacobs was offered a scholarship to study voice full time, turning it down in favor of the tuba. Jacobs felt he was more suited to the tuba, often feeling vocal fatigue and pain throughout his vocal instruction at Curtis. "The voice teacher had me forcing my voice so that I could not sing. I was constantly losing my voice through sore throats, and he kept telling me to support my tone." (Frederiksen, *Arnold Jacobs: Song and Wind* 12) Despite deciding to focus his studies on tuba rather than voice, Jacobs continued to have an interest in singing. His interest in singing would eventually lead him to further study the process of breath.

Though Jacobs had many varied and enriching musical experiences during his time as the Curtis Institute, perhaps the most important influence was the class on phrasing taught by Marcel Tabuteau, who was at that time principal oboist of the Philadelphia Orchestra. Jacobs had this to say regarding his time in Tabuteau's class: "All wind players would be in one class as a group, and we would study his concepts of phrasing and play exercises to develop control of the instrument so that we could develop phrasing. I rarely played tuba parts in Tabuteau's class, because, in order to get the greatest benefit from the class, I had to be exposed to a wide variety of music that would require all types of phrasing. I found it one of the most rewarding classes I had at the school." (Frederiksen, *Arnold Jacobs: Song and Wind* 9) It is said that although each student at Curtis was required to take Tabuteau's class for one year, Jacobs opted to enroll in the class for three consecutive years. "Many of Jacobs's theories of teaching have roots with Tabuteau." (Frederiksen, *Arnold Jacobs: Song and Wind* 10) Listed below are the important elements from Tabuteau's article, *Marcel Tabuteau of Philadelphia Orchestra Summarizes Training*:

- "Each student must be treated as an individual problem. How often have I had the experience of teaching a class of three or four, or correcting one student with a certain observation, and finding myself called upon to say the exact opposite to the next one."
- "A fine oboist can produce as many as fifty different tone colors on one note, just as a singer can vary the colorings of the voice in an infinite number of ways. Therefore, the oboist must think vocally."
- "A thorough preliminary training in music is especially important to the young oboist. He should study solfege, piano, theory and voice in his early years. When he has reached the age of thirteen or fourteen, he is ready to begin with the oboe itself."
- "I always tell my students that if they think beautifully they will play beautifully. For it is what you have to say in music that determines the quality of your performance."
- "The greatest problem for an orchestral player is not to perform his own part, but to adjust himself to the others. He must know the score and sense his own position in the music as a whole."

Teaching Philosophy

Upon graduating, Jacobs entered into a varied and prestigious performance career. He performed with various ensembles including the Indianapolis and Pittsburgh Symphonies, the All-American Youth Orchestra, and various other freelance jobs until earning a permanent position with the Chicago Symphony Orchestra in 1944, a position he held until 1988. His reputation quickly developed not only as a great performer but as a master teacher. Jacobs taught at Butler University and Northwestern University in addition to the private teaching he did at his studio. He also gave hundreds of masterclasses around the world. “In more than sixty years of teaching, he has been called the ‘Brass teacher’s brass teacher’ and a modern Aeolus, the Greek God of Wind.” (Frederiksen, *Arnold Jacobs: Song and Wind* 88) All types of wind instrument players from around the world sought him out due to his extensive knowledge on respiration and psychological challenges.

“Jacobs’s students generally fall into one of the following groups: Long term students, One or two timers, Referrals from others, Aging problems, or Therapeutic.” (Frederiksen, *Arnold Jacobs: Song and Wind* 91) The final group, Therapeutic, can be expanded to encompass all of his students. Jacobs believed this to be his specialty in teaching. “It’s just a form of therapy, as though I were a physical therapist, in the sense of normalizing respiratory muscles, establishing the psychological, general attitudes in the brain as far as what thoughts to think in the art form. I do physiotherapy, normally away from the instrument, normalize respiratory function away from music, establish patterns of normalcy, and then transfer them back to the instrument, so the brain is free to concentrate on the musical message.” (Frederiksen, *Arnold Jacobs: Song and Wind* 91)

In addition to these principles, it is important to note that “Jacobs taught individual musicians, rather than players of instruments, each of whom had different needs and responded to instruction in different ways. He made the basic assumption that each individual possessed musical ideas, and he did whatever he could to help each musician realize those ideas in sound. As he once said: “I don’t like the word ‘trombone player,’ ‘trumpet player,’ or ‘tuba player.’ I know we play these instruments, but we are artists, we are musicians. We choose these particular instruments as a medium in which to express ourselves.” (Irvine 57) Jacobs’s approach focused heavily on the needs of the individual, even beyond that of their particular instrument. That is, perhaps, what made his approach to teaching so unique and effective: Working on the

psychology of music-making and the physicality of respiration in a student-specific manner, not an instrument-specific manner.

Arnold Jacobs's teaching prowess is evident in the success of his students. Many of his students have seen success, winning professional playing and teaching positions around the world. Jacobs also became known as a teacher with the skills to help professional musicians hold on to their current jobs. Robert Allen Karon, former principal trumpet of the Sacramento Symphony, states "For me, there would be no career in music if it weren't for Arnold Jacobs's guidance." Former trombonist of the Indianapolis Symphony, George Rhodes, believed that "It is not an exaggeration to say that I owe the last 10 or 11 years of my playing career to Arnold Jacobs. He helped me reverse a certain deterioration in my playing that I was experiencing, and also helped me to continue improving my playing during the remaining years of my career." William Scarlett, former trumpet in Chicago Symphony and colleague of Arnold Jacobs for twenty years, owes his career to Jacobs's teaching expertise. "In my own case, there is no doubt at all that without the help of Arnold Jacobs, I would not be an orchestral player today."

Song and Wind

Arnold Jacobs's musical development and his subsequent teaching philosophy can be summarized in the phrase *Song and Wind*. His teaching made him one of the most in-demand brass teachers in the world. On June 1st, 1995, Jacobs spoke at International Brass Fest in Bloomington, Indiana. The following is an excerpt explaining his thoughts on *Song and Wind*:

My approach to music is expressed as *Song and Wind*. This is very important to communicate a musical message to the audience. This approach is one of simplicity as the structure and function of the human being is very complex, but we function in a simpler manner. When we bring it to the art form it becomes very simple. *Song*, to me, involves about 85 percent of the intellectual concentration of playing an instrument, based on what you want the audience to hear. You cannot get anywhere without *Wind*. If you think of a car, the wheels will not turn without an energy source - the engine. Brass players must have a source of energy as there must be a vibrating column of air for the instrument to amplify and resonate. The musical engine is the vibration of the lips. However, the lips cannot vibrate without *wind*. When we combine *Song and Wind*, the musical message, *song*, is the principle element comprising 85 percent of the consciousness. The remaining 15 percent is the

application of the breath, *wind*, to fuel the vibration of the lips. (Frederiksen, *Arnold Jacobs: Song and Wind* 139)

The above excerpt captures perfectly the essence of *Song* that was so important in the teaching approach of Arnold Jacobs. It is common for performers to self-analyze, perhaps as a teacher would analyze a student, using the “thinking part of the brain.” (Frederiksen, *Arnold Jacobs: Song and Wind* 135) This is the area in which Jacobs felt the biggest interference to *Song* occurred. “To help students overcome the tendency to react to what they hear and conceive of what they want to hear, Jacobs promoted the idea of changing hats. When learning how to play, he encouraged the wearing of the student’s hat. When performing he encouraged the wearing of the performer’s hat so that the player would conceive of the musical message to be communicated to the audience.” (Irvine 58) The physical analysis of one’s playing in an attempt to refine the finished product can be detrimental and often paralyzing. “Human intelligence, or as Jacobs calls it the ‘thinking part of the brain,’ should be used for coping with life around us, not for the self-analysis of life within us.” (Frederiksen, *Arnold Jacobs: Song and Wind* 108) It is at this juncture when “Jacobs would use his knowledge of physiology to try to normalize some of the physical activities that had become problematic.” (Irvine 58)

More often than not, wind players would come to him and react to what they played, rather than hearing what they wanted first and then playing it. Jacobs response was to then turn his attention to the breath. “This usually happened away from the instrument so that the student could rediscover what the body is naturally capable of doing.” (Irvine, 57)

Jacobs’s knowledge of the human respiratory system was legendary. “Many consider Jacobs to be the world’s foremost expert on the study of respiration as applied to wind instruments.” (Frederiksen, *Arnold Jacobs: Song and Wind* 97) In the middle of the 20th century, before Jacobs became prominent as a brass teacher, breathing was wildly misunderstood in the world of brass pedagogy. Several main concepts surrounding the approach to breathing from this time include: taking a conversational breath in order to avoid over-breathing, filling the lungs from the bottom first while letting the abdomen expand without the chest expanding, supporting the sound with abdominal tension, and inhaling through the corners of the mouth to minimize embouchure interference.

The Jacobs approach to breathing worked against many of these ideas, and can be summarized with the following concepts:

- Abdominal muscle strength or tension is not required when delivering air into a wind instrument.
- To play a wind instrument, one must breathe differently than one does to simply stay alive. “Mechanical wind is needed to produce sound rather than a chemical exchange needed to produce homeostasis.” (Frederiksen, *Arnold Jacobs: Song and Wind* 101)
- Inhalation should be accomplished with minimal friction, similar to the sensation of yawning. To that end, inhaling through the mouth produces increased efficiency due to the size difference when compared with a nasal breath. “The two together can complement each other. If you can take air in through the nose and the mouth together it can be a plus.” (Frederiksen, *Arnold Jacobs: Song and Wind* 101) Other sources of possible friction include closure of the throat and blocking of airflow with the tongue.
- A full breath must include expanding the lungs in the upper chest, expanding on the inhale and collapsing on the exhale. It is important to ensure air moving out through blowing. “Many players show all of the outward and visible signs of taking a breath but are taking in very little air. They are enlarging their bodies to take air in, but little air comes in.” (Frederiksen, *Arnold Jacobs: Song and Wind* 105) In addition, the shoulders should rise naturally to a degree when inhaling. They should not be raised intentionally.
- Support should not be linked to the diaphragm or muscle contraction, but rather to the proper use of the air. “The blowing of the breath should be the support, not tension in the muscles of the body, but the movement of air that is required by the embouchure or reed.” (Frederiksen, *Arnold Jacobs: Song and Wind* 107)
- Diaphragmatic movement is affected by one’s posture. An asymmetrical stance, leaning forward, backward, or to the side can cause a diminished breath.

Taking in a full breath without hindrance is essential. The exhalation “can be inhibited by either contraction of the diaphragm, or by obstruction of an outflow at the larynx.” (Frederiksen 107)

Summary of Vocal Approaches to Breathing

A great deal of the discussions included in this document deal with breathing as it is a concept which is central to brass pedagogy. Below is a summary of two current pedagogical approaches to breathing in voice performance in order to provide a broader context for a discussion of breathing and brass performance. I will summarize two sources of note: James Stark's *Bel Canto: A History of Vocal Pedagogy* and Richard Miller's *The Structure of Singing*.

Bel Canto: A History of Vocal Pedagogy

James Stark is a singer, voice teacher, and musicologist currently teaching voice at Mount Allison University in Sackville, New Brunswick, Canada. His book, *Bel Canto: A History of Vocal Pedagogy*, provides insight into the development of vocal pedagogy from the late sixteenth century to present day. In the context of this paper, I will look at the main components of present-day vocal pedagogy. Interestingly, there are several points of contention in contemporary vocal pedagogy in relation to breathing. Due to the large number of varying factors that affect breathing, "the prospect of a consensus on 'proper' breath control for singing is perhaps an illusionary goal." (Stark, *Bel Canto: A History of Vocal Pedagogy* 111)

Stark presents the consensus viewpoint that the breath requirements for singing are more demanding than speaking or resting. Additionally, the general agreement amongst vocal pedagogues is that "The energy for singing is created by movements of the respiratory bellows (often referred to as the 'chest wall') which includes the rib cage, the diaphragm, and the abdomen." "This expansion can include both the lowering of the diaphragm and the raising of the rib cage in various proportions." (Stark, *Bel Canto: A History of Vocal Pedagogy* 111) The extent to which these mechanisms are involved is where pedagogues disagree. Some voice teachers teach using the 'belly-out' approach to breathing, focusing on the diaphragm moving downward during inhalation to create more intrathoracic space. Other teachers focus on the 'belly-in' approach to breathing, concentrating solely on the raising of the ribcage during inhalation to achieve increased intrathoracic space. Whether or not the diaphragm is actively engaged or controlled during singing is a point of contention amongst modern day vocal pedagogues, though most voice teachers agree that "the diaphragm plays a major role in breath control." (Stark, *Bel Canto: A History of Vocal Pedagogy* 111) The most substantial topic of

discussion amongst vocal pedagogues is the movement of the chest during singing and whether or not it should be allowed to fall while singing. “The main bone of contention regarding breath support in singing is the relative role played by passive recoil forces as opposed to active muscular forces during phonation.” (Stark, *Bel Canto: A History of Vocal Pedagogy* 111)

The Structure of Singing

The late Richard Miller taught voice at Oberlin College Conservatory of Music in Ohio from 1964 – 2006. His book, *The Structure of Singing*, investigates a variety of vocal pedagogical approaches in an attempt to answer common questions about how to sing. In the context of this paper, I will focus on Miller’s investigation into common practices surrounding breathing.

Miller places a great deal of importance on understanding the breathing mechanism. “Breath management is partly determined by the singer’s concept of what takes place physiologically during the inhalation-exhalation cycle. The singer ought not to base a method of “support” on incorrect information regarding the physical process involved in singing.” (Miller, *The Structure of Singing* 38) Miller also believes that it is very important for a singer to have the ability to take a good partial breath and a good full breath in equal measure. He stresses the importance of being in good physical shape and the impact it has on breath coordination. Miller also highlights that “breath capacity and management are largely determined by skill and not through the enlargement of organs or muscles. Breath-holding exercises teach one to hold the breath and have little to do with lung expansion or with music coordination during phonation.” (Miller, *The Structure of Singing* 38) Furthermore, Miller links efficient inhalation with silent inhalation. To that end, he believes that “Tension is not “support”, (Miller, *The Structure of Singing* 39) and that muscle tension does not equal a better approach to breathing. Conversely, Miller is clear that “‘Relaxation’ is a relative term; breathing involves muscle antagonism (and synergism) just as does any other physical activity. Energy for the singing voice demands muscle coordination between the breath source (the motor) and the larynx (the vibrator).” (Miller, *The Structure of Singing* 39)

Many of the concerns related to breathing which are discussed in these two current approaches to vocal pedagogy are similar to concepts integral to the ‘wind’ concept of Jacob’s Song and Wind.

Other Aspects of Brass Playing

Though Arnold Jacobs focuses mainly on breath and musical concept, other elements of playing were also discussed in his lessons. Jacobs's teaching included guiding principles for the teaching of other elements of playing, including embouchure, articulation, and posture.

Embouchure was a frequently discussed topic in lessons with Jacobs, even though he did not feel it was integral to mastery of a brass instrument. Students often felt that they had deficiencies in that area and therefore sought Jacobs's assistance. "Although many students come to Jacobs complaining about embouchure problems, he rarely finds problems with the embouchure."

(Frederiksen, *Arnold Jacobs: Song and Wind* 122) In fact, Jacobs found that most perceived problems with a students' embouchure were actually related to issues with their respiration and tongue. Other issues relating to embouchure, such as mouthpiece placement and how the embouchure feels to the performer were also less of a priority for Jacobs. "There's too much attention paid to the appearance and feel of an embouchure. There should be more attention paid to how you sound and function. If you set rules you will limit the ability to advance."

(Frederiksen, *Arnold Jacobs: Song and Wind* 123) Though the attention directed towards the embouchure was significantly less than some of Jacobs's predecessors in brass pedagogy, he did find certain embouchure-related observations to be applicable to his own playing. The following is a passage from Frederiksen's *Song and Wind* presenting Jacobs personal experience with embouchure as a university student:

"Many players will have considerable difficulty playing in the low range at first, but usually the embouchure learns to cope with the low vibratory rate on a trial and error basis. There is a general principle of embouchure involved in producing range on the tuba. In descending into the lower range of the tuba, we play with somewhat thicker surfaces as they will vibrate more slowly and still give a firm sound. The opposite is true in the extreme upper range. Rotate the lips inward upon themselves rather than assuming a broad a smiling position. The resulting tighter lip surfaces will vibrate faster. We must be sure that the lips do not become stiff, or it will be difficult to obtain proper response."

"There has been much controversy about shifting the placement of the mouthpiece for various ranges. When Jacobs first entered the Curtis Institute, he had difficulty with the high range. "When I got to classes and to my private studio with Philip Donatelli, I could hardly

play the high notes. One day I asked Donatelli to play a passage from Berlioz's *Overture to Benvenuto Cellini*. I was having problems getting the high G in that particular piece. Because he had a short upper lip, Donatelli had a mouthpiece with the top of the rim cut off making a flat section so it could fit under his nose. He simply shifted the mouthpiece placement up where he would play into the small section of the mouthpiece near the bottom when he would go up to high G."

"Here I was, a former trumpet player and thought, 'My God, he is changing his lip—his embouchure!' I had read articles that advised never to change the embouchure. I had accepted this advice and never changed. When I saw him change, I took the horn back and tried the same thing. I played the G above high C, and the G above the G above the high C. I practically had all the high notes on the tuba that I did on the trumpet by using a trumpet embouchure. I never had any trouble with high notes after that."

In addition to embouchure, another aspect of playing that Jacobs would address frequently in his teaching was articulation. He would most often approach articulation through speech. "You cannot communicate with a tongue. It will just stiffen up and be very uncooperative. But you can communicate beautifully with it through speech." (Frederiksen, *Arnold Jacobs: Song and Wind* 127) This approach resulted in Jacobs avoiding the discussion of tongue placement or movement in favour of "a proper signal being sent from the brain with the musculature of the tongue responding naturally." (Frederiksen, *Arnold Jacobs: Song and Wind* 128)

Jacobs emphasized the importance of the vowel over that of the consonant, avoiding using the word attack. "The tone of an instrument is the vowel, not the consonant of the attack. The 'T' of the attack must be minimized. Jacobs empathized this by spelling an attack 'tAH' or 'tOO' rather than 'Tah' or 'Too.' He recommends using the lower vowel forms, 'ah,' 'o,' 'ooh,' and 'u.' The color of the tone can be changed by using vowels. For a veiled pianissimo, the higher vowel forms, 'e' and 'i' are used." (Frederiksen, *Arnold Jacobs: Song and Wind* 128)

Finally, posture was also an important part of Jacobs's teaching. "Posture is very important. We are structured so that maximal use of air comes in the standing posture. Standing offers the greatest ability to move large volumes of air in and out of the lungs. The closer you get to the supine (lying flat on the back), the poorer it becomes." (Frederiksen, *Arnold Jacobs: Song and Wind* 130) Certain phrases, like "stand while seated", or "imagine there is a string pulling you

up—like a puppet on a string”, were used to help achieve a tall posture so that breathing would not be negatively impacted.

This chapter has provided a summary of the biography and pedagogical concepts of Arnold Jacobs as well as an overview of vocal approaches to breathing. Chapter 3 will continue with an analysis of interview subject responses contextualized within the teaching concepts of Arnold Jacobs.

Chapter 3

Teacher Profiles and Pedagogical Approaches

This chapter provides a summary of interview responses from each interview subject. A brief biographical outline is included for each interview subject in order to contextualize their professional career in relation to Arnold Jacobs.

Mark Tetreault

Mark Tetreault is currently a tuba teacher at the University of Toronto's Faculty of Music and is principal tuba with the Toronto Symphony Orchestra, a position he has held since 1986. Tetreault also served as Director of Symphonic Services for the Canadian Federation of Musicians for ten years. Throughout his music career performance has been his primary focus, with teaching as a secondary role. Currently, Tetreault maintains a small studio of students at the University of Toronto.

Tetreault's study of the tuba began in his school's grade seven band program, where he took tuba lessons from his band director Brent Harold. From there, Tetreault studied with various members, both retired and active, of the Detroit Symphony including Robert Jones, Oscar LeGassé, and Wes Jacobs. Additionally, Tetreault studied with Toby Hanks. Tetreault also had single lessons with other tuba players of note, including Dan Perantoni and Arnold Jacobs.

In his teaching, Tetreault "leans towards more of a bel canto singing approach, where your airstream is balanced rather than pushed." The notion of air pressure is at the center of this concept. The idea is that when you're playing in the upper register of the tuba, notes have more air pressure compared to low register playing. More specifically, "if you're playing a higher note it not only passes your lips. It needs to be a high pressure inside your mouth and inside your throat."

Tetreault encourages his students to listen to other tuba players as well as other musicians. Tetreault himself listens to a lot of singers. "I know listening to how a different musician, instrument or singer, approach phrases and how they use their air is very instructive." Tetreault has taken vocal lessons and has found them to be extremely beneficial to his playing. "It changes the way I think about my air, and, I think the vocal tradition has thought about how they use their air more than tuba players have." Specifically, a lesson Tetreault had with Dixie Neal, a vocal

coach at McGill University, had a strong impact on him as a performer. “That changed my life. The way she talked about singing on the breath, using the air and using a lot less effort to breathe in. I think tuba players get obsessed with a big inhalation a lot of the time.”

That singing approach ultimately guides how Tetreault teaches breathing to his university level tubists. “You know, it kind of goes back to the singing and the bel canto approach where you’re trying to, and there’s a word for it, sing on your breath.” Tetreault’s conceptualization of breath and how it relates to this style of music making is what he tries to communicate to his students. “The image I get is pushing down with the air rather than, you know, the diaphragm rising and sucking up. It’s like a balloon being pulled at both ends and stretched rather than pushed at the bottom and squeezed. I always try to keep that feeling of being on the breath no matter if it’s loud or soft, high or low.” The Bel Canto style of singing, though literally meaning Beautiful Singing, can be defined as: “Demonstrates a beautiful tone quality at all times. Demonstrates agility and virtuosity in performance. Demonstrates a smooth, pure legato and sustained unbroken phrase. Demonstrates perfect intonation as a result of proper tone production. Demonstrates an unhindered deliverance of musical expression.” (Beauchamp, *The Application of Bel Canto Concepts and Principles to Trumpet Pedagogy and Performance* vii)

One can see the teaching and performance connection in Tetreault’s philosophy to bel canto, in particular the idea of keeping the sound consistent throughout dynamic and register changes. Separate from bel canto, Tetreault’s approach to breathing incorporates the idea of using the right amount of air, “not too little, not too much.” He also works with his students on keeping the chest and rib cage high, with the lungs expanding and contracting inside his chest. “I try to avoid the top of the rib cage collapsing at all” says Tetreault. Furthermore, he tries to instill in his students the concept of breathing in before reaching the end of your lung capacity to maintain efficiency. “I’d rather see them breathe more often than get down into the 30% or less of capacity where your body is starting to panic a little bit.”

Fundamentals play a big part in Tetreault’s teaching. The standard pedagogical elements like scales, arpeggios, long tones, and lips slurs are all regularly used in his lessons with students. Posture is also of the utmost importance, “like having a tall, proud kind of posture.” Physical components of playing are discussed but only on an as needed basis. He feels that his tuba students are generally well set up before starting lessons with him and so the discussion of

certain basic physical elements of playing is not often needed. When physical aspects of playing are discussed, one of the most frequently addressed is the concept of correct hand position. Tetreault finds that this can be somewhat of an issue if not corrected. “I like having curled fingers that are in contact with the valves rather than either flat fingers or flying finger. You’re better off if you can be small and efficient with your fingers.” Tonguing drills are used for work in articulation, although Tetreault’s approach is focused on each note “being a syllable that’s a consonant and a vowel.” In particular the focus is on the vowel portion of the note occurring when the student wants the note to sound, with the consonant occurring preemptively. Soft syllables and hard syllables are also discussed to allow for a variety of tone characters and dynamic levels. Embouchure is not often discussed, unless a student is struggling with excess mouthpiece pressure, but those instances are infrequent. “It’s been a long time since I’ve had to make an embouchure change with a student.”

Tetreault has continued to learn and adapt as a teacher throughout his career. “I’m always learning too and trying to apply things. That’s the challenge of teaching: trying to find a way to get a concept across to a student. You may have to take three or four different approaches to connect to student.” Tetreault strives to equip his students with tools that will help them continue to develop throughout their playing career.

Although Tetreault was never a full-time student of Arnold Jacobs, there are points of similarity in their approaches, as well as points of difference. In common with the approach of Jacobs, Tetreault prioritizes the use of vowels in his teaching of articulation. Specifically, the concept of the vowel occurring at the moment sound is created is very similar to Jacobs’s preference of explaining articulation syllables as “tAH” or “tOO” rather than “Tah” or “Too”.

The concept of air pressure is a critical factor in Tetreault’s teaching and relates to Jacobs’s explanation of air flow and air pressure somewhat. Jacobs, though acknowledging the relationship between air flow and air pressure, focused his teaching on the production of wind. “The relationship between air flow and air pressure has been puzzling to wind instrument players. Air as pressure uses the same musculature as air as wind. However, the musculature is used in different ways. ‘With wind, there is always air pressure. With air pressure, there is not always wind.’ He often tells students to play with *Song and Wind*, not song and air pressure.” (Frederiksen, *Arnold Jacobs: Song and Wind* 119) Tetreault’s focus on air pressure comes from

the kinesthetic side of things, how it feels to play in certain ranges and certain dynamics. For Tetreault, an understanding of how it feels to play in specific ranges can often help a student grasp the difference in air requirements for different playing situations.

Finally, the main difference in Tetreault's pedagogical approach when compared to Arnold Jacobs is found in his approach to breathing. Tetreault tries "to avoid the top of the rib cage collapsing at all" while exhaling, which contrasts to what Arnold Jacobs taught. "Exhalation begins with the relaxation of the inspiratory muscles. During normal breathing, exhalation is passive. In forced exhalation, such as playing a wind instrument, the relaxed diaphragm is lifted by contraction of the abdominal muscles (neural inhibition) and the chest is drawn downwards and in by the internal intercostal muscles." (Frederiksen, *Arnold Jacobs: Song and Wind* 107)

Jane Maness

Jane Maness is currently the tuba teacher at Wilfred Laurier University's Faculty of Music. She is also principal tuba with the Kitchener Waterloo Symphony Orchestra. From 1976 - 1978 Maness was principal tuba with the Canadian Opera Company Orchestra. Now, between the Kitchener Waterloo Symphony and Laurier University, Maness describes her current balance between teaching and performing to be roughly "two thirds playing, one third teaching."

Maness received her Bachelor of Music in Performance from the University of Toronto where she studied with Chuck Daellenbach. Though Chuck was her primary teacher, she also had occasional lessons with Don Harry, Ron Bishop, and Arnold Jacobs.

As a teacher, Maness doesn't have a specific approach that guides her or "any sort of mission statement." She simply strives to connect with her students in an effort to uncover what excites them about music and more specifically, what excites them about playing the tuba. She thinks "how can I motivate them through making playing seem really fun and enjoyable." Her view on technique, then, is getting her students to understand its connection to the enjoyment of music making. Her view is that solid technique on your instrument surely increases the enjoyment factor while playing. Maness attributes much of this approach to her time spent studying with Chuck Daellenbach. "Chuck made it (performing) seem like the most enjoyable thing a person can do." The challenge for Maness is to find how to motivate each student according to their particular personalities and musical goals.

The unifying factor in all Maness's teaching is concept of sound. "I say it's all about sound." Maness plays frequently during her student's lessons to help with this. Her view is that technique can be more easily learned than tone quality. If a player doesn't have the sound, then she works on developing their concept until it is solidified. "Anything else can be learned. You can work on your technique."

With regards to breathing, Maness relies on the use of breathing aids, such as breathing bags. A breathing bag is a simple device, consisting of a bag fastened to one end of an opened tube. A player may breathe in and out of the bag through the tube as if playing a phrase of music on their instrument. The bag expands as the player exhales and collapses as the player inhales, visually demonstrating the movement of air. Maness says, "They don't lie." Discussion of the anatomy of breathing is left out of the discussion with her students, letting the simplicity of the breathing bag demonstrate if air is moving or not. Aside from that, Maness keeps an eye out for tension in her students, especially in the shoulders while inhaling. "I think as the shoulders rise up, you see the neck getting tense."

Posture is also a big area of discussion. Common issues that arise include leaning back against the chair, straining or hunching to reach the mouthpiece. Embouchure comes up in lessons with Maness, but in a slightly subtler way. Concepts such as opening up the oral cavity and keeping the tongue flat are important in her teaching. "I try to get that OH sound going in the mouth, the concept of it. I think the whole thing of tongue down is one of the hardest things for tuba players to grasp." Maness feels that the discussion of physical aspects of playing is not universally beneficial. Depending on the student she will alter the amount of discussion that takes place. On occasion, she finds that students will over do a suggested change, physical or otherwise. Because of this, Maness relies on demonstrating concepts and ideas rather than explaining them. "Like I talk about articulation or the front of a note and I find sometimes playing it for them is so much more helpful than talking about it. You know, because imitation is easier than intellectualizing." Interestingly, Maness finds her perspective in this area to be challenging with regards to her teaching. "You know one of my problems is that Chuck said I was a natural. He had trouble teaching me. So, in some ways when kids have problems... sometimes I feel like when you have a lot of problems yourself you work through them and then you know how to explain them better to other people." In her own learning Maness has found hearing quality music to be the best instruction. "I would say the best thing I ever did was playing duets with Chuck. There's so

much that I learned through mimicking and mirroring and hearing. Everything about it was so spectacular. Just seeing him play.”

When comparing Maness’s teaching approach to that of Arnold Jacobs, one can see several similarities. Maness’s use of breathing aids such as the breathing bag to assist students to visually understand movement of air was an important part of what Jacobs worked on with his students. “One of Jacobs’s trademarks is the use of external devices. All of these tools are used away from the instrument, and while they vary in use and design, the equipment provides a visual stimulus. For a student, seeing a ball or gauge moving gives visual reinforcement to the act of moving air. Some can be adjusted to vary the resistance, some can be used with a mouthpiece, but all introduce strangeness to the student. The skills learned here are then transferable back to the instrument.” (Frederiksen, *Arnold Jacobs: Song and Wind* 147) Maness also relies on the use of vowels to teach articulation, as was a critical element in the Jacobs method. Finally, Maness’s preference to demonstrate an idea rather than explain it was a big part of Arnold Jacobs’s approach. “Imitation was, is, and always will be the best method of teaching.” (Frederiksen, *Arnold Jacobs: Song and Wind* 146) Finally, her prioritizing of Sound is of course synonymous with the *Song* portion of the Jacobs approach.

Perhaps the main area where Maness differs from Jacobs would be in choosing not to discuss the breathing apparatus. Jacobs was well versed in the physiology of breathing and often imparted some of that knowledge to his students. He felt this foundation of knowledge to be beneficial in a player’s development. “Jacobs has always stated, ‘Great music can be made without the specific knowledge of the body.’ Just as most motorists know little or nothing about the mechanics of their car, most musicians know little or nothing about the mechanics of breathing. For general driving of a car, a knowledge about what is happening under the hood is not required. However, in more serious driving, such as racing, a more detailed understanding of the car’s mechanics would be helpful.” (Frederiksen, *Arnold Jacobs: Song and Wind* 99)

Karen Bulmer

Karen Bulmer is Associate Professor at Memorial University in St. John’s, Newfoundland. Her responsibilities at Memorial include teaching trombone, euphonium, and tuba. Prior to her position at Memorial, Bulmer freelanced throughout southwestern Ontario while also teaching tuba at Western University’s Don Wright Faculty of Music and Windsor University’s Faculty of

Music. In addition, Bulmer developed a one-women show, *Girl Meets Tuba*, which she has performed across Canada. Currently, Bulmer's professional music career is more focused on brass pedagogy. Her performing is more project based, consisting primarily of solo and collaborative endeavors. Bulmer received a Bachelor of Music from Western University, a Performance Diploma from the Harid Conservatory, and Masters and Doctorate degrees from Yale University. Bulmer's primary teachers include Claudio Engli and Toby Hanks. Toby Hanks was a pupil of Arnold Jacobs. While not studying with him long term, Bulmer also had several lessons with Sam Pilafian. "And I have to say that even though I didn't study with him formally and only had a few lessons with him, I would consider Sam Pilafian to also be an influence on my tuba playing."

As stated above, Bulmer teaches all low brass at Memorial University, a position she has held since 2006. Bulmer has this to say about her approach to teaching at the university level. "I really want them to get the best out of themselves, relative to what their particular goals are. So, not everyone is focused on being a performer. Even someone who's not interested in pursuing their instrument beyond their undergraduate degree, I'm really interested in them really understanding what it is to pursue a high level and to pursue mastery. So, even though mastery for someone who plans to go to medical school might look really different than someone planning on a career in music, I really want them to engage with that process. For me, a lot of that has to do with helping students become really independent, really self-empowered, so that they're really able to take charge of their own learning. I feel like that's really important. I don't think you can call it reaching their potential if they're reliant on me throughout the whole process. At a certain point, they have to become less reliant on me. So, that sort of reaching their potential or understanding what it means to engage in a process of mastery, however you want to articulate that, is a very important guiding principle. The development of an artistic voice that feels authentic. So, I want students to feel like they have something to say. That often means exploring genres other than classical music. So, finding things that really resonate with the student. And then, of course, developing the technical vocabulary to facilitate that expression. I would say that over the years my teaching has sort of evolved in this way in response to the type of student that I've gotten. My teaching has sort of evolved to be less focused on the development of certain techniques for the sake of having those techniques and much more in the service of having something to say and the tools to say it." This idea that technique simply serves the artistic voice permeates

Bulmer's approach to teaching. Lesson time is not often spent on technical skills unless they are required in a particular piece of music. "Sometimes the anxiety over acquiring a certain skill that doesn't have an immediate applicability causes so much anxiety that I question its value."

Bulmer's principle of helping each student achieve mastery on their instrument applies to her teaching of sound as well. Her approach to developing concept of sound includes playing and modelling in students' lessons, though the amount of modelling varies depending on the needs of the student. Most importantly, she emphasizes what is actually involved in a concept of sound. "So, when I talk about concept of sound with my students, I don't know how often I use the term concept of sound. I'll talk about the input, refining the input. Or, you need to refine the guiding idea, or whatever. That includes the tone quality. It includes all the different musical elements as well. Maybe you start with the tone quality, but over time my goal would be that the concept is a more holistic thing. That also includes what it feels like to make that sound. There's a sort of kinesthetic piece that I feel is important." The importance placed on the feel of producing the sound, that "kinesthetic piece" of sound production, relates to her approach to breathing as well. By her own admission, Bulmer feels that she would like to refine her approach to breathing. This is, in part, due to supplementary training she has received over the last several years. "So, like my Yoga teacher training. And I've done a lot of training in biomechanics and anatomy and stuff like that. So my understanding of the ways the breathing system works and how we can access function has changed. Having said all that, I am really interested in healthy movement. And so, making sure students have the mobility in their thoracic cavity and in their diaphragm, and even below the diaphragm... like in the musculature of the core that they actually have the mobility to expand and contract. A lot of what I do these days is corrective movement work. Particularly just because, and this comes from my background in movement education, I think relative to when I was a student 20 years ago as a culture we're even more sedentary. We spend more time locked in positions where we've got our chest and shoulders kind of caved in. So, helping students access the ranges of motion that they need in those tissues is a big part of it. I tend to focus more on having ease in the breath than quantity. My theory, which I'm not sure is a good theory, is that quality will follow from relaxation but that the reverse isn't necessarily true. And I do quite a lot of exercises in terms of the body understanding how to get air in quickly. Helping the body understand how to negotiate the resistance of the embouchure and the instrument without tensing

up. So that's sort of generally how I approach it, but I wouldn't say I have like a system. But I would like a system."

Distilling these ideas into a specific set of exercises or approaches to use in her teaching is something Bulmer hopes to work on in the future. She has recently recovered from a back injury that was caused through breathing while playing tuba. "I kind of realized that the source of my back pain was this thing that they call rib thrust, which is basically the rib cage rotating up on the inhale. And you get a little bit of the expansion you want. I was getting the look of a full breath from this upward rotation. So it causes a lot of compression in the thoracic spine which is where I got these back problems." Through her recovery, as her ribs returned to a natural state of alignment, Bulmer noticed "this really subtle engagement" in her abdomen while breathing during tuba playing. She describes it as far less pronounced than the out-dated 'tight gut' approach described in older pedagogical texts. "It's way more internal". These are the kinds of sensations and concepts Bulmer wishes to investigate further in designing an approach to breathing.

Building upon these ideas, Bulmer often discusses other physical aspects of playing in lessons with her students. In these discussions Bulmer's focus is mostly on identifying relieving tension. Bulmer's experience in movement education has helped equip her for this approach. "We actually work a lot physically away from the instrument to create mobility in areas where maybe there isn't mobility. And that's maybe a little more with trombone players where shoulder mobility is a bigger factor than it would be for tuba." In addition, Bulmer works with her students on mind-body connections and "understanding how the brain communicates with the body." Bulmer says, "we work a lot on motor patterning, but not in an analytical way."

Embouchure is also discussed, though again, the discussion is always conceptual rather than analytical. "We do a lot of work around getting them to understand and trust that the embouchure will respond to pitch ideas. So, we talk a lot about letting the lips buzz, not buzzing the lips. We do this on the mouthpiece a lot. Like, when the pitch idea goes up the embouchure will adjust. So, that's more for less advanced students who just don't have the communication between their brain and their body parts. It's very crude. So, getting it working efficiently but without a lot of analysis." Buzzing the mouthpiece is an important part of Bulmer's teaching. The goal is to "help them understand that the embouchure isn't something we do. It's a result of a highly

developed pitch concept and a good airstream.” Bulmer strives for her students “to feel what it feels like. Not to analyze it, but to feel it.” Bulmer elaborates saying “You know a lot of students have this idea that they have to make everything happen. So, like buzzing is this action that they take. You know, they’re going to make their lips tighter to go higher and all these things. But then there’s also these ideas of ‘Oh, we want to be relaxed.’ I think sometimes students over correct towards being too open. Like they don’t actually want to allow that compression to really happen because that won’t be relaxed. So, I like to spend time exploring that that is okay. That’s what happens when we play high.”

In terms of universality Bulmer feels that the effectiveness of discussing physical aspects of playing, such as embouchure, to be applicable to every student. She remains cognizant of each student’s level and personality in order to avoid instances of ‘paralysis by analysis’. She admits to having some reservations about discussing the physicality of playing due, in part, to how she was taught. “I have to say that because I was trained in a Jacobs lineage, anytime I’ve addressed physical issues I kind of feel like I’m breaking the rules. And because there was always this ‘paralysis by analysis’ that I’m very careful with how I address physical issues. I don’t tend to see a lot of paralysis by analysis.” Interestingly, Bulmer also feels that the ‘Song’ portion of the Jacobs’s Song and Wind approach sometimes causes issues. “You know, motor learning in general is just an interest of mine. I think I have a decent background. I would say level is definitely a factor, and different personalities. Different levels of body awareness, generally. I was the sort of person who found the physical stuff to be such a distraction because I didn’t think it was working efficiently. I’ll also say that sometimes if I’m relying too highly on the sound, for example, I’ll have students who get to a point where their concept is so far above what they’re actually able to produce that they feel bad all the time. Because it’s so vivid, but they can’t do it.” As a teacher, Bulmer feels responsible for ensuring that a student has the tools and understanding to achieve their concept. Further to this idea, she incorporates a great deal of mindfulness and meditation into her teaching. “Getting students to understand and feel how their attention moves and the balance of the attention between oral information and physical information and instructional information. It’s just interesting to me and I think really helpful having that ability to stabilize that attention on something particular but then also having attentional flexibility is also really important. But, I think it’s another way to guard against that paralysis by analysis and to help students understand there are various ways to pay attention and feel their attention

moving between different modes of attention. It helps them to more readily see... we call it 'to do list' thinking. That would be my term for paralysis by analysis. Like, are you trying to just check off all of these steps that you think you need to do in order to play this phrase? So, can we drop the to do list? Where would we focus the attention?"

As described above, Bulmer feels that her connection to Jacobs through her teachers has an influence on her approach. She identifies further connections to Jacobs's *Song and Wind*, specifically in dealing with breathing. "Actually, when I was reading *Song and Wind* I was like 'Oh yeah, this is what Jacobs was doing with breathing.' He understood how it worked so well that he had all of these ways to get students to experience it in their bodies without thinking about it a lot." The main difference in Bulmer's approach compared to that of Jacobs lies in the kinesthetic piece. Jacobs, while not completely dismissing the importance of feel, was known to prioritize sound over other feel. "There's too much attention paid to the appearance and feel of an embouchure. There should be more attention paid to how you sound and function. If you set rules you will limit the ability to advance." (Frederiksen, *Arnold Jacobs: Song and Wind* 123)

Chris Lee

Chris Lee is currently the tuba teacher at the University of Manitoba's Desautels Faculty of Music. He is also principal tuba with the Winnipeg Symphony Orchestra, a position he has held since 2003. Prior to these positions, Lee played in the Orquesta Sinfonica de Galicia in La Coruna, Spain and taught at the School of Music of the Porto Polytecnic in Portugal. Other notable performance experience includes playing with the Indianapolis Symphony, National Repertory Orchestra, National Orchestral Institute Symphony, Tenerife Symphony Orchestra, Verbier Festival Youth Orchestra and the Montreal Symphony.

Lee received his Bachelor's degree in performance from McGill University's Schulich School of Music, later moving to Indiana to obtain a Master of Music from Indiana University. His primary teachers include Dennis Miller, Alain Cazes, and Dan Perantoni. Lee did not study with Arnold Jacobs. He describes his professional career as divided between 25% teaching and 75% performing.

Lee's overall approach to teaching is simple and clear: "To sound good." To that end, Lee focuses on the technical development of his students, as well as consistency of tone throughout

the different registers. “The instrument is technically difficult, so I push a lot of technical stuff like being able to play the instrument. A lot of players can’t play the instrument. They don’t know their scales. They can’t play in different ranges with a good sound. They can’t play in tune. If you hear someone who plays in tune with a good sound they automatically stick out, so much that they could have awful musical ideas. But that doesn’t matter. You would just want to listen to them, you just want to hear that voice. So, I think that’s what drives my teaching.” In terms of sound concept and developing his students’ tone, Mr. Lee encourages his students to “listen their butts off.” With modern technology allowing for access to digital resources such as iTunes and YouTube, Lee finds that students have access to an abundance of great tuba recordings compared to his own experience as a music student. Despite this easy access, the result is that students are less hungry to listen to other players. “There is so much stuff they can listen to. And, I encourage them to listen to it. But I think because there is so much stuff I think they don’t, and I’m just going to generalize, I don’t think the students listen as much as we did because they don’t have to go and spend 20 dollars on a CD or, you know, it’s all there for them for free and maybe they don’t value it as much.” In addition to strongly recommending listening to recordings, Lee also plays a lot in his lessons with his students. “I tell them about the tuba in the head. Like there’s two things: the tuba in the head and the tuba in their lap, and they need to improve the tuba in their head. And that comes from listening.”

Lee teaches breathing by breaking it down into three separate aspects: Capacity, Inhalation, and Exhalation. His approach is to work on these three components separately, putting them back together once progress has been made on each individual element. “I work on capacity exercises and I use the bag too on inhalation and exhalation in different ways. With exhalation, it could just be a release of air and the inhalation is where the effort can go in.” In particular, the breathing bag plays a big part in Lee’s teaching. He finds it to be a very effective visual aid. “Number one you have to have a breathing bag and that’s the one you need. And like I said when I met Gene Pokorny and the first time I studied with Gene, those times were shocking, like in how much air can be moved. That was when I really started working on air. When I was a student in Indiana, I would spend a good fifteen to twenty minutes on air before I would start playing the tuba or buzzing or anything. I explained this to my students that there is no more inconsistency, every day was the same.” Lee will often discuss with his students that from day to day there are differences within your body that aren't easily detectable. The breathing bag can

help achieve consistency in breathing despite physical inconsistencies. “You wake up and you feel the same but you’re not the same so that’s why you need the visual aid.” Lee’s own experience informs his teaching in this regard. “When you blow in the bag you can see that you may feel normal but I’m only moving 3 liters and, for me, I would not start playing until I was moving six liters of air comfortably and it would be the same every day.”

Related to the above breathing concepts, Lee has specific criteria that he looks for in a student’s breathing to ensure that they are breathing efficiently. “I think it’s pretty clear if they are physically moving air, if their chest is having a ‘bellows motions’ and that’s really the first spot. I teach to put an imaginary hook in to the top of the chest which goes out at a 45-degree angle.” Usually Lee will work on the assumption that the quantity of air being moved by a student is insufficient. “Generally, people can move more air... unless you’re Gene Pokorny.” In addition, Mr. Lee finds that the exhalation is an area where a student can often run into problems. “They are so use to holding back air. If you take a big breath and just let it go, that’s really quite fast air and their chops can handle that. Years and years and years, high school, junior high, etc. However, many years I see them they’ve been holding back air and they think that’s actually blowing air. But they are taking a breath and letting it out at a slower rate because that’s all the muscles can hold.” Lee often needs to reprogram students to let their air out when blowing after years of them holding air in. Visual aids are a big part of this re-learning process. As mentioned previously, the breathing bag is used with great frequency in Lee’s teaching. Other visual aids include holding a piece of paper out in front and getting students to blow an airstream at it. Using the mouthpiece to aid air movement is common as well. “Like blowing through the mouthpiece and, if they blow through the mouthpiece with their lower lip below the mouthpiece students can really shoot out air quite easily and they go ‘oh that’s super easy’. Then you make them buzz and no air comes out and you just tell them to copy and go back and forth, back and forth. So, just copying that until they can move air while buzzing and then putting it into the tuba and their like ‘Oh my God I’ve never heard a sound like that before.’”

Striving for correct posture is another important aspect of Lee’s teaching. Closely tied to the breath, Lee finds that a posture fix can often lead to a breathing fix. “I know Pat Sheridan just fixes their posture and all of a sudden they sound better. So, posture...I have a very strong idea in my head of what looks right so I try to put them as close to that as possible. So, if you took a video of a player and there was no sound, I know how it should look. When I see Dan Perantoni,

even Chuck Daellenbach more than ever now, is better with his air. So, I know exactly what it looks like and try to encourage the student to look like that.” The use of visual cues in evaluating and instructing posture is a prominent part of Lee’s pedagogical approach. “So, the first thing is making them look right. That’s the first step.” Other aspects of importance include hand position. “They use nice curled fingers on the valves and I teach them to work the weak fingers, like the third valve and fourth valve alone. Say they’re in band class: don’t waste time! If they’re working with the flutes, work on your chromatic scales with nice fingers. Work on second and third valve, or just third valve alone. Or, weird things that can make your fingers act independently. I lecture them. Like there are only three valves for tuba. They have no excuse compared to the flute, clarinet, or oboe. To develop a little bit of dexterity there is just no excuse.” With regards to other physical aspects of playing, Lee avoids the discussion of things like the tongue or embouchure. “Tongue position I don’t do very much. I think that it comes naturally when moving air. A lower tongue and tongue that’s not hard and slammed.” “I don’t want them to get the paralysis back, I don’t talk about everything with the students. I want them to focus on one thing.” Only in extreme cases would Lee change a student’s embouchure, believing that how an embouchure looks has little to do with their musical output. “You know you had great players and bad players and inside it all looks the same. So, I think it has to do more with your sound concept with what you can do.”

Finally, Lee admits that he doesn’t focus on playing musically with his students. “I think that people are able to do that on their own, have them come up with their own musical ideas. I probably do less solo work than other teachers and more etudes and fundamentals and orchestra excerpts.” Strengthening his student’s fundamentals is his main concern, with the intent of establishing a solid enough foundation to allow them to pursue future tuba-related goals.

In looking at Lee’s approach to teaching, numerous aspects of *Song and Wind* present themselves. Working on breathing away from the horn would be the first. “During master classes, Jacobs has students do a variety of breathing exercises. These are physical skills that should be learned away from the instrument. As challenge precedes development, be patient with the development of these skills.” (Frederiksen, *Arnold Jacobs: Song and Wind* 132) Secondly, the idea of playing “the tuba in the head and the tuba in the hand” was a common concept in Jacobs’s teachings that is used by Lee as well.

The main difference when comparing Lee's teaching approach to *Song and Wind* is that Lee separates characteristics like sound quality and intonation from musically expressive playing, opting to let his students develop their musical voice on their own. This allows Lee to work on sound and tuning in lessons. Although Jacobs also encouraged his students to develop their own musical ideas, he used lessons to guide that process. "Jacobs taught individual musicians, rather than players of instruments, each of whom had different needs and responded to instruction in different ways. He made the basic assumption that each individual possessed musical ideas, and he did whatever he could to help each musician realize those ideas in sound. As he once said: 'I don't like the word 'trombone player,' 'trumpet player,' or 'tuba player.' I know we play these instruments, but we are artists, we are musicians. We choose these particular instruments as a medium in which to express ourselves.'" (Irvine 57)

Gregory Irvine

Gregory Irvine is an Associate Professor at the University of Prince Edward Island, a position he has held since 1990. His responsibilities at UPEI include teaching applied brass, instrumental conducting, brass techniques, and music history. In addition, Irvine plays tuba regularly with the Prince Edward Island Symphony, Symphony Nova Scotia, and Symphony New Brunswick. Prior to his position at UPEI, Irvine was principal tuba with the Hamilton Philharmonic for eleven years. During these years he also performed with other ensembles around Ontario, including the Toronto Philharmonic, Toronto Pops, and the CJRT Orchestra. As a native of Nova Scotia, Irvine's studies began at Mount Allison University where he studied with high brass player Jim Code. Several years into his studies he transferred to the University of Toronto Faculty of Music where he studied with Charles Daellenbach. After receiving his Bachelor of Music from the University of Toronto, Irvine proceeded to Northwestern University's Bienen School of Music. During this time, he completed his Masters of Music studying with Arnold Jacobs. Later in his career Irvine took a sabbatical from his position at UPEI to return to Northwestern in order to complete a Doctorate of Music, studying with Rex Martin.

Irvine describes his career as "definitely geared more towards teaching", and describes his teaching approach in the following way: "I'd say that generally, having studied with Jacobs and done my dissertation on his pedagogical approach, I very much follow that and try to always take the musical approach because I do believe that there's a certain amount with all of my students,

and I teach all the brass instruments not just the tuba, I believe that there is a certain amount of conditioning and responses involved at the basic level. And then, after that and once they take ownership of those basic responses it's very much talking about phrases, and playing music, and what they want it to sound like, and what their concept is, and what the music should sound like. And that's got to be the basic bottom line for success, and the ability to execute whatever they are trying to do."

The musical approach he describes above relies heavily on the development of beautiful tone throughout all the registers of the instrument. "I do emphasize tone quality a lot because it's part of that musical approach. So again, what I really emphasize is the initial, early training, of conditioning responses to give students the tools and getting them to think about matching the tone quality no matter what notes they are playing. Trying to make the tone consistent from one range and dynamic to another. Then, when they are able to do that, it's just part of the tools in their box to help them play the music they are going to play. I do emphasize that a lot. My feeling is that if you aren't producing a tone in a healthy, relaxed, efficient manner you're just not going to be successful. No matter what you're trying to play, you just have to have that sound. It's got to be there." Recordings play an important role in Irvine's teaching of tone quality. For the development of sound concept, he insists that students listen to recordings of their specific instrument. For Irvine, this is of particular importance since he teaches not only tuba, but trumpet, horn, trombone and euphonium as well. "You cannot make a sound if you have no concept of what sound should be. It's like going into a dark room and trying to find a light switch. If you just don't know what you are supposed to sound like how can you possibly do it. So, it's very important for students to listen and in my brass technique class, I have a brass ensemble or brass soloist playing through the sound system so that they are hearing that all the time." Recordings of other musicians are also employed to help develop students' concepts of shaping melodic lines and adding vibrato to the sound. "Singers for phrasing and styles of vibrato because that certainly changed, and it's different on different instruments and singers."

Irvine's approach to breathing, as well as most of his pedagogical ideas, are heavily grounded in the Jacobs approach. "Well having been a Jacobs student, I guess I do have an overall approach that I use in the teaching of breathing. What I've found in my own experience with teaching is that it's important to work on the top two thirds of the air supply and, it doesn't matter which instrument you're playing: trumpet, horn, trombone, euphonium, or tuba. You need to work on

the top two thirds. The moment you get into the bottom third it's not a natural thing to be pushing the air out at that stage. So, the moment you start to push air out from that bottom third or even less than half you start to, your sub-conscious mind is saying 'take a breath you idiot' and you're still trying to push it out, so you get isometric tension. Tension is created by one group of muscles working against the other, so you must work on the top two thirds of the air supply. As long as you're not restricting it then it's not a problem." Through teaching his students about lung capacity and the concept of using the top two thirds of their air, Irvine sometimes encounters flaws in his students' process of filling their lungs. "One thing is that some students have been taught when you're taking a breath, it's like filling an empty glass. Which is wrong and so it doesn't work that way. The moment you start to push out your belly and fill from the bottom to the top you're going to get that Valsalva kicking in." Irvine's reference to "that Valsalva kicking in" refers to the Valsalva Maneuver, which is defined as follows: "When a person forcefully expires against a closed glottis, changes occur in intrathoracic pressure that dramatically affect venous return, cardiac output, arterial pressure, and heart rate. This forced expiratory effort is called a Valsalva maneuver." (Klabunde, *Cardiovascular Physiology Concepts*) Irvine continues saying "So the important thing that Jacobs always emphasized was the most efficient way to fill the lungs was about suction, not friction. So, that happens at the lips; sucking in air at the lips, and you automatically suck air in so it goes to the right place. So, you are thinking about the wind over the lips. Your lungs fill automatically, and then it's just a matter of blowing past your lips, blowing at something to get the wind to cross the room. You don't blow to your lips, you blow past your lips when you're to produce the tone."

Additionally, Irvine often encounters misconceptions regarding breathing and natural movements. In particular, he finds that "instead of actually really blowing, you get these students who are trying to distend the stomach and try and fill the lungs like an empty glass, then they are closed off here (at the throat) and they are trying to blow. That's really a big problem, to get them to think about the lungs filling more like a balloon. Depending on the student, if they need analysis, I talk about how the bronchi break off. Not at the bottom of the lungs, but in the middle of the lungs, you know about one third of the way down. And the lungs fill like this, not from the bottom to the top but middle outward." A dominant part of Irvine's teaching is not only enabling his students to let the lungs expand naturally, but also to get them blowing air in a natural way.

He often demonstrated proper breathing technique during the interview process, something he does frequently in lessons with his students. “These are the blowing muscles down here (lower torso) and in combination with the intercostals and rib cage you get the wind.” Irvine stresses to students that “really blowing across the room, blowing at something” is essential. “Not blowing to their lips but blowing past their lips. I find that that’s the big thing, to get the wind across the room. I also find that often the students are playing their instruments by responding to the instrument. It’s a very strong physiological reminder of what they have always done. The moment you pick up the instrument and put it to your face it reminds you of what you’ve always done. So, if you’re trying to start something new and replace an old habit with a new habit, I find the mouthpiece to be really helpful. Just to buzz on the mouthpiece and think about it and that is so amazing and it’s good to start there when we want to hear the sound.”

Within the context of how certain structures contribute to or hinder the blow and the production of tone, other physical aspects are discussed. Irvine finds that mouthpiece buzzing can “really clear up a lot of things. In order to buzz the mouthpiece, they have to blow passed their lips again and they have to keep the tongue out of the way and all kinds of things just have to be in place. The mouthpiece doesn’t lie. The moment they can do something on the mouthpiece, it is immediately better on the instrument. As long as they don’t just mindlessly go back and do what they’ve always done. They really have to focus on what they just did on the mouthpiece. Sometimes that’s where a buzz aid is handy, because you put that in as the intermediate step. They’ve got the physiological reminder to their face, but there’s a little piece of plastic in there. They still have to do what they did on the mouthpiece the last time, to get around whatever they’ve been doing that’s habitual, that’s not very healthy.” Replacing bad habits with good habits, conditioning responses, and trying to do what you want to do on the instrument rather than what you’ve always done. These are the pillars of Irvine’s approach. “Yeah, if you’re trying to condition responses, get better habits, improve habits, then it’s really important to use the mouthpiece and the buzz aid as that stepping stone to keep from just going back to what you’ve always done. It’s amazing how just picking up the instrument is such a reminder of what you’ve always done and of course what you’re trying to do is start new habits. You can never break old habits, so you have to start a new habit and you have to find a way to do that and I find the mouthpiece is usually a really good because the students are not so used to doing that. It’s not

something they've always done. There's a little more room for training there that the instrument may not allow."

The use of the tongue is also a prominent topic in Irvine's teaching. In a very Jacobs-based approach, Irvine will often "use language and the idea of saying "ta" and not necessarily telling student's where to put the tongue. But, everybody's musculature and formation is different so it's got to sound right. If it sounds right it will be right. Wind patterns with the TAH or an open vowel after so that the air is not restricted and you are able to play with thick air in all registers so that the tone doesn't get thinned out or go sharp as you go higher. So, that's something that we will often discuss and I will give them exercises for and, again, it's training tissues, it's conditioning responses. Just getting what they need to be successful. So, you use drills, nothing fast, just drills." These drills are often grounded in musical ideas designed to keep the discussion of vowels and air relevant to music making. "Something really helpful is playing tunes on the mouthpiece and making sure they are playing musically and then asking them 'does the tone match when you make that fourth leap down' and that they are really thinking about how it sounds and the music thing too." In addition to these aspects, Irvine will sometimes discuss posture with his students. Since he teaches all brass at UPEI, Irvine has specific things he looks for while teaching each brass instrument. "I also talk about posture and for trumpet players to make sure they are holding the trumpet up. Tuba players, if the tuba is the right size using a stand or something like that. Making sure they are holding the instruments in a relaxed manner."

In the general context of brass teaching, other physical aspects such as embouchure are sometimes discussed. For Irvine, physical aspects are always discussed in association with tone quality and music making. "But what I always try to make sure to do is have them listening for the tone quality so that they can hear what they are doing and the physical is actually married to and related to the sound. So, it's not just a physical maneuver but it is something, it's a way to make sure the tone, or more importantly, to make the notes sound the same. And then, you can observe what you are doing. That's the preferred way to go. Try to make those sound the same. Do what you have to, experiment, make them sound the same, make the tone quality consistent and then you can see what you are doing. You know it's not going to be the same for everybody. You can't have one size fits all, do this because it won't necessarily work. They have to experiment a little and find out what works for them to keep the tone quality the same. So, it's always more from the sound." This approach works well for Irvine in his teaching. There's a

level of simplicity here. Irvine uses this Vincent Cichowicz quote to sum up his thoughts. “It may be simple, but it is not easy playing a brass instrument.”

Sasha Johnson

Sasha Johnson is principal tuba with the National Ballet of Canada Orchestra and is also founder of the Canadian National Brass Project, a brass ensemble made up of players from Canada’s top orchestras. In addition to his performance responsibilities, Johnson teaches tuba at the Glenn Gould School of the Royal Conservatory, the Schulich School of Music at McGill University, and with the National Youth Orchestra of Canada. “I’m incredibly fortunate that I get to teach at, I think, three of Canada’s top musical institutions”, says Johnson. He estimates the split between performing and teaching to be around 70% playing, 30% teaching. Influential teachers include Sam Pilafian, Dick Herb, and Vincent Cichowicz. Johnson also studied with Arnold Jacobs. He also credits the Berlin Philharmonic Academy as a strong influence on his tuba playing. “So that was like my jumping into the world of orchestral playing, which was simultaneously the best and worst thing I ever did because it’s obviously the highest standard you can get but nothing else comes close.”

The fact that Johnson teaches tuba at several of Canada’s finest music institutions heavily influences his approach to teaching and performing. “What I enjoy most about teaching at those schools and about my own teaching philosophy is that if you want to study performance on an instrument you’re better off doing it with somebody who is a professional performer. I’m always surprised when people don’t. It doesn’t mean that people who aren’t performing professionally don’t have a lot to offer, but if your goal is going into that profession, for me it makes a lot of sense to make that connection. And also from the flip side of that for me, it helps me a lot as a performer to have to kind of take a part and examine my own playing, my own approach. You know: ‘how do I do that’. So, I think great performers are always trying to improve their own game, their own level, and trying to push their own limits. Certainly, my students have helped me do that.” More specifically, Johnson focuses heavily on basics in his teaching. “So, attention to fundamentals of your playing, and I think that for me what I spend a lot of time doing to trying to musically get passed technical short comings in my playing without addressing actual physical or technical short comings in my playing.” To that end, he finds himself repeating several important words in his lessons with his students. These words include *Basics*, *Honesty*, and

Success. “Basics, one of the really important words that I use. Another is Honesty. I find it’s very difficult to be honest with ourselves when we’re practicing. It’s very easy to say, ‘that will be okay’, and it’s like ‘no that’s not where it needs to be.’ I see that in my students all the time. I would say eighty percent of our lessons are about their practice process, some huge percentage anyway. Another one is success. That practicing, which seems obvious, practicing success in our own playing where we are getting it right. It seems like we should practice something that we get wrong until we get it right. But, if we think about Sidney Crosby: he just takes a shot and if he misses in practice he doesn’t take ten more shots and miss ten more times. He practices getting it right every time, not getting it wrong every time. It’s amazing to me how often, and I fall into this as well... you know seeing my own playing through the lens of my students because, I’ll be practicing and realize ‘I’m not doing it right, I’m doing it wrong.’ Don’t practice your mistakes, don’t practice playing wrong. Ever since I started doing that I practice a lot less. I say, ‘don’t bang your head into the wall when there’s a door right there.’”

One of Johnson’s key words, *Basics*, speaks to a focus on developing strong fundamentals. One such fundamental, sound production, is an important part of Johnson’s teaching. “In a way, I place every importance on concept of sound. At the same time, because it’s a personal thing, it’s much more about the production of sound than the concept of sound. For me, what I realized when looking at tuba players whose playing I admire: there’s no one who doesn’t play in the middle of the sound and the center of the sound. In Germany, they use the word ‘Kern’, which means seed, or core/center. Sound is so personal that we can use many adjectives to describe it. We can say clear, we can say bright, we can say dark, we can say full, we can resonate, and everybody’s idea, especially behind the instrument versus in front of the instrument is a relative thing. If I take, off the top of my head, listing tuba players whose playing I admire like Gene Pokorny, Sam Pilafian, Jens Larson, Stefan Lebereze, Roland Sinzepali, Toni Griffin, Chris Lockeve, Roger Bobo. One thing about all of them is that they all play centered. They all have their own voice; their own color is dictated by the sound they hear in their head and also their instrument choice. You know Roger Bobo, when I was coming up, Roger Bobo was kind of... well, a lot of tuba players didn’t really like his playing because he was playing a little Miraphone tuba and right on the edge of the sound all the time. A lot of people didn’t think that was how the tuba sounded. But, you couldn’t argue with it. So, for me, the concept of sound is much more about how it’s produced.”

Johnson's focus is on getting his students to produce a sound with ease that is free of tension and well centered. "More specifically, the most common thing for a player who comes to see me is that they have three registers. They have a high register, a low register, and a middle register. I don't want that in my own playing and I find that it has to do with how they're producing the sound in each of those registers. If they have a more efficient production in those registers then they have a more unified sound concept. Secondary to that, yes, I will play in lessons to demonstrate that. It helps my own playing too. And do I recommend recordings? Absolutely I recommend recordings and more often than not they are not tuba players. I will play tuba player recordings especially the ones that I like and I encourage them to go and listen to other tuba players all the time. When it comes to that kind of center and brilliance in the sound, and also musically, my 'go to' musicians are cellists and singers. I think for tuba players we get very caught up in being behind the instrument instead of in front of the instrument. Singers have that same problem: being in your head instead of being out there."

The third key word that Johnson often uses, *Organic*, is frequently used when discussing breathing with his students. "It always amazes me when someone comes for a first lesson and I say, 'just show me a breath, what you consider to be a good breath', and they manipulate their body in this way that is literally the most fundamental bodily function that we have." His goal is to get his students moving air in a natural way. The idea behind this approach is that we all breathe naturally from birth, just to simply stay alive. Often, we can get in the way of that by overcomplicating how we breathe. "I think that when we are behind this instrument and in stressful performance situations or frustrated practice situations that air and our use of air, and our moving of air in and out of us, becomes manipulated. We manipulate the process and manipulate our bodies into ways that are more tense and less natural than we need. So, for me, I spend a lot of time trying to free people up from unnecessary tension, and that happens in different ways." More recently, Johnson has been reflecting on the specifics of the breathing apparatus itself. "I was watching an interview this morning of a guy named Jim Pandolphi, former third trumpet player of the Met¹. He says 'the worst thing you can do is breathe from down here. The minute you do that you're tense up here.' If you breathe from your chest, from

¹ Metropolitan Opera Orchestra

the top down, you avoid causing tension from trying to take a big breath. One thing that happens is when somebody's been told the idea of a large mouth cavity, drop your jaw, use the breathing tube, keep yourself really open, all the things that we hear constantly, they have trouble breathing in the middle of a passage. Like in *Fountains of Rome*, you don't have two or three beats to take that kind of breath. If you try to do that, you're going to get caught up. Trying to get too much air in too short a time makes you kind of gasp. It's like holding your head under the water. So, trying to make it as organic as possible, that's basically what my approach is. Roger Bobo used to say, 'sometimes you drink a beer, sometimes you drink a whisky.' A little puff breath can be really relaxed, it doesn't need to be tight and gaspy."

For Johnson, the most importance aspect of his teaching approach is simplicity. "If I learned anything from studying with Arnold Jacobs, many people want to sum up his ideas as Song and Wind, but a big part of that for me and what he helped me with and what I try to get my students to do is to stop thinking so much. Don't try and make your body do something unnatural."

Johnson will often apply the concept of simplicity to his students breathing and the idea of replacing bad habits with better habits. Of course, if a student has been playing for many years, it means their habits are deeply entrenched. "It seems intuitive for me that I teach at a university level, you know I have Masters students, very advanced. For the longest time I was taking, at the GGS, somebody who was at the graduate type of level. The problem with that is that they've spent years reinforcing stuff that I wouldn't want them to do. It can be very frustrating. When it comes to breathing, there's little to argue with when you're doing it efficiently versus when you're not. In a sense, it's a master key. You can open up so many doors by freeing that up. It is easily applied but habits are difficult to change."

Johnson says he will discuss things like embouchure, articulation, and hand position in his teaching. A frequently discussed physical aspect in Johnson's teaching is the discussion of the corners of the embouchure. "For me, what I discuss a lot, more than teachers before me, are corners. Having firm corners and strong corners and how to work on that. That's further to the idea of having one register rather than three registers. And then further to that the physiology behind the production of the sound and the buzz. So, that the transference of sound production into the instrument is efficient. I don't talk about articulation as much as I talk about sound production. I find articulation, tongue placement... again, organic versus manipulated, like our breathing." In the same way that breathing is a skill all people acquire from the moment of birth,

speech is something naturally learned early in a person's life. Johnson, then, will reference vowels and consonants when discussing articulation with his students. The goal is to keep articulation simple and natural. "So that acquisition of how we make our vowels and our consonants is one of the most natural things. Jacobs used to say, 'ten till two'. What's interesting about that is there is so much vowel behind those consonants. The more we try to manipulate our tongue to doing something that feels unnatural versus applying what we have done so naturally that we don't even think about it. Especially talking about consonant based languages. People who have softer tongue, softer consonants, more melismatic vowels like Cantonese and things like that would be different. In general, my students use too much tongue. Intuitively they just jam their tongue in instead of using it more linguistically; conversationally." One final physical aspect of performance which he discusses is the need to reduce excess movement in the valve hand. "I find people want to lift their fingers off the valves a lot, and so I try to keep their fingers on the valves, superfluous movement in general. Sometimes people really want to show me they're playing the tuba really beautifully. I would rather that movement, the energy, be put into their production and performance."

Johnson finds discussion of the above physical aspects of playing to be very useful in his teaching. "I think there is an interpretation of a certain school of teaching where the idea of musicality is paramount. I had teachers who said 'all of your technique is contained in your musical goals and your musical ideas. If you clarify your musical ideas and really express yourself then your technique will follow.' I think there is merit to that, but it's like setting up a high jump bar and being like 'you can jump that bar if you just think you can jump it.' That's not the case. You can go one hundred times, and if you don't know how to jump over that bar you'll never make it. Rather than adjusting or clarifying your goals, it's important to prepare yourself physically to realize those goals. I'm not saying that the goals aren't important, but there's also that physical approach. So yes, I think the discussion of the physical aspects of your playing are important." Johnson goes on to say that this kind of discussion is universally important, and that he engages in this kind of discourse with every student he teaches. What changes is the depth of the discussion.

"If someone comes to me who has really good habits and is really set up there's not that much discussion that needs to be had. If somebody comes to me and they've been doing it wrong for an entire undergraduate degree and they can barely make a sound on the instrument, then yeah,

we're going to need to talk.” “I think the danger with discussion of the physical aspects of playing is that something physical can instantaneously become psychological and become a real problem. Maybe I should clarify that while I believe that analysis and discussion of the physical aspects of playing is important, I don't believe that you have to get worse in order to get better. So, I've never taken a student and said 'okay, you have to stop playing and just go to a mouthpiece rim for six months and just do it this way and watch your corners and only play one note because you can't play the tuba.' I think that's too discouraging. I've had students that probably should have done that. I'm constantly amazed at what people will do without analysis.”

The importance that Johnson places on sound is quite reminiscent of Jacobs's teaching. Where Johnson moves beyond somewhat the standard Jacobs approach is in the teaching of breathing. As stated above, Johnson stresses the importance of keeping the breath organic. “It always amazes me when someone comes for a first lesson and I say, 'just show me a breath, what you consider to be a good breath', and they manipulate their body in this way that is literally the most fundamental bodily function that we have.” Johnson's intent is quite clearly to encourage relaxed, tension free breathing. Though Jacobs also worked to communicate this with his students, he emphasized the difference in air requirements for tuba playing versus breathing to stay alive. “To play a wind instrument, one must breathe differently than one does to simply stay alive. 'Mechanical wind is needed to produce sound rather than a chemical exchange needed to produce homeostasis.'” (Frederiksen, *Arnold Jacobs: Song and Wind* 101)

Johnson also actively discusses embouchure characteristics with his students, something that Arnold Jacobs avoided discussing in his teaching. Johnson believes that the idea of having firm corners in all registers of the instrument is important to achieve the goal of a unified sound. In contrast, Jacobs was known for not prioritizing embouchure discussions of that nature. “I'm not putting the embouchure down, but we cannot teach embouchure. We are all born with lips, and lips develop as we play music. They become what we call an embouchure, but embouchure comes into being through the music we play, not by mechanical procedures.” (Frederiksen, *Arnold Jacobs: Song and Wind* 124)

The importance that Johnson places on some specific physical components of playing is not intended to override the importance of musical goals, but rather to help his students to achieve their individual musical goals. “I was sort of sounding critical of my earlier teachers who said

‘okay, you have to focus on your musical goal’. That did leave me with a number of shortcomings in my own playing that ended up preventing me from getting over that bar. I would get close. Going to the finals of a big audition and having the conductor say, ‘you were the most musical we had all day’ and being runner-up for the job. It doesn’t feel too good. At the same time, what those teachers instilled in me was a real tremendous love and respect for what we do. More than trying to get my students to be good tuba players I try to instill in them that as musicians you’re part of the beauty of this world. We are incredibly fortunate and lucky to be doing what we do in any way, even studying it. Even though success is fleeting and hard to achieve it’s not about that. It’s about loving what we do. I think all of those other aspects, the more specific aspects aside, being a great musician and loving to play music and striving to play great music is paramount in my teaching.”

Michael Eastep

Michael Eastep is the tuba teacher at the University of Calgary and Mount Royal University. From 1982 through 2016 Eastep held the position of principal tuba with the Calgary Philharmonic. Prior to his positions in Calgary, he was principal tuba with the Winnipeg Symphony and taught tuba at Brandon University. Other professional activities include various chamber music projects, including Altius Brass, the Bow Valley Quintet and the Albertasaurus tuba quartet. Eastep began his music studies at Florida State University where he studied with trombonist William Cramer. From there he transferred to North Texas State University where he studied with David Kuehn to obtain his Bachelor of Music Degree. Eventually he completed a Master of Music degree from the University of Calgary. Other primary teachers include Arnold Jacobs, Roger Bobo, and Abe Torchinsky. Eastep describes the balance in his career as “more playing then teaching”, though that has changed significantly since retiring from Calgary Philharmonic.

Eastep does not outline a specific philosophy when teaching his university level students, though “there are statements of intent” that are used in his lessons. Primarily, he focuses on getting his students comfortable playing the tuba efficiently. Beyond that, he works on introducing students to the history of the instrument and repertoire. His approach to efficient playing is strongly rooted in the teachings of Arnold Jacobs. “Well as far as the approach to the instrument I did get a lot of my philosophy, if you will, from Mr. Jacobs. I certainly learned a lot from him and it

shaped the way I approach things. He was particularly good on the application of efficiency in breathing, trying to get the simple signals that lead to a good breath and good breath support. He was famous for his devices and pedagogical tricks for getting you to visualize what you were trying to accomplish. He was much more creative than I've been, but I've imitated some of his practices, some of the devices, the spirometers and meters and things like that. But really, what he emphasized always was the need to give simple commands to activate complex processes and that the more involved you get in the complexity of the human body the more trouble you were likely to be in. So that if you could just activate the processes as you should by simple signals like the demand to suck air through your lips then the body will do the rest.”

In keeping with the Jacobs approach, Eastep will often play in his students' lessons and suggest recordings for his students to listen to. “I mean, Jacobs was always so great at that and being able to pick up your horn and sound twice as good as you. I'm not sure I can always physically do that to a satisfying extent, but I do try and model not only sound quality but concept of how to approach certain phrases.” Eastep teaches breathing in a Jacobs inspired way as well, striving for his students to conceptualize breathing in simple manner. “Everything is easier if you do take a good breath, but again, it's so easy to set the cart before the horse and do things that you think are associated with good breathing but as Jacobs used to say: ‘do you expand to inhale or inhale to expand.’ It's a little bit tricky physically, you know the way the body works because you create a vacuum by making a larger cavity inside and that's what causes the suction but that's not the way you have to think about it. You have to think about it in terms of just demanding the air and then the body does the rest of the work. Again, the simple command is focused at the lips, what the lips do.” Though the Jacobs approach has been in use since the 1970's, Eastep still encounters some outdated approaches to breathing in his students. “There is still some of the outdated teaching philosophy around that focuses on the supposed role of the diaphragm and the need to keep things tense in your lower abdomen, which is exactly the opposite, of course, of what Jacobs taught: which was that the diaphragm is an involuntary muscle and it plays its important role in breathing without your intervention. And so that being the case any added tension that you introduce there can only stiffen you and reduce your capacity to expand. So, you look for expansion and particularly in the chest proper rather than just the lower abdomen. So, that's something that I do try to address and try to encourage that kind of filling bellows action in the chest.”

Some physical aspects of playing come up in Eastep's teaching as well. He finds the discussion of physical components to be generally effective, though they're only discussed if an issue presents itself. Specifically, body posture and tongue placement and movement are the two main physical components discussed. The discussion of the tongue, in a similar manner to the way Jacobs approached it, is always approached through the discussion of vowels. "Sometimes you can hear that there's some obstruction by the tongue in the mouth and so the concept of vowel is really important, speech therapy basically. Showing the difference between an E sound that's closed and an OH sound that's open. Doing that vocally and using that shape and blowing through so that you can hear the sound that is made by air as it's expelled and as it's inhaled." Posture is perhaps a somewhat simpler issue to address, though Eastep finds it to be of the utmost importance. "I spend a lot of time trying to address mis-relationships between the height of the instrument and the player in both directions. Sometimes the horn is too big and sometimes it's too small. So, using various devices, cushions and things to change the height of the horn and sometimes the height of the player so that it makes it possible to have a good relationship with the horn so that the breathing apparatus is good and there's no strain on the neck." Other physical aspects of performance, such as embouchure, are not often discussed in Eastep's lessons. "I think it is true, as Jacobs used to say, that if you get the breath straightened out and a strong concept of what you want to accomplish then many of the things that are created to be problems in the embouchure can take care of themselves." It's interesting to note that while Eastep employs a great deal of Arnold Jacobs's philosophy in his teaching, he has found that in his own playing this approach to performance is sometimes lacking. "I'm not sure that always occurred in my own playing, so as far as that goes I have mixed feelings about that particular teaching. But, nevertheless, unless there is something radically off with the embouchure I don't change much."

Peder MacLellan

Peder MacLellan teaches low brass at the University of British Columbia and is principal tuba with the Vancouver Symphony. MacLellan moved to Vancouver in 2011 after winning the tuba position with the symphony. Prior to this, MacLellan held principal tuba positions with the South Bend and Lafayette Symphony Orchestras. In addition, MacLellan was an active studio musician in Indianapolis and recorded extensively for Hal Leonard's band demos. Currently, MacLellan's career is primarily playing, with his position in Vancouver Symphony demanding about 40 hours of rehearsal, performance, and individual practice time a week. His teaching schedule includes

roughly fifteen low brass students, most of whom are students at the University of British Columbia. He received his Bachelor of Music degree from the University of Manitoba and a Masters of Music degree from Indiana University. While at Indiana he began Doctoral work, which he has since put on hold after moving to Vancouver. His primary teachers include Dan Perantoni and Chris Lee. MacLellan did not study with Arnold Jacobs.

MacLellan believes that his approach to teaching is “constantly evolving.” This is, in part, due to maturity differences in students of different ages. “The generational differences continually change and shape how I approach it. Some of my students who are more advanced and more mature can be more hands-off versus younger, especially stereotypical millennial characteristics, need a very hands-on approach. They need to be told exactly what to do. The biggest struggle I’m having right now is trying to figure out how to convince them, or how to have them figure out for themselves, that they need to think about what they’re being told and actually formulate their own opinion versus regurgitating information that they’ve heard.”

Each student finding their own sound is of the utmost importance to MacLellan. “It’s all about sound. My first lesson spiel is ‘If you don’t sound good, who wants to listen to you?’ So, everything is about sound. And of course, making music. I don’t prescribe who they should listen to. I try to not bring too much bias into lessons in terms of making positive or negative comments about individuals. I encourage as much listening as possible. But again, that takes self-initiative and that doesn’t always happen. I mean, the only bias I would have is that if someone is specifically asking for a recording of something I’ll say ‘Well here’s something that I really liked listening to when I was younger. This is where I found my basis for sound.’ So, if they’re learning Vaughan Williams, find yourself a Fletcher recording and start from there. I think in terms of solo artists, the two people that really influenced me in their style and their sound were Pat Sheridan and Michael Lind. Pat Sheridan doesn’t have a lot of legit, standard repertoire recordings but his approach, his musicianship, his style, his sound... when I was younger I really appreciated it. In terms of artistic approach and sound production, Bobo has a great wealth of recordings and so I also recommend them to do that.” In addition to suggesting a great variety of recordings, MacLellan will also play and model in lessons with his tuba students. “Yeah, I usually play more in tuba lessons than I do in trombone or euphonium. Especially trombone because I don’t want them assuming the tuba color in their sound. I used to play euphonium, I used to play trombone. It’s too hard to keep that up with the day job so I don’t

model those specific instruments. I would say that with younger students and beginning students I probably play more, depending on the rep I have to do in the orchestra that week. If it's heavy playing I'm not playing a lot, but with the beginning students I usually play everything with them. Maybe every three lessons I don't play anything and listen."

MacLellan's approach to breathing focuses on inhaling and exhaling from the lips. "I don't teach breath control per se. I guess I'd say that my number one approach is that the focal point of the blow is blowing from the lips and breathing from the lips. And, if you've waited to take a breath and need to take a breath then it's too late. So, never having the diaphragm tense. Don't even think about it. Even though it is a muscle of inhalation don't think about it. I don't usually prescribe breathing exercises. I prefer to approach it from the instrument itself so if something doesn't sound good on the instrument it needs to be fixed on the instrument. And occasionally take yourself off the horn and fix it elsewhere. But, that's usually not the case for me. I prefer to keep it in context so that they can see the result. Or that they can hear the result rather than try to establish a concept away from the goal." MacLellan primarily insists that his students inhale in the same way that they breath out. More specifically, approaching each part of the breath in a relaxed way is of the utmost importance. "If you breathe in relaxed you should be breathing out relaxed. If you breathe out relaxed you should be breathing in relaxed. Breathe to expand, that's an Arnold Jacobs thing there. So, if there's any tension anywhere in your body it's going to translate into the sound through the breath. If your shoulders are up, if your throat's closed, if your teeth are together, if your tongue is up, it all gets in the way of air. So, breathing should be as relaxing of a task as possible." MacLellan believes that sometimes the concept of taking a full breath can translate into a tense breath. "A lot of people talk about full breaths all the time. Full breaths aren't always possible. So, making sure that we're breathing as efficiently as possible when we have the opportunity to breathe. Again, the goal is turning a phrase and making good music. So, how can we make that appropriate through breathing. Often times I find that the air is not the problem it's the tensions in the way of either inhaling or exhaling. So, I don't talk so much about how to breathe. We all know how to breathe, otherwise we'd all be dead. I talk more about the things that get in the way of breathing, like teeth, throat, etc. My concept is 'HOH' in and 'HOH' out. It keeps the most open oral cavity. And again, blowing from the lips. Often times I talk about using slow air. People often confuse lots of air with fast air. We all know that

fast air means that you play higher. More air means that you play louder. Less air means you play softer. Slow air allows you to play lower.”

Other physical components of playing come up often in MacLellan’s lessons. First and foremost is posture. “Yeah, so posture I just say sit like you’re standing. The way to sit like you’re standing is that you have a straight stance as you’re standing. You can’t have bad posture standing, really. So, sit like you’re standing, bend at your knees, bend at your hips, sit on the edge of your chair.” Since standing is something every student does on a daily basis, it’s a simple way to improve posture. The impact of posture, though, can be a little more complex. MacLellan will, on occasion, talk about the impact of posture on other aspects of playing. “I guess posture can sometimes play into range as well because when we have a tuba on our lap, if we don’t change the... and I don’t heavily think about this or talk about it, but when a student’s having a problem I’ll talk about leaning forward to have more tone in the higher register. By leaning forward, it gets your bottom lip more into the mouthpiece as the tuba pivots forward. That kind of goes a long with the whole Reinhardt pivot system which I don’t personally prescribe to but the bare bones of it makes sense.”

In addition to posture, MacLellan will sometimes address hand position. “Hand position, a good curvature to the fingers. Especially if it’s a piston player you don’t want to see the flat fingering. It’s bad technique. You can develop tendinitis. So, good curvature to the hands all the time. And natural hand position. So, if you hang your hand down at the side of your body and relax it the hand naturally curls, so that’s the kind of curvature that you want to maintain on the valves. Then of course there’s the fact with front action tubas often times smaller people have difficulty reaching the fourth valve. There’s not really much you can do about that obviously. There’s the old soldering a penny trick, but I don’t really worry about that.”

With regards to tongue movement and articulation, MacLellan will often let the discussion of vowel lead his teaching. Reminding his students to keep the tongue from obstructing the flow of air is very important. “Tongue position, yeah. Tongue down. Vowel is important to me. I don’t talk about using other vowels. I find that sound gets disturbed if we don’t have an open vowel so I always talk about the OH vowel, which keeps the tongue down. So, I talk about tongue placement in terms of... I used to just talk about single tongue placement and keeping your tongue down and then I found that students will often times either raise the tip of their tongue or

the back of their tongue. So, I talk about front and back of tongue when I hear that there's an issue in the sound. The back of the tongue always plays into the throat. So, if the back of the tongue is up, your throat is kind of closed. I demonstrate all these things: teeth together, tongue up, throat closed... if you talk like this you sound like Kermit the frog. So, yeah, Kermit can't play tuba. And the whole chipmunk cheek puffing thing kind of plays into that too. We don't see that so much anymore, because people have really talked about it in the last 30 years. But, if the cheeks are puffing the air is not moving out, it's moving sideways. So, focusing on getting the air straight over the center of the tongue. Often times I find people blowing on the outsides of their teeth, which diffuses the focus in the tone. I talk about the fundamental pitch and then the overtones that create the sound. Getting a student to hear different overtones like the tenth or the octave and the fifth. And super overtones above that. Not too heavily, but if a student is struggling to hear brightness in their tone I'll mention overtones, demonstrate at the piano with the sustain pedal down."

Finally, MacLellan does talk about embouchure with his students. "For embouchure, the only thing I talk about is that you don't have an embouchure until the mouthpiece is on your face. And, I definitely don't talk about forming an embouchure. Basically, because that gets the lips tight, and we don't want tight lips. We want relaxed lips. Otherwise they can't flap. My big thing with embouchure is blowing from the lips, putting the focus here as a pose to further back. Like we're talking right now the focus is on the vocal chords. If these (lips) are our vocal chords the focus of blow should be there." Apart from that main principle regarding embouchure, he will on occasion discuss changes in embouchure in various registers. The previous discussion of the way MacLellan teaches posture and the idea of pivoting contribute to this concept. "I guess other embouchure things I might talk about would be in the high range, make sure that we're frowning... if we're having troubles in the high range. If there's a lack of tone or can't achieve a note, be sure to frown and think about blowing downwards especially for downstream blowers. But yeah, I don't use the word embouchure. I never use the term embouchure change. I just feel like that scares people off. It's not positive."

In general, MacLellan makes sure his discussions with students are relevant to that specific student. Furthermore, if a teaching procedure doesn't produce a positive result in a student he first reflects on his own teaching to see if there is an inherent flaw in his approach as a teacher. "I don't waste time talking about things that don't produce result. So, if I don't see the result it

means I'm not an effective communicator which means I either need to figure out how to say it in a different way, or, communicate it a different way. I do believe that there is a specific... each student needs to find the teacher that they best learn from, but I don't limit myself to say that I can only teach certain students. I feel like I can get results from anyone, whether they are a beginning student or not. The approach is physical but it's geared, it's founded in musical." The principle question that guides MacLellan's teaching is "How do we get to be better sounding?" Everything that follows is in pursuit of answering that question. "Again... teeth, tongue, throat. It's the basis for free movement of air. So, yeah, universally effective. The result is the same: the student improves. I do find it to be useful. I think that too often the Chicago school gets misunderstood and oversimplified to the point of everyone thinking the Chicago school means just sing and blow. And yes, that is absolutely true, sing and blow. And yes, it is absolutely true that we can produce paralysis by analysis, but I think in the study and the practice session... if it is a true nuts and bolts practice session, that we do need to be thinking about what's preventing the air flow from moving. In a performance situation, all it is is sing and blow. Getting that point across to students can be difficult because they don't have as many performance opportunities. Students these days don't seem to seek out performance opportunities. This is my sixth year having a studio of my own working with my own students at the collegial level so I'm still obviously developing and learning and figuring out what works for me and what works for them. I think it's important to stay current and assess what needs improvement all the time."

Throughout his career MacLellan has often encountered misinterpretations of the "Chicago School" of brass pedagogy. He has observed, for example, that the Arnold Jacobs approach is often simplified to "sing and blow." Though that is an important part of what Jacobs taught, it is not all encompassing. Jacobs was a huge believer in the idea of changing one's mindset when moving between practicing and performing, something that MacLellan feels is often overlooked when discussing the Chicago school of teaching. "Jacobs separates performing from his teaching. He states that he wears several hats. While performing, he wears a performer's hat. When teaching, he wears a teacher's hat. When investigating respiration, he wears an investigator's hat. He knows when to put a hat on, and more importantly, when to take a hat off. When he performs he only wears the hat of the performer. It is not the time to investigate or analyze. Those hats are removed to avoid making simple procedures complex." (Frederiksen, *Arnold Jacobs: Song and Wind* 93)

Although Jacobs would, on occasion, discuss physical components of tuba playing like changes in the embouchure or tongue, these instances were very rare and scarcely documented. In contrast, MacLellan's discussion of embouchure includes physical procedures such as pivoting forward and frowning in the upper register to help maintain tone quality. Another contrast to the *Song and Wind* approach is that MacLellan prefers to work on breathing on the instrument to help connect breathing to the goal of sounding better on the instrument. Jacobs would very often work on improving a student's breathing away from the instrument to establish proper respiratory function. "During master classes, Jacobs has students do a variety of breathing exercise. These are physical skills that should be learned *away* from the instrument. As challenge precedes development, be patient with the development of these skills." (Frederiksen, *Arnold Jacobs: Song and Wind* 132)

Paul Beauchesne

Paul Beauchesne has been principal tuba with the Victoria Symphony since 2004 and teaches low brass at the University of Victoria Faculty of Music and at the Victoria Conservatory of Music. Beauchesne describes the balance between performing and teaching in his career as "more performance heavy." Prior to his positions in Victoria, Beauchesne was a long-time member of Calgary's Foothills Brass Quintet and also spent two years as principal tuba of the KwaZulu Natal Philharmonic Orchestra in Durban, South Africa. His primary teachers include Dennis Miller, Gene Dowling, and Dick Ely. Gene Dowling was a pupil of Arnold Jacobs. In addition, both Patrick Sheridan and Sam Pilafian were important influences on Beauchesne, though he did not study with them through his university years.

Beauchesne's main goal in his teaching is getting his students to understand what sounds good. "The simplest thing is doing what sounds good. Of course, we want to coach that in as much background information and be as knowledgeable of the specific performance practice relativity to a certain piece, certain time period, a certain composer. But I'm more interested in helping students figure out their vision of what sounds good and how they want to sound and what they need to do in order to get there, realizing that what I think sounds good is not necessarily what they want to inspire to. Although I want them to understand what I think sounds good and why I think it sounds good. I want them to have the freedom to tell me why they think it should go a different way and to back it up. I think being purposeful is important and to bring that to

whatever you're doing whether is practicing, working on specific technique or if it's presenting a piece and deciding on a breath in a particular spot or a certain type of phrasing or articulation. If it's not exactly true to what's on the page then you have to have a good reason, you can't just be like 'because it's easier that way', or something. Like letting your musical objectives be what drives things and defines things for you." Secondary to that, Beauchesne likes to ensure that his students have "as much background information and be as knowledgeable of the specific performance practice relative to a certain piece, certain time period, a certain composer."

Sound is of the utmost importance to Beauchesne, and his approach here links clearly with his approach stated above. In particular, getting his students to understand what sounds good and what impacts how they sound is a focus. "As far as trying to achieve a good tone production, I stress its importance and talk about really listening and trying to define what makes up a good sound and what the difference between a good sound and a sound that needs a little bit of tweaking. I think in my teaching that's something that I find is not well definable." He strives to clarify the effect various factors have on how someone sounds, even things like the room you practice or perform in. "We have a couple of really nice resonant rooms. So, when we get a chance to have a masterclass in there, just using that opportunity to really draw their attention to how the room responds to a note, or an articulation, and just trying to create that awareness in the student. So, that their own practicing and own experiences going forward that they have those experiences of when something is really resonant and ringing and it responds in that way, with perfect intonation, that they have that to reflect back upon. So, I think for me much more than trying to listen on a specific recording because of all the different processes that go on with that. I think the bigger impact is the live, making it yourself or making that experience with other people in a room where you feel it from the floor. I think to me that's a more impactful tool for moving a concept of sound forward in a student."

While teaching breathing, Beauchesne relies heavily on exercises from Pat Sheridan's and Sam Pilafian's *Breathing Gym*². "I don't crack the book open every day or put on the DVD, but I do use a lot of the things they put forward in that book in working with my students and even working with... I forgot to mention National Youth Orchestra earlier. So, that was performance

² Pilafian, Sam, and Patrick Sheridan. *The Breathing Gym*. London: Focus on Music, 2007.

and teaching working with Dick Erb three summers at NYO and the first two summers plus one summer at Domain Forget with Vince Cichowicz and that sort of... I can't remember... just talking about the breathing, and the thing I was tying into it was the wind pattern type of articulating the air stream. I'm trying to remember to my undergrad and I don't remember specifically Gene or Dick using that type of technique in the same way as I experienced it later with Vince. First of all, he used that a lot in his teaching, and it's a part of what Sam and Pat do in those books. I found that really helpful in working with really young kids and also the idea of air flow as it relates to dynamics, getting students to think about those different levels of air on the continuum. Like what's your max flow and how does that feel, you know just to let all the air that you can out as opening in one big gesture and relating that to your loudest possible dynamic, versus the visual of floating a paper airplane very slowly across a football field kind of *pianissimo*." In addition to private instruction, Beauchesne finds "those things really useful and it really can unify an ensemble in their approach to different dynamics. Just the idea of moving the air, getting the breathing machinery working in the most relaxed possible way. That's something I still struggle with as a player, is trying to keep relaxed while you are creating this incredible, big, exciting, aggressive kind of sound but trying not to let that tension creep into your body. Especially when you're doing something like sight reading a really hard piece, you know we tend just to, you know just bear down and force it. So, intense. Trying to have that mental intensity and intensity of sound without being physically intense."

A common breathing issue that comes up in lessons is the notion of resistance at the lips, in the mouth, throat, or neck. Beauchesne's teaching goal is to have his students breathing process as natural as possible. "Do you hear a nice easy open inhalation where the air is just coming in naturally or can you hear resistance or something going on. Either in the lips, in the mouth, neck, throat and also just how is the person expanding. Does it look natural or are they manipulating themselves in some way to exaggerate what they're doing. If you've ever seen a sleeping baby there is a pretty natural way to breathe. We all have, from a very early age, but as we age we apply our minds to try to do this thing that is playing a brass instrument. We tend to overdo things and in a way, that doesn't actually help. So, just trying to get people to be as relaxed as possible, again with how they are approaching the movement of air and understanding the breathing machinery. It's there to do its job and that the more relaxed we can be about allowing it to function the way its suppose to, that's going to helps us out, not just with the movement of

air but with our tone production and our ease of playing. Taking it back to just making playing as easy as possible physically so that we are able to do really technically challenging things. That if we are really trying to force the breathing, to make it happen, it actually diminishes our ability to achieve the technical results that we want.”

Though Beauchesne is cognizant of the potential downfalls of analyzing ones playing too intensely, he finds that it can be beneficial to focus on specific issues. “It is possible to get bogged down, especially mentally bogged down in the process if you are focusing on trying to control every little thing as you play and I do believe there is value in understanding every little thing and trying to pin point certain things causing them. But, everything is on a continuum and you can focus on one thing but you have to back away and have the bigger picture and, I think going back to thinking ‘how does it sound’ and ‘what is it really that we are trying to achieve’. If you are coming in focusing on specific tongue placement, you know for this note: where exactly is the tongue striking the roof of your mouth? Or you know, ‘oh good it’s actually coming between my teeth!’ Those things are important to figure out and to say can I play that note and tongue where I pronounce D, like right on top of the soft palate. If I play F below the staff or an octave below and make a reasonable articulation with the ‘dah’ attack or do I need the ‘thah’ attack. I think there is value in those questions and looking at what the answers are and how does it sound in this room and, how does it sound to me and, how does it sound in the concert hall to somebody in the balcony. The more information we have the better. It goes back to the overarching thing, sound is the overall goal and, what’s your musical objective and if it’s sound, and if the sound fits your musical objective, then I don’t care if you’re going ‘thah’ or ‘dah’. Posture I think is a big one because talking about how our breathing machine works the most naturally and the most relaxed. If our posture is in opposition to that, it’s not helping us.”

Beauchesne reflects, on occasion, on the teaching of Arnold Jacobs. Specifically, the Jacobs idea of “paralysis by analysis” is something that he observes to sometimes be limiting. Beauchesne will discuss more specific physical movements in relation to articulation, talking frequently about tongue placement in different registers. He has found that this discussion to be invaluable in pinpointing students’ articulation issues. His approach to breathing differs from Jacobs in that Beauchesne’s goal is for his students to breath in a natural and organic manner. “If you’ve ever seen a sleeping baby there is a pretty natural way to breathe. We all have, from a very early age, but as we age we apply our minds to try to do this thing that is playing a brass instrument. We

tend to overdo things and in a way, that doesn't actually help." Jacobs believed strongly in teaching relaxed breathing, although he also stressed the differences in breathing to sustain life versus the mechanical air required to play a wind instrument.

This chapter has presented a summary of interview themes from each interview subject (full transcriptions of each interview are available in Appendix 2). The linkages to Arnold Jacobs and his pedagogical approach will be investigated in detail in chapter four, looking specifically at shared similarities and differences to the Jacobs approach amongst the interview subjects.

Chapter 4

Interview Findings

The above chapter explores the pedagogical approach of nine Canadian tuba teachers. These discussions, while providing insight into each interviewee's teaching habits, also reveal certain overarching themes relating to Arnold Jacobs and his impact on current teaching practices. The following are the dominant Jacobs-related themes that are present in the pedagogical approaches of the interview subjects. These themes demonstrate Arnold Jacobs's impact on Canadian tuba pedagogues.

Articulation

The Arnold Jacobs approach of teaching articulation through language, outlined in detail in chapter two, permeates the teaching of the majority of interviewees. Mark Tetreault, emphasizes the importance of vowel in the sound while some teachers, such as Jane Maness and Peder MacLellan, expand upon this idea slightly through referencing specific elements such as tongue placement. These specifics include tongue movement when articulating in certain registers, keeping the tongue flat, and the potential of debilitating tension in the tongue. Gregory Irvine, Michael Eastep, and Sasha Johnson all emphasize the importance of a linguistic approach to articulation, with the goal of keeping the act of tonguing natural and organic. Arnold Jacobs approached the teaching of articulation through language. This Jacobs concept has most strongly impacted the teaching practices of the interview subjects.

Song

As with articulation, the majority of teachers interviewed emphasize the importance of the Jacobs concept of *Song*. Though this idea is broadly implemented by all of the interviewees, the specifics of implementation vary. For example, Jane Maness, Peder MacLellan, Michael Eastep, and Chris Lee focus specifically on sound. To help their students achieve optimal tone quality, these teachers prescribe recordings for listening and model regularly in lessons. Sasha Johnson includes additional specificity to his teaching of sound, emphasizing the idea of a unified, centered tone quality throughout the entire range of the tuba.

Gregory Irvine and Karen Bulmer approach the Jacobs idea of *Song* a little differently, with less specific focus on tone quality. They focus slightly more on broader ideas. Irvine discusses

additional musical aspects such as phrasing and vibrato, all of which combine with concept of sound to contribute to the idea of *Song*. Bulmer also discusses the various components that make up the final musical product. These components include the tone quality, the guiding musical idea, and the input into the instrument. Paul Beauchesne has another variation on the approach to teaching *Song*. Beauchesne ensures his students understand the difference between what sounds good and what doesn't. He broadens this discussion to include indirect factors that impact sound, specifically the performance or practice space.

Most of the interviewees agree on the importance of *Song*. The majority of interviewees stress the importance of having a clearly defined musical concept, using recordings or modelling in lessons to help grow that concept. These practices demonstrate Jacobs's strong impact on each of the interview subject's pedagogical approach to *Song*.

Wind

Many of the interviewees use Jacobs strategies while teaching breathing. Chris Lee, Jane Maness, and Michael Eastep use breathing aids, something Jacobs was famous for. Lee and Maness both use the breathing bag to help students understand and visually see the amount of air that can be blown out and sucked in. Eastep uses some of the meters and spirometers that were prevalent in Jacobs's teaching to achieve the same goal. Jacobs would also work on breathing with his students away from the instrument without any additional breathing devices. Karen Bulmer, Gregory Irvine, and Paul Beauchesne all use this approach with their students.

In contrast to what was observed in the discussions of articulation and sound concept, however, some of the surveyed teachers do begin to move away from Arnold Jacobs's strategies when discussing breathing with their students. The differences are evident in both the conceptual implementation of how one should breathe when playing the tuba and also, how one should practice good breathing. Conceptually, some of the interviewees differ from Jacobs in that they teach how organic and natural breathing should be. Sasha Johnson, Peder MacLellan, Karen Bulmer, and Paul Beauchesne all discuss organic, natural breathing. These interview subjects observe many of their students manipulating their bodies in an unnatural way in order to achieve a good breath. When approaching the concept of natural breathing, Beauchesne says "Does it look natural or are they manipulating themselves in some way to exaggerate what they're doing. If you've ever seen a sleeping baby there is a pretty natural way to breathe. We all have, from a

very early age, but as we age we apply our minds to try to do this thing that is playing a brass instrument. We tend to overdo things and in a way, that doesn't actually help." In contrast, Jacobs made a point of prioritizing quantity of air while inhaling. In his teaching, he often differentiated between mechanical air and life sustaining air. "To play a wind instrument, one must breathe differently than one does to simply stay alive. 'Mechanical wind is needed to produce sound rather than a chemical exchange needed to produce homeostasis.'" (Frederiksen, *Arnold Jacobs: Song and Wind* 101)

The Jacobs approach to breathing is less consistently followed by the interview subjects when situated in comparison to Articulation and *Song*. Certain practices, such as the use of breathing aids and practicing breathing away from the instrument, are common. However, the general approach to teaching breathing has changed somewhat from the Jacobs approach. The interview findings show that *Wind* is more heavily misinterpreted by student tuba players. Therefore, the teachers interviewed often need to respond with a contrasting approach in order to correct bad habits. The most common method of achieving this amongst the interview subjects is to focus on natural, organic, easy breathing. Jacobs's approach to breathing is moderately impactful on the pedagogical practices of the interview subjects.

Embouchure

The following is an Arnold Jacobs quote on the topic of embouchure:

Arnold Jacobs once said, 'Embouchure is the result of the musical demands placed upon it.' Those musical demands are generated by the brain—the mental tape recorder—and if the mind directs, the body will follow. Which brings us to that very important point. If the mind wills us to pick up a glass of water, we will. But, if we attempt to analyze the muscle groups, how they interrelate and how they lift the glass to our mouth, we will die of dehydration. Similarly, if a brass player becomes obsessed with the muscle groups of his mouth and the remainder of his face, how they contract to form the lips to produce the buzz, that individual is headed for trouble. This is not to say that one cannot learn this material in his leisure time, but any application to performance will be deleterious. Conversely, if the mental image of a beautiful sound is strong, and concentrated upon, the body will figure out, *on its own*, how to make the sound. Of course, it may be only one note, but once the mental image is there, it multiplies rapidly.

Frederiksen, *Arnold Jacobs: Song and Wind* 142

Approximately half of the teachers interviewed in this research actively engage in embouchure-related discussions with their students. Karen Bulmer will often talk about the input and how it

feels to produce the sound. Peder MacLellan uses concepts such as frowning and blowing the air down in the upper register while teaching. One of Sasha Johnson's primary teaching areas is embouchure-related, with the goal of getting his students to focus on having firm corners in the embouchure. Gregory Irvine will also engage in some embouchure discussions with his students, provided that any observations of physical maneuvers are viewed from the perspective of obtaining a musical goal. The interviewed teachers that engage in discussions of embouchure with their students find that the students benefit from this process, allowing them to more easily obtain their musical goals. Jacobs's pedagogical ideas on embouchure were the least impactful on the teaching procedures of the interviewees.

Conclusion

This study explored the influence of Arnold Jacobs and his pedagogical approach through an interview process with nine active Canadian tuba teachers. Several common linkages to Jacobs emerged through the interview process. The Jacobs approach to articulation was found to be the most impactful amongst the interview subjects.

The Arnold Jacobs concept of *Song* is also compellingly in evidence in each interview subjects pedagogical approach. Though the current teaching approaches of all interview subjects are grounded in the teaching strategies of Arnold Jacobs in this area, many develop the concept of *Song* in a variety of ways. The Jacobs approach to *Song* was found to be universally adopted amongst the interview subjects, though several teachers adapted Jacobs's approach slightly. *Wind*, Jacobs's term for the breathing requirements to play a brass instrument, was also found to be transformed, adapted and used in an individually evolved format by several of the interviewees.

Through the interview process, multiple teaching themes emerged. Several teachers presented the opinion that there are popular misconceptions surrounding *Song and Wind*, citing the viewpoint that the Jacobs method is often misinterpreted and over-simplified. Many interviewees believe that simply imagining the musical goal and blowing good air to be insufficiently effective with some students, particularly if there is some kind of physical inefficiency present.

Several of the interview subjects find it absolutely necessary to discuss the physical components of playing in their teaching. Specifically, the discussion of embouchure was common amongst

the interviewees. Approximately half of the interview subjects engage in embouchure related discussions with their students. Additionally, the approach to breathing which emerged in discussion with the interview subjects includes a range of practices which relate in a variety of ways to the Jacobs approach. Some of the interview subjects teach the practice of breathing away from the horn, some practice breathing on the horn, some focus on quantity of air like Jacobs, while other interview subjects focus on the quality of breath rather than the quantity.

The interview findings demonstrate that Arnold Jacobs's pedagogical approach, known as *Song and Wind*, has had a strong impact on Canadian tuba pedagogy. Approaches to articulation are consistently inspired by Arnold Jacobs, while his approach to sound concept is expanded and elaborated upon. Approaches to breathing and in particular, embouchure, are much more varied. Although these pedagogical elements are not as significantly grounded in the Jacobs approach, the majority of the teachers are fully aware of these differences. For example, the teachers that discuss embouchure ideas with their students are aware of the phrase 'paralysis by analysis', something Jacobs commonly spoke of in his teaching. These teachers therefore guard against students becoming overly analytical.

In this way, the pedagogical approach of Arnold Jacobs has evolved and adapted, allowing for some discussion and refinement of the physical aspects of performance without negatively impacting students' development. Like Arnold Jacobs, all of the interviewed teachers acknowledge the need to adapt one's teaching approach for each individual student. This concept has led to some movement away from a strictly Jacobs-inspired approach, allowing for discussion of physical components, such as embouchure, when required for the development of the student.

The findings which emerged from this investigation into current practices in Canadian tuba pedagogy are likely not unique to Canada. The findings from the study may provide an example of Jacobs's general influence on modern tuba pedagogy. Future research could be done to investigate the level of Jacobs influence in tuba pedagogy in other geographical areas, such as the United States or Europe. Additionally, I see potential to complete similar studies on other notable brass pedagogues known for their influence on modern brass teaching strategies.

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Appendix 1

Interview Questions

- 1) Briefly describe your brass performance background, music education and brass teachers with whom you studied.
- 2) Describe the balance between performance activities and pedagogy activities in your current professional tuba career.
- 3) Do you have an overall philosophical approach that guides you when teaching university level tuba players?
- 4) How much importance do you place on concept of sound? Do you model/play in your lessons? Do you prescribe recordings of tuba players/other musicians for your students to listen to?
- 5) Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?
- 6) What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?
- 7) How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue Placement/movement? Others?
- 8) In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?
- 9) Any other comments?

Appendix 2 Interview Transcriptions

Mark Tetreault

Jon: Briefly describe your brass performance background, music education and brass teachers with whom you studied?

Mark: Ah gee, I started in grade seven and I was already playing euphonium, which I started in grade four. I switched and my band director Brent Harold was a tuba player, so he took me under his wing and got me a good instrument and gave me lessons. From him I studied for a year with a guy named Robert Jones who was a trombone player in Detroit and then I switched to Oscar Legrasy who was a retired Detroit symphony tuba player and that was in high school. About half way through high school I switched to Wes Jacobs who was then the tuba player in Detroit symphony. He's now retired. Then I went and studied with Toby Hanks and that was... yeah, and that's the extent of my permanent teachers. I took one lesson with Arnold Jacobs, I've taken a lesson with Dan Perantoni and you know some other people along the way.

Jon: Further to that first question, in terms of your performance background, obviously orchestral playing is what you do primarily now. How long have you been with TSO? Did you play in groups before that?

Mark: I've been with TSO since 1986. Before that I was in Jacksonville Florida from 1979 till 86.

Jon: Describe the balance between performance activities and pedagogy activities in your current professional tuba career?

Mark: What do you mean by pedagogy activities?

Jon: Basically, the balance between playing and teaching or giving master classes, that kind of thing. I know you do a little bit of teaching at University of Toronto...

Mark: That's about it. Right now, I have three students at UofT. Which is the most I've had in a long time. For ten years I was the director of Symphonic services for the Canadian Federation for musicians, so I didn't really do much teaching for that because I had to do a lot of traveling. I've pretty recently picked up teaching again, but I've never done a huge amount of teaching, rarely done master classes. It's mostly performing.

Jon: Do you have an overall philosophical approach that guides you when teaching these University level tuba players?

Mark: An overall approach? My approach leans towards more of a bel canto singing approach, where your airstream is balanced rather than pushed. I think a lot about air pressure. About each note being a different air pressure as well as being a different, you know, number of vibrations, number of hertz, where the higher notes are higher pressure and lower notes are lower pressure and that we need to have the whole system be at the right pressure for a section note. So, if you're playing a higher note it not only passes your lips. It needs to be a high pressure inside your mouth and inside your throat and stuff that needs to change.

Jon: How much important do you place on concept of sound in your teaching, do you model or play in your lessons a lot, do you prescribe recordings of tuba players or other musicians for your students to listen to?

Mark: I don't play as much as I would like these days. I'm having some mobility issues with an arthritic hip so lugging my tuba all over the place is a bit of a problem. I do encourage listening to different tuba players and different musicians in general. I listen to a lot of singers myself, but I know listening to how a different musician, instrument or singer, approach phrases and how they use their air is very instructive. As far as modelling a particular player's sound, I don't really do that much.

Jon: Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?

Mark: You know, it kind of goes back to the singing and the bel canto approach where you're trying to, and there's a word for it, sing on your breath. Kind of the feeling where walk into a room and see a friend on the other side of the room and you get that breath in a way and, that

position of your breath, and trying to hold that through your entire breath, and pushing down. The image I get is pushing down with the air rather than, you know, the diaphragm rising and sucking up. It's like a balloon being pulled at both ends and stretched rather than pushed at the bottom and squeezed. I always try to keep that feeling of being on the breath no matter if it's loud or soft, high or low. That's an important sensation I try to focus on.

Jon: Would you mind elaborating a little bit more on that "on the breath" kind of approach? I know it's sort of a tricky thing perhaps to really describe, but could you elaborate a little bit more on that?

Mark: It's a balance so that you're, when it's right, you're using just the right amount of air. Not too little, not too much, and it's a sensation that I feel. Like my chest is high, and I try to keep that. I try to keep my rib cage high and let my lungs expand and contract inside of that. I try to avoid the top of the rib cage collapsing at all. I've talked with singers about it and it's as much about your use of air being balanced.

Jon: What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?

Mark: Yeah, I'm big on fundamentals in general. Playing scales and arpeggios, long tones, and lip slurs. So, if I'm focusing on breathing, you know, I try and incorporate those things. I'm looking for posture a lot of the time, more than anything else, just to make sure that someone isn't hunched over or, like I said before, that their rib cage is going down significantly during breathing, like having a tall, proud kind of posture. I try to get students to not get depleted. I'd rather see them breathe more often than get down into the 30% or less of capacity where your body is starting to panic a little bit. I'd rather fill up from 30% to 100% and do that more often than go below 30%. I think you lose efficiency a lot.

Jon: How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue Placement/movement? Others?

Mark: All those things on an as needed basis. I'm teaching university students. So hopefully they've got a lot of the fundamentals pretty well under control by the time they get to me. So, it's

not like teaching beginners, or even lower intermediate students. It's kind of upper intermediate to advanced. And hand position... there's not a lot you can do with hand position, except I like having curled fingers that are in contact with the valves rather than either flat fingers or flying finger. You're better off if you can be small and efficient with your fingers. I mean tuba is always a challenge, physically. You have to get the right posture and having a stand or having a lead pipe adjustment made so they get in a better position. The biggest thing is posture and getting into a position where you can breathe freely and efficiently. Sometimes that's a mechanical issue and sometimes it's a physical issue, it depends on the situation. Tonguing... that's a whole thing in itself and there are certain drills I use and certain principals I have. I think that, you know, if you look at a note as being a syllable that's a consonant and a vowel, that I think the consonant needs to be on the lighter side almost always and the vowel part needs to be at the point in time you want the note to sound. That is where the vowel should be, so the consonant should be a little be in anticipation of it. And that's what I try to get across more than saying, 'put your tongue in this particular place', unless you find a student that puts their tongue in a resting position that blocks the air or is doing something that's really kind of awkward. I like to have a variety of syllables too. You know, soft syllables and hard syllables and I think the character of the tone is determined by the vowel sound you make, as well as the dynamics, your vowel shape, the shape of your oral cavity, as well as the dynamism of the air and all that kind of stuff. I think that I find students playing loud sometimes pressing to hard, kind of muting their lips, and you actually have to get to that counter intuitive thing of lightening up on the mouthpiece so your lips can move freely. Does that answer your questions?

Jon: The only other physical aspect was, and you sort of just touched on it a little bit with mouthpiece pressure and muting the lip, does the discussion of embouchure ever come up in lessons with your students?

Mark: Oh sure, like I say, I have mostly advanced students and I'm looking more at the extreme changes and changes of embouchure to get in to the peddle range or the higher range, the things you have to do. In general, I haven't encountered that many problems at university. It's been a long time since I've had to make an embouchure change with a student.

Jon: In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?

Mark: You know, things evolve. I'm always learning too and trying to apply things. That's the challenge of teaching: trying to find a way to get a concept across to a student. You may have to take three or four different approaches to connect to student. So, I don't have any hard and fast rules. I try as many tools as I can, you know, try A, B, C, and D and see which works best.

Jon: Yeah, effectiveness really depends on the student.

Mark: Right.

Jon: Are there any other comments?

Mark: Well, you know I think more in my learning than in my teaching I've tried to learn from different musicians. I have a friend in the orchestra, an English horn player Cary Ebli, who I've taken a few lessons with because he is an amazing musician, expressive player, and very thoughtful in his playing. We have kind of an agreement, if we hear anything in each other's playing that we don't like, we'll talk about it and try to improve. I've taken vocal lessons which I think have been the most amazing thing for my playing. It changes the way I think about my air, and, I think the vocal tradition has thought about how they use their air more than tuba players have. I was listening to a record with Ben Hepner one night and I said, "I want to play tuba like that guys sings", so I called him and said, "can I have a lesson". He was in New York but he said, "I'd be happy to work with you but what you should really do is go to my coach", who was at McGill at the time. Her name was Dixie Neill, and so I took my tuba and went to McGill. That changed my life. The way she talked about singing on the breath, using the air and using a lot less effort to breathe in. I think tuba players get obsessed with a big inhalation a lot of the time. If you look at great teachers, Emory Remington was the trombone teacher at Eastman for many years. The annotated book of his studies is great. He talks about, as often as possible, just using a conversational breath. I talked with Barbara Hannagan too, who is a singer. You know, when you're just breathing and living, your lungs are full most of the time. You know, when you're at balance with nature and so, the inhalation is just the topping up. If you can let the beginning of the breath just be getting in balance with everything else you don't have to make so much effort

breathing. I found out a thing about high notes. I talked with a jazz trumpet player about how they play all those incredible high things and I found out I was using way too much air up there. The Jazz guys use an itty bitty stream of air but well supported, and that made a huge difference too. Just trying to find simple things to focus on because those are the easiest to replicate then trying to get some complicated physical thing going. I just think keeping it simple and natural. Like I say, as much of a vocal approach as possible.

Mark: Oh, and I'm big on scales like I said before. Big on scales and fundamentals. My experience is that students don't really take that serious enough. If you work on that stuff the rest of the stuff becomes so much easier. Having that built in the tactile memory, build in the evenness both of rhythm and of sound. Just getting that repetition and having that foundation to depend on I find really important. If you ask my kids, I still play a lot of that stuff.

Jon: Right, a lot of fundamentals, a lot of scales.

Mark: A lot of scales, arpeggios, lip slurs

Jon: And you instill the importance of these in your students as well?

Mark: I try too.

Jane Maness

Jon: Briefly describe your brass performance background, music education and brass teachers with whom you studied.

Jane: Okay, so undergraduate degree in performance UofT. Studied with Chuck Daellenbach there, and then occasional lessons with Don Harry, Ron Bishop, and Arnold Jacobs.

Jon: In terms of your performance background, obviously you play in Kitchener Waterloo Symphony now. Were there any positions prior to that?

Jane: Yeah, I was in the Canadian Opera Company orchestra simultaneously in 1976 - 1977, 1977 - 1978 seasons. So, two years of that, and then I guess NYO. And then the Kitchener Symphony had, for a long time, a smaller chamber ensemble called the Canadian Chamber ensemble, which was sort of the guys who got paid enough. So that was kind of part of the gig.

Jon: Describe the balance between performance activities and pedagogy activities in your current professional tuba career.

Jane: I'd say two thirds playing, one third teaching.

Jon: Is most of the teaching you do at Laurier?

Jane: Yeah, I would say 70% at Laurier, 30% private.

Jon: Are there any other extra things you do on top of that, like masterclasses?

Jane: No, I would say a lot of educational stuff through the symphony. I go to a lot of public schools and high schools. I would do pretty well all the brass educational stuff through the symphony as well. Coaching the youth orchestra and stuff like that.

Jon: Right. And the things through the symphony, do you guys go and perform for the kids or is it just a workshop? Or is it a combination?

Jane: Combination.

Jon: Do you have an overall philosophical approach that guides you when teaching university level tuba players?

Jane: Well, let me talk my way through this. I don't think this way. I try to find what excites them. How can I motivate them through making playing seem really fun and enjoyable? I think that's kind of where I am coming from, and how can I get them to understand how the technique plays into what makes it enjoyable. So, kind of trying to work that in too. But I wouldn't say that I have any sort of mission statement. I have no mission statement, except how to make it... I mean Chuck made it seem like the most enjoyable thing a person can do. How can I make music a joyful and enjoyable thing?

Jon: Right. And that would be, I assume, slightly different depending on which student you're dealing with.

Jane: Exactly. How do I motivate each individual student? What can I find that they really enjoy.

Jon: How much importance do you place on concept of sound? Do you model/play in your lessons? Do you prescribe recordings of tuba players/other musicians for your students to listen to?

Jane: I would say it's number one. I say it's all about sound. I would say I play all the time. We work on sound all the time. I try to get them to listen to singers if we're doing transcriptions. I would say Song and Wind. That's the most important thing. When a student has a crappy sound... Oh my God that's the worst when you can't fix it, if I can't figure out how to fix it. So, I would say that would be my priority. Anything else can be learned. You can work on your technique.

Jon: Yeah, if you don't know what you're trying to sound like there's not much point to work on technique.

Jane: Well, that was my thing you know. When I was in high school nobody else played tuba and there was nothing you could listen to. So, I couldn't figure out why tuba didn't sound like trumpet and trombone. When I figured out the whole conical/cylindrical thing it was like "oh that's why this sound is this sound."

Jon: Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?

Jane: I try to do the whole Jacobs thing. Because that's how I was taught. Not particularly thinking... I mean I love the breathing bags. They don't lie. You know, you're not thinking about what your body's doing, but you can see if you're going through air or not. So, I would say I'm not constantly talking about what your rib cage does. I try to make things happen without becoming distracted with the body movement thing. I love the breathing bag.

Jon: It's very interesting talking with you and other teachers. When I'm asking you these questions and see you pause and have to think about the words. It's like anything you do all the time, you sort of do it and it's a part of your everyday life. Then when you're asked specific details it's like "well I actually can't tell you." You just do a lot of it automatically. But yeah, I get the importance of the breathing bag and seeing the air moving.

Jane: Yeah, it's all there. Or the whole thing of putting the paper and watching the paper move. Is the paper moving? Is it going that far? Or are you just thinking that you are moving your stomach in and out.

Jon: Right. Very clear visual cues for the student.

Jon: What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?

Jane: I think I look for tension. Tension and inability to finish phrases. We work on things, and then they forget about them. How do you recreate what you're practicing away from the horn on the horn? Is that an answer?

Jon: You mentioned tension. Are there any specific areas where you tend to see tension? Anything specific you do to help eliminate it?

Jane: It's all shoulders. When I was with Chuck, he would say "Look what's happening here. Bring your shoulders down." I think as the shoulders rise up, you see the neck getting tense. I would say that's the first thing I look for. What's happening with the shoulders, and keeping the shoulders down, and getting the kids to not do the "arm over the horn" type thing. Keeping everything down, keeping the hands relaxed. I tend to see upper body tension, although it certainly is in the abdominal area too. It's hard to see that though.

Jon: Yeah, visually you can't tell if there's abdominal tension. Shoulders are so clear.

Jon: How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue movement/placement? Others?

Jane: Certainly, hand position for those guys with rotary valves. That whole angle of the hand issue. I think posture definitely. Leaning back against the chair. Straining up or straining down to reach the mouthpiece. What else were you saying?

Jon: Embouchure and tongue placement.

Jane: Oh, all the time. You know, if the kid is making a bad sound... open up that oral cavity. Bring the tongue down. I try to get that OH sound going in the mouth, the concept of it. I think the whole thing of tongue down is one of the hardest things for tuba players to grasp.

Jon: Yeah, I think hearing a nasally sound with the tongue high is super common. Maybe it works on high brass, but it definitely gets in the way when we play.

Jon: In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?

Jane: I would say it's not universal. I would say it depends on the student. I'm trying to decide if that's the right thing to do, but if they don't have a problem I'm just likely to encourage what's good. You know one of my problems is that Chuck said I was a natural. He had trouble teaching me. So, in some ways when kids have problems... sometimes I feel like when you have a lot of problems yourself you work through them and then you know how to explain them better to other people. No, I would say if tonguing's okay I just say, "your tonguing is great." I don't talk about anything beyond what I think they need. we just go on to music. What do other people say about that?

Jon: I think generally it seems that it's only if a specific student needs it. If a student's embouchure looks very strange and seems to be inhibiting a person's ability to play, then maybe they would talk about it. But there are students who seem to really over think things when they play. You mentioned Song and Wind. Instead some students fall into the paralysis through analysis. But I guess there are reasons to talk about physical components. Even something small like you mentioned about the arm over the tuba. That's a physical aspect of playing, but it's not really possible to over think that. You just bring it down and it makes things better.

Jane: Don't you often find when you say something that they overdo it and go too far? Like I talk about articulation or the front of a note, and I find sometimes playing it for them is so much more helpful then talking about it. You know, because imitation is easier then intellectualizing.

Jon: Yeah for sure. That's very *Inner Game of Tennis* influenced. You know, teaching a kid how to serve and going through an intricate step by step process versus simply demonstrating.

Jane: Well, one of the crappy things that happened to me was, I had lessons with Jake (Arnold Jacobs). He was trying to get me to do something, and I was trying so hard to do what we wanted me to do. I can't remember what it was. And he said "oh, all you women students. You all want to be so aggressive, you want to be men." At least he said something like that. I was just trying to do what he had told me to do. I was like "give me a break!" Yeah, he was funny with his women students. I would say the best thing I ever did was playing duets with Chuck. There's so much that I learned through mimicking and mirroring and hearing. Everything about it was so spectacular. Just seeing him play. And another thing was... have you seen the woman in Philadelphia?

Jon: Carol Jantsch?

Jane: Have you seen her play? Holy cow, have you watched her breathe? Like here's this beautiful, slim woman playing at the woman's brass conference maybe six years ago. I was watching her do some unaccompanied piece and watching her breathe. Like, how much air can she suck in.

Jon: Yeah, her playing is so even. You know, throughout the registers.

Jane: Yeah, she was the star of the entire thing. It was so fabulous to watch her. You know you were saying about students listening to recordings and stuff. Hearing her live was definitely beneficial. Though, I think sometimes that can be dangerous too. What is your opinion of the sound that Øystein Baadsvik makes? Do you like it?

Jon: The sound is a unique sound. The quality and vibrato, things like that. I can't say that it's bad, but it is a very different character of sound than other tuba players. And, it's also different than what I personally would strive for.

Jane: Exactly. You know the kids watch him and I thinking, "I want you to know that this is not a standard sound." If you're going to be going on to an audition at a graduate level or an orchestral audition, you can't sound like this. And then the guy out west who was in... he had so many pieces written for him...

Jon: Oh, John Griffiths?

Jane: Yeah! John Griffiths' sound too was different. Did you ever hear him play?

Jon: Yeah, so he did this little festival in New Brunswick called Tuba Fest that I attended in my first year of undergraduate studies. There's no music school there in Fredericton, it's organized by community members. But, they bring in like John Griffiths and other big names. They actually had Baadsvik there one year I think. They get huge names. Anyway, Griffiths was there. I was eighteen years old and I was totally taken with his ability to get around the horn. The range, the technique and things like that. My teacher, Karen, arrived at MUN just after I met John. I was still raving about John Griffiths. And she, while acknowledging his prowess with getting around the horn and stuff, she did point out that his sound was somehow "thin". Not really the rich, broad tuba sound that we want. She was totally right. Looking back on it now and listen to recordings of John I think, "I don't really like that sound."

Jane: Exactly. The first recording that came out that I had was Bill Bell. And then Fletcher doing the Vaughan Williams, and then Bobo put out that very first recording with Effie, Hindemith, and Encounters II. It was like this bright, intense wall of sound and I thought "Oh, is this what the tuba is supposed to sound like?" Again, it wasn't what you have now. Then, Floyd Cooley put out the romantic tuba which had like the Bach flute sonata, and it was so beautiful. I thought "Oh I love this." Then I heard the Ballet do Romeo and Juliet and I heard Doug Pervis do that and I thought "This is what I want tuba to sound like." Even Chuck has a unique sound. I love Chuck's sound but it's not the sound that I crave. But Pervis' sound, that blanket of beauty, that's what I love. So, although I like the kids watching YouTube videos, and I think Baadsvik is spectacular... you know, how fun he is with Czardas. I kind of feel like you need someone to steer you in the right direction of what expectations are in the actual world. Unless you have your own entrepreneurial stuff going on.

Jon: Well, and that's true. These players like Chuck, or Baadsvik. You know Baadsvik is a soloist. He's not playing in orchestras. And obviously for Chuck, brass quintet has been his specialty. Maybe even the idea of different sounds for different settings, different ensembles, is kind of cool.

Jane: Yeah. And it's like, "why do we play our instruments? What do we love?" We love sound. It's hard to describe that to non-tuba playing people. "What makes tuba so attractive?"

Jon: Yeah, every time I go into a school and work with new tuba players... I was in a school on Wednesday and there were two grade six girls who just started playing tuba. My first question for them was "Why did you pick the tuba?", just to see if they actually want to play it. They both said they like the sound of the tuba. I thought "Great, we're off to a good start."

Jon: Any other comments?

Jane: No, I think that's it!

Karen Bulmer

Jon: Briefly describe your brass performance background, music education and brass teachers with whom you studied.

Karen: Well, my primary teachers, I would say, were Toby Hanks and Claudio Englie. Claudio is who I studied with in my undergrad. I also studied for a couple of years with a guy in the US named Matt Brown, but I would consider Claudio and Toby to be my main teachers. And I have to say that even though I didn't study with him formally and only had a few lessons with him, I would consider Sam Pilafian to also be an influence on my tuba playing. My educational background is that I have an undergraduate degree, a master's degree, a performance diploma, and a doctoral degree... although my doctorate wasn't really a typical doctoral degree. It wasn't really focused on tuba pedagogy. And then my performance background: I freelanced for several years in orchestras, played in brass quintet, things like that. For the last ten years since, I've been at MUN, it's been much more solo playing. That's been my main thing. And then also the development of this one woman show, which is like an interdisciplinary theatre crossover. I played principle tuba in the Newfoundland Symphony Orchestra for a few years. I have recently left that position. So, I think that's mainly it. I've started improvising recently.

Jon: Oh cool. In what genre? Or is it not specific?

Karen: Like free contemporary improvisation. So not like a Jazz thing.

Jon: Great! Before we move on, your performance diploma and the undergrad degree were from Western?

Karen: The undergrad was from Western. The performance diploma was from this conservatory in Florida called the Harrid Conservatory, which no longer exists in the form that it was when I went there. And then my Masters and Doctoral degrees are from Yale.

Jon: Describe the balance between performance activities and pedagogy activities in your current professional tuba career.

Karen: Actually, I took a fairly significant break from playing because of a back injury. So, in the last year it's been very much focused more on pedagogy. But I would say it's shifted over the last few years from being maybe a little bit more focused on pedagogy then playing. Mostly just because my playing is more project based. So, it's like I'll have a recital and do the recital. Then I'm sort of... not. As you know, here there is no freelancing. It's not like you're gigging. It's more like I do the project and then I'm not doing a project. Teaching is a little more consistent just because of the way my job works.

Jon: Yeah, like week to week you're teaching lessons and running masterclasses and stuff like that?

Karen: Yeah.

Jon: Do you have an overall philosophical approach that guides you when teaching university level tuba players?

Karen: No, it's a free for all.

Jon: Yeah. "Blow more air. Okay, the hour's up. Get out."

Karen: So, is there a philosophy that guides what I do? Well, yes. I really want my students, regardless of which instrument they're on, to get the best out of themselves relative to what their particular goals are. So, not everyone is focused on being a performer. But, even someone who's not interested in pursuing their instrument beyond their undergraduate degree, I'm really interested in them really understanding what it is to pursue a high level. To pursue mastery. So, even though mastery for someone who plans to go to medical school might look really different then someone planning on a career in music, I really want them to engage with that process. For me, a lot of that has to do with helping students become really independent, really self-

empowered, so that they're really able to take charge of their own learning. I feel like that's really important. I don't think you can call it reaching their potential if they're reliant on me throughout the whole process. At a certain point, they have to become less reliant on me. So, that sort of reaching their potential, or understanding what it means to engage in a process of mastery, however you want to articulate that, is a very important guiding principle. The development of an artistic voice that feels authentic. So, I want students to feel like they have something to say. That often means exploring genres other than classical music. So, finding things that really resonate with the student. And then of course, developing the technical vocabulary to facilitate that expression. I would say that over the years my teaching has sort of evolved in this way in response to the type of student that I've gotten. My teaching has sort of evolved to be less focused on the development of certain techniques for the sake of having those techniques, and much more in the service of having something to say and the tools to say it.

Jon: That's great. Before we move on to the next question, I remember very clearly in undergrad that I said one of my goals was to single tongue at a certain speed. And I asked you what one of your goals were, and you said, "to make beautiful music." I was like "aw man... I'm an idiot." That's a clear snapshot in my head. I remember thinking "One of us really 'gets this', and it isn't me."

Karen: Haha, that's funny. And you know if I'm teaching somebody who is wanting to pursue performance, then we do pursue a lot of technique for the sake of technique. Although that line gets blurred when someone's pursuing a high level. They tend to need a lot of tools... technically.

Jon: Right, so they can play what they want to play. Whatever that music is.

Karen: But if they're not, I don't get too worked up about certain things. Especially because sometimes the anxiety over acquiring a certain skill that doesn't have an immediate applicability causes so much anxiety that I question its value.

Jon: How much importance do you place on concept of sound? Do you model/play in your lessons? Do you prescribe recordings of tuba players/other musicians for your students to listen to?

Karen: I would say I place a large priority on concept of sound. I would say that the amount I play and model really varies. Again, recently it has been less because I've been dealing with this back issue but sometimes it's a lot. I definitely think that a concept of sound is essential. But, I'm really clear with my students that I don't think a concept of sound is just like "a note". Do you remember when a student of mine was so obsessed with the sound? Every so often I'd be working in my office and all of the sudden this trombone bell would enter my office and he would just honk. He'd be like "is that a good sound?" And I'd be like "well... for what purpose?" So, when I talk about concept of sound with my students, I don't know how often I use the term concept of sound. I'll talk about the input, refining the input. Or, you need to refine the guiding idea, or whatever. That includes the tone quality. It includes all the different musical elements as well. Maybe you start with the tone quality, but over time my goal would be that the concept is a more holistic thing. That also includes what it feels like to make that sound. There's a sort of kinesthetic piece that I feel is important.

Jon: Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?

Karen: It's interesting that you should ask that, because I feel that this is an area of my teaching that I would really like to revisit and refine a bit. Part of the reason I want to revisit this and refine it a bit is that I've done a lot of training in various movement disciplines over the last few years, like my Yoga teacher training. And, I've done a lot of training in biomechanics and anatomy and stuff like that. So, my understanding of the ways the breathing system works and how we can access function has changed. Having said all that, I am really interested in healthy movement. And so, making sure students have the mobility in their thoracic cavity and in their diaphragm, and even below the diaphragm... like in the musculature of the core that they actually have the mobility to expand and contract. A lot of what I do these days is corrective movement work. Particularly just because, and this comes from my background in movement education, I think relative to when I was a student 20 years ago as a culture we're even more sedentary. We spend more time locked in positions where we've got our chest and shoulders kind of caved in. So, helping students access the ranges of motion that they need in those tissues is a big part of it. I tend to focus more on having ease in the breath than quantity. My theory, which I'm not sure is a good theory, is that quality will follow from relaxation but that the reverse isn't necessarily true. And I do quite a lot of exercises in terms of the body understanding

how to get air in quickly. Helping the body understand how to negotiate the resistance of the embouchure and the instrument without tensing up. So, that's sort of generally how I approach it, but I wouldn't say I have like a system. But I would like a system.

Jon: Right. So, your goal, perhaps, is to distill these thoughts into a concise, clear system for yourself to use when you teach?

Karen: Yeah, I think so. Especially because I've learned so much about the body. Like how what's happening in our shoulders, for example, affects our ability to breathe properly and stuff like that. I feel like I've been exploring a lot of things in my teaching and trying a lot of things but I wouldn't say at this point that it's... I want to say "cohesified"... put that in your dissertation! So yeah, I wouldn't say that it's gotten to a system, although I will tell you that I was reading *Song and Wind* in preparation for this interview, which I had not read before. I was like "oh yeah, there's some good stuff in here that I should investigate." Like it's interesting to view that material differently in light of all of this other education that I've had.

Jon: Right. And even though it's been around for a while I still encounter students that come to me that were taught in a way pre-dating *Song and Wind*. You know, like the old kind of "hard gut approach". Like less understanding of the breathing system. And I haven't explored it like you have... I just read the book *Song and Wind*. But, you still hear a lot of "support with the diaphragm." Or, "don't let your shoulders rise when you breathe in."

Karen: Yeah, it's funny. I was at a voice masterclass today. We had this visiting artist that I wanted to check out, so I went to this masterclass. They're talking about how you take in the air and let the rib cage expand and then don't let it collapse. I was like "what!?"

Jon: I know, it's like heresy! It's interesting that one of the other tuba players that I interviewed takes, I think, semi-regular voice lessons and he thinks of having a high chest when he plays. The word collapse didn't come up in his interview. I found that interesting.

Karen: Yeah, well my colleague Alan Klaus approaches breathing that way. He inhales and doesn't let it collapse. And, I feel like that's something I'd like to investigate more because I believe, I don't know what your understanding was from *Song and Wind*, but because I studied with teachers who studied with Jacobs my understanding was always that you do want your chest

to collapse. That's what I got from them. That it's a natural movement of breathing and that we don't want to not do that. But singing and trumpet playing don't take that much air.

Jon: Well yeah, that's it. Actually, after I interview each teacher I feel very inspired to try new things in my playing. So, after I interviewed this teacher I experimented with not letting the chest fall.

Karen: And how did that work out for you?

Jon: You know, it gave me finer control to start notes in a more delicate manner. There wasn't this explosion of air.

Karen: Right, then you had to control here (at the embouchure).

Jon: Right, so I found that soft entries and things had a little more confidence.

Karen: What are you hearing about the role of the abdominal musculature?

Jon: I've had a few teachers who, don't dismiss necessarily, but work against that old hard gut approach. There's this sort of working to affirm that it's out dated... or at least thought to be. I've heard a lot of teachers stress the importance of getting expansion in the chest, and that anything that happens lower will kind of happen because the chest is expanding. I guess that's not that different then the Jacobs "suck air in, blow air out."

Karen: Right, there's going to be some shape change probably in the thoracic cavity and the abdominal cavity.

Jon: Right, and I mean my understanding isn't super in-depth. But if your lungs expand in all directions, including downwards, your diaphragm is going to do its thing and your organs are going to move out. Like a whole bunch of stuff has to occur if you're filling up.

Karen: What are your thoughts on the role of the abdominal musculature and perhaps even the pelvic floor on the exhale?

Jon: Interesting. I almost just said "Well Karen, I don't have any thoughts." Put that on record!

Karen: Yeah, "I'm asking the questions!"

Jon: Exactly! Don't take the power from me! Yeah, I don't know. I have heard, not in any interviews, but some of my colleagues who've studied with really prominent trumpet players talk a lot about the function of abdominal muscles in the exhale. But, it hasn't really come up in my interviews of tuba players.

Karen: Yeah, it's something I've been exploring a lot in my own playing in part because through these other movement studies I kind of realized that the source of my back pain was this thing that they call rib thrust, which is basically the rib cage rotating up on the inhale. And you get a little bit of the expansion you want. I was getting the look of a full breath from this upward rotation. So, it causes a lot of compression in the thoracic spine which is where I got these back problems. From many years of playing tuba with this sub-optimal breathing habit. So, what I learned was that when your ribs are out of alignment like that, the musculature of your core can't generate force. So, what's been interesting to explore is, as I get my ribs back into alignment, they're actually having to learn to expand properly as a posed to doing this fake out. What I notice is that when I exhale and I think about keeping my ribs kind of where they go, or where I think they should go, I do get this really subtle engagement. It's not tight gut though, it's way more internal. The support for the sound and the excitement in the articulation is so much more pronounced. Though it hasn't... coalesced. That's the word. It has not coalesced into an approach yet.

Jon: Actually, in a later question we'll talk a little more about physical aspects of playing. But, there's one more question about breathing in between.

Karen: Okay, go ahead.

Jon: What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?

Karen: Yeah, definitely some. I'm sure I have blind spots, you know things I don't even notice. So, one of the main things I watch for is: does air actually enter the body. Like, is there some sort of sucking action happening. Because a lot of times people play along and just sort of open their mouth and often do make some sort of motion with the torso and there's not actually any air entering the body. So, that's something I definitely watch for. And then on the inhalation, I watch for good expansion in the chest, particularly in the thoracic cavity. Particularly, I find the

upper region is vulnerable to not expanding because of all the time we spend at our computers. You know, those muscles tend to be immobile. So yeah, I look for the motions of breathing and I look to make sure they are inhaling on the inhalation. On the exhalation, I'm really looking for the ability to negotiate the resistance. You know, when you just inhale and let it go there's no resistance and it's very natural. What happens is a lot of students, when they get the resistance of the instrument, they brace against it. And that's where a lot of tension is. And the bracing often happens in the abdomen, or often it happens in the back body. There's like this pressing from the back body, and from the throat. So, that's another thing I'm looking for: How to relax into that resistance as a pose to fight it. And yeah, I have lots of strategies. We do a lot of work around timed breathing. Establishing a relaxed inhalation at a certain rhythm and shortening the inhalation. I do quite a lot of work around really being clear about the rhythmic value of the breath. Like, I was working with a student this morning on the Haadad Suite, which has these long sections where there's no rests. There's lots of great breathing places, but there's actually no rests. So, psychologically, there's a feeling with many students that breathing isn't allowed. Like, no space is allowed. Then that feeds into that fake breath thing. So, I do a lot of work around that, either mentally or writing it in. Like, "you're putting an eighth rest in here." Then that ties into the timed breathing, that you're learning how to take in breaths of a particular length... whatever time you have available for the breath. Like, assuming it's in the flow of music and you're not coming in after a bunch of rests. So, the breath is rhythmic. I make that distinction because if you have four bars of rest you're not breathing over all four measures. But I do find that is a huge barrier to effective breathing. Not just the mechanics, but the perception that somehow, they're breaking the rules if they put in a breath when there isn't a rest in the music. The other thing is, I don't prioritize long phrases when students are learning to breathe. I'm much more concerned about musically sensible, relaxed breaths.

Jon: Yeah, it's kind of like that quality over quantity thing you were referring to when you were talking about the breath itself. Like a student taking a relaxed breath in time is preferable to making that eight-bar phrase. Getting the process happening efficiently, in a natural way.

Karen: Yeah, and also understanding the huge variability in people's physiques and capacities. I think you and I probably talked a bit about this when you were a student. That you're a tall guy with a long torso, so I don't insist that my petite students play similar length phrases.

Jon: How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue Placement/movement? Others?

Karen: I talk about physical aspects of playing the instrument all the time in lessons. It's a huge part of what I do and what I talk about. Gosh, this is an area that I have a really hard time articulating. I don't talk a lot about hand position and stuff like that. I do talk a lot about tension and efficiency and ease. Especially because I've had this whole other type of education in the past few years. Like, we actually work a lot physically away from the instrument to create mobility in areas where maybe there isn't mobility. And that's maybe a little more with trombone players where shoulder mobility is a bigger factor than it would be for tuba. I work a lot with students on understanding how the brain communicates with the body. So, we work a lot on motor patterning, but not in an analytical way. So again, so much of this stems from training I've done in somatic movement education. Actually, when I was reading *Song and Wind* I was like 'Oh yeah, this is what Jacobs was doing with breathing.' He understood how it worked so well that he had all of these ways to get students to experience it in their bodies without thinking about it a lot. So, I feel like I do a lot of that with other areas of playing... not so much breathing. So, embouchure for sure. We do a lot of work around getting them to understand and trust that the embouchure will respond to pitch ideas. So, we talk a lot about letting the lips buzz, not buzzing the lips. We do this on the mouthpiece a lot. Like, when the pitch idea goes up the embouchure will adjust. So, that's more for less advanced students who just don't have the communication between their brain and their body parts. It's very crude. So, getting it working efficiently but without a lot of analysis. Does that make sense?

Jon: For sure. So that's interesting. You discuss physical components of playing but not really in an overly analytical way.

Karen: Right. There's a whole buzzing protocol we've been using, for example. Which is what I consider more of a somatic exercise to help them understand that the embouchure isn't something we do. It's a result of a highly developed pitch concept and a good airstream. So, on the one hand that's very *Song and Wind*. But, I think maybe what's a bit different is that I really want them to feel what it feels like. Not to analyze it, but to feel it. Like "How does it feel for the embouchure to respond?" You know a lot of students have this idea that they have to make

everything happen. So, like buzzing is this action that they take. You know, they're going to make their lips tighter to go higher and all these things. But then there's also these ideas of 'Oh, we want to be relaxed.' I think sometimes students over correct towards being too open. Like they don't actually want to allow that compression to really happen because that won't be relaxed. So, I like to spend time exploring that that is okay. That's what happens when we play high.

Jon: It's interesting what you said about feeling the function of the embouchure or the change in playing in different registers. Jacobs didn't really place importance on what it felt like. It did seem more like he was more towards "if it's the sound you want, then don't worry about the sensation". Obviously, that's different.

Karen: You know, I was definitely trained in that school. That was definitely the message I got as a student. So, I'd go in and be like "this feels kind of funky" and I was told "Oh, well it sounds great, so don't worry about it." That was really confusing and troubling to me because it was like "yes, but there's this information I'm getting that I can't just shut off."

Jon: Yeah, your body is telling you something."

Karen: My body is telling me something. The other thing that is a really important distinction to make is that I don't teach really advanced students by in large. Like most of the students I teach are probably what Jacobs would consider to be beginners, essentially. So, I would say that as students are more advanced, I'm talking less and less about that kind of thing. And it's really only as a corrective. So, I might try to get them a little more acquainted, a little more in their bodies. And then, once things are functioning well and they trust that it's functioning well, we go back to thinking more about the sound. I do feel like a lot of this has to do with level. And there's also lots of interesting research about this in the movement science world about what is the best thing to focus on. Like, what's happening in your body or an external focus. And definitely one of the variables is how advanced a practitioner is of whatever the thing is. For a more novice person, there's probably going to have to be a bit more conscious negotiation of some of those variables. And the other thing I thought was interesting was, I read this study that was looking at what gets better results. An external focus or an internal focus. So, they were testing people's ability to jump. So, the internal focus was something like "imagine your quadriceps working", or something to do with the musculature. And the external focus was like "imagine the feeling of

your feet pressing against the ground.” I thought that was really interesting because in Song and Wind the external focus would have been imagine how high you want to be. I found that to be an interesting point of comparison. So, I guess I tend to be in that middle realm. I don’t want them thinking about which muscles are doing what, but I want them to have some sort of connection with their body and how it functions and how it feels.

Jon: In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?

Karen: I have to say that because I was trained in a Jacobs lineage, anytime I’ve addressed physical issues I kind of feel like I’m breaking the rules. And because there was always this ‘paralysis by analysis’ that I’m very careful with how I address physical issues. I don’t tend to see a lot of paralysis by analysis.

Jon: Right, you’ve been told the cautionary tale.

Karen: Yeah, I think I have enough... because it’s just a personal and professional thing. You know, motor learning in general is just an interest of mine. I think I have a decent background. I would say level is definitely a factor, and different personalities. Different levels of body awareness, generally. I was the sort of person who found the physical stuff to be such a distraction because I didn’t think it was working efficiently. I’ll also say that sometimes if I’m relying too highly on the sound, for example, I’ll have students who get to a point where their concept is so far above what they’re actually able to produce that they feel bad all the time. Because it’s so vivid, but they can’t do it.

Jon: That’s so funny.

Karen: That happens a lot with the students I teach. They’re really keen and listening to all these great players and they’re all the time feeling bad about themselves. I feel like as a teacher it isn’t responsible for me to just be like “well, just don’t think about anything else.” I think I really need to give them some tools and some understanding. We need to just bring in some more things online so they’re not constantly feeling that they have this concept that they can’t produce.

Jon: A couple of summers ago I started golfing, and I'm not very good. But, I found it very helpful to understand where my beginner students are with learning a new skill. My friend who taught me is a really good golfer and watching him and then trying to swing is useful. But, if I'm holding the club backwards watching and trying to replicate, then I'm only going to get frustrated. You know, grip the club like this, etc. There is a certain amount of that physicality that has to take place or you can get frustrated.

Karen: Totally. More and more I think of music as being this really unique hybrid between a creative, mental, imaginative art form and a physical discipline. It's this really interesting mix of the two. So, on the physical discipline side of things there is no other physical discipline where they don't talk about what the body is doing and cultivate an awareness of what the body is doing. Can you imagine in dance: "don't think about it." So, this idea, to me, that thinking about that stuff will automatically lead to problems just seems insane to me. It doesn't mean you don't want to very carefully guard against that over analytical thing, but I think there's ways of getting at it. Like, feeling how movement happens and being able to feel in the body what the difference between movements that have ease and efficiency and movements that don't, in a broad way, without causing that over analysis. One thing that I do a lot is, I get students to play things in a really exaggerated way. It's sort of a movement science thing. One of the things we know about how the brain controls movement is that the brain is always making predictions about how best to carry out a certain movement. So, if you have a student exaggerate something so the result orally is really undesirable, not musical at all and below the level of conscious processing, when you go back to playing it normally the brain will retain and call for any movements. And when I'm talking about movement I'm talking about very subtle, small movements. But the brain will retain anything that helps get the job done more efficiently. So, that's an example of a way that I might address some of the physicality of it in a roundabout way that's a bit more globally focused.

Jon: Any other comments?

Karen: I think that about sums it up. I would actually add that mindfulness and meditation has become a huge interest of mine and its application in music. That is another huge piece of how I teach. Getting students to understand and feel how their attention moves and the balance of the attention between oral information and physical information and instructional information. It's

just interesting to me and I think really helpful having that ability to stabilize that attention on something particular but then also having attentional flexibility is also really important. But, I think it's another way to guard against that paralysis by analysis and to help students understand there are various ways to pay attention and feel their attention moving between different modes of attention. It helps them to more readily see... we call it 'to do list' thinking. That would be my term for paralysis by analysis. Like, are you trying to just check off all of these steps that you think you need to do in order to play this phrase? So, can we drop the to do list? Where would we focus the attention?

Chris Lee

Jon: Could you briefly describe your brass performance background, music education and brass teachers with whom you studied?

Chris: How brief?

Jon: Well it's up to you.

Chris: Okay, I'll just talk and you can use whatever you want. So, I started tuba in grade 7 in Toronto at the same junior high Sal went to and I was very fortunate, our music teacher was the guy who put me on tuba had this great relationship with Canadian brass. His name is Walter Barns and he did all those brass quintet books, you know the Canadian brass ones. When I was in grade 8 and I was exposed to Chuck a fair bit, and studied with Sal when he came back to the school. This is about my education or do you want performance as well?

Jon: Well both actually, the route you took educationally and also your performance background.

Chris: So, I played in this brass quintet in grade 7 and 8. I joined them in grade 8 and they had a tuba who was in the group who was experienced, but his family moved to Etobicoke and he left the junior high and I got into the brass quintet. We did over 50 concerts in grade 8 and we went to Japan and I got a brand new little Yamaha tuba and we did this video with Canadian Brass. I don't know if you've ever seen this video, it's called Canadian Brass master class. You can see me in there as a grade 8 student. Chuck has me running around the church, and then you can see how to breathe properly after someone's run around church a couple times. So, I had a big exposure to the Canadian Brass as a kid and I got this idea that playing tuba was a big, smart thing

to do. Like, I was popular... I thought we were like celebrities. I always loved tuba from the first day I got it, taking it home on the bus and playing it. When I was in high school there was just a lot of opportunities. I got called. There were just not a lot of tuba players around. In London Ontario, they had this group called Canadian Ambassadors, it was all college kids from Western and they couldn't find a tuba player and they took me on this tour of Germany, we went all around Germany. I went to Finland and England with my brass quintet when we were in high school, just all these opportunities kept coming up and it was kind of like a spiral thing where there was more incentive to get better. I played in the Kiwanis competition in Toronto and I won the competition, and I won the lower level in grade 10. Then, I won the open level in grade 11 and I don't know, there was a lot of opportunity. Then I went to Oakville for high school. Our quintet was there, everything sort of revolved around our brass quintet. Our music teacher was arrested, he was like a child molester and so Chuck and Canadian Brass helped us and got us... Chuck went to Eastman with the guy who was running Interlochen Arts Academy in Michigan. He helped us do an audition and we all got big scholarships. I got to go in grade 12 to Interlochen Arts Academy, which was a great music school for kids and a great place for the arts. That singer Jewel was there, she was one of my classmates. All sorts of people with big orchestral jobs. All sorts of different things, you know high achiever kids. And then after Interlochen... there wasn't really a tuba teacher at Interlochen, so that was a little disappointing. Anyway, I auditioned at a bunch of schools and I ended up going to McGill, studied with Denis Miller for 3 years, and played in Montreal Youth Symphony. We still had our brass quintet for two years with a lot of the same guys from high school. Some changes, but still a lot from high school. I always thought I would play in a brass quintet and when I got to McGill it just seemed like you have more respect, more opportunity, more status, in orchestra. So, I started learning orchestral excerpts and sort of got pulled a different way. It took me a long time to get into the orchestra. I didn't get in right away, I didn't get in until my fourth year and that was because they started letting two tuba players in. I didn't really win the orchestra audition until my fifth year. That was at McGill and, by that time I had already started studying with Alain Cazes, which was probably my second year studying with him. I had very little orchestral experience because I had just never won the audition. I never won the national youth orchestra at that point. I'm at my 5th year and by then it's hard, it's a difficult time because you know how few opportunities there are for tuba and if you can't win a university audition that's a problem. I was questioning if whether I was doing the right thing. I just decided, and this is something I tell my students, to put a limit on it so you

don't have to worry about it. So, I said by the time I'm 25 I have some goal post and if I don't reach those goal posts then I'll try and do something else and if I do I will continue on this road. So, I made the decision and then in that year I was in McGill symphony and we did at CD of Mahler 5. Denis had me come in and record Berlioz Requiem with Montreal Symphony. Nick Atkinson and Denise were on that, that was super fun. So, I went from having no orchestra experience to doing all this orchestral stuff. So, like I said, all those years I barely played in orchestras and then I was playing in McGill symphony and Montreal symphony and then I won the thing in Hamilton that had always been a chamber orchestra before. I was the first tuba player to do it. So, I was doing that in the summer and then trying to decide what to do, and I wanted to do grad school, so I applied. I started with a big long list of 10 schools and narrowed it down to two schools. I had met Sam Pilafian in grade 12 when I went to... I forgot to mention the high school course called BUTI (Boston University Tango Initiative). It was Empire Brass, so I sat beside Sam for recording sessions of empire brass as a kid. So, I had Sam and Chuck. Those were like my heroes. I just wanted to play brass quintet. I didn't know Mr. P, Dan Perantoni, but basically just a lot of his students were winning jobs. There were a bunch of people from Montreal who went to study with Perantoni, so I applied I went down and it went really well. I ended up going to Indiana, which was amazing! My playing had sort of reached a certain level, like as far as I could go in the way I was playing, approaching the instrument. Mr. P completely changed my playing. He sort of broke it all down, it was hard. I was at point where I could play though things without missing notes, like Penderecki Capriccio. I was very refined with what I was doing, but he wanted me to do something completely different and I bought into it. It took about a year to do this sort of transition, to do this plan. I went through another period of struggle. I didn't get in the top orchestra at Indiana. There are like 4 orchestras and I basically was not really winning again. My first year there I didn't win anything. So, at the end of my first year I won National Repertory Orchestra in Colorado, which was a big deal. You know these are good signs if you want to be a professional tuba player. In my second year at Indiana, there were so many changes, but I was in the top orchestra. I was getting opportunities but I didn't win any summer festivals, and then in my third year I won all of them. I won Tanglewood. I won all the auditions I took. So, by then I was a much more finished product. Then I won my first orchestral job in Spain. I was Mr. P's assistant teacher so I had my own little studio teaching them orchestral excerpts, and yeah, I was pretty good at excerpts by then. So, I won all my summer festivals and I won my first job, which was in Spain. I turned down Tanglewood and went to

Verbier, Switzerland and I went to the Maryland National Festival Institute. Also, when I was in Indiana I won some regional orchestra jobs in Columbus and Indiana and I was also the first sub with Indianapolis. I did almost all of the pop concerts there. I also did a lot of recording sessions in Indianapolis, they have people who just work full time doing recordings down there. Then I won Winnipeg I've been here ever since.

Jon: Describe the balance between performance activities and pedagogy activities in your current professional tuba career?

Chris: When I first started it was 25 to 30 percent teaching. Now I'm the personal manager of the symphony and I've been there for 6-7 years, so that's sort of like a new part of my life that didn't exist before. I wish there were more opportunity for teaching. I've had to fight the university for things like a rep class. I think that on one hand I don't know if it's good for society, because we're turning out tons and tons of great tuba players and there are no jobs for them. So, maybe it's good. But there certainly isn't the support needed to do it.

Jon: Do you have an overall philosophical approach that guides you when teaching university level tuba players?

Chris: I guess so: for it to sound good. Tuba is a difficult instrument. As personnel manager now I've heard many auditions, so many different instruments. The most important thing for any instrument, whether solo or orchestral or brass quintet, is the voice. The quality of the sound, and that's hard on tuba. It's really difficult to have a good sound that's in tune in all the registers. The instrument is technically difficult, so I push a lot of technical stuff like being able to play the instrument. A lot of players can't play the instrument. They don't know their scales. They can't play in different ranges with a good sound. They can't play in tune. If you hear someone who plays in tune with a good sound they automatically stick out, so much that they could have awful musical ideas. But that doesn't matter. You would just want to listen to them, you just want to hear that voice. So, I think that's what drives my teaching. To be able to play the tuba just like if you go to the piano and run your hand up and down it. To get a tuba player to make that even sound in tune. It's definitely not standard in college, Canadian college.

Jon: How much importance do you place on concept of sound? Do you model/play in your lessons? Do you prescribe recordings of tuba players/other musicians for your students to listen to?

Chris: Well, I do both. It's very important to demonstrate, and I often encourage them to go and listen their butts off. There are such great players and the access is so high right now. When I was at McGill there was another strong tuba player, Scott. We used to argue about sound: what's a better sound? A bright sound, a dark sound? But it was just all in our hearts. We couldn't play recordings, they were hard to get. Even if you put a Gene Pokorny CD on, if you haven't heard him you really don't know the difference. Nowadays, there is so much on YouTube and they don't even have to pay for it. There is so much stuff they can listen to. And, I encourage them to listen to it. But I think because there is so much stuff I think they don't, and I'm just going to generalize, I don't think the students listen as much as we did because they don't have to go and spend 20 dollars on a CD or, you know, it's all there for them for free and maybe they don't value it as much. I certainly play for them a lot and I know that helps. I tell them about the tuba in the head. Like there's two things: the tuba in the head and the tuba in their lap, and they need to improve the tuba in their head. And that comes from listening. So, I definitely encourage it. I also find sometimes with these students they want to skip over me playing because they want another crack at it. They don't realize how important listening is. I still make them do it.

Jon: Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?

Chris: Well, I've broken it down into capacity, your ability to breathe in, and your ability to exhale. So, I find you can work on all those separately. You can work on capacity using a visual aid. Number one you have to have a breathing bag and that's the one you need. And like I said when I met Gene Pokorny and the first time I studied with Gene, those times were shocking, like in how much air can be moved. That was when I really started working on air. When I was a student in Indiana, I would spend a good fifteen to twenty minutes on air before I would start playing the tuba or buzzing or anything. I explained this to my students that there is no more inconsistency, every day was the same. Often for students, you don't know your body or what you've done before. You wake up and you feel the same but you're not the same so that's why you need the visual aid. When you blow in the bag you can see that you may feel normal but I'm

only moving 3 liters and, for me, I would not start playing until I was moving six liters of air comfortably and it would be the same every day. So, it's very important. I work on capacity exercises and I use the bag too on inhalation and exhalation in different ways. With exhalation, it could just be a release of air and the inhalation is where the effort can go in.

Jon: What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?

Chris: I think it's pretty clear if they are physically moving air, if their chest is having a 'bellows motions' and that's really the first spot. I teach to put an imaginary hook in to the top of the chest which goes out at a 45-degree angle. If it's not moving at all, I can hear. Generally, people can move more air... unless your Gene Pokorny. Most people are not moving enough air, especially students. There is always a place that can be fixed. I know Pat Sheridan just fixes their posture and all of a sudden, they sound better. So, posture...I have a very strong idea in my head of what looks right so I try to put them as close to that as possible. So, if you took a video of a player and there was no sound, I know how it should look. When I see Dan Perantoni, even Chuck Daellenbach more than ever now, is better with his air. So, I know exactly what it looks like and try to encourage the student to look like that. So, the first thing is making them look right. That's the first step. Then they have to get accustomed to the physical sensation of a lot more air passing over their lips, because it's a strange sensation. What I find with students is generally they are so used to holding back air. If you take a big breath and just let it go, that's really quite fast air and their chops can handle that. Years and years and years, high school, junior high, etc. However, many years I see them they've been holding back air and they think that's actually blowing air. But they are taking a breath and letting it out at a slower rate because that's all the muscles can hold. So, there's a bit of re-wiring. You have to use visual aids, like the paper blowing away. I got that from Nick. Like blowing through the mouthpiece and, if they blow through the mouthpiece with their lower lip below the mouthpiece students can really shoot out air quite easily and they go 'oh that's super easy'. Then you make them buzz and no air comes out and you just tell them to copy and go back and forth, back and forth. So, just copying that until they can move air while buzzing and then putting it into the tuba and their like 'Oh my God I've never heard a sound like that before'.

Jon: How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue Placement/movement? Others?

Chris: Well posture is big. It's like the first thing you set. I think all of my students have good posture. Hand position, I beat that into them too, as far as if they do things like slap fingers. I don't let them do that so that doesn't last long. Like it's beaten out of them quite quickly. They use nice curled fingers on the valves and I teach them to work the weak fingers, like the third valve and fourth valve alone. Say they're in band class: don't waste time! If they're working with the flutes, work on your chromatic scales with nice fingers. Work on second and third valve, or just third valve alone. Or, weird things that can make your fingers act independently. I lecture them. Like there are only three valves for tuba. They have no excuse compared to the flute, clarinet, or oboe. To develop a little bit of dexterity there is just no excuse. Tongue position I don't do very much. I think that it comes naturally when moving air. A lower tongue and tongue that's not hard and slammed. Mr. P talks about the tongue a lot. If the tuba's strong in the brain and your recreating that sound, then everything is going to happen. That's more of an Arnold Jacobs approach in that sense. I don't want them to get the paralysis back, I don't talk about everything with the students. I want them to focus on one thing.

Jon: Does that apply as well to the discussion of embouchure?

Chris: I don't think I've ever worked on embouchure with any of my students. People can play with messed up embouchures. The guy who was playing next to me with the Boston Symphony was playing on the side of his mouth, Toby Oft. He played out the side of this mouth and then he just switched it to the center. He's the principal trombone of Boston Symphony.

Jon: In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?

Chris: I think someone would have to have a pretty messed up face in order for me to change anything. Because, I think you can work with a lot. I think Ellis Wean's see-through mouthpiece showed that too as well. You know you had great players and bad players and inside it all looks the same. So, I think it has to do more with your sound concept with what you can do.

Obviously, some people have physical advantages. If you're a huge, tall, big guy with a flat face, you're going to have more of an advantage. More air and a nice solid place to blow out the of mouthpiece. But, I've never encountered someone where I've had to do that.

Jon: Any other comments?

I think there are different approaches. I don't do, and maybe I've covered and said this already, but I don't teach much musically. I think that people are able to do that on their own, have them come up with their own musical ideas. I probably do less solo work than other teachers and more etudes and fundamentals and orchestra experts. I don't have the answer for everything, but I do think that this would be the crux of my teaching. Trying to get the students fundamentally strong so they can do whatever they want, if they want to play the tuba.

Gregory Irvine

Jon: Briefly describe your brass performance background, music education and brass teachers with whom you studied.

Greg: My studies started at Mount Allison studying with Jim Code who, is not a tuba player but a horn and trumpet player. I transferred to UofT when I was in third year and studied with Chuck Daellenbach there for two years. Then I was fortunate to go when the Canadian Brass left the Philharmonic to take his place at the Hamilton Philharmonic. So, I played there for 11 years and in the middle of that I took a year and off and went to Northwestern and studied with Jacobs. I did my masters there. After I did that I went back to Hamilton. So, I was there for 5 years before I went to Chicago and then for 6 years when I went back to Hamilton. Then, I got this position at UPEI and that was in 1990. I had a sabbatical and went back to Northwestern and started the Doctoral program. That's where I studied with Rex Martin for a couple of summers. I went and took lessons two summers previous to actually doing the residency, and then I went for a full year. So, I studied with Rex the whole time. In 2001, I got the degree, the doctorate. So, this is my 27th year of teaching here at UPEI.

Jon: Describe the balance between performance activities and pedagogy activities in your current professional tuba career?

Greg: Well, it's definitely geared more towards teaching. I do play occasionally with Symphony Nova Scotia and Symphony New Brunswick. I also play with the PEI Symphony. They only have 4 concerts a year and I probably play... this year it's only 2 out of the 4. Last year I didn't. With Symphony New Brunswick and I was supposed to go over and play with them, but the concert was changed from Tchaikovsky 6, which I was supposed to play, to Beethoven's 3rd. So, it's mainly teaching and the odd recital. I haven't done one this year but I did one a year ago and this summer I'm planning to do one. I've got to get some repertoire together and do one next year. Do one during the year. Trying to find rep I want to play right now.

Jon: Do you have an overall philosophical approach that guides you when teaching University level tuba players?

Greg: Yeah, I'd say that generally, having studied with Jacobs and done my dissertation on his pedagogical approach, I very much follow that and trying to always take the musical approach because I do believe that there's a certain amount with all of my students, and I teach all the brass instruments not just the tuba, I believe that there is a certain amount of conditioning and responses involved at the basic level. And then, after that and once they take ownership of those basic responses it's very much talking about phrases, and playing music, and what they want it to sound like, and what their concept is, and what the music should sound like. And that's got to be the basic bottom line for success, and the ability to execute whatever they are trying to do.

Jon: How much importance do you place on concept of sound? Do you model/play in your lessons? Do you prescribe recordings of tuba players/other musicians for your students to listen to?

Greg: I do emphasize tone quality a lot because it's part of that musical approach. So again, what I really emphasize is the initial, early training, of conditioning responses to give students the tools and getting them to think about matching the tone quality no matter what notes they are playing. Trying to make the tone consistent from one range and dynamic to another. Then, when they are able to do that, it's just part of the tools in their box to help them play the music they are going to play. I do emphasize that a lot. My feeling is that if you aren't producing a tone in a healthy, relaxed, efficient manner you're just not going to be successful. No matter what you're trying to play, you just have to have that sound. It's got to be there.

Jon: So, you often get your students to seek out recordings. Do you every get them to listen to different instruments? Trumpet players listening to oboe, for example?

Greg: Oh yeah, and singers too. Often, I get them to listen to their own instruments to get the concept of tone. As a matter of fact, I emphasize that in the brass techniques class that I teach. You cannot make a sound if you have no concept of what sound should be. It's like going into a dark room and trying to find a light switch. If you just don't know what you are supposed to sound like how can you possibly do it. So, it's very important for students to listen and in my brass technique class, I have a brass ensemble or brass soloist playing through the sound system so that they are hearing that all the time. The same with all my students. I'm doing a pedagogy class this semester in which they are doing a lot of listening to a lot of orchestral players from different eras and different countries and comparing them and listening to the different sound they make and talking about the qualities. So yeah, it's a very important aspect. Singers for phrasing and styles of vibrato because that certainly changed, and it's different on different instruments and singers.

Jon: Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?

Greg: Well, having been a Jacobs student, I guess I do. What I've found in my own experience with teaching is that it's important to work on the top two thirds of the air supply. It doesn't matter which instrument you are playing: trumpet, horn, trombone, euphonium, or tuba. You need to work on the top two thirds. The moment you get into the bottom third it's not a natural thing to be pushing the air out at that stage. So, the moment you start to push air out from that bottom third or even less than half, you start to... your subconscious mind is saying 'take a breath you idiot' and you get isometric tension. Tension is created by one group of muscles working against the other. So, you must work on the top two thirds of the air supply. As long as you're not restricted, then it's not a problem. Trumpet players can just play longer phrases, you know with a smaller mouthpiece. The moment you start to 'ehhh' or 'sssss' then you run into problems. If you're working on the top two thirds you can motivate the wind much more easily by engaging the blowing muscles. Just the top two thirds I really emphasize.

Jon: What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?

Greg: One thing is that some students have been taught when you're taking a breath, it's like filling an empty glass. Which is wrong and so it doesn't work that way. The moment you start to push out your belly and fill from the bottom to the top you're going to get that Valsalva kicking in. So, the air is going to get stuck here. So, the important thing that Jacobs always emphasized was the most efficient way to fill the lungs was about suction, not friction. So, that happens at the lips; sucking in air at the lips, and you automatically suck air in so it goes to the right place. So, you are thinking about the wind over the lips. Your lungs fill automatically, and then it's just a matter of blowing passed your lips, blowing at something to get the wind to cross the room. You don't blow to your lips, you blow past your lips when you're to produce the tone. So, other things that I run into are: instead of actually really blowing, you get these students who are trying to distend the stomach and try and fill the lungs like an empty glass, then they are closed off here and they are trying to blow. That's really a big problem, to get them to think about the lungs filling more like a balloon. Depending on the student, if they need analysis, I talk about how the bronchi break off. Not at the bottom of the lungs, but in the middle of the lungs, you know about one third of the way down. And the lungs fill like this, not from the bottom to the top but middle outward. These are the blowing muscles down here and in combination with the intercostals and rib cage you get the wind. These are the main ones down here really blowing across the room, blowing at something. Not blowing to their lips but blowing passed their lips. I find that that's the big thing, to get the wind across the room. I also find that often the students are playing their instruments by responding to the instrument. It's a very strong physiological reminder of what they have always done. The moment you pick up the instrument and put it to your face it reminds you of what you've always done. So, if you're trying to start something new and replace an old habit with a new habit, I find the mouthpiece to be really helpful. Just to buzz on the mouthpiece and think about it and that is so amazing and it's good to start there when we want to hear the sound. It really clears up a lot of things. In order to buzz the mouthpiece, they have to blow passed their lips again and they have to keep the tongue out of the way and all kinds of things just have to be in place. The mouthpiece doesn't lie. The moment they can do something on the mouthpiece, it is immediately better on the instrument. As long as they don't just mindlessly go back and do what they've always done. They really have to focus on what they just did on the mouthpiece. Sometimes that's where a buzz aid is handy, because you put that in as the intermediate step. They've got the physiological reminder to their face, but there's a little piece

of plastic in there. They still have to do what they did on the mouthpiece the last time, to get around whatever they've been doing that's habitual, that's not very healthy.

Jon: I really like the idea of a buzzing aid.

Greg: Yeah. You know, it's really hard when you put this thing up to your face and it reminds you of everything you've always done and it's not necessarily what you want to do. If you're trying to condition responses, get better habits, improve habits, then it's really important to use the mouthpiece and the buzz aid as that stepping stone to keep from just going back to what you've always done. It is amazing how just picking up the instrument is such a reminder of what you've always done. You can never break old habits, so you have to start a new habit and you have to find a way to do that. I find the mouthpiece is usually really good because the students are not so used to doing that. It's not something they've always done. There's a little more room for training there that the instrument may not allow.

Jon: Yeah, they wouldn't have the hard-fast habits, mouthpiece habits, like they would tuba habits or trumpet habits.

Greg: Exactly.

Jon: How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue Placement/movement? Others?

Greg: When I'm teaching, and again I would say all the instruments run into the same issues, often our problem is articulation and I, as Jacobs used to do, use language and the idea of saying ta and not necessarily telling student's where to put the tongue. But, everybody's musculature and formation is different so it's got to sound right. If it sounds right it will be right. Wind patterns with the TAH or an open vowel after so that the air is not restricted and you are able to play with thick air in all registers so that the tone doesn't get thinned out or go sharp as you go higher. So, that's something that we will often discuss and I will give them exercises for and, again, it's training tissues, it's conditioning responses. Just getting what they need to be successful. So, you use drills, nothing fast, just drills. Something really helpful is playing tunes on the mouthpiece and making sure they are playing musically and then asking them 'does the

tone match when you make that fourth leap down' and that they are really thinking about how it sounds and the music thing too. Other things we might discuss would mainly be articulation and the idea of physically just continuing to blow, keeping the air moving. Again, the mouthpiece is a really useful tool for that. We talk about singing loudly in the head while buzzing the tune on the mouthpiece, really insisting on good intonation. I also talk about posture and for trumpet players to make sure they are holding the trumpet up. Tuba players, if the tuba is the right size using a stand or something like that. Making sure they are holding the instruments in a relaxed manner. I talk a little bit with my tuba players in the low register, you know keeping focus so they don't let go here and, again, it's subtle. 'Is the tone consistent the lower you get?' So, just those kinds of things. In the low register on all instruments, especially the tuba, just to keep the focus of the wind, the air column.

Jon: In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?

Greg: When these discussions come up, it's in terms of establishing good habits, conditioning good responses. It would be so much like "those notes don't sound good, do this to make those notes sound better. Take your mouthpiece out and play that and keep the tone quality the same, or keep the articulation sounding the same, then go back to the instruments and copy what you did on the mouthpiece." It wouldn't be so much in the music that I would talk about it. It's more in that developing those skills and conditioning those responses for it to become natural and for them to take ownership of it. That's where we might talk about some little physical things. But what I always try to make sure to do is have them listening for the tone quality so that they can hear what they are doing and the physical is actually married to and related to the sound. So, it's not just a physical maneuver but it is something, it's a way to make sure the tone, or more importantly, to make the notes sound the same. And then, you can observe what you are doing. That's the preferred way to go. Try to make those sound the same. Do what you have to, experiment, make them sound the same, make the tone quality consistent and then you can see what you are doing. You know it's not going to be the same for everybody. You can't have one size fits all, do this because it won't necessarily work. They have to experiment a little and find out what works for them to keep the tone quality the same. So, it's always more from the sound.

Jon: Yeah, its driven by, its striving for tone quality and tone evenness.

Greg: ...and consistency.

Jon: ...and any physical things that occur in striving for that, well that's fine.

Greg: If it works for you that's good, as long as you're not doing something ridiculous. Usually it just makes sense, that's what Jacobs use to say. If it sounds good then its right. It's not the question of right or wrong, it's what sounds. It's the sound that you want and if it's appropriate for the style of the music. That's what's important. So, it's different. Different people have different attributes, characteristics. So, you can't say the same thing to every student, physically. You really have to get them tuned into what it sounds like and take it from there.

Jon: Any other comments?

Greg: I think the thing is, it's really pretty simple. It may not be easy, but it's simple. That's what Cichowicz used to say. It may be simple, but it is not easy playing a brass instrument. Keeping it as simple as possible and not making it too complicated for students, you know that's where talking about music and sound is a much better approach than getting into physical discussions about how to do this with your mouth and do this with your tongue and all that stuff. It's more what do you want to sound like. As long as you keep the two principals song and wind in mind, keep the song going strong, it governs tone quality and articulation and style. Then that air can get through to vibrate those frequencies that you want, it'll be fine. Keeping it that simple. I think that's really what is required in teaching. Most students relate really well to it. Some of them demand a little bit more explanation and a little bit more talk about why or how, and that's fine. You can do that, but you still have to make them understand and try to lead them into that understanding of "how does this sound? What's the shape of phrase here and how do you want that phrase to sound?" You put it all together and the physical things tend to look after themselves.

Sasha Johnson

Jon: Briefly describe your brass performance background, music education and brass teachers with whom you studied.

Sasha: I guess I started playing the tuba in grade school band. It wasn't until I was about sixteen years old and I went away to study at a summer program in Massachusetts. It was with the Empire Brass. So, that was my first real influence. I guess I had been at a concert when I was a kid, we were on vacation with my mom and dad, and it was the Empire Brass. I didn't know who they were, and they were pretty amazing. And this was Empire Brass in their heyday. I went up and talked to the tuba player. I didn't know who he was, all I knew was that he sounded pretty good. He said "Oh, when you get a little older you should come down to Tanglewood." So, that is where I started taking music seriously and I realized this is something we could do, you could potentially do, for your job and for your livelihood. And so that was the beginning of my formal studies I guess. And then from there I had some lessons with professional tuba players in Toronto and a few other lessons. Then I went away briefly to Boston to study with Sam Pilafian. Never study with a touring tuba player, because they're away a lot. So, I came back and studied in Toronto, studied in New York for a while, studied in Montreal for a while, and then studied in Europe in Berlin for a while. My main teachers during that time, I mean the subject I guess is Arnold Jacobs and his teaching, so during that time the most influential times were studying at Domain Forget and then after that at NYO with Dick Herb and with Vince Cichowicz and people like that.

Jon: In terms of performance background: you currently are principal tuba with the Ballet (National Ballet of Canada). Could you talk about how you ended up there and things you did before that? Maybe things you do concurrently with it?

Sasha: Sure. I started off playing in Brass Quintet. My main goal has always been playing in Orchestras. That's been top of my list in terms of my own musical personality. It takes a special kind of weirdo to want to play whole notes all the time. So, I'm principal tuba with the National Ballet. I think it's been since 2009. I'm embarrassed to say I forget. And then the other orchestras that I've played with... I played the season with the Toronto Symphony in 2009-2010. I played for ten years with the Montreal Symphony as a regular sub and did tours to Carnegie Hall and Japan and Europe with them. I guess what's weird about my playing career and where my studies intersect is what I did in Europe, which was the Berlin Philharmonic Academy. It was a very strange kind of an experience for me going from a guy from Southern Ontario playing a few gigs with Windsor and Niagara Symphonies and here in Quebec a little with Sherbrooke. You know, the bottom rung of the orchestral world. And then, I won this thing in Berlin and

moved to Berlin and played with the Berlin Philharmonic. So, that was like my jumping into the world of orchestral playing, which was simultaneously the best and worst thing I ever did because it's obviously the highest standard you can get but nothing else comes close. So, then my other endeavors currently are, I don't know if we've ever talked about this, but this group that I started called the Canadian National Brass Project. It's a consortium of orchestral players, so we're eighteen brass, three percussion, and conductor. Our artistic director is Jamie Sommerville. So, that's one of the best things that I do because I love orchestral playing but I love symphonic brass because it's like orchestral playing but you get to play all the time. In brass band, you know you get more notes but it's not quite the same color, it's not quite the same role. The problem with the Canadian Brass Project is, I say you know it's a great group we just have a problem with our administration. I'm the administration! I'm part of the problem. It's a really hard ship to steer but it's very rewarding. So, that's one thing that I do. And then I do Hannaford sometimes. I have to say that the CNBP, as we call it, has sort of replaced Hannaford for me in terms of my priorities, so I haven't been playing there as much.

Jon: Describe the balance between performance activities and pedagogy activities in your current professional tuba career.

Sasha: I would say that from a ratio perspective of time and income I would say it's probably something around 70% playing, 30% teaching. In terms of how much time I spend performing and how much money I make performing versus how much I make versus teaching. Sometimes it's higher, sometimes it's lower. There's kind of an ebb and flow. I'm incredibly fortunate that I get to teach at, I think, three of Canada's top musical institutions: The Glen Gould School at the Royal Conservatory, The Schulich School of Music at McGill, and NYO Canada. At those three the standard of playing is really very high for the students and also the level of commitment from them is very high. What I enjoy most about teaching at those schools and about my own teaching philosophy is that if you want to study performance on an instrument you're better off doing it with somebody who is a professional performer. I'm always surprised when people don't. It doesn't mean that people who aren't performing professionally don't have a lot to offer, but if your goal is going into that profession, for me it makes a lot of sense to make that connection. And also from the flip side of that for me, it helps me a lot as a performer to have to kind of take a part and examine my own playing, my own approach. You know: 'how do I do that'. So, I

think great performers are always trying to improve their own game, their own level, and trying to push their own limits. Certainly, my students have helped me do that.

Jon: Do you have an overall philosophical approach that guides you when teaching university level tuba players?

Sasha: You mean like wind and song?

Jon: Well you know it's interesting. There are some teachers around the country that are very song and wind heavy, and there are others that adapt it, amend it, change it, or maybe it's kind of their own take on playing tuba.

Sasha: Yes. I guess I would answer it with a few words that I tend to repeat, but my main approach is basics. So, attention to fundamentals of your playing, and I think that for me what I spend a lot of time doing to trying to musically get passed technical short comings in my playing without addressing actual physical or technical short comings in my playing. Basics, one of the really important words that I use. Another is Honesty. I find it's very difficult to be honest with ourselves when we're practicing. It's very easy to say, 'that will be okay', and it's like 'no that's not where it needs to be.' I see that in my students all the time. I would say 80% of our lessons are about their practice process, some huge percentage anyway. Another one is Success. That practicing, which seems obvious, practicing success in our own playing where we are getting it right. It seems like we should practice something that we get wrong until we get it right. But, if we think about Sidney Crosby: he just takes a shot and if he misses in practice he doesn't take ten more shots and miss ten more times. He practices getting it right every time, not getting it wrong every time. It's amazing to me how often, and I fall into this as well... you realize 'I'm not doing it right, I'm doing it wrong.' Don't practice your mistakes, don't practice playing wrong. Ever since I started doing that I practice a lot less. I say, 'don't bang your head into the wall when there's a door right there.' So, I guess Honesty, Success, and Basics are three words that come up a lot in terms of addressing your own overall playing.

Jon: How much importance do you place on concept of sound? Do you model/play in your lessons? Do you prescribe recordings of tuba players/other musicians for your students to listen to?

Sasha: That's a good question. In a way, I place every importance on concept of sound. At the same time, because it's a personal thing, it's much more about the production of sound than the concept of sound. For me, what I realized when looking at tuba players whose playing I admire: there's no one who doesn't play in the middle of the sound and the center of the sound. In Germany, they use the word 'Kern', which means seed, or core/center. Sound is so personal that we can use many adjectives to describe it. We can say clear, we can say bright, we can say dark, we can say full, we can resonate, and everybody's idea, especially behind the instrument versus in front of the instrument is a relative thing. If I take, off the top of my head, listing tuba players whose playing I admire like Gene Pokorny, Sam Pilafian, Jens Larson, Stefan Lebereze, Roland Sinzepali, Toni Griffin, Chris Lockeve, Roger Bobo. One thing about all of them is that they all play centered. They all have their own voice; their own color is dictated by the sound they hear in their head and also their instrument choice. You know Roger Bobo, when I was coming up, Roger Bobo was kind of... well, a lot of tuba players didn't really like his playing because he was playing a little Miraphone tuba and right on the edge of the sound all the time. A lot of people didn't think that was how the tuba sounded. But, you couldn't argue with it. So, for me, the concept of sound is much more about how it's produced. If one of my students wants to play on equipment that I wouldn't play on, and it happens all the time. People like to play on Eb tuba or a 6/4 Baeraphone, something like that. What I try to do in my teaching is to have an ease of production and kind of the sweet spot in the sound. More specifically, the most common thing for a player who comes to see me is that they have three registers. They have a high register, a low register, and a middle register. I don't want that in my own playing and I find that it has to do with how they're producing the sound in each of those registers. If they have a more efficient production in those registers then they have a more unified sound concept. Secondary to that, yes, I will play in lessons to demonstrate that. It helps my own playing too. And do I recommend recordings? Absolutely I recommend recordings and more often than not they are not tuba players. I will play tuba player recordings especially the ones that I like and I encourage them to go and listen to other tuba players all the time. When it comes to that kind of center and brilliance in the sound, and also musically, my 'go to' musicians are cellists and singers. I think for tuba players we get very caught up in being behind the instrument instead of in front of the instrument. Singers have that same problem: being in your head instead of being out there.

Jon: Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?

Sasha: I guess that my basic approach to breathing and breath control would be summed up in one word: organic. It always amazes me when someone comes for a first lesson and I say, 'just show me a breath, what you consider to be a good breath', and they manipulate their body in this way that is literally the most fundamental bodily function that we have. Like, with your little girl, with little babies, they don't always breathe the fullest that they can, but they sometimes do. You can see how easy it is for them. I think that when we are behind this instrument and in stressful performance situations or frustrated practice situations that air and our use of air, and our moving of air in and out of us, becomes manipulated. We manipulate the process and manipulate our bodies into ways that are more tense and less natural than we need. So, for me, I spend a lot of time trying to free people up from unnecessary tension, and that happens in different ways. Often people are fixated with the mouthpiece. One of my very best students right now, he's breathing from above. He's been doing it for years. He'll be playing along and sucks are in from above the mouthpiece, so he can't get much air in because his jaw is really tense and then he's in a deficit all the time. And this guy, he's a great player and he's doing really well, but it's an unnatural way to breathe. And so, for me, the more that we drop our jaw and relax and just breathe normally... but at the same time I was watching an interview this morning of a guy named Jim Pandolphy, former third trumpet player of the MET. He says 'the worst thing you can do is breathe from down here. The minute you do that you're tense up here.' If you breathe from your chest, from the top down, you avoid causing tension from trying to take a big breath. One thing that happens is when somebody's been told the idea of a large mouth cavity, drop your jaw, use the breathing tube, keep yourself really open, all the things that we hear constantly, they have trouble breathing in the middle of a passage. Like in Fountains of Rome, you don't have two or three beats to take that kind of breath. If you try to do that, you're going to get caught up. Trying to get too much air in too short a time makes you kind of gasp. It's like holding your head under the water. So, trying to make it as organic as possible, that's basically what my approach is. Roger Bobo used to say, 'sometimes you drink a beer, sometimes you drink a whisky.' A little puff breath can be really relaxed, it doesn't need to be tight and gassy.

Jon: What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?

Sasha: If I learned anything from studying with Arnold Jacobs, many people want to sum up his ideas as Song and Wind, but a big part of that for me and what he helped me with and what I try to get my students to do is to stop thinking so much. Don't try and make your body do something unnatural. As you say, saying that once versus learning new and better habits or breaking old habits can be really hard. It seems intuitive for me that I teach at a university level, you know I have Masters students, very advanced. For the longest time I was taking, at the GGS, somebody who was at the graduate type of level. The problem with that is that they've spent years reinforcing stuff that I wouldn't want them to do. It can be very frustrating. When it comes to breathing, there's little to argue with when you're doing it efficiently versus when you're not. In a sense, it's a master key. You can open up so many doors by freeing that up. It is easily applied but habits are difficult to change.

Jon: How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue Placement/movement? Others?

Sasha: Yeah, all of those things. For me, what I discuss a lot, more than teachers before me, are corners. Having firm corners and strong corners and how to work on that. That's further to the idea of having one register rather than three registers. And then further to that the physiology behind the production of the sound and the buzz. So, that the transference of sound production into the instrument is efficient. I don't talk about articulation as much as I talk about sound production. I find articulation, tongue placement... again, organic versus manipulated, like our breathing. Is your daughter talking yet?

Jon: Yeah, she's stringing two and three words together.

Sasha. So that acquisition of how we make our vowels and our consonants is one of the most natural things. Jacobs used to say, 'ten till two'. What's interesting about that is there is so much vowel behind those consonants. The more we try to manipulate our tongue to doing something that feels unnatural versus applying what we have done so naturally that we don't even think about it. Especially talking about consonant based languages. People who have softer tongue, softer consonants, more melismatic vowels like Cantonese and things like that would be different. In general, my students use too much tongue. Intuitively they just jam their tongue in instead of using it more linguistically; conversationally. Other aspects, I talk about hand

placement. I find people want to lift their fingers off the valves a lot, and so I try to keep their fingers on the valves, superfluous movement in general. Sometimes people really want to show me they're playing the tuba really beautifully. I would rather that movement, the energy, be put into their production and performance. I'm big into sports, into exercise. What I've found is that people who are my generation, more or less my peers, are at the top of their games, mostly like the ones that I work with. I look at the CNBP for example. Most of us are in principle positions in top orchestras in Canada. Everybody works out. Not just works out but they do hardcore triathlons, marathons, and races. That's what I do. I don't say that people should have to do that, but for me at Glen Gould or McGill it's like five or six flights of stairs up. I don't take the elevator, I just walk up the stairs. My students beside me are gasping, and I'm like "you should think about that. I'm twenty years older than you and I'm kicking your ass." I find physically for me a lot of the stuff that I've been doing lately is short, high intensity interval training. So, that's very tiring in a short amount of time. What I notice is that my breathing... I'm much more aware of it after, when I'm totally done. Working my intercostal muscles and really being aware of that motion of bellows or a bag. I talk about that a lot in my lessons in general. The feeling of your body as a mover of air.

Jon: In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?

Sasha: That's a big question. That's two questions. Yes, absolutely I do find the discussion of the physical aspects of playing to be useful. I think there is an interpretation of a certain school of teaching where the idea of musicality is paramount. I had teachers who said 'all of your technique is contained in your musical goals and your musical ideas. If you clarify your musical ideas and really express yourself then your technique will follow.' I think there is merit to that, but it's like setting up a high jump bar and being like 'you can jump that bar if you just think you can jump it.' That's not the case. You can go one hundred times, and if you don't know how to jump over that bar you'll never make it. Rather than adjusting or clarifying your goals, it's important to prepare yourself physically to realize those goals. I'm not saying that the goals aren't important, but there's also that physical approach. So yes, I think the discussion of the physical aspects of your playing are important. But, it also varies according to the student. If someone comes to me who has really good habits and is really set up, there's not that much

discussion that needs to be had. If somebody comes to me and they've been doing it wrong for an entire undergraduate degree and they can barely make a sound on the instrument, then yeah, we're going to need to talk. Is that what you meant?

Jon: Yeah, or let's say if there is a student and you're talking about their embouchure. Maybe they're doing something really messed up. Maybe you mention it to them and they can make a slight adjustment and then continue forward with there playing and the performance of music. Maybe another student cannot get away from thinking about that slight change and they get in their head, and then they lose their ability to play. You know, paralysis by analysis.

Sasha. Yeah, I think the danger with discussion of the physical aspects of playing is that something physical can instantaneously become psychological and become a real problem. Maybe I should clarify that while I believe that analysis and discussion of the physical aspects of playing is important, I don't believe that you have to get worse in order to get better. So, I've never taken a student and said 'okay, you have to stop playing and just go to a mouthpiece rim for six months and just do it this way and watch your corners and only play one note because you can't play the tuba.' I think that's too discouraging. I've had students that probably should have done that. I'm constantly amazed at what people will do without analysis. I told you about this guy who was lifting his head back to breathe. That's nothing! I had a guy who played upstream. So, in the high register his top lip came under his bottom lip. And he was a really good tuba player. Is a really good tuba player. It was an incredibly frustrating process for him to kind of realize that he's not going to get any farther if he's switching his embouchure around when he gets into the staff. Did you talk to Chris Lee?

Jon: Yeah, I interviewed Chris maybe a week and a half ago.

Sasha: Yeah, Chris has had some really good students. One of the ways that he does it is he gets them when they're like fourteen. Teaches them when they're in grade eight or grade nine. Starts them off on a really good path. That's incredibly helpful when I've had his students come to me because you don't have to work too hard. You don't have to remake stuff. As I said, teaching at a higher level, sometimes you can get people who are maybe jumping and getting over a bar, but that bar is not going up, ever, unless they change things around. I guess some things are universally applied and some things are subjective. The idea of the three registers I see almost universally. So that there is a loosening in the low register and a tightening in the high register.

That seems to be what everybody does. Not just tuba. In NYO, I teach french horn, trumpet and trombone, and everybody chomps down and gets tight in the high register and flops out in the low register. That to me is universally a bad habit. That's just something I find myself coming back to all the time.

Jon: Any other comments?

Sasha: Well I guess the only thing I didn't really mention was that, earlier, I was sort of sounding critical of my earlier teachers who said 'okay, you have to focus on your musical goal'. That did leave me with a number of short comings in my own playing that ended up preventing me from getting over that bar. I would get close. Going to the finals of a big audition and having the conductor say, 'you were the most musical we had all day' and being runner up for the job. It doesn't feel too good. At the same time, what those teachers instilled in me was a real tremendous love and respect for what we do. More than trying to get my students to be good tuba players I try to instill in them that as musicians you're part of the beauty of this world. We are incredibly fortunate and lucky to be doing what we do in any way, even studying it. Even though success is fleeting and hard to achieve it's not about that. It's about loving what we do. I think all of those other aspects, the more specific aspects aside, being a great musician and loving to play music and striving to play great music is paramount in my teaching.

Michael Eastep

Jon: Briefly describe your brass performance background, music education and brass teachers with whom you studied.

Michael: I started in Florida at the University of Florida where I took lessons with whoever the brass players were that were available, starting with a trombone player and then a trumpet player. I went to Florida State University and studied with William Kramer, who was a trombonist who had some interesting ideas about brass playing and the physical nature of brass playing. I went out to North Texas State University, as it was then called, and studied with Dave Keen. After that, after I graduated from there, I went to Chicago and studied for, well in 1973 in September I moved to Chicago and spent the year there with the summer away playing the American Wind Symphony. I then came back in the fall and continued my studies with Jacobs and, in 1975 in January, I had an opportunity to go to the Winnipeg Symphony. So, I played there until 1975,

continuing with sporadic lessons with Jacobs and some others. I was able to spend some time with Abe Torchinsky and with John Fletcher out in Banff... Roger Bobo also. In 1982, I won the position with the Calgary Philharmonic and played there until June of last year when I retired.

Jon: Describe the balance between performance activities and pedagogy activities in your current professional tuba career.

Michael: Well both in Winnipeg and Calgary I taught regularly at the university level. In Winnipeg, it was mostly Brandon University... that's where the bulk of my teaching was. Here, I taught at the University of Calgary and also at Mount Royal University since my arrival in 1982.

Jon: Right. And you would say that most of your career has roughly been an even split with how much you play or teach? Or, has it been 75% playing and 25% teaching?

Michael: Yeah more playing than teaching.

Jon: Do you have an overall philosophical approach that guides you when teaching university level tuba players?

Michael: I'm not sure if I really do. I try to, well I mean there are statements of intent. I try to get them comfortable with playing the instrument in an efficient way. I also try to acquaint them with some of the history of the instrument and the music written for it.

Jon: Some of those statements of intent, would you be able to elaborate maybe a little bit on that?

Michael: Well as far as the approach to the instrument I did get a lot of my philosophy, if you will, from Mr. Jacobs. I certainly learned a lot from him and it shaped the way I approach things. He was particularly good on the application of efficiency in breathing, trying to get the simple signals that lead to a good breath and good breath support. He was famous for his devices and pedagogical tricks for getting you to visualize what you were trying to accomplish. He was much more creative than I've been, but I've imitated some of his practices, some of the devices, the spirometers and meters and things like that. But really, what he emphasized always was the need to give simple commands to activate complex processes and that the more involved you get in the complexity of the human body the more trouble you were likely to be in. So that if you could

just activate the processes as you should by simple signals like the demand to suck air through your lips then the body will do the rest.

Jon: How much importance do you place on concept of sound? Do you model/play in your lessons? Do you prescribe recordings of tuba players/other musicians for your students to listen to?

Michael: Yeah, both. I do try to play and I hope I can set a good example. Sometimes, I wonder if I'm setting a good example. I mean, Jacobs was always so great at that and being able to pick up your horn and sound twice as good as you. I'm not sure I can always physically do that to a satisfying extent, but I do try and model not only sound quality but concept of how to approach certain phrases.

Jon: Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?

Michael: Well, I guess the real goal is ease. Everything is easier if you do take a good breath, but again, it's so easy to set the cart before the horse and do things that you think are associated with good breathing but as Jacobs used to say: 'do you expand to inhale or inhale to expand.' It's a little bit tricky physically, you know the way the body works because you create a vacuum by making a larger cavity inside and that's what causes the suction but that's not the way you have to think about it. You have to think about it in terms of just demanding the air and then the body does the rest of the work. Again, the simple command is focused at the lips, what the lips do.

Jon: What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?

Michael: There's some of both. There is still some of the outdated teaching philosophy around that focuses on the supposed role of the diaphragm and the need to keep things tense in your lower abdomen, which is exactly the opposite, of course, of what Jacobs taught: which was that the diaphragm is an involuntary muscle and it plays its important role in breathing without your intervention. And so that being the case any added tension that you introduce there can only stiffen you and reduce your capacity to expand. So, you look for expansion and particularly in

the chest proper rather than just the lower abdomen. So, that's something that I do try to address and try to encourage that kind of filling bellows action in the chest.

Jon: How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue Placement/movement? Others?

Michael: Yeah, as they come up. Sometimes you can hear that there's some obstruction by the tongue in the mouth and so the concept of vowel is really important, speech therapy basically. Showing the difference between an E (vowel) sound that's closed and an OH (vowel) sound that's open. Doing that vocally and using that shape and blowing through so that you can hear the sound that is made by air as it's expelled and as it's inhaled. So, that for sure. Hand position is often a factor, especially when people have trouble staying in the right position with regard to the valves. Fourth valve is often a problem. People get lazy fingers, that's just a matter of often being late getting to the right finger position. Posture, yes that is critical. I spend a lot of time trying to address mis-relationships between the height of the instrument and the player in both directions. Sometimes the horn is too big and sometimes it's too small. So, using various devices, cushions and things to change the height of the horn and sometimes the height of the player so that it makes it possible to have a good relationship with the horn so that the breathing apparatus is good and there's no strain on the neck.

Jon: So, it sounds like posture and the behavior of the tongue would probably be the two main physical aspects that you would discuss in lesson perhaps. So not much discussion of embouchure takes place?

Michael: Yeah, I tend to not to spend a lot of time on that. I think it is true, as Jacobs used to say, that if you get the breath straightened out and a strong concept of what you want to accomplish then many of the things that are created to be problems in the embouchure can take care of themselves. I'm not sure that always occurred in my own playing, so as far as that goes I have mixed feelings about that particular teaching. But, nevertheless, unless there is something radically off with the embouchure I don't change much.

Jon: In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?

Michael: Well, I only bring these things up as they appear to be needed. So yes, it varies but I think generally it's effective.

Jon: Any other comments?

Michael: Well, talking about Jacobs in particular if that's your interest, what I've been thinking about in the last few days anyway is that he was so strong on the mental concept of playing and the teaching of music, rather than of instrumental techniques as the real focus of his teaching. That's something that I don't feel I've emulated to an adequate extent. Nevertheless, in teaching I do try to encourage the students to step out of what they're presented with by way of tuba music and involve themselves with things that aren't necessarily associated with tubas. For instance, I've got an ensemble that's planning a performance this Friday at the university, a quartet. They're playing a standard transcription of a Handel theme and variations, but I asked them, one of my students, to write an arrangement and he found a video game piece and made a nice arrangement of it. We're going to add that to their performance. They all enjoy it. So much of what you get by way of electronic devices, you just don't even think of your instrument when it comes to that. But you might as well make it available for your instrument in the same way that Albertosaurus Tuba Quartet did. We did all kinds of music that we would never be exposed to, like that Beethoven Sonata. So yeah, I try to encourage my students to play by ear too, as part of our scale studies I'll have them play a tune in each of the keys.

Peder MacLellan

Jon: Briefly describe your brass performance background, music education and brass teachers with whom you studied.

Peder: Okay, I'll give you the full background even though it's not all pertinent. When I was five years old my mother enrolled me in Suzuki violin. That didn't go very well. Maybe about two or three months. I think after that I was in piano. I never did any of the RCM exams, but I got up to about a grade 5 level. I probably quit piano by the time I was nine. I played trombone when I was

eight for a couple of months. I had a couple of lessons with John Helmer. But, I didn't really start anything until grade six, first year of middle school, when I started tuba in band. My first teacher at that point was Kenten McPeak. I don't know if he's playing anymore, but he did play in Foothills for a while. When I got into grade seven he got the Foothills gig and left town. I didn't have a teacher for grade seven. In grade eight I studied with a local band teacher by the name of Tony Klein, probably for about two years. He was, I guess, Bill Bell-esque. I should not skip too far ahead. In grade seven I started playing upright and electric bass and studied with Steve Hamilton. Played in Winnipeg Youth Orchestra on bass and in jazz bands and stuff. Then in grade nine I started taking lessons with David Norris, who was at that time principle tuba with Winnipeg Symphony. I was in my school music programs all the way through. So, band all the way through and jazz band all the way through from grade seven onwards. I played a bit of trombone in jazz band, but mostly bass. I then did my first year of music undergrad at George Mason University in Fairfax Virginia. I studied with Roger Barron at that point and he was the principle euphonium player with the US Navy Band. I had actually started music education and after my year at George Mason, that year, Chris Lee had won the job in Winnipeg. I moved to Winnipeg and over the Christmas break, I had a lesson with Chris Lee and really enjoyed it. I decide to move back to Winnipeg. I transferred back to the University of Manitoba in my second year of undergrad and did three more years there, at which point I switched into performance. So, 2003-2004 as George Mason. 2004-2007 was University of Manitoba. 2007-2009 I did my Masters in Indiana with Perantoni, and then began a Doctorate in 2009. I did two years of the program. I have a term of course work left.

Jon: Was this Doctorate in Indiana?

Peder: Yup, with Perantoni. But, at that point I won the Vancouver Symphony job. I did not continue Doctoral work. I still have my name in the hat sort of thing if I ever choose to go back. But, I'm not actively pursuing that right now. Also, I've worked a bit with Elise Wein to just kind of see what he's all about. But yeah, those are my primary teachers.

Jon: Right. In terms of performance background, is there anything of note prior to Vancouver?

Peder: Yeah, a brief summery would be: In 2009, I won South Bend Symphony in South Bend Indiana. Which is like a 75-service orchestra. And Lafayette Symphony in Indiana, which also is about a 50-service orchestra. So, I did those for two years. And I was active in the recording

studios in Indianapolis. I did a lot of band demo stuff like Hal Leonard, De Haske, Alfred publications demo recordings. So, anything from 2007 - 2011 I'm on, pretty much. I'm on one of those... I demonstrate chording for Peter Boonshaft's book called Soundscapes. Anyways, there's a heavier set Latino fellow playing tuba but I'm actually the one on the recording.

Jon: Describe the balance between performance activities and pedagogy activities in your current professional tuba career.

Peder: I'd say 40 hours a week of playing in the orchestra and practicing individually. And probably 15 direct contact hours of teaching. 5 or more for all of the stuff that is associated with it.

Jon: And that teaching, is that all university level or are there any private students?

Peder: I have 10 students at UBC. Currently I have 5 tubas, 3 euphs, 1 bass trombone, and 1 tenor trombone. I have 4 high school aged private students at home.

Jon: Do you have an overall philosophical approach that guides you when teaching university level tuba players?

Peder: Well, it's constantly evolving. The generational differences continually change and shape how I approach it. Some of my students who are more advanced and more mature can be more hands-off versus younger, especially stereotypical millennial characteristics, need a very hands-on approach. They need to be told exactly what to do. The biggest struggle I'm having right now is trying to figure out how to convince them, or how to have them figure out for themselves, that they need to think about what they're being told and actually formulate their own opinion versus regurgitating information that they've heard.

Jon: So that would be the overall approach that guides you? Figuring out what they need from you. Whether it's super specific or kind of more general guidance?

Peder: Yeah, I guess I'd say that my pedagogical approach is the same for all of them, in that I want to develop their own individual sound based on the sound they bring to their lessons.

Jon: How much importance do you place on concept of sound? Do you model/play in your lessons? Do you prescribe recordings of tuba players/other musicians for your students to listen to?

Peder: It's all about sound. My first lesson spiel is 'If you don't sound good, who wants to listen to you?' So, everything is about sound. And of course, making music. I don't prescribe who they should listen to. I try to not bring too much bias into lessons in terms of making positive or negative comments about individuals. I encourage as much listening as possible. But again, that takes self-initiative and that doesn't always happen. I mean, the only bias I would have it that if someone is specifically asking for a recording of something I'll say 'Well here's something that I really liked listening to when I was younger. This is where I found my basis for sound.' So, if they're learning Vaughan Williams, find yourself a Fletcher recording and start from there. I think in terms of solo artists, the two people that really influenced me in their style and their sound were Pat Sheridan and Michael Lind. Pat Sheridan doesn't have a lot of legit, standard repertoire recordings but his approach, his musicianship, his style, his sound... when I was younger I really appreciated it. In terms of artistic approach and sound production, Bobo has a great wealth of recordings and so I also recommend them to do that. It's a very different approach that Michael Lindt has then Bobo. Just being well rounded, really.

Jon: And do you play much in lessons? Do you model much for your students?

Peder: Yeah, I usually play more in tuba lessons than I do in trombone or euphonium. Especially trombone because I don't want them assuming the tuba color in their sound. I used to play euphonium, I used to play trombone. It's too hard to keep that up with the day job so I don't model those specific instruments. I would say that with younger students and beginning students I probably play more, depending on the rep I have to do in the orchestra that week. If it's heavy playing I'm not playing a lot, but with the beginning students I usually play everything with them. Maybe every three lessons I don't play anything and listen.

Jon: Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?

Peder: I don't teach breath control per se. I guess I'd say that my number one approach is that the focal point of the blow is blowing from the lips and breathing from the lips. And, if you've

waited to take a breath and need to take a breath then it's too late. So, never having the diaphragm tense. Don't even think about it. Even though it is a muscle of inhalation don't think about it. I don't usually prescribe breathing exercises. I prefer to approach it from the instrument itself so if something doesn't sound good on the instrument it needs to be fixed on the instrument. And occasionally take yourself off the horn and fix it elsewhere. But, that's usually not the case for me. I prefer to keep it in context so that they can see the result. Or that they can hear the result rather than try to establish a concept away from the goal.

Jon: What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?

Peder: So, number one, I say breathe in like you breathe out. If you breathe in relaxed you should be breathing out relaxed. If you breathe out relaxed you should be breathing in relaxed. Breathe to expand, that's an Arnold Jacobs thing there. So, if there's any tension anywhere in your body it's going to translate into the sound through the breath. If your shoulders are up, if your throat's closed, if your teeth are together, if your tongue is up, it all gets in the way of air. So, breathing should be as relaxing of a task as possible. A lot of people talk about full breaths all the time. Full breaths aren't always possible. So, making sure that we're breathing as efficiently as possible when we have the opportunity to breathe. Again, the goal is turning a phrase and making good music. So, how can we make that appropriate through breathing. Often times I find that the air is not the problem it's the tensions in the way of either inhaling or exhaling. So, I don't talk so much about how to breathe. We all know how to breathe, otherwise we'd all be dead. I talk more about the things that get in the way of breathing, like teeth, throat, etc. My concept is 'HOH' in and 'HOH' out. It keeps the most open oral cavity. And again, blowing from the lips. Often times I talk about using slow air. People often confuse lots of air with fast air. We all know that fast air means that you play higher. More air means that you play louder. Less air means you play softer. Slow air allows you to play lower.

Jon: How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue Placement/movement? Others?

Peder: Yeah, so posture I just say sit like you're standing. The way to sit like you're standing is that you have a straight stance as you're standing. You can't have bad posture standing, really.

So, sit like you're standing, bend at your knees, bend at your hips, sit on the edge of your chair. I guess posture can sometimes play into range as well because when we have a tuba on our lap, if we don't change the... and I don't heavily think about this or talk about it, but when a student's having a problem I'll talk about leaning forward to have more tone in the higher register. By leaning forward, it gets your bottom lip more into the mouthpiece as the tuba pivots forward. That kind of goes along with the whole Reinhardt pivot system which I don't personally prescribe to but the bare bones of it makes sense. Hand position, a good curvature to the fingers. Especially if it's a piston player you don't want to see the flat fingering. It's bad technique. You can develop tendinitis. So, good curvature to the hands all the time. And natural hand position. So, if you hang your hand down at the side of your body and relax it the hand naturally curls, so that's the kind of curvature that you want to maintain on the valves. Then of course there's the fact with front action tubas often times smaller people have difficulty reaching the fourth valve. There's not really much you can do about that obviously. There's the old soldering a penny trick, but I don't really worry about that. Tongue position, yeah. Tongue down. Vowel is important to me. I don't talk about using other vowels. I find that sound gets disturbed if we don't have an open vowel so I always talk about the OH vowel, which keeps the tongue down. So, I talk about tongue placement in terms of... I used to just talk about single tongue placement and keeping your tongue down and then I found that students will often times either raise the tip of their tongue or the back of their tongue. So, I talk about front and back of tongue when I hear that there's an issue in the sound. The back of the tongue always plays into the throat. So, if the back of the tongue is up, your throat is kind of closed. I demonstrate all these things: teeth together, tongue up, throat closed... if you talk like this you sound like Kermit the frog. So, yeah, Kermit can't play tuba. And the whole chipmunk cheek puffing thing kind of plays into that too. We don't see that so much anymore, because people have really talked about it in the last 30 years. But, if the cheeks are puffing the air is not moving out, it's moving sideways. So, focusing on getting the air straight over the center of the tongue. Often times I find people blowing on the outsides of their teeth, which diffuses the focus in the tone. I talk about the fundamental pitch and then the overtones that create the sound. Getting a student to hear different overtones like the tenth or the octave and the fifth. And super overtones above that. Not too heavily, but if a student is struggling to hear brightness in their tone I'll mention overtones, demonstrate at the piano with the sustain pedal down. For embouchure, the only thing I talk about is that you don't have an embouchure until the mouthpiece is on your face. And, I definitely don't talk about forming an

embouchure. Basically, because that gets the lips tight, and we don't want tight lips. We want relaxed lips. Otherwise they can't flap. My big thing with embouchure is blowing from the lips, putting the focus here as a pose to further back. Like we're talking right now the focus is on the vocal cords. If these (lips) are our vocal chords the focus of blow should be there. I guess other embouchure things I might talk about would be in the high range, make sure that we're frowning... if we're having troubles in the high range. If there's a lack of tone or can't achieve a note, be sure to frown and think about blowing downwards especially for downstream blowers. I've only had one up stream student and she was a forced up-stream student. So, I've never actually witnessed a true upstream student. I've never met a true upstream player. Again, Elis is an upstream player but I do believe he is a forced upstream player because he physically sticks his jaw forward. And, that is the way that he learned and taught himself. So, I guess I can't say that he's a forced upstream player... that's what he practiced. But, I've never seen a true upstream player. I do find that there are students who have upstream tendencies. I find that any kind of embouchure thing you talk about between top lip and bottom lip with upstream players is reversed. So, in the low register a downstream player's jaw drops and comes forward and in order to make lower notes speak better we need to keep our bottom lip in the mouthpiece. Sometimes I'll talk about rolling the bottom lip into the mouthpiece. And so, for an upstream player I talk about rolling your top lip into the mouthpiece. But yeah, I don't use the word embouchure. I never use the term embouchure change. I just feel like that scares people off. It's not positive.

Jon: In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?

Peder: I don't waste time talking about things that don't produce result. So, if I don't see the result it means I'm not an effective communicator which means I either need to figure out how to say it in a different way, or, communicate it a different way. I do believe that there is a specific... each student needs to find the teacher that they best learn from, but I don't limit myself to say that I can only teach certain students. I feel like I can get results from anyone, whether they are a beginning student or not. The approach is physical but it's geared, it's founded in musical. 'How do we get to be better sounding?' Again... teeth, tongue, throat. It's the basis for free movement of air. So, yeah, universally effective. The result is the same: the student improves. I do find it to

be useful. I think that too often the Chicago school gets misunderstood and oversimplified to the point of everyone thinking the Chicago school means just sing and blow. And yes, that is absolutely true, sing and blow. And yes, it is absolutely true that we can produce paralysis by analysis, but I think in the study and the practice session... if it is a true nuts and bolts practice session, that we do need to be thinking about what's preventing the air flow from moving. In a performance situation, all it is is sing and blow. Getting that point across to students can be difficult because they don't have as many performance opportunities. Students these days don't seem to seek out performance opportunities. This is my sixth year having a studio of my own working with my own students at the collegial level so I'm still obviously developing and learning and figuring out what works for me and what works for them. I think it's important to stay current and assess what needs improvement all the time.

Paul Beauchesne

Jon: Briefly describe your brass performance background, music education and brass teachers with whom you studied.

Paul: Alright, so my brass education began earlier than most because an elementary school that I went to in a small town called Kelsey Bay. There was a British principal of the elementary school and he had a brass band as part of the school. Because it was a small town, it was also opened to the community, so he came into my grade 4 English class and said, "how many people in here would like to miss English twice a week", so of course I put up my hand, as did a bunch of other people. So, he said "okay, you're all in the band". What he did was he took all the people who were interested. We went to the band room and he lined everybody up and he went down the line and actually grabbed you by the cheeks and looked at your teeth and mouth and told you what instrument you were going to play. This was the early 70's, so the A&W root beer commercial was on TV and I was jealous of the kid that got told they could play the tuba because I thought that would be kind of cool to play the tuba because that commercial was on TV at that time. I thought tuba was pretty cool. But, I was given the baritone. So, I played baritone for grade 4 and I played trombone for grade 5 and then we moved back to Vancouver. So, the elementary schools there didn't have brass in the elementary schools, so it wasn't until eighth grade that I was able to join the band at the school I went to for high school. So, when the music teacher there said, "what do you play", I said I can play trombone. "Oh, we've already got 4 trombone

players in the band. How would you like to play the tuba?”. “Sure, I’ll play the tuba”. So that was the start of that, and I was challenged to get the low register speaking. I remember a low Bb just not wanting to be there, but within a couple of weeks it was happening and as they say, “the rest is history”. I took some lessons in Vancouver with Scott Whetham. He was my first teacher. He’s in Edmonton now but at that time he played in the Vancouver Opera Orchestra and was free lancing around there. He recommended that I go to a summer music camp. So, I went to CYMC, which is still in existence. It’s a little different now than it was then. That’s here on Vancouver Island, up in Courtney. Gene Dowling was the tuba instructor there, so Scott knew Gene and got me some kind of scholarship to be there so that helped out with the fees. So, that started my relationship with Gene and years later I ended up going to UVIC to study with him. Also in those early years, I took lessons with Dennis Miller, who was in Vancouver at the time. Through my university years I was studying with Gene. I also worked with Dick Ely, who was the horn instructor there who was also a student of Jacobs. Gene, of course, studied with Jacobs. Lou Ranger was my brass quintet coach for many of those years. He was a trumpeter from New York, so different... but he really knew the brass quintet repertoire really well. So, those three guys as my main sort of university year instructors. Went to Banff in 86’, met Dan Perantoni there and worked with Denis again. Since graduating from UVIC I’ve done lessons and master classes with a ton of people in different places. I never actually took a lesson from Jacobs, talked to him on the phone a few times but most of my Jacobs pedagogy has come to me second hand... well, all of it has come to me second hand from people who’ve studied with him. Starting with Dick and Gene and... I’m not sure how much Denis ever studied with Jacobs. The other major people that I’ve spent time with that are big Jacobs guys would be Sam Pilafian and Pat Sheridan.

Jon: In terms of your performance background, could you give me some idea of what brought you to where you are now and what you’re doing now. In fact, describe what you are doing now performance wise?

Paul: What I am doing now is playing in the Victoria Symphony and I’m the tuba instructor at UVIC as well as the Victoria Conservatory of Music. I teach also in Prisma, which is a summer orchestra festival that happens in Powell River. So, those are my main activities that keep me busy. So, there’s performing aspects in both UVIC and the Conservatory, like faculty chamber music style kind of things. I guess finishing at UVIC I went to the AIMS orchestra and did a

summer festival in Europe. That was in Graz. And then I went to Munich and just kind of spent some time living in Germany and taking lessons with Robert Tucci, and also Tom Walsh, who was in the Munich Philharmonic at the time. And then I went to Banff and did a winter session there and then I went to Vancouver and freelanced, worked at a music store, and then I won a job with the Foothills Brass. So, I spent eight years touring North America with them doing lots of school shows, hundreds and hundreds of school shows. Lots of recitals series as well, evening concert series mostly in Canada but a fair number in the states as well. In the middle of that, I sort of did stints with Foothills Brass and in the middle of those stints, a master degree in Albuquerque New Mexico and played in the New Mexico brass quintet as part of that at University of New Mexico. Then I played in Durban, South Africa in the KwaZulu-Natal philharmonic orchestra. So, that was my first actual principal gig. Played in Tanglewood while I was at UNM, so that was the summer of 98' and then after South Africa, I did my second stint with Foothills Brass, the guy who replaced me left and they asked me if I wanted to come back. So, that seemed like a good way to come back to North America. After 4 years there I won the Victoria Symphony job, so I've been there since 2005.

Jon: Describe the balance between performance activities and pedagogy activities in your current professional tuba career.

Paul: Well, it's shifted in the last couple of years because Gene, until he passed away almost two years ago now, was still teaching at UVIC. So, this is my second year doing the tuba studio at UVIC and prior to that I was just teaching at the conservatory and doing some private teaching. I guess it's always been more performance heavy, the balance, and only recently has the teaching side of things really picked up but it's still not a 50/50 kind of split.

Jon: Do you have an overall philosophical approach that guides you when teaching university level tuba players?

Paul: The simplest thing is doing what sounds good. Of course, we want to coach that in as much background information and be as knowledgeable of the specific performance practice relativity to a certain piece, certain time period, a certain composer. But I'm more interested in helping students figure out their vision of what sounds good and how they want to sound and what they need to do in order to get there, realizing that what I think sounds good is not necessarily what they want to inspire to. Although I want them to understand what I think sounds good and why I

think it sounds good. I want them to have the freedom to tell me why they think it should go a different way and to back it up. I think being purposeful is important and to bring that to whatever you're doing whether is practicing, working on specific technique or if it's presenting a piece and deciding on a breath in a particular spot or a certain type of phrasing or articulation. If it's not exactly true to what's on the page then you have to have a good reason, you can't just be like 'because it's easier that way', or something. Like letting your musical objectives be what drives things and defines things for you. I think if there was an overarching rule... somewhere in that is where it is!

Jon: How much importance do you place on concept of sound? Do you model/play in your lessons? Do you prescribe recordings of tuba players/other musicians for your students to listen to?

Paul: I have given specific assignments, as far as listening. I haven't done that a lot and not always with the idea of sound production or tone production. As far as trying to achieve a good tone production, I stress its importance and talk about really listening and trying to define what makes up a good sound and what the difference between a good sound and a sound that needs a little bit of tweaking. I think in my teaching that's something that I find is not well definable, but so various for different people. Even in different rooms, you know how things respond and just trying to find those. We have a couple of really nice resonant rooms. So, when we get a chance to have a master class in there, just using that opportunity to really draw their attention to how the room responds to a note, or an articulation, and just trying to create that awareness in the student. So, that their own practicing and own experiences going forward that they have those experiences of when something is really resonant and ringing and it responds in that way, with perfect intonation, that they have that to reflect back upon. So, I think for me much more than trying to listen on a specific recording because of all the different processes that go on with that. I think the bigger impact is the live, making it yourself or making that experience with other people in a room where you feel it from the floor. I think to me that's a more impactful tool for moving a concept of sound forward in a student.

Jon: Do you have a basic approach or set of principles that you use in the teaching of breathing (or Breath Control). If so, what are they?

Paul: I mentioned Sam and Pat and their breathing gym types of exercise, which I have found really helpful. I don't crack the book open every day or put on the DVD, but I do use a lot of the things they put forward in that book in working with my students and even working with... I forgot to mention National Youth Orchestra earlier. So, that was performance and teaching working with Dick Erb three summers at NYO and the first two summers plus one summer at Domaine Forget with Vince Cichowicz and that sort of... I can't remember... just talking about the breathing, and the thing I was tying into it was the wind pattern type of articulating the air stream. I'm trying to remember to my undergrad and I don't remember specifically Gene or Dick using that type of technique in the same way as I experienced it later with Vince. First of all, he used that a lot in his teaching, and it's a part of what Sam and Pat do in those books. I found that really helpful in working with really young kids and also the idea of air flow as it relates to dynamics, getting students to think about those different levels of air on the continuum. Like what's your max flow and how does that feel, you know just to let all the air that you can out as opening in one big gesture as you can and relating that to your loudest possible dynamic, verses the visual of floating a paper airplane very slowly across a football field kind of pianissimo. I find those things really useful and it really can unify an ensemble in their approach to different dynamics. Just the idea of moving the air, getting the breathing machinery working in the most relaxed possible way. That's something I still struggle with as a player, is trying to keep relaxed while you are creating this incredible, big, exciting, aggressive kind of sound but trying not to let that tension creep into your body. Especially when you're doing something like sight reading a really hard piece, you know we tend just to, you know just bear down and force it. So, intense. Trying to have that mental intensity and intensity of sound without being physically intense.

Jon: That is true, sight reading is rather counter intuitive. To be reading something with the intensity and whatever different moods of music you're trying to play but physically not let it be reflected. Staying relaxed is certainly an interesting challenge.

Jon: What do you watch for when teaching breathing? Do you have specific strategies to address bad habits or poorly understood concepts?

Paul: Things that I watch for are things in my own history, that I've struggled with, things that I have an awareness of and also things that I've seen other people struggle with. Just having discussions with peers about different challenges people have faced, or have heard about either in

themselves or with students. Listening to what's happening, watching the different... thinking about the different parts of the note. The articulation, the note shape or the envelope, what's the ideal versus what's actually happening and how the notes are released. So, I find there are traps in all of those parts of what's coming out of the instrument, in terms of how breathing is concerned. And there's also the inhalation of the air and thinking about what is in the sound of that. Do you hear a nice easy open inhalation where the air is just coming in naturally or can you hear resistance or something going on? Either in the lips, in the mouth, neck, throat and also just how is the person expanding. Does it look natural or are they manipulating themselves in some way to exaggerate what they're doing? If you've ever seen a sleeping baby there is a pretty natural way to breathe. We all have, from a very early age, but as we age we apply our minds to try to do this thing that is playing a brass instrument. We tend to overdo things and in a way, that doesn't actually help. So, just trying to get people to be as relaxed as possible, again with how they are approaching the movement of air and understanding the breathing machinery. It's there to do its job and that the more relaxed we can be about allowing it to function the way its suppose to, that's going to helps us out, not just with the movement of air but with our tone production and our ease of playing. Taking it back to just making playing as easy as possible physically so that we are able to do really technically challenging things. That if we are really trying to force the breathing, to make it happen, it actually diminishes our ability to achieve the technical results that we want.

Jon: How often are the other physical aspects of tuba playing discussed in lessons with your students? What do these physical aspects include? Posture? Hand position? Embouchure? Tongue Placement/movement? Others?

Paul: They all can come up. Well, we've all heard the catch phrases. I'm just thinking of the ones like 'paralysis by analysis'. It is possible to get bogged down, especially mentally bogged down in the process if you are focusing on trying to control every little thing as you play and I do believe there is value in understanding everything little thing and trying to pin point certain things causing them. But, everything is on a continuum and you can focus on one thing but you have to back away and have the bigger picture and, I think going back to thinking 'how does it sound' and 'what is it really that we are trying to achieve'. If you are coming in focusing on specific tongue placement, you know for this note: where exactly is the tongue striking the roof of your mouth? Or you know, 'oh good it's actually coming between my teeth!' Those things are

important to figure out and to say can I play that note and tongue where I pronounce D, like right on top of the soft palate. If I play F below the staff or an octave below and make a reasonable articulation with the 'dah' attack or do I need the 'thah' attack. I think there is value in those questions and looking at what the answers are and how does it sound in this room and, how does it sound to me and, how does it sound in the concert hall to somebody in the balcony. The more information we have the better. It goes back to the overarching thing, sound is the overall goal and, what's your musical objective and if it's sound, and if the sound fits your musical objective, then I don't care if you're going 'thah' or 'dah'. Posture I think is a big one because talking about how our breathing machine works the most naturally and the most relaxed. If our posture is in opposition to that, it's not helping us. So, it is funny you know, I'll say all these things about great posture and how important it is and then I'll work with somebody and the first thing they say is "lets work on your posture". That is something we can always be trying to be as natural as we can with, as far as making our body work for us rather than us working against the way our body wants to work. We all tend to get into habits, and playing a musical instrument is not a natural physical thing. If you specialize in any musical instrument, you begin to physically adapt to the requirements of that specific instrument. It's important to understand how those adaptations work and how they affect you physically. What other physical activities can you do to counteract whatever the long-term impacts of playing your instrument are? Because, they're going to be there. There's been a lot of discussion about repetitive stress injuries and not just in brass players, but all across the orchestral musician existence. Most, if not all orchestral players, are playing with pain and it's not something that is really discussed a lot in, as far as I have seen, most training programs, most university programs. There are little discussions about musicians' health and stuff, but I think I try to be cautionary with my students about being aware of the demands of playing and what affects they have on their bodies. From an early time, try to be aware of that, try to notice signs from your body, little twinges or any kind of pain, and pay attention to it. It's your body asking you to pay attention to it. So, it's when it comes into posture and playing, whether it's playing two hours or eight hours a day, you do that for a career and that has an impact. So, I'm trying to understand that. I think that it's important to make that a part of teaching.

Jon: In your experience, do you find discussion of the physical aspects of playing to be useful or counterproductive? Is it universally consistent or does its effectiveness vary depending on the student?

Paul: I think there's so much variation with different students, so obviously it's going to vary depending on the student. People work in different ways and are motivated by different things. I think to me, in my own musical growth and experience and in working with students, it's important to figure out what their motivating factors are, or, what they need as a student to figure out what their objectives. What is their motivation to go after them? If they're unmotivated, nothing is going to happen. They're not going to get anywhere. I don't typically discuss physical aspects, I would much rather focus on musical objectives. But, that doesn't mean if there is a physical issue I'm going to avoid it. I think understanding what the physical objectives are, just being as relaxed as possible and letting the body work as close to its design capabilities, using things as ergonomically correct for your body as much as possible. I think those are useful things. I've done some Alexander Technique sessions but I've never done any training in that, but I think that an understanding of the type of process, or working with somebody who is familiar with or trained in that, can be a useful thing to do. Even if you're not experiencing those kinds of problems, just to get that other little piece of the puzzle. What is the most natural way for me to hold this instrument? Encouraging people to use props like a stand. I've worked with one myself but I've never felt as comfortable working with a tuba on a stand for my own playing as I do when I have it on my lap. When I say that I recognize that when I'm practicing eight hours, or something, for a specific thing that's coming up, eight hours with a tuba on your lap is problematic. So, if you really are spending that kind of time at your instrument then using a stand like that to make it physically easier on yourself, maybe make it so the instrument fits your body better, is an important thing. If you can't find a way to position the instrument well for yourself than look at a stand...I know that Dan Perantoni... everyone came out of his studio with hockey pucks. Some people had two hockey pucks duct taped together that would sit on the chair just to get the instrument up a little bit so that the weight wasn't all on the legs. So, different approaches to that. But, I do think it's important to be aware of the physical things and to make students aware of what they should be trying to achieve in that area.

Jon: Any other comments?

Paul: Well, to me it's interesting looking at different things I've put together over the years, you know, for different master classes and stuff. The more you teach the more you evolve your ways of thinking. I enjoy teaching, but, I always want to feel like I'm better at it. You look back and wonder "What could I have done differently?" So, for me, just being the teacher is a constant evolution as much as being a player is. You know, you don't ever want to decide "well now I know how to teach." I can't imagine that Arnold Jacobs ever felt that way either, because I think he had that level of curiosity and he was a problem solver. He liked puzzles, and liked figuring out the answers to them. I think that was a constant process. I don't think he ever felt like he had all the answers. Even in talking to Pat and Sam about it, you know they were always having discussions with him about different elements, about what they felt they could learn from him, and going back and checking their perspective against each other and talking to Cichowicz about it. I guess that's my comment. It's an on-going process of evolution and in thought. You are never as good as you can be because there is always some other step, whether it's performing or teaching. It's a double-edged sword and that's why I think music is so great to be involved in. But, it's also so frustrating because even if you're like "okay, I've finally conquered this thing, I've reached the top of this mountain", there is a higher peak because there is always something that can be done in a different way, a better way, a new way. We're only limited by our musical imagination, so hopefully that stays alive and you never feel like you've done everything you can do. You might as well become an accountant! And, there are people who have done that. "I've had enough of this", and they go and do something else. I think hard work and perseverance are something that doesn't get talked about as much as "he's so talented" or "she's so talented". Talent will only get you so far. It doesn't matter how talented you are if you don't work on it and bring your mind to bear on what you're trying to achieve with that talent.