

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

ProQuest Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600

UMI[®]

NORTHWESTERN UNIVERSITY

ARNOLD JACOBS' PEDAGOGICAL APPROACH: CONTEXT AND APPLICATIONS

A MAJOR DOCUMENT

SUBMITTED TO THE SCHOOL OF MUSIC
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

for the degree

DOCTOR OF MUSIC

Field of Tuba Performance

By

Gregory Boyd Irvine

EVANSTON, ILLINOIS

June 2001

UMI Number: 3030535

Copyright 2001 by
Irvine, Gregory Boyd

All rights reserved.

UMI[®]

UMI Microform 3030535

Copyright 2002 by Bell & Howell Information and Learning Company.

All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

Bell & Howell Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

Copyright © 2001 by Gregory B. Irvine

All rights reserved

ABSTRACT

Arnold Jacobs' Pedagogical Approach: Context and Applications

Gregory Boyd Irvine

The purpose of this study was to show that the pedagogical approach of Arnold Jacobs is applicable to all brass instruments without modification. Four brass professors from the School of Music at Northwestern University participated in the study. They were: Vincent Cichowicz, trumpet; Gail Williams, horn; Frank Crisafulli, trombone; and Rex Martin, euphonium and tuba. Two interviews were conducted with each, and videotapes were made of lessons taught in order to witness each teacher's pedagogical approach. The interviews also revealed other musical and pedagogical influences in each teacher's background. These are noted in the study.

Arnold Jacobs' pedagogical approach was unique when he began teaching in the 1940s. It challenged many of the long-accepted views held by brass players at mid-twentieth century, especially those regarding breathing and tone production. As a result, his ideas were met with resistance and suspicion. His approach is examined in the study, as are the ideas he challenged. Information on brass teaching in the 1940s, 50s, and 60s was gathered from a variety of instructional method books, articles, theses, and interviews, to provide a context for Jacobs' approach. Information on Jacobs' pedagogical principles of "song and wind" and supporting ideas was gleaned from articles, books, and interviews. All of this information combined creates a context for the teaching of the participating professors.

The study concludes that Arnold Jacobs' pedagogical approach, based in the principles of "song and wind", can be applied to the teaching of all the brass instruments. It further concludes that no modifications to the approach are necessary due to the nature of

the instrument being taught. Further study of this pedagogical approach with less experienced students is suggested.

Dedicated to the memory of Arnold Jacobs, 1915 - 1998, mentor to many,
and inspiration for my own teaching,
and to
Frank Crisafulli, 1916 - 1998, dedicated teacher and gentle man.

ACKNOWLEDGMENTS

I would like to thank the four teachers who participated in this study: Vincent Cichowicz, Gail Williams, Frank Crisafulli, and Rex Martin. Their generosity in letting me interview them and intrude on lessons with my video camera made this document possible. They gave freely of their time and substantial knowledge to help me and I genuinely appreciate it. I would also like to thank Dr. Paul Aliapoulios for his time and encouragement. He believed in this project from the start and has been there ever since as the Chair of my Doctoral Committee, principal reader, friend, and mentor. Thank you to the other members of my Committee as well: Dr. Thomas Bauman, Professor William Karlins, Professor Rex Martin, and Professor Robert Barris.

A special “thank you” to my family: wife Sue, and son Adrian. Sue is the best and most patient proof-reader one could ever ask for and Adrian is the most understanding six-year-old imaginable. Their love and support have been constant.

CONTENTS

ABSTRACT	iii
ACKNOWLEDGMENTS	vi
Chapter	
1. INTRODUCTION.....	1
2. A CONTEXT FOR ARNOLD JACOBS' PEDAGOGICAL APPROACH.....	11
3. ARNOLD JACOBS' PEDAGOGICAL APPROACH: AN OVERVIEW.....	52
4. FOUR TEACHER PROFILES	78
Vincent Cichowicz.....	78
Gail Williams.....	89
Frank Crisafulli	100
Rex Martin.....	109
5. ANALYSIS AND CONCLUSIONS	119
APPENDIX	
1. Interview questions and answers	128
2. Notes from videotapes	157
3. Student responses.....	198
SOURCES CONSULTED	202
VITA	208

CHAPTER ONE

INTRODUCTION

The seeds for this document were first planted when the author was faced with the prospect of having to teach players of all brass instruments at the university level. Having studied with a Master Teacher made the prospect not so daunting, but rather, an interesting challenge. Arnold Jacobs had taught all the brass instruments successfully for years, so obviously it could be done. Within the first year of teaching and applying what I had learned from him, I found that my students were achieving the challenges set for them. They also seemed to be excited about this, which made my work all the more interesting. In spite of this success, a question in my own mind always lingered as to whether a specialist on each instrument would deliver Jacobs' pedagogical message more effectively.

This document addresses that question. Four teachers of the various brass instruments agreed to participate in this study and let me observe their teaching. All of them had studied with Arnold Jacobs so I knew that I would be witnessing at least some of his influence in each one's teaching. To ensure that I would recognize that influence I had to renew my own understanding of Mr. Jacobs' approach. The results of this effort are included and documented in this project in chapter three.

Learning more about Mr. Jacobs pedagogical approach led me to ask another question: "Just what were student brass players being taught before Jacobs articulated his ideas?" This led to some very interesting research, the results of which are also contained in this document. The product of all of this is a document which I believe fills a void in the field of brass pedagogy.

Purpose and Statement of the Research Problem

The purpose of this Major Document is:

1. To document the pedagogy of Arnold Jacobs.
2. To provide a context for his pedagogical approach.
3. To show that the principles of this pedagogy are used by teachers of all brass instruments and are transferable without modification.

It is the intent of this document to show that Jacobs' unique pedagogical approach lends itself to all brass instruments without modification, and that it is used by teachers of those various instruments.

Discussion of Research Materials

A variety of sources were used in finding information needed to complete this document. To document Arnold Jacobs' pedagogy many books, articles, and interviews were consulted. Brian Frederiksen's book about Arnold Jacobs (*Arnold Jacobs: Song and Wind*) was of particular help, as were interviews with former students, Vincent Cichowicz and Richard Erb. The author's own experience as a student of Mr. Jacobs led to a deeper understanding of his ideas.

To understand how Arnold Jacobs' pedagogical approach fit into what was occurring in brass pedagogy it was necessary to view a number of articles, textbooks, instructional method books, and theses published in the twentieth century. After viewing these it was possible to gain a perspective and create a context for his pedagogical approach. Two scholarly documents were particularly helpful in this task. F. Earl Dunn's thesis "The Brass Instrument Class -- A Workbook-Text for the Teacher or Student of the Cornet, French Horn, and Trombone" from 1954 gave a useful "snapshot" of what was generally being taught to brass players at the time. It also revealed several controversies

that existed on various issues of brass playing. John Lawrence McCann's dissertation of 1989: "A History of Trumpet and Cornet Pedagogy in the United States, 1840-1942" was very useful in providing historical background to perceptions and ideas on brass performance current at mid-century.

Several interviews were conducted with experienced brass players and teachers in order to learn of any other approaches to brass playing that may have been current at the time. Most of these interviews were of players and teachers who were students during the 1940s or 1950s and would have either had first hand experience, or been aware of trends in brass teaching. Among those interviewed were players of brass instruments from a variety of backgrounds: Eugene Rittich, retired Principal Hornist of the Toronto Symphony and former student of Mason Jones at the Curtis Institute; Vincent Cichowicz, retired second trumpeter of the Chicago Symphony and former student of Renold Schilke and Arnold Jacobs; Gordon Cherry, Principal Trombonist of the Vancouver Symphony and former student of Emory Remington; Richard Erb, bass trombonist of the Louisiana Symphony and former student of Arnold Jacobs; Harvey Phillips, retired Professor of Tuba at Indiana University and former student of William Bell; and Edward Livingston, retired Professor of Tuba at Illinois State University and former student of both William Bell and Arnold Jacobs.

Many instructional method books and articles were consulted and these provided most of the information on how brass players thought they were producing tone at mid-twentieth century. Other articles, method books, and textbooks dating from after 1970 helped provide a perspective on how Jacobs' ideas began to have more influence. For

example, Kent Mason's text: *The Tuba Handbook*¹ demonstrates an understanding of how the respiratory system works and how it can be used most efficiently when playing the tuba. Throughout the rest of the text though, there are reflections of some old ideas about embouchure which place blame on it for difficulties that actually relate to use of the breath. The information contained in chapter four is based on two interviews conducted with each teacher and observation of lessons given by them. The teachers were interviewed and observed in April, May, and June of 1997. They included Vincent Cichowicz (since retired), Frank Crisafulli (deceased, 1998), Gail Williams, and Rex Martin. Specific questions were asked of the teachers in the interviews in an attempt to establish their respective backgrounds and approaches to teaching. Videotapes were made of each teaching individuals. Viewing these lessons provided an opportunity to witness each teacher's pedagogical approach as described in the interviews, and to observe how each applied Jacobs' pedagogical approach. Following the fourth chapter, appendices are included which contain the teacher questionnaires and responses to them, comprehensive notes made while viewing the videotapes, and student surveys and responses.

Survey of Previous Scholarship

Surprisingly little has been written of a scholarly nature about brass pedagogy. What has been written falls into three main categories with five exceptions. Four dissertations deal with the pedagogical contributions of a single brass player. Three deal with physiological aspects of brass playing and three others compare and contrast the teaching of three teachers of a single instrument. The five exceptions that fall outside of these categories deal with various topics and are titled as follows: "The Incorporation of

¹ J. Kent Mason, *The Tuba Handbook*, Toronto: Sonate Publications, 1977.

Jazz Pedagogy in the Traditional Trombone Studio,”² “A Guide to the Use of Études and Exercises in Teaching the Tuba,”³ “The Development of a Curriculum and Text for the Study of Trumpet Pedagogy,”⁴ “Trumpet Studies: An Evaluation of Physical and Instructional Properties According to Selected Procedures of Educational Textbook Evaluation,”⁵ and “Bass Trombone Pedagogy as Practiced by Selected Bass Trombonists in Major American Orchestras: Origins and Techniques.”⁶ I believe that the first four titles accurately describe the contents of the documents they head. The fifth document concerning bass trombone pedagogy focuses on five orchestral excerpts and how five artist/teachers of the bass trombone teach and interpret them.

In the first category, three of the four dissertations deal with the pedagogical contributions of trumpet performer/teachers while the fourth concerns the life and pedagogical contributions of a well-known performer and teacher of the euphonium. Sharon Huff⁷ and William Woolworth⁸ discuss the pedagogical contributions of

² Mark Gerard Sheridan-Rabideau, “The Incorporation of Jazz Pedagogy in the Traditional Trombone Studio” (Ph. D. diss., University of Illinois at Urbana-Champaign, 1998)

³ Robert Gary Brewer, “A Guide to the Use of Études and Exercises in Teaching the Tuba” (DMA diss., University of Illinois at Urbana-Champaign, 1991)

⁴ Paul David Reynolds, “The Development of a Curriculum and Text for the Study of Trumpet Pedagogy (DMA diss., University of Maryland College Park, 1994)

⁵ Ken Van Winkle, “Trumpet Studies: An Evaluation of Physical and Instructional Properties According to Selected Procedures of Educational Textbook Evaluation (DMA diss., University of Oregon, 1994)

⁶ Paul Donald Bauer, “Bass Trombone Pedagogy as Practiced by Selected Bass Trombonists in Major American Orchestras: Origins and Techniques (DM diss., Northwestern University, 1986)

⁷ Sharon Elise Huff, “The Life and Career Contributions of Brian L. Bowman Through 1991” (DMA diss., University of Illinois at Urbana-Champaign, 1994)

⁸ William Neal Woolworth, “A Biography of Adolph S. Herseth: His Performance and Pedagogical Contributions (DMA diss., Arizona State University, 1993)

euphonium soloist, Brian Bowman (Huff), and orchestral trumpeter Adolph Herseth (Woolworth) as one aspect of their lives as brass performers. Paul Rathke⁹ examines the pedagogy and solo works of trumpeter Bernard Fitzgerald. Fitzgerald's legacy consists mainly of a number of excellent arrangements for solo trumpet, but in his day he enjoyed some influence as a pedagogue. He was brass editor of *The Instrumentalist* from 1946–1953 and through this association wrote twenty-two articles on various topics concerning brass instruments. Thomas Erdmann¹⁰ examines the pedagogical thoughts and style of trumpeter Sigmund Hering. Hering performed in the Philadelphia Orchestra for many years and published four hundred eight études in more than twenty books for trumpet.

In the second category of dissertations concerned with physiological aspects of brass performance, two deal with the role of respiration in wind instrument performance. Scott Nelson's¹¹ document investigates respiratory problems experienced by wind instrumentalists. In an attempt to understand how the respiratory system works and is used in wind performance, Nelson, along with co-researcher Doctor Robert Loudon, developed medical tests that were subsequently applied to wind players at all levels of ability. With this study Nelson hoped to destroy the myths that existed among wind teachers about the structure and function of the respiratory system and its use in wind performance. This is directly related to Arnold Jacobs' pedagogical principle of the efficient use of wind in creating sounds on brass instruments. Nelson acknowledged Jacobs in his document and

⁹ Paul Hinman Rathke, "R. Bernard Fitzgerald: His Principles of Brass Pedagogy and Solo Works for Trumpet (Cornet)" (DMA diss., University of Kentucky, 1993)

¹⁰ Thomas Ross Erdmann, "The Twentieth Century Topics of Trumpet Pedagogy and an Analysis of the Trumpet Pedagogy of Sigmund Hering" (DMA diss., University of Illinois at Urbana-Champaign, 1991)

¹¹ Scott Arnold Nelson, "Respiratory Physiology of the Wind Instrumentalist" (DMA diss., University of Cincinnati, 1989)

also made recommendations for the use of his findings in school instrumental programs.

Marjatta Teirila¹² mapped the knowledge of respiratory physiology of a number of Finnish wind instrument teachers to gauge its perceived importance in wind performance. Teirila appears to have duplicated some of the medical experiments of Nelson in an attempt to observe what differences exist between normal breathing and breathing to play an instrument. Teirila concludes that in wind playing, both the use of air and intra-oral pressure increase beyond the norms most of the time, and notes that brass players take especially deep preparatory breaths.

James Gardner's¹³ document is concerned with the use of pitch imagery in the management of trumpet embouchure. He set out to prove that by knowing the pitch of a note before playing it, the physical operation of the embouchure will be automatic. Gardner reviewed current research in psychomotor theory and determined that pitch imagery could be characterized as pre-cueing or preprogramming information. This information is used in the setting of prestructured commands that operate motor nerves automatically as described in motor schema theory. He also found that the fine-tuning of skill achieved as a result of feedback received while playing, and subsequent error correction, is automatic and unconscious in nature. Theoretically, this information proves that conscious attention can be focused on pitch imagery (a musical consideration) rather than on the functioning of the embouchure during brass performance. This is related to Jacobs' pedagogical principle of "song." Jacobs' taught that one must hear pitch in

¹² Marjatta Teirila, "Physiology of Wind Instrument Playing and the Implications for Pedagogy" (Dr. Phil. diss., University of Jyväskylä, Seminaarink, Finland, 1998)

¹³ James Edward Gardner Jr., "The Use of Pitch Imagery in the Management of Trumpet Embouchure: A Theoretical Consideration." (DMA diss., The University of North Carolina at Greensboro, 1990)

one's head in order for the lips to vibrate a given frequency. He likened the lips in brass performance to the vocal cords in singing, explaining that both required a concept of pitch in the mind in order to respond appropriately when air passed through them. This will be explained in greater detail in chapter three.

The last category of dissertations in the field of brass pedagogy compares master teachers of like instruments. There are three documents and each compares and contrasts the pedagogy of three artists/teachers. Wayne Clark¹⁴ investigates the teaching concepts and techniques of three trombone teachers while Bradley Sargent¹⁵ does the same for trumpet, and Robert Call¹⁶ for tuba.

Clark interviewed three university trombone teachers to gain insight into the teaching content, style, and philosophies of each. He presented his findings about each as models of exceptional teaching and then compared and contrasted them. He found that while each had profoundly different views on methodology, there were also many common elements.

Sargent's document is of interest because one of his subjects, Vincent Cichowicz, also participated in this study. Sargent's interest in Cichowicz was as one of three trumpet teachers, each of whom came from a different pedagogical background. He compared and contrasted the teaching strengths of these three teachers. The other teachers were Vincent DiMartino and Armando Ghitalla.

Call's document is also of interest because one of the teachers of tuba he observed

¹⁴ Wayne Ray Clark, "Teaching Concepts and Techniques Utilized by Three American Trombone Professors" (DMA diss., University of Oklahoma, 1996)

¹⁵ Bradley Kent Sargent, "Vincent Cichowicz, Vincent DiMartino, and Armando Ghitalla: Three American Trumpet Master Teachers" (DMA diss., University of North Carolina at Greensboro, 2000)

¹⁶ Robert Steven Call, "Three Case Studies of Highly Effective Teachers" (PhD diss., University of Utah, 2000)

was Arnold Jacobs. The other two were Harvey Phillips and Winston Morris.

Through the examination of taped interviews and lessons, Call created a case study of each teacher which was guided by specific research questions. He was interested in finding out what each teacher's teaching philosophy was and on what it was based, how each teacher interacted with students to achieve the results each did, and what principles emerged from each teacher's teaching practice. By gathering the principles of each and combining them, Call developed what he calls a "Global Paradigm for Highly Effective Tuba Studio Teaching." He then compared these principles with those of effective teaching found in education literature and related concepts in the field of music education, and concluded that all three employ many of the same principles that most effective teachers use, regardless of subject. He also found that Jacobs and Phillips contributed unique principles which were not paralleled in the principles of effective teaching found in the literature about education. Some of Jacobs' unique principles will be explored in chapter three of this document.

Contribution to Scholarship

As one can see from the above survey, in spite of the relatively small amount of research that has been carried out on the subject of brass pedagogy, a variety of topics have been covered. One area of research that is lacking however is that concerning the application of a particular pedagogical approach to all brass instruments. The current study fills this void by examining a specific pedagogy, demonstrating its use by various teachers, and showing that the approach is applicable to all brass instruments without modification. The benefits of this kind of a study should be of value to other researchers in the field of brass pedagogy and teachers of brass instruments.

Organization of the Document

Chapter two reviews a sampling of pedagogical resources available through the first three decades of Jacobs' teaching career (1940-1970), the period in which he was establishing his pedagogical ideas. This creates a context in which Jacobs' unique ideas can be viewed. In material after 1970 this context is obscured as some of Jacobs' ideas about breathing began to appear in various textbooks, method books, and articles.

Chapter three presents an overview of Jacobs' pedagogical approach explaining his principles of "song and wind" and it shows how his approach to production of tone differed from that of others. Chapter four reports on the teaching of four teachers of various brass instruments that have used Jacobs' approach in their own teaching. These four teachers were teaching in the School of Music at Northwestern University during the 1996-97 academic year. They are all experienced, successful teachers whose former students play in various orchestras throughout the world.

Chapter five is concerned with analyzing the information found in the teacher profiles created in the previous chapter. A discussion of other influences, responses to teaching from students, and suggestions for future research are included here along with conclusions drawn as a result of the study. The appendices follow and include all notes made from interviews with participating teachers as well as notes made from two viewings of videotaped lessons.

CHAPTER TWO

A CONTEXT FOR ARNOLD JACOBS' APPROACH TO BRASS PEDAGOGY, 1940 - 1970

By the middle of the twentieth century there were a number of ideas extant about the best way to produce a tone on a brass instrument. Arnold Jacobs began teaching in the 1940s and his reputation as a teacher widened during the following three decades. This chapter examines a random sample of the material available from the period 1940 to 1970 which dealt with the teaching of tone production. With this a context for Jacobs' approach will be created.

Some insight into the pedagogical ideas current at the middle of the twentieth century may be gleaned from John Lawrence McCann's dissertation¹ of 1989. The three main areas that interested teachers of the trumpet (cornet) previous to 1940 were embouchure, articulation, and respiration, with very little emphasis put on goals or concepts. As McCann notes: "Conceptual approaches appear occasionally, most often with the idea of imagining desired sounds before playing."² Between 1940 and 1970 the same three areas concerned teachers of all the brass instruments, with little (perhaps even less) written about concepts.

Included as concerns about embouchure were ideas and instructions regarding the role of pressure of the mouthpiece upon the lips, embouchure formation, various placements of the mouthpiece upon the lips, and direction of the air-stream through the lips. Concerns regarding articulation included placement of the tongue while articulating, as well

¹ John Lawrence McCann, "A history of Trumpet and Cornet Pedagogy in the United States 1840-1942" (D. M. diss., Northwestern University, 1989)

² Ibid, p. 105.

as tongue position after articulating. The subject of breathing included such things as “support” and abdominal tension, cautions against over use of the diaphragm, and inaccurate use of the word diaphragm.

The Embouchure

In his Masters Thesis of 1954: *The Brass Instrument Class -- A Workbook-Text for the Teacher or Student of the Cornet, French Horn, and Trombone*³, F. Earl Dunn gives some insight into the state of brass teaching in general at the time, as well as into some of the controversies that existed. As Dunn reveals, there was controversy about how the embouchure should be formed; whether one should stretch the lips in a slight smile, or pucker the lips slightly by firming the corners of the mouth, and forming the lips in the shape of the consonant “M”⁴. According to Harvey Phillips one of the most prevalent problems encountered in tuba students of the legendary player and teacher William Bell, was the “smile” embouchure⁵. Phillips was Mr. Bell’s student at Juilliard during the early 1950s and they had many talks and discussions about tuba playing in general. Mr. Bell noted this problem, particularly among students who had been taught previously by cornet or trumpet players, and felt that the use of this embouchure limited both the high range and endurance of any given player. These observations are echoed by many other writers of the period including Philip Farkas and Robert Getchell. Getchell, in an instructional pamphlet, explained that the thinning of the lips caused by forming this embouchure was to

³ F. Earl Dunn, “The Brass Instrument Class -- A Workbook-Text for the Teacher or Student of the Cornet, French Horn, and Trombone” (Masters thesis, Iowa State Teacher’s College, 1954)

⁴ Ibid, 27.

⁵ Harvey Phillips, telephone interview by the author, 23 January 2001.

blame for these limitations.⁶ Farkas notes other disadvantages of the ‘smile’ embouchure including the fact that the resulting tone is thin and hard, high notes respond with abnormal effort, one tends to increase pressure on the lips as one plays higher, and the dynamic range of the player is limited.⁷ Fortunately, as Kenneth Snapp in a 1954 article observed: “The smile system is still a ‘hot potato’ in some circles, but it seems to be rapidly losing ground.”⁸

Dunn, in his discussion of the alternative (as mentioned above), describes firming the corners of the mouth while forming the lips to say the letter “M”. Farkas favors this type of embouchure as a basic formation with some limitations. “Still, the cheek and lip muscles are formed much the same in whistling and horn playing, the difference being one of degree. Instead of making a visible pucker, as in whistling, the lips should be contracted so that they actually pucker very little in appearance and yet the sensation of muscle contraction is definitely felt.”⁹ References to the “smile” embouchure as a recommended technique appear to be minimal (I could find none) at mid century, while others agree with Farkas on the use of a somewhat modified pucker. In any case, the “modified pucker” idea of embouchure formation prevailed with references to the smile embouchure appearing only as warnings against its use.¹⁰

⁶ Robert W. Getchell, *Teacher’s guide to the Brass Instruments* (Toronto: Selmer Corporation, 1959) 3.

⁷ Philip Farkas, *The Art of French Horn Playing* (Evanston, IL: Summy-Birchard Company, 1956) 20.

⁸ Kenneth Snapp, “Professional Brass Tone” (1954); reprinted in *The Brass Anthology*, (Northfield, IL: The Instrumentalist Co., 1986) 157-8.

⁹ Farkas, 20.

¹⁰ See for example: Charles Colin, *Vital Brass Notes* (Kenosha, WI.: G. Leblanc Corp., 1955; reprint, New York: Chas. Colin, 1972) 108, and Edward Kleinhammer, *The Art of Trombone Playing* (Princeton, N.J.: Summy-Birchard Music, 1963) 25.

Controversy also swirled around the issue of mouthpiece placement on all brass instruments except the horn. All writers and teachers seemed to concur that the placement of the horn mouthpiece should be of the ratio of two to one; that is, two-thirds upper lip in the mouthpiece to one-third lower lip. With the other instruments, the question of placement ranged from: a) half and half (equal amounts of upper and lower lip in the mouthpiece) for trumpet, trombone, and tuba to b) two-thirds upper lip to one third lower lip for trumpet and trombone, and c) two-thirds lower lip to one third upper lip for trumpet, trombone, and tuba.

Philip Farkas, in *The Art of Brass Playing* advises a ratio of two-thirds lower lip to one-third upper lip for the placement of the trumpet mouthpiece¹¹ noting that this is what several well-known players of the past had advocated. For trombone and euphonium he states that while many fine trombone players prefer the two-thirds upper lip to one-third lower lip ratio, others prefer more lower lip than upper in the mouthpiece. He concludes that trombone players should find the “ideal spot” with “*controlled, methodical* experimenting.”¹² His views about placement of the tuba mouthpiece are the same as those regarding the trombone. For the euphonium, trombone, and tuba, he feels that more leeway can be afforded mouthpiece placement because of the larger mouthpieces of these instruments. By this time it appears that many writers and teachers generally were advocating a more equal mouthpiece placement where the criteria had more to do with comfort and success as opposed to convention.¹³ All sources indicate that placing the

¹¹ Philip Farkas, *The Art of Brass Playing* (Rochester: Wind Music Inc., 1962) 33

¹² Ibid, 34

¹³ See for example: Vernon F. Leidig, *Contemporary Brass Technique: Manual and Study Guide* (Hollywood: Highland Music Co., 1960) 31; Charles Colin, *Vital Brass Notes* (Kenosha, WI.: G. Leblanc Corp., 1955; reprint, New York: Chas. Colin, 1972) 108; Herbert C. Mueller, *Learning to Teach Through Playing: A Brass Method* (Reading, MA.: Addison-Wesley Publishing Company, 1968) 4.

mouthpiece as close to the center laterally as possible is ideal, providing uneven teeth do not dictate placement slightly off to one side or the other.

Dunn also reveals that there had been a controversy about pressure vs. non pressure “systems” but that this argument had pretty much subsided by the time he wrote his thesis. Too much pressure causes fatigue prematurely, with all the other attendant problems that it brings. Too little pressure on the other hand, does not allow an air seal to be formed between the lips and the mouthpiece. As Claude Gordon points out: “there is no such thing as ‘no pressure’ . . . ”¹⁴ and other writers tend to agree with this. According to Farkas: “There should be a comfortable, normal pressure which hermetically seals the lips to the mouthpiece - a pressure that keeps the mouthpiece from skidding around on the lips and gives a general feeling of security.”¹⁵ Leslie Sweeney, while advocating a no-pressure system allows that: “Playing without pressure on the lips is an ideal for which all brass players strive. It is a goal which is impossible to realize completely, but which it is necessary to keep trying.”¹⁶ In other words, one must use *some* pressure as long as it is not *excessive*. As with the stretch, or “smile” embouchure, references to pressing the mouthpiece against the lips as a desired technique (especially to achieve higher notes) are few, if any. Any references made to pressing the mouthpiece are given as warnings against the use of this technique.

Another controversy which Dunn reveals is whether or not one should play with wet or dry lips. Philip Farkas is in favor of playing with wet lips and devotes a chapter to

¹⁴ Claude Gordon, *Systematic Approach to Daily practice for Trumpet* (New York: Carl Fischer Inc., 1965) 5.

¹⁵ Farkas, *Brass Playing*, 53.

¹⁶ Leslie Sweeney, *Teaching Techniques for the Brasses* (Rockville Centre, L.I., NY: Belwin Inc., 1953, 47.

the subject in *The Art of Brass Playing*. In this, he explains the disadvantages of playing with dry lips and the advantages of playing with wet lips, *as he sees them*. Robert Weast agrees with Farkas on the advantages of playing with wet lips and claims that playing on dry lips can negatively effect control of the aperture, “sometimes by 100%.”¹⁷ Others, such as Leslie Sweeney, come down the middle, seeing both sides of the controversy as having merit. “Many competent players practice keeping their lips moist when they play and seem to find benefit from the practice. Mr. Rafael Mendez does. . . . On the other hand many fine performers play with dry lips, and many teachers prefer this method. It tends to keep the mouthpiece in the same place while playing either high or low tones. It is probably wise for each individual to use the method that seems best to him.”¹⁸

Perhaps a more complex problem that occupied brass players at this time was the role of the lower jaw in the formation of an embouchure. One finds various recommendations regarding its position while playing, and depending on which was followed, one could be lead into questions of “up-stream” and “down-stream” blowing. In addition, the question as to whether or not the jaw must move while playing, and in which ways and under what circumstances, was much debated.

Generally speaking most writers advocated forming an embouchure by ensuring that the front teeth, and therefore the lips, were aligned. If this was not a natural position for the potential brass player then the jaw should be thrust forward to accomplish this position.¹⁹ The primary reason given for this maneuver was that it allowed for improved

¹⁷ Robert W. Weast, *Brass Performance: An Analytical Text* (New York: McGinnis and Marx Publishers, 1961) 61.

¹⁸ Leslie Sweeney, *Teaching Techniques for the Brasses* (Rockville Centre, L.I., NY: Belwin Inc., 1953, 54

¹⁹ See for example: Farkas, *Brass Playing*, 7-8; Sweeney, *Brass Performance*, 52-53; Weast, *Analytical Text*, 36-37.

tone quality, whereas the embouchure formed with a receding jaw and lower lip produced an inferior tone. Weast notes that some players had the shank on the mouthpiece bent in order to give the appearance of holding the instrument straight out and near parallel to the floor.

This has the visual effect of holding the horn straight out, and infers that lip and jaw position are good. Actually, it does absolutely nothing to correct the difficulty. This would be comparable to painting a piece of rotten wood. Rather than bend the shank, better to work for better lip alignment and jaw position.²⁰

William Bell advocated the use of a pivot for his tuba students, as he felt that its use allowed for a smooth connection of high and low ranges. The pivot involves movement of the jaw as one changes ranges. In other words, the lower teeth and lip are not always in alignment with the upper. This occurs as a result of lowering the jaw as one descends into the low register and raising it as one ascends into the high register. This presumes that the tuba student starts in the middle range with a fairly even alignment of lower jaw and lip with upper. As Bell's former student Edward Livingston explains:

Mr. B. often used the example of sitting at the Piano and telling us about how you position yourself in the "Middle" of the Piano, and with two hands stretch out to achieve the mastery of the complete keyboard....or total range.....not setting at the left end or right end of the Piano and only able to have limited reach into the entire keyboard. Makes some sense.....So, he started us in the middle and worked down and up to connect the pivot to all registers.²¹

According to Mr. Livingston, many young low brass players have either outstanding high registers *or* outstanding low registers but cannot connect the two at some point in the middle.

²⁰ Weast, 37.

²¹ Edward Livingston in a letter to the author, 11 February 2001.

He [Mr. Bell] told us that there are two pivots in Tuba playing.....(1) At the site of the jaw and (2) at the upper torso (or as I often thought his explanation seemed to elude [sic] to the "waist")..... As a Tubist descended into the lower register/notes, he had us drop our jaw into the "ahhh" position, watching in a mirror to make sure the corners of the mouth dropped into what he explained (with humor) was a "dumb-boy" look an upside down lip arch or half moon look to the lips, with the corners dropped. At the same time.....he wanted us to be cognizant of the fact that the tuba came back slightly toward you, as the head dropped (or as I often interpreted it as the instrument forced my head downward with the tip of my chin moving toward my upper chest).....this took rim pressure off of the bottom lip descending and of course the opposite moving into the upper register/notes.....or tilting the instrument slightly forward going into the upper register took mouthpiece rim pressure off of the upper lip. The extent of instrument movement forward and backward was and is very, very slight...maybe one inch forward and backward.²²

This approach to the concept of “pivoting” and to its use is somewhat similar to, although much simpler than, the pivot “system” as described in Donald Reinhardt’s *The Encyclopedia of the Pivot System* published in 1964.

In this book, Reinhardt deals with different aspects of playing such as articulation and breathing before he actually explains what the “pivot system” is. For him, every brass player implements some kind of manipulation of the embouchure when he or she plays whether they acknowledge it or not. He explains it as a pushing or pulling of the lips with the rim of the mouthpiece when one ascends or descends in his or her range. The pushing or pulling that each player requires is dependent on the kind of bite he or she has. This determines not only how much upper and lower lip one puts in the mouthpiece, but also whether one is an “upstream” player or a “downstream” player. These terms refer to the direction the air goes into the mouthpiece as it is blown. An “upstream” player blows so that the air hits the top of the cup of the mouthpiece while a “downstream” player blows so that the air hits the bottom of the cup of the mouthpiece. According to Reinhardt, it is necessary for a teacher to ascertain which kind of air-stream a student uses by using a pivot

²² Ibid.

system Plexiglas (transparent) mouthpiece. After having gleaned this information, the teacher can then understand which lip is the “anchor spot” and which is the “control point” and with this knowledge prescribe which way the student should push or pull on the mouthpiece as he or she ascends or descends throughout the range of the instrument. This pushing and pulling seems to change the proportional amount of weight of the mouthpiece felt on each lip, depending on the register in which one is playing. Within the two main classifications of embouchure and jaw types that dictate whether one is an upstream or downstream player, there are seven sub-sets or variants which the teacher should be able to recognize in order to prescribe the “proper amount” of pivot.

Other than the fact that this “system” is extremely complex (it is summarized at the end of the book in thirty - five “basic” points), it differs from the one described by Livingston in other important ways. According to Reinhardt, “Generally speaking, the player’s jaw should protrude slightly while *ascending into the high register* [emphasis mine] of the instrument regardless of his physical type classification; however, some exceptions will be found to this rule.”²³ Following Bell’s approach, as one *descended into the low register*, the jaw would protrude; the opposite to what Reinhardt describes. Reinhardt also considers the dropping of the jaw while descending into the low register as a “disastrous playing habit”. In addition, according to Livingston who also went to Reinhardt to better understand his approach, the body should be kept rigid and the instrument tilted when pivoting. (On the tuba, this is impossible to do without holding the instrument up and away from any support such as the players lap, the chair, or a tuba stand.)

²³ Donald S. Reinhardt, *The Encyclopedia of the Pivot System* (New York: Charles Colin, 1964) 211.

As for Reinhardt's description of dropping the jaw while ascending into the low register as a "disastrous playing habit", his statement may have been made as a generalization for all brass instruments. Obviously, it contradicts Bell's approach, which is directed toward tuba players who use a very large mouthpiece. Reinhardt (a trombone player), on the other hand, may have been thinking more of the players of the smaller brass instruments where perhaps little to no vertical jaw movement may be necessary in moving from one range to another.

For others during this period such ideas about pivoting and changing the direction of the air stream were thought to be "gimmicks". Robert Grocock, in his *Advanced Method for Trumpet* from 1968, cautions against using these techniques stating: "Too often, deviations from the norm - as (d) and (e) above - are looked upon as quick 'cure-alls' when patience and attention to fundamentals would do more lasting good."²⁴ ("(d) and (e) above" referred to pivoting, and changing the direction of the air-stream respectively.)

"Attack", Articulation, and Tongue Position

With regard to articulation, McCann's document of 1989 once again serves to illuminate the "pedigree" of some of the ideas found at the middle of the twentieth century. He found in his study that among cornet and trumpet teachers who wrote method books and texts prior to 1920, a majority advocated placing the tongue between the lips when making initial and repeated articulations as if spitting something off of the tip of the

²⁴ Robert Grocock, *Advanced Method for Trumpet* (Greencastle, IN.: The Argree Music Press, 1968) 7.

tongue.²⁵ While this approach seemed to decline in favour of tongue placement behind the upper teeth after this point, it did not disappear completely.

Two decades later one can still find reference to, and support for, this approach. In the March-April edition of *The Instrumentalist* magazine from 1947, Howard Deye published the results of a survey he circulated to some thirty “prominent brass authorities” of the day.²⁶ In this survey he asked the experts to approve or disapprove of several statements supplied with regard to the use of the tongue in playing brass instruments. On the subject of articulating between the teeth several respondents supported the concept although with slight variations. When asked to respond to the statement “The tongue should never strike the lips.”, a majority of teachers of cornet and horn agreed, while a majority of low brass teachers disagreed. When asked to respond to the statement “For low tones the tongue may come between the teeth.”, a majority agreed by a ratio of nearly two to one. These results seem to indicate two things. First: that low brass players at the time were perhaps more likely to articulate in this manner than high brass players, and second: that a majority of all brass players tended to articulate in this manner in the lowest registers of their instrument.

The first finding is confirmed by Harvey Phillips, who stated that one of the biggest problems William Bell faced with new tuba students in the 1950s was their propensity to articulate by putting the tongue between the teeth.²⁷ This, along with the smile embouchure, as mentioned earlier, were the two most common problems he felt he had to correct. Jaroslav Cimera seems to advocate this approach to articulating on the trombone.

²⁵ McCann, 103.

²⁶ Howard W. Deye, “The Use of the Tongue in Brass Instruments,” (1947); reprinted in *The Brass Anthology* (Northfield, IL.: The Instrumentalist Co.. 1986) 15-16.

²⁷ Harvey Phillips, telephone interview by the author, 23 January 2001.

In a 1948 article in *The Instrumentalist*, he tells Floyd C. Ostlie that “The instructor will then have the student put the assembled instrument to the naturally closed lips where the mouthpiece feels the best and ‘spit’ some air into it.”²⁸ Others in the survey carried out by Deye are quite vehement in their views, feeling that “spitting” is the only way to articulate.

This question as to the position of the tongue has caused more confusion, misery, and disappointment to French horn players than anything else. I wish that not one word had ever been said about the position of the tongue against the teeth. To produce a tone we have to ‘spit’ into the mouthpiece, and that means just plain ‘spit.’ It is rather hard at first, but becomes more polished as we improve. The tongue will find its proper place.”²⁹

The author of this quote is obviously a horn player as was Max Pottag. Pottag also felt that horn players should articulate in this manner and clarifies what he meant by spitting.

Contrary to the opinion of many I believe it is better to place the tip of the tongue between the teeth instead of against them when starting a tone. The tongue is pulled back quickly as when saying the syllable ‘Ta’ or ‘Tu’ and yet the action is similar to that when spitting away an imaginary piece of thread that has lodged on the lips.³⁰

A few years later (1953), Sweeney advises that this method of beginning a tone may be helpful for beginners, but that it should be discouraged as a regular and permanent procedure. “It is only an expedient to aid the beginning student.”³¹

E. C. Moore, in *The Brass Book* (first edition published in 1955), distinguished between tonguing between the lips and tonguing between the teeth so that the tongue passes

²⁸ Jaroslav Cimeras as told to Floyd C. Ostlie, “Teaching the Trombone,” (1948); reprinted in *The Brass Anthology* (Northfield, IL: The Instrumentalist Co., 1986) 31-32.

²⁹ Deye, 16.

³⁰ Max Pottag, “Playing the French Horn,” (1947); reprinted in *The Brass Anthology*, (Northfield, IL: The Instrumentalist Co., 1986) 16-17.

³¹ Sweeney, 19.

between the teeth to make contact with the upper lip.³² He agrees with Sweeney, stating that tonguing between the lips is a good technique for beginners. He went further though, and considered these two methods to be viable techniques for creating certain effects.

In the *first tonguing method*, as described previously, the tongue moves between the lips. This is highly recommended as a beginning procedure. In modified form it is useful to the advanced player for producing explosive effects such as the *sforzando*, and for hard, hammering attacks.

The *second tonguing method* is one in which the tip of the tongue passes through the teeth to make contact with the inner surface of the upper lip. Many teachers use this method exclusively, and there is much to be said in its favor. It has a tendency towards producing a very bright tone quality. It can be used for playing softly and delicately as well as for loud attacks. The speed and distance with which the tongue is withdrawn from the point of contact determines the type of attack and the sonority and timbre of the tone.³³

For Moore, these are but two methods of articulation of a total of six of which every brass player should make use. The others include making contact behind the upper teeth, double tonguing, triple tonguing, and flutter tonguing. Indeed, he felt that even beginners should be exposed to, and attempt, all of these at an early stage.³⁴

As Deye observed, the majority of respondents to his survey claimed to articulate behind the upper teeth and specifically at the roots of the upper teeth.³⁵ This (tonguing behind the upper teeth) seems to have become the more general and universal approach to teaching articulation as time passed. By the 1960s, it appears that articulating between the teeth was no longer considered an acceptable technique to be used as a basic articulation. It was either discussed in negative terms or not mentioned at all. Indeed Farkas, as early as 1956 in *The Art of French Horn Playing*, warns against articulating between the teeth or

³² E. C. Moore, *The Brass Book*, rev. James Neilson (Kenosha, WI.: LeBlanc Publications Inc., 1964) 8-9.

³³ Ibid, 8.

³⁴ Ibid.

³⁵ Deye, 15.

lips, claiming that pulling the tongue back from the lips is more difficult because it opposes the direction of the air stream. In addition, he says that the entire tongue, which he refers to as “a rather heavy organ”, is required to move, rather than just its tip.³⁶ Weast (1961) gives three reasons why articulating (tonguing) between the lips is wrong:

Efforts must be made to establish the correct setting, since tonguing between the lips is wrong for at least three reasons. First, the attack is usually too hard, more than the player would want, considering his efforts. Second, the position of the tongue is not conducive [sic] to the greatest speed in articulation. It is more cumbersome to move the tongue in and out, rather than up and down, or obliquely. Third, the tongue placement between the teeth creates an arbitrary aperture setting, based on the size of the tongue, not on range or volume.³⁷

It is interesting to note that both Weast and Farkas draw no distinction between tonguing between the lips and tonguing between the teeth as does Moore. Farkas however, believes that the tongue should be placed between the teeth to produce the *sforzando* attack.

The *sforzando* or forced attack is made by completely sealing the air column, with the tongue placed very near the lip opening, perhaps even touching the lips, but not protruding between them. Break this hermetic seal violently by sharply removing the tongue at the same time “shoving” with the diaphragm.³⁸

One concept that is articulated consistently throughout the three middle decades of the twentieth century and is related to tonguing behind the teeth, is that of thinking of the tongue as a valve that controls air flow. There are two aspects of this idea. They have to do with the function of the tongue at the beginning of a phrase and its function during the phrase. Treating the tongue like a sort of valve during a phrase was, and is, extremely common, as it functions as the sole means of articulating an otherwise constant stream of air. Thinking of, and treating the tongue as a valve at the beginning of a phrase has a

³⁶ Farkas, *Horn Playing*, 49.

³⁷ Weast, 24.

³⁸ Farkas, *Horn Playing*, 49-50.

history dating back to the nineteenth century, its most famous proponent being J. B.

Arban.

The tongue does not strike; on the contrary, it performs a retrograde movement, simply behaving like a valve.

This should be kept in mind before placing the mouthpiece on the lips; the tongue ought to be placed against the teeth of the upper jaw in such a way that the mouth should be hermetically sealed. As the tongue recedes, the column of air which was pressing against it is precipitated violently into the mouthpiece and causes the sound.³⁹

Arban goes on to say that the syllable “tu” is pronounced, and that it may be enunciated harder or softer according to how much force is required. He gives no more detail on the matter, leaving it to the reader/performer to interpret how this can be done.

Many writers since Arban concur, including Bernard Fitzgerald in an issue of *The Instrumentalist* of 1949. “Fundamentally, the function of the tongue in articulation is to serve as a valve which releases the breath and allows it to pass between the lips causing them to vibrate.”⁴⁰ In countless articles, methods, and texts, before and after Fitzgerald, one encounters this same concept. In fact, in looking through *The Brass Anthology* for the years 1946 (the first year of publication for *The Instrumentalist*) through 1969, nine out of the ten articles dealing with articulation either state directly or imply that the tongue functions as a valve, hermetically sealing the mouth before a note is sounded. In most of these articles the authors actually state, as does Arban, that the air column is pressed up against the tongue until it is drawn back (or down) away from the teeth, when the air is

³⁹ Jean Baptiste Arban, *Grande Méthode complète de corne à pistons et de saxhorn* (Paris: Escudier, c. 1859; reprint, New York: Carl Fischer Inc., 1982) 7.

⁴⁰ Bernard Fitzgerald, “Tone Production” (1949); reprint, *The Brass Anthology*, (Northfield, IL.: The Instrumentalist Co., 1986) 37.

“released” through the lips. This idea is not limited to these articles but is also common in texts and method books of the same period.⁴¹

As placement of the tongue behind the upper teeth to articulate became the norm, so did the concept of changing exactly where on the upper teeth contact should be made. It seems that while some felt that one should not be limited to articulating at specific points on the teeth, the majority felt that the point of contact was related to pitch register. This concept is connected to a widely held belief at this time that one must change the arch of the tongue to achieve range. Indeed, of the seven articles printed in the *Brass Anthology* between 1954 and 1969 that discuss this topic, all seven link tongue arch (relative height of the back of the tongue) to pitch register.

In discussions of articulation in the literature from the mid-twentieth century, when the recommended consonant “t” is mentioned as an ideal articulation, it is usually accompanied by a recommended vowel sound based on pitch register. For example, if a player were going to articulate in the high range, he or she would be advised to pronounce the syllable “te” or “ti”. If the player were to articulate in the middle range, he or she would be advised to pronounce the syllable “teh”, “too”, or “tu.” Likewise, if the player were to articulate in the low range, he or she would be advised to pronounce the syllable “tah” or “taw”. In other words, the concept was that higher notes are produced with the tongue positioned higher in the mouth than middle register notes, which in turn employ a higher tongue position than lower notes. The theory behind this approach is one that considers the tongue as the prime controller of air speed rather than the velocity of the wind supplied in relation to the size of the lip aperture. Simply stated, many brass players at the time reasoned that higher notes require faster air while lower notes require slower air, and that

⁴¹ See for example: Robert Winslow and John Green. *Playing and Teaching Brass Instruments* (Englewood Cliffs, N.J.: Prentice-Hall Inc. 1961) 4; Mueller, 18; Weast, 23.

these changes in air speed were controlled by the position of the tongue. A high tongue meant faster air created by blowing through a smaller passage way and thus creating higher pitches, while a low tongue meant slower air created by blowing through a large passage way and thus creating lower pitches.

According to McCann, the concept of changing the tongue arch was first introduced into trumpet pedagogy by the Germans as a means to aid in slurring.⁴² The idea employed enunciating more closed vowels as one slurred higher in the pitch register; for example, “ta-ee” or “ta-i.” He attributes the concept of using the tongue as an aid to producing high notes to Max Schlossberg, a Russian trumpeter trained in the German tradition, who was brought from Vienna to play in the New York Philharmonic in 1910.⁴³ This particular idea stuck and seems to have become part of the perceived necessities of tone production on all brass instruments.⁴⁴

Using the tongue as an aid to slurring caught on widely, as can be seen in a number of sources from the first half of the twentieth century. Some of the earliest published brass techniques text books intended for teacher training date from the 1960s, and all of them pick up on this point. Both Vernon Leidig (*Contemporary Brass Technique: Manual and Study Guide*. Hollywood, Ca.: Highland Music Company, 1960), and Robert Winslow and John Green (*Playing and Teaching Brass Instruments*. Englewood Cliffs, N.J.: Prentice-Hall Inc. 1961) emphasize the importance of this technique in slurring. Others, such as Farkas and horn player Gunther Schuller, agree that the tongue has a role in

⁴² McCann, 86.

⁴³ Ibid, 88.

⁴⁴ See: Max Schlossberg, *Daily Drills and Technical Studies for Trumpet* (New York: M. Baron Co., 1965) As McCann points out, Schlossberg’s student, Harry Freistadt attributes the concept to Schlossberg in the notes about this method, while Schlossberg’s own introductory notes only deal with slurring.

slurring, but that it must also be arched higher for the higher pitches than for the lower. Farkas discusses and endorses these techniques in both *The Art of French Horn Playing* (1956) and *The Art of Brass Playing* (1962), as does Schuller in his book *Horn Technique* (New York: Oxford University Press, 1962).

The seeming acceptance of the concept of tongue arch being related to register in the 1960s is curious considering the results of a study done by Jody Hall and reported in *The Instrumentalist* in 1955⁴⁵. At the time, Hall was the chief acoustical engineer for the Conn Corporation, a large American manufacturer of brass instruments. He was interested in finding out whether or not the tongue influenced range on the trumpet. He used X-rays of the mouths of nine “outstanding trumpet performers” under various playing conditions to make his observations and draw some conclusions. He found that all of his subjects tended to use the same basic formation of the oral cavity in every register noting that variations in that formation between different registers were small. He found that in fact, the most frequent tendencies in his subjects when changing from middle to high registers included raising the lower jaw, moving the high point of the tongue forward *and/or downward*, and enlarging the pharynx (throat cavity). The findings regarding tongue position surprised even the author who had expected to confirm what everyone else said about the necessity of raising the tongue to achieve high register.

During the preliminary stages of the study, the writer believed that as a player moved into the higher register, the natural tendency was to move the tongue upward and forward to the roof of the mouth as in saying ‘ee’. The writer believed that in the effort to control tone quality, some players retarded, or delayed, the tendency to raise the tongue. Consequently, he was hardly prepared for the reversal of this pattern, i.e., lowering of the tongue for high register.⁴⁶

⁴⁵ Jody Hall, “To ‘Ah-ee’ or not to ‘Ah-ee’!”, *The Instrumentalist*, (1955); reprint, *The Brass Anthology*, (Northfield, IL: The Instrumentalist Co., 1986) 173-174.

⁴⁶ Ibid, 174.

In other experiments, Hall found that varying tongue positions had more of an impact on tone quality than on anything else. As a result of his findings, he made some recommendations quoted here:

1. A tone quality which is consistent in all registers should be the controlling factor in determining basic tongue position.
2. In order to develop a consistent tone quality in all registers, emphasis should be placed on changing register by use of the embouchure and breath support alone (without aid from the tongue)
3. If the “ah-ee” change is ever used with inexperienced students as a device to aid in register change, it should be done with an awareness that eventually that method will be altered or abandoned.
4. After advanced students have learned to play in all registers with one basic tongue position and tone quality, they can learn to produce different qualities of tone, as demanded by the music, by varying the tongue position.⁴⁷

Considering the findings of Hall’s experiments, one must assume that those who still advocated raising the tongue to achieve higher notes must not have been aware of his work.

On the other hand, others such as Robert Weast dismiss Hall’s findings saying that:

The conclusions do not agree with the experience and research of this writer, since, if properly used, the arched tongue principal can be used to great advantage by any performer. Evidence is common that the tongue was used to bring about air changes as early as the turn of the century, but undoubtedly the practice had begun many years previous to this date.⁴⁸

The “air changes” that Weast refers to are those created by moving the tongue up and down in the mouth while blowing to effect changes in register. Interestingly, Weast does not provide any concrete results of his own “research” to back up his position, other than stating that “Evidence is common” It appears from McCann’s research into the history of trumpet pedagogy, that the only evidence available to support the tongue arch theory (prior to Hall), is what various teachers/performers/writers *thought* they were doing.

⁴⁷ Ibid, 174.

⁴⁸ Weast, 26.

The Throat as a Valve

Just as the tongue, if thought of and used as a valve, provides a point of resistance to the air column, so can closing the throat. While most writers from the period in question (when writing about tone production) discuss keeping the throat open while blowing, Farkas maintains that the throat can be used as the first point of resistance to the air when expelled. In *The Art of French Horn Playing* (1956), he maintains that to successfully play the French horn, one must provide resistance to the air column.

The “diaphragm pressure” needs something to lean on or push against. If there were no resistance somewhere between the lungs and the end of the horn bell, the least pressure put on the diaphragm would send the air rushing out of the lungs in one great, short burst. In attempting to avoid this effect, many players make their first mistake in the use of the diaphragm. Instead of putting resistance somewhere in the air column, they leave it completely free and merely avoid that rush of air by putting little or no pressure on the diaphragm. This doles the air out more slowly of course, but because of the lack of muscular “grip” on the diaphragm, the air literally dribbles out and the result is a very uncontrolled, fluttery tone. This effect is particularly noticeable in *pianissimo* playing, when, because of this faulty method, the pressure has to be almost negligible.⁴⁸

He goes on to explain that there are four points of resistance for the horn (brass) player. He dismisses the lips as being a point of creating resistance for resistance’s sake, because the size of the aperture must control pitch. Also, he acknowledges that the instrument and throat of the mouthpiece provide resistance, but that this is constant resistance, not changeable. That leaves two points where the player can, according to Farkas, control how much resistance there is to the “diaphragm pressure”. One is at the back of the tongue where the letter “K” is formed, and the other is at the larynx.

We have the ability to completely control the opening called the larynx or “voice box.” We can open or shut this valve-like feature of our trachea (or windpipe) completely at will and cause it to remain at any point between open or shut. I do not mean that the vocal chords need to vibrate or sound in any way. The resistance to which I refer can be observed when coughing. Just before the actual cough, notice that the air passage is completely shut off and is only partly opened during

⁴⁸ Farkas, *Horn Playing*, 29.

the cough. This furnishes the resistance necessary to “clear the throat.” The same valve is called into action when talking in a whisper.⁵⁰

In *The Art of Brass Playing* (1962), Farkas explains further that it is not necessary to vocalize when engaging the glottis (larynx) as a point of resistance to the air when blowing, and that people do this every day. He uses the examples of lifting a heavy weight, or whispering, to demonstrate the various degrees to which the glottis can be closed, and draws a distinction between these efforts and “. . . forcible tightening of the neck muscles, or worse yet, the *sounding* of the vocal cords, resulting in a low moaning or groaning noise, heard while the instrument is played, and I have fought these bad habits just as diligently as any other brass teacher.”⁵¹ Farkas acknowledges that some felt he was advocating playing with a tight throat, but he feels that by making a distinction between tightening neck muscles, and *controlling* the size of the opening of the larynx, he can advocate its use as an air valve as a viable and useful technique, particularly for controlling volume. He speculates that: “The proper use of the glottis is natural and effective and is quite likely being used by most successful brass players, either consciously or subconsciously.”⁵²

In a study conducted by William Carter and reported on in the December 1966 issue of *The Instrumentalist*⁵³, an investigation of some of Farkas’s theories was carried out. Through the use of X-rays, the author was able to observe the various changes in size of the glottis under different playing conditions for the trumpet, horn, and trombone in a

⁵⁰ Ibid.

⁵¹ Farkas, *Brass Playing*, 62.

⁵² Ibid.

⁵³ William Carter, “The Role of the Glottis in Brass Playing” (1947); reprinted in *The Brass Anthology* (Northfield, IL.: The Instrumentalist Co., 1986) 425–428.

number of players on each instrument. Several interesting observations were made as a result of the study.

First of all, Carter discovered that there was more variation in the size of the glottis at different volumes on the trombone than there was on either the trumpet or horn. In fact, he found that there was “relative inactivity” of the glottis of horn players when they played at louder or softer volumes. On the other hand, with trombonists he found a significant difference between the size of the opening of the glottis between soft and loud notes. Carter attributed this difference between the two extremes of horn and trombone (the trumpet results were in between) to the size of the bore of the respective instruments, speculating that the “. . . relative inactivity of the glottis in French horn playing is most likely due to the high degree of built-in resistance found in the French horn. The small mouthpiece, very narrow mouthpipe bore, and the lengthy and complex tubing all combine to provide a good deal of impedance to the air-stream, which makes the job of the diaphragm and its controls so much easier that variation in the size of the glottis opening becomes almost unnecessary.”⁵⁴ Conversely, the relatively little resistance supplied by the large bore trombones used in the study may have accounted for the relatively small glottal opening witnessed in the performance of high and low soft notes.

Carter cautions against evaluating the meaning and significance of his findings saying that . . . “To conclude that soft notes should be played with a smaller glottis opening than loud notes would be premature, for this study has not attempted to provide that kind of an answer to the controversy over the glottis.”⁵⁵ He does however give Farkas the benefit of the doubt over his statement “that proper use of the glottis is natural and effective and is

⁵⁴ Ibid, 427.

⁵⁵ Ibid, 428.

quite likely being used by most successful brass players either consciously or subconsciously.” Carter goes on to stress though, that the factor that is missing in a study such as his, and one that must be considered, is tone quality. In other words, one cannot judge the effectiveness of the technique without considering what the desired tone quality should be.

However, there are perceivable differences in tone quality between those tones produced with a partially closed glottis and an open glottis. These differences are large enough to provide a basis for disagreement among qualified authorities as to which sound is the best legitimate sound. This sort of problem is perhaps best solved in the teaching studio, where the subjective judgment of the brass teacher is, quite properly, the vital element in the teaching process.⁵⁶

In other words, the desired tone quality will more likely control the size of the opening of the glottis, rather than whether one plays soft or loud.

To illustrate this he points to his findings, where more difference in the size of the opening of the glottis was found among players of the same instrument playing at a loud volume on a given note, rather than among individuals playing soft notes versus loud notes.

Some players opened up a great deal for loud tones, and some very little. This indicates that some players have had more success than others in learning, probably unconsciously, to *overcome* the natural tendency of the glottis to narrow during the blowing of loud tones.⁵⁷

And later:

It is the writer’s contention that the forte or fortissimo sound brass teachers have in mind when they stress playing with an “open throat” is in fact the sound their students get when they learn to play their loud tones with an open glottis (assuming everything is normal as far as embouchure, instrument, and mouthpiece are concerned).

It is quite possible that an intensive approach, utilizing exercises designed to develop conscious control of the glottis, could significantly accelerate the

⁵⁶ Ibid.

⁵⁷ Ibid. The “natural tendency” Carter is referring to is that of the glottis to widen during inhalation and narrow during exhalation.

development in student brass players of an acceptable, legitimate tone production; a process which can sometimes require years of effort.⁵⁸

While the author's last bit of speculation is questionable, the relationship between the size of the opening of the glottis and tone quality, not dynamics, is reaffirmed.

Respiration

Perhaps the most misunderstood component of tone production on brass instruments has been the role of breathing and how it should be done. Every aspect of this extremely important subject has been written about and debated, revealing an astonishing amount of misinformation, misrepresentation, and lack of understanding.

At the middle of the twentieth century it was a widely held view that only as much air as required to play a given phrase should be inhaled. Emory Remington, the well respected and influential trombone teacher at the Eastman School until about 1970, felt that "over breathing" (filling the lungs to capacity) caused tension that created a "physical impairment" to blowing.⁵⁹ Winslow and Green agreed, stating that: "An over supply of air causes rigidity and fatigue."⁶⁰ Dunn, in his thesis of 1954, also agreed, saying: "Only sufficient breath should be taken to complete the phrase, for extra air in the lungs simply creates extra difficulties."⁶¹ He does not specify what these difficulties might be. Others,

⁵⁸ Ibid, 428.

⁵⁹ Donald Hunsberger, *The Remington Warm-Up Studies* (Athens, Oh., Accura Music, 1980) 10.

⁶⁰ Winslow and Green, 3.

⁶¹ Dunn, 33.

such as Weast⁶² and Reinhardt⁶³ concurred, fearing the results of “over breathing.” Reinhardt goes so far as to claim that mastery of what he called “timed-breathing” is a “necessity of modern, relaxed brass playing.”⁶⁴

Remington elaborated on his approach to breathing and blowing, saying that the player should take a “conversational breath” and avoid any feeling of tension at the top of the intake of the air before blowing. His famous warm-ups begin with a long tone pattern in which the trombonist is to listen for tuning, tone production, action of the tongue, and slide action technique. All of his warm-ups are to be played at a medium dynamic level; neither forced nor under-played. “Since the philosophy underlying each of these exercises is continual *relaxation*, each should be played comfortably, not forced or underplayed, but with a feeling of resonance in the sound from the beginning-so that the sound ‘lives’.”⁶⁵ Gordon Cherry, Principal Trombonist of the Vancouver Symphony, explained how Remington dealt with over-breathing and playing at full volume, as one must do in orchestral playing. He said that obviously one must take a full breath, but that Remington would always emphasize the need to blow with ease and without force.⁶⁶

Other approaches to breath intake at the time were less concerned with quantity, and more concerned with *how* one should breathe in. There were a few “variations on a theme” that appear in the literature, with the main thrust of the concept holding that when air is drawn into the lungs, it should be drawn to the bottom of the lungs first, so that the lower

⁶² Weast, 20.

⁶³ Reinhardt, 28.

⁶⁴ Ibid.

⁶⁵ Emory Remington as quoted in Hunsberger, 10.

⁶⁶ Interview with the author, 22 January, 2001.

abdomen expands in all directions. Meanwhile, there should be little to no “chest breathing” allowed. This basic idea seems to have been around for some time before 1940. As McCann notes, there was a trend towards “teaching” breathing which began in the 1920s, and it included this point of view on how one should inhale in preparation for blowing.

In an article in *The Metronome* from 1935, Bill Costello claims that if one fills one’s chest with air when one breathes in, that one will only be able to “grunt” the notes out. Further, he states that filling the chest while breathing “. . . contracts the lungs, reduces their capacity and congests your air passage so that it becomes impossible to provide your lips with the even, continuous flow of air that is so necessary to keep them vibrating.” He claims that one must inhale to inflate the “lower diaphragm” when one breathes in. “The incoming air should inflate the abdomen in an outward direction. It is not necessary to raise your shoulders or take air into the chest.” Then, with regard to blowing: “As you blow this air out the abdomen should deflate in the direction of the back. Blow all the air out, keep blowing until it hurts. Pain in the abdominal muscles is a sure sign that strength is growing.”⁶⁷ Edward Mellon echoes this approach to breath intake:

To take a breath the diaphragm descends, creating a vacuum which the air rushes in to fill. The expansion thus caused is centered about the entire circumference of the waste, front, back, and both sides. The shoulders should not rise and the upper part of the chest is not extended by inflation.⁶⁸

Schuller concurs, allowing though that the entire lungs should be filled. He gives a three step process for inhalation:

⁶⁷ Bill Costello, “Faulty Breathing Causes 90% of All Horn Troubles” *The Metronome*, 51 (March, 1935): 20.

⁶⁸ Edward Mellon, “The Diaphragm and its Auxiliaries,” *The Instrumentalist* (1950); reprint, *The Brass Anthology* (Northfield, IL.: The Instrumentalist Co., 1986) 62.

1. The entire lungs (not just the lower part) are filled with air (However, at this point I must emphasize strongly that one of the prerequisites of correct breathing is that the lower part of the lungs is filled *first*. Otherwise chest breathing will result.) 2. The diaphragm and abdominal muscles expand considerably more than in regular breathing, to the extent that one can feel expansion almost around the entire circle of the waist, including the back. 3. The entire process from the moment of inhaling to the expulsion of most of the air takes correspondingly longer than in ordinary breathing.⁶⁹

For those who did allow for some expansion of the chest cavity during inhalation, the idea that the lower part of the lungs filled first was a common perception. Often, inhalation for these people was like filling an empty glass with water. For Norman Hunt, expanding the chest was like trying to fill only the top of the empty glass first.

Correct breathing is accomplished when through inhalation the diaphragm is dropped, filling the lower chest cavity with air so that it expands in all directions - downward, forward, sideward, backward, and upward. There should be conscious effort to avoid breathing high in the chest with an accompanying raising of the shoulders. This type of breathing is somewhat like trying to fill the top of a glass of water without filling the bottom.⁷⁰

Grocock recommends practicing “broad breathing” in which . . . “The greatest expansion should be felt just below the lower end of the breast bone. Breathe as broadly as possible, expanding the sides without tension.”⁷¹ Later he reiterates this idea when discussing inhaling half breaths and whole breaths as breathing practice, and he uses the glass of water analogy to make his point.

Whether you take a half breath or a full breath, the feeling should be one of direct inhaling from below the lower end of the breast bone. (In the way that a half glass of water begins in the same place as a full glass of water).⁷²

⁶⁹ Gunther Schuller, *Horn Technique* (New York: Oxford University Press, 1962) 26-27.

⁷⁰ Norman J. Hunt, *Brass Ensemble Method for Teacher Training*, rev. ed. (Dubuque, IA.: Wm. C. Brown Company, 1963) 2.

⁷¹ Grocock, 1.

⁷² *Ibid.*, 2.

Reinhardt used another analogy for the “empty glass” theory which states the same principal; that is that the lungs fill from the bottom to the top.

While the standard or normal mouthcorner playing inhalation is being executed, the diaphragm and abdominal regions must gradually expand and slowly protrude. As this inhalation is continued and gradually completed, a slight expansion will be noticed in the chest and an open, free feeling will be felt in the throat. This is the correct procedure for any normal playing inhalation. Think of blowing air into a paper bag; the bottom fills first and then the top.⁷³

While one might argue that a paper bag does not fill from the bottom to the top when blown into, Reinhardt’s point is clear.

A point that is consistently made throughout this period is that the intake of breath should be executed through the corners of the mouth; what Reinhardt is referring to when he mentions the “normal mouthcorner inhalation.” The theory here was that when one takes a breath through the mouth, one ought not “disturb” the embouchure set by removing one lip or the other from the mouthpiece. Farkas describes taking the breath as “. . . a deep, silent gulp of air [that] is always taken through the mouth, at the wide-open corners, which will function without disturbing the mouthpiece on the lips. The mouth will open in the shape of a bow-tie.”⁷⁴ The idea of not disturbing the embouchure was particularly prevalent among high brass players, perhaps because of the smaller mouthpiece. However, some players of larger instruments picked this idea up and transferred it to their respective instruments. As Lowell Little says: “Breathe naturally but deeply through both the corners of the mouth and the nose.”⁷⁵ Little’s instructions are given to tuba players and as one can see, not only advocate breathing through the corners of the mouth, but also

⁷³ Reinhardt, 28-29.

⁷⁴ Farkas, *Horn Playing*, 28.

⁷⁵ Lowell Little, *Embouchure Builder for BBb Bass* (Melville, N.Y.: Belwin-Mills Publishing Corp., 1954) 3.

through the nose. While the concept of not disturbing the embouchure during playing has always been attractive to performers on brass instruments, “corner breathing” of the sort described by Farkas, may cause as many problems as it solves resulting in thinned vibrating surfaces and a thin tone.

In spite of what Little advises, breathing through the nose was not generally recommended as a “normal” breathing technique for brass players at mid-twentieth century, due to the slowness of the inhalation. However, the idea of the “sniff breath” was popular as a means of getting some air in when time did not permit a full breath, as in a fast, technical passage. William Bell encouraged “nose breathing” as a means of keeping the embouchure “set” and as a means of replenishing the breath quickly.⁷⁶ For Reinhardt, this technique, and others that he considered to be similar to it, changed the way one’s respiratory system worked.

When time does not permit, then use the sniff breath - the gasp breath - the quarter breath - the chest heave - etc. During the execution of these rapid but incomplete inhalations, the chest expands and the diaphragm and abdominal regions seem to be drawn inward and upward simultaneously. This shallower inhalation must be used only to augment but never to replace the normal slower mouthcorner inhalation. It is far better to develop a more rapid technique for the standard mouthcorner inhalation, than to resort to the much shallower form of air intake.⁷⁷

It seems that a great deal of confusion existed at mid-century about the diaphragm; what it was and what it did. In the literature from the period it appears that many thought that it was a muscle used for blowing, and some believed that it wrapped around the waist like an inner tube. “The diaphragm muscles is [sic] that layer of muscles (so seldom exercised) that spread over the lower part of the lungs just below the ribs of the chest, encircling the entire body. Regulated diaphragm tensity pushing against the lower lungs

⁷⁶ William J. Bell, *William J. Bell Complete Tuba Method* (New York: Charles Colin, 1975) 3.

⁷⁷ Reinhardt, 29.

sends up the correct amount of wind pressure.”⁷⁸ Some seemed to confuse it with the muscles of the anterior abdominal wall and also felt that it could be “expanded”.

With the chest already expanded, fill the lungs so that an expansion of the lower ribs and diaphragm are noticeable. Then contract (i.e. tighten) the muscles of the diaphragm (immediately below the ribs in front) so that they are firm. This will compress the air so that it will respond quickly.⁷⁹

Of those that did know where the diaphragm was, they did not necessarily know what its function was.

When one breathes correctly he fills the lower lungs first, then the upper. He expands to breathe; he does not breathe to expand. He forces the air from the lungs by pressure from the diaphragm, a powerful muscle lying under the lungs between the thorax and the abdominal cavity. The action of this muscle has been likened to a bellows, which, when pressed, forces air out under pressure. This muscle is as important in playing a wind instrument or in singing as the lips, reeds, or vocal cords are in producing tone, for it controls the breath which sets these vibrations into activity. It controls the volume, the dynamics, shading, pitch, and character of the tone.⁸⁰

And:

In more than one instruction book the diaphragm is referred to as a muscle which may be controlled by conscious effort. While the diaphragm is a combination of muscle sinew and tendons, in truth it cannot perform conscious muscular activity. Its chief purpose is to serve as a membrane separating the area occupied by the lungs and the heart from that occupied by the organs of the abdominal cavity. The movement of the diaphragm is controlled by the abdominal muscular structure. When this structure is caused to move upward and inward, the diaphragm contracts and expels air from the lungs. When it relaxes downward and outward, the diaphragm is gradually distended, thereby governing the intake of air into the lungs.⁸¹

⁷⁸ Colin, 102-103.

⁷⁹ Walter Beeler, *Method for the BBb Tuba, Book I* (New York: Warner Bros. Publications Inc., 1961) 3.

⁸⁰ Sweeney, 39.

⁸¹ James Neilson, “Breathing and Breath Control” in E. C. Moore’s, *The Brass Book*, 30.

The confusion over the function of the diaphragm, and respiration in general, was not limited to misunderstandings of terminology and position of muscles. There was a theory extant which proposed that after one had inhaled deeply, (meaning distend the lower abdomen) the muscles of the anterior abdominal wall should be held in this position and that somehow, one was then to blow; the so-called “tight gut” theory. Edward Mellon gives some insight into this method in an article in *The Instrumentalist* in 1950. He seems to think that the diaphragm is capable of contracting in two directions, and explains that because it is continually in action in regular breathing, it becomes very strong and therefore does not need the help of the “auxiliaries” when playing a brass instrument. These auxiliaries, according to Mellon, are the muscles of the anterior abdominal wall, and their use should be limited when blowing a brass instrument.

The reason for objecting to the too full use of the auxiliaries, rather than to depend more upon the diaphragm is as follows: breath which is moved by a high percentage of auxiliary influence moves more rapidly than that which is moved by the diaphragm, and this fast current of breath has a great tendency to waste. By waste is meant that not all the breath which passes through the vibrating mechanism is developed into tone. The best tones are produced with a minimum of breath, and such a column of breath can only be supported by the diaphragm.

Contrast this with a blast of air which, moving quickly, tries to find an outlet which is really microscopic. This breath forces an enlargement of the opening, the lips attempt to maintain the correct aperture for controlling the pitch, and the resulting open warfare destroys flexibility and endurance. However, let no one reading this attempt to slow down his breath consciously. It can be done gradually by transferring the seat of the tone from the auxiliary to the diaphragm by degrees.⁸²

James Winter in *The Brass Instruments: Performance and Instructional Techniques*, gives a variation of this as what he calls the “downward driving method.” This is one of two methods of breathing that he explains, the other being the “upward driving method.”

⁸² Mellon, “The Diaphragm and its Auxiliaries”, 62.

“There seem to be two ways of exhaling under controlled pressure; both of them appear to work and both of them are enthusiastically recommended by their respective supporters.”

Then he goes on to explain them both: The “upward driving method” is one in which: “a steady, controlled exhalation is achieved by balancing the pressure of the diaphragm against that of the abdominal wall - the diaphragm offering just enough resistance to the more powerful abdominal wall to prevent sudden and total exhalation. . . . The downward driving method also “sets” the abdominal wall after inhalation, but sets it out, in a sort of pouch, just below the ribs; in this case the air is expelled from the upper portion of the lungs first by means of the chest muscles, and the “pouch” is maintained as long as possible, so that the air in the lower part of the lungs is retained until the rest has been exhausted.”⁸³

This distending of the muscles of the abdomen while trying to blow is what many referred to as “support”, “diaphragmatic support”, or “diaphragmatic breathing.” Grocock tries to explain this to his readers by having them try it themselves, away from an instrument. After having explained about taking a breath from “below the lower end of the breast bone”, he continues:

Take a deep breath. Hold it long enough to feel the tension, then let it go, allowing the air to rush out unchecked. Take another deep breath. Hold it. Keeping the abdomen constricted, try to let the air rush out. You will find this impossible. Let go, and the air will rush out all at once. Take another deep breath. Hold it. Keeping the abdomen constricted, blow a steady stream of air out to a count of one beat per second (M.M. = 60). When you can arrive at a count of ten, try for fifteen, then for twenty, and so on. Do not stop each time you become uncomfortable, but keep blowing until you reach each goal. Your greatest efficiency will depend upon a controlled *inward* constriction of the abdomen. By inward constriction (and, later, upward constriction) I mean to describe a *sensation*

⁸³ James Hamilton Winter, *The Brass Instruments: Performance and Instructional Techniques*, 2nd ed. (Boston: Allyn and Bacon, 1964) 15-17.

of constriction *within* the abdomen. This is the foundation of a controlled breath force and is often, rather loosely, referred to as diaphragmatic support.⁸⁴

At this time, it appears that many could not conceive of controlling the exhalation of air from the lungs without restricting it in some manner.

Buzzing the Mouthpiece

In reviewing the literature from between 1940 and 1970, it is interesting to note the relatively few times mouthpiece buzzing is even mentioned. This indicates that there was perhaps not much interest in the subject, and that the concept was of little to no importance to the majority of brass players of the period. However, judging from the kind of discussion available, there seemed to be some controversy over buzzing on the mouthpiece. Some would have nothing to do with it, while others saw its limited use as something to do as a part of a larger warm-up routine. According to Gordon Cherry, Remington would not allow his trombone students to buzz as he could see it giving no benefit. Grocock, writing in 1968, also did not see the value of it. “Correct playing on a mouthpiece presupposes correct playing on the instrument: One who can blow correctly on the instrument can blow correctly into the mouthpiece by maintaining the same sensations. But how is one to learn the sensation of blowing into the instrument by blowing into the mouthpiece?”⁸⁵ This point of view focuses more on sensations than the relationship of tone quality produced on the mouthpiece to tone quality produced on the instrument.

Bernard Fitzgerald recognized this relationship in 1949 when he wrote in *The Instrumentalist*: “The ability to produce a clear, steady buzzing sound with the mouthpiece

⁸⁴ Grocock, 2.

⁸⁵ Ibid, 6.

will aid the beginner in obtaining a tone on the instrument.”⁸⁶ For him, the advantages of mouthpiece buzzing outweighed any disadvantages others thought it might have. After having outlined a procedure for beginners to use on the mouthpiece, he goes on to discuss the perceived drawbacks:

The procedure outlined is opposed by some teachers on the grounds that a constriction of the throat muscles is likely to occur. However, the constriction and tension of the throat muscles is a condition very commonly encountered among both students and professional musicians; and in the majority of instances, it is the result of faulty articulation or inadequate breath control.⁸⁷

Fitzgerald gives more clues as to the controversy over mouthpiece buzzing, perhaps uncovering the real reasons why some did not find it helpful:

Contrary to popular misconception, lip vibrations can be produced softly and with very little wind pressure. The vibrating tissue of the lips constitutes a delicate sound producing mechanism which can easily be unbalanced by the mismanagement of the breath. Lip buzzing with the mouthpiece should be accomplished *without forcing or straining in any way, and care should be exercised to avoid excessive pressure of the mouthpiece against the lips* [emphasis mine] since this restricts the lip vibrations.⁸⁸

It appears that Mueller (1968) came to see that buzzing the mouthpiece could be of benefit. He states that some teachers recommend buzzing without the mouthpiece and others with, before playing the instrument. Later he goes further:

By starting with a few soft middle-register attacks, short-distance slurs, and a few sustained tones on the mouthpiece alone, the lips are exhilarated into responsiveness for the playing which follows. One can feel more readily the vibrations of the lips with the short tube. Then too, practice with the mouthpiece alone, with which there is less resistance, seems to make playing on the instrument easier when the added resistance of the longer tube is added.⁸⁹

⁸⁶ Bernard Fitzgerald, “Teaching Tone Production” (1949); reprinted in *The Brass Anthology*, (Northfield, IL.: The Instrumentalist Co., 1986) 39.

⁸⁷ Ibid.

⁸⁸ Ibid.

⁸⁹ Mueller, 22.

This last sentence about *practice* on the mouthpiece, is the only reference he makes to its use in this manner in the entire textbook. This is an important realization though, as it gives an indication that his perception of the value of mouthpiece playing went beyond its use solely as a warm-up technique, even though he did not elaborate this point further.

Summary

By the time Arnold Jacobs began his teaching career in the 1940s there were a number of ideas extant about how to teach tone production on brass instruments. Many of these ideas had been well established in cornet and trumpet pedagogy before his time, and they included concerns regarding embouchure, articulation, and breathing. Several aspects of these concerns continued to occupy writers about brass pedagogy during the 1940s, 50s, and 60s as discussed in this chapter.

Dunn, in his 1954 Masters Thesis on brass pedagogy, reveals that at mid-century there was controversy over a number of issues. One controversy that existed was over how the embouchure should be formed. There were two schools of thought on this subject; that of the “smile” embouchure on the one hand, and of the “modified pucker” on the other. By this time it seems as though the “smile” option was losing ground with most writers/teachers advising against its use.

Another controversy existed over where one should place the mouthpiece on the lips. While all teachers agreed that the lateral placement should be as close to the center as possible, no such agreement existed when the issue of vertical placement was discussed. For all instruments, there were a variety of views on where the mouthpiece should sit, including equal placement on both lips as well as more on the top lip than on the bottom, and vice versa. For the horn, all sources consulted agreed that the mouthpiece should rest mostly on the upper lip, the main justification for this being superior tone production. For

trumpet, trombone, and tuba, some teachers advocated placing the mouthpiece where it felt most comfortable.

Although the controversy over pressure versus non-pressure systems appears to have died out by the mid 1950s, there was still discussion about balancing the amount of pressure placed on the lips with the mouthpiece. Most writers acknowledged that enough pressure had to be applied with the mouthpiece against the lips to form an air seal, but not so much so as to restrict the blood circulation to the lips. Such a restriction was known to cause premature fatigue.

Dunn tells us that another minor controversy existed over whether to play with wet or dry lips. Farkas, as a proponent of the wet-lip option explained the disadvantages of playing with dry lips, and the advantages of playing with wet lips in *The Art of Brass Playing* (1962). Others saw the merits of both approaches, and recommended neither one over the other.

The position of the lower jaw in embouchure formation raised more complex questions for some teachers at mid-century. The general consensus, was that the lower jaw should be adjusted in order to make the upper and lower teeth more or less aligned. In so doing, one would make the lips more even, permitting a better tone. Tuba teacher William Bell, promoted the use of a pivot in which the jaw moved as one changed registers. He advocated a more or less even alignment of the jaw and lips in the middle of the range with the jaw dropping and moving forward as one moved into the low range. As one moved into the high range the opposite activity would occur.

Donald Reinhardt advocated the use of a complex “pivot system” on all brass instruments based on the kind of bite any given player might have. His system required the teacher to determine whether a student was an “upstream” or “downstream” player. This in turn would determine for that student which lip was the “anchor spot”, and which was the

“control point.” With this knowledge the teacher could then decide on the correct amount of pivot, or movement of the instrument, for that student to use. This movement shifted the relative amount of pressure from one lip to the other as the player changed registers, supposedly allowing greater response throughout the pitch range.

Bell and Reinhardt disagreed on at least two points: first, they contradicted each other on the direction the jaw moved to ascend into the upper register or descend into the lower register; and second, Reinhardt felt that manipulating the jaw up or down was a “disastrous playing habit.” Bell, on the other hand, felt it necessary for tuba players to lower the jaw when descending into the low register. This apparent contradiction may have been rooted in the size of the mouthpiece of the instruments being considered. More vertical motion of the jaw may be required on the tuba to accomplish range than on that of the trumpet or horn.

By the late 1940s there was also controversy surrounding how one should articulate on brass instruments. In a survey conducted by Howard Deye, one sees that some players and teachers felt that one should articulate as if one were spitting an imaginary piece of something off the tip of the tongue. In other words, that the tongue should protrude between the teeth to the lips to articulate. This method of articulation was favored more by low brass players than high, although a majority of all brass players tended to articulate in this manner in the low registers of their respective instruments.

The alternative method of articulating placed the tongue behind the back of the upper teeth as in pronouncing the consonant “t.” Deye found that this was generally the preferred approach, and its use was dominant by the 1960s. References to tonguing between the teeth by this time were made only as warnings against doing so. However some, such as E. C. Moore and Farkas, did allow for tonguing between the teeth to produce special effects.

Other concerns regarding the tongue and its use at mid-century included: its use as a valve to release air at the beginning of phrases; articulating at various levels behind the upper teeth depending on register; and tongue arching techniques. The last issue concerns the notion that changing the height of one's tongue inside the mouth influences pitch register. In spite of experiments which gave physical evidence to the contrary, writers in the 1960s continued to insist that the tongue should be arched high in the mouth to achieve high notes. The conclusions reached by Jody Hall, in his experiments on tongue arching, led him to understand that such maneuvers influenced tone quality more than pitch. It is possible that the majority of writers were not aware of Hall's experiments, while others simply preferred to ignore them and follow accepted ideas from earlier in the century.

The idea that the tongue was a valve to be used in controlling air flow at the beginning of a phrase had a long history. Arban, back in the nineteenth century, discussed the practice of placing the tongue behind the upper teeth, building air pressure behind it, and subsequently releasing the air by pulling the tongue out of the way, as the method to begin a tone on the cornet. This concept lasted at least through the 1960s.

In the same way that tongue usage can create resistance to the air column, so can the throat. While there was general agreement at mid-century that one should play with an open throat, Farkas believed that it was possible to control the size of the glottis while playing, and in so doing aid the brass performer in playing softer dynamics. He felt that it was necessary for brass players to create resistance to the air column in this way in order to play softly. William Carter did some experiments in 1966 to observe the role of the glottis in brass playing. In these he found that the size of the glottis changed relatively little in horn players regardless of what volume they played; trombonists experienced the greatest change in the size of the glottis; and any changes in the size of the glottis that were observable were related more to tone quality than to volume.

The most misunderstood aspect of tone production at mid-century was that of the breathing process. One very popular view at this time held that one should not take a full breath as that could lead to tension when blowing. Other ideas were less concerned with quantity and more concerned with how the breath was taken. Another oft - repeated notion was that when one inhaled, one should fill the bottom of the lungs and expand the abdomen in all directions, while avoiding raising the chest. For those who allowed that the chest might move upon inhalation, they believed that it should only do so after the lower abdomen was “expanded.” The analogy of the empty glass being filled from bottom to top was often used to describe this kind of inhalation.

Into the 1960s it was generally accepted that taking in air for the purpose of blowing should be accomplished through the corners of the mouth. This idea seems to have been originally promoted by players of instruments with smaller mouthpieces (trumpeters and hornists) and picked up by low brass players. Little instructs his readers (tuba players) to do so, as well as to breathe through the nose. The concept behind the practice of breathing through the corners had to do with not disturbing the embouchure when inhaling. While this idea has always been attractive to brass players, there are potential drawbacks to this particular technique which may be problematic, especially if the tone is thinned through excessive stretching of the lips.

As just mentioned, another approach to keeping the embouchure “set” while inhaling was to breathe through the nose. While this method of air intake had generally lost favor as a regular technique by the middle of the twentieth century, some saw it as a useful one for replenishing the breath supply quickly. Bell taught his tuba students to use this when playing fast technical passages. While one could not completely replenish the breath supply with this technique, he felt that a series of these “sniff” breaths could aid a player in getting to the next suitable breathing spot. Reinhardt also felt that this and similar

techniques could be helpful in situations where a full breath could not be fit in, but that it caused one to take a shallow breath. As a result, he thought that it was better to develop a quicker technique when using “the standard mouthcorner inhalation” so that one could fill the bottom of the lungs first.

As late as the 1960s it appears that few actually understood what the function of the diaphragm muscle was, and indeed, some did not know where it was. Many confused it with the muscles of the anterior abdominal wall, while still others thought that it was much like an inner tube that wrapped around the circumference of the waist. Most seemed to believe that it was the muscle responsible for blowing air out of the body while others thought that on its own, it was completely passive, and only served to separate the thoracic and abdominal cavities.

For many, the lack of understanding of the function of the diaphragm went even further. A popular theory at mid-century was that of the “tight gut,” where it was believed that the muscles of the anterior abdominal wall should be set out and held firm while blowing. This supposedly left the “diaphragm” to do the blowing without interference from the “auxiliaries,” as Mellon described them. This is what many at the time referred to as “support” and/or “diaphragmatic breathing.”

Mouthpiece buzzing does not appear to have been a widely used practice technique during the middle three decades of the twentieth century. It does seem to have generated controversy at the time, with some seeing it as providing no benefit, and others believing that its use enhanced one’s ability on the instrument. Still others believed that it could actually be detrimental to one’s ability to play the instrument, causing tension in the throat.

Those who saw the benefits of buzzing realized that the connection between producing a good tone on the mouthpiece and on the instrument was a strong one, and that its advantages outweighed any perceived disadvantages. Bernard Fitzgerald pointed out

that tension in the throat was a condition encountered in many students and professionals, whether they buzzed the mouthpiece or not. He also pointed out that in order for mouthpiece buzzing to be beneficial, one should not force the sound or strain in any way. Mueller stated the benefits of mouthpiece buzzing, not only as a warm-up technique, but also as a practice tool, for he realized that practicing a passage on the mouthpiece alone usually made its execution easier on the instrument.

It was into this milieu that Arnold Jacobs brought new and unconventional ideas which challenged many of the notions discussed in this chapter. These ideas went beyond accepted practice to view tone production as an artistic endeavor rather than a set of physical challenges.

CHAPTER THREE

ARNOLD JACOBS' PEDAGOGICAL APPROACH: AN OVERVIEW

Background

Arnold Jacobs was born in Philadelphia in 1915 but moved to California shortly after with his family. His father was an accountant and his mother was a pianist who, according to Jacobs, was a very fine player. He took piano lessons for a short time from his mother, but had more of an interest in brass instruments. With his mother's help, he learned to play the bugle around age eleven. She would play bugle calls on the piano and young Arnold would imitate them on the bugle. His father bought him a trumpet and he learned how to use the valves in the same way, trying to match pitches with various valve combinations. Jacobs' mother encouraged him by bringing music home that they could play together. He doubled the melody line while she played the piano score.

At this time, the legendary cornetist, Herbert L. Clarke was leading the Long Beach Municipal Band and Jacobs enjoyed the opportunity of hearing him quite often. He taught himself to play such pieces as the *Carnival of Venice* with all of the variations with Clarke's playing as his model. According to Jacobs, his father also heard Clarke, and felt that since the youngster did not sound as good as the professional, perhaps he should not pursue the trumpet. Jacobs admits to being discouraged by this and letting the trumpet fall by the wayside.

Undaunted, he soon took up the trombone but this was short-lived, as the trombone was lost on a family vacation shortly after it had been purchased. The only instrument available to him upon returning to school was a new sousaphone. Fortunately, he took to

the instrument with little difficulty, learning some of the repertoire he had taught himself previously on the cornet, including *Carnival of Venice*.

In 1929, Jacobs' family moved back to Philadelphia. The following year at age fifteen he auditioned for and was accepted by the Curtis Institute. He had not yet finished high school, but this did not hold him back. At Curtis he flourished musically, learning a great deal over the next seven years.

While at Curtis he began his career as a professional tuba player. During the day, he would play with the Curtis orchestra, which at that time was conducted by Fritz Reiner. In the evenings he would go out and play whatever jobs came his way, not only on tuba, but also on double bass, trumpet, and trombone.

In 1937 he accepted the tuba position with the Indianapolis Symphony and moved to the mid-west. By 1939 Jacobs had moved to Pittsburgh to play with that orchestra. Fritz Reiner was the conductor there at that time and wanted Jacobs as his tuba player.

Shortly after moving to Indianapolis, Jacobs married a woman who was to become his life-long companion. Gizella Valfy was from Chicago and her family still lived there. By 1940, Jacobs and his wife began spending summers in Chicago where he freelanced on both tuba and double bass. He played all styles on both instruments which kept him in demand. In 1944 he joined the Chicago Symphony where he continued to play until 1988.

Education

Jacobs attributes his development as a musician to several individuals that encouraged and nurtured his talent along the way. The first important musical influence on him was his mother, from whom he learned a tremendous amount, especially about interpreting.

I knew a great deal about music from my mother who was a fine, master musician. She taught me a great deal and accompanied me. I was having a ball playing [and] while I did not have proper teaching [as a brass musician], I was challenged to interpret music at a very early age.¹

He also learned a great deal in his courses at Curtis, especially those that helped improve his ear and his sense of phrasing. He found the study of solfege to be very useful in reinforcing concepts of pitch and pitch relationships. He also learned much from Marcel Tabuteau, the Principal Oboist of the Philadelphia Orchestra. Tabuteau taught a course in phrasing in which he formalized phrasing and dynamics through a system of numbering. As Jacobs explained: "Each dynamic would have its own level [number], depending on the instrument. During the class, Tabuteau would have us play at various dynamics by asking for 'oboe, number five' or 'tuba, number three.' It was magnificent training."² Jacobs got so much out of this course that he took it three times instead of only once as required by the school. He played more than just tuba parts in this class, so that he could get the full benefit of what Tabuteau had to offer. Later in life Jacobs insisted that his own students, particularly those who played accompanying instruments, play a great deal of music in which they must interpret. He would tell them that playing music that provided limited musical challenges (such as tuba parts in military marches) developed limited musicians. This is no doubt a lesson that he learned in Tabuteau's class.

Tabuteau also passed other ideas along to his students, some of which Jacobs later adopted and applied to his own teaching. One of these is the idea of treating each student as an individual. Tabuteau noted that no two students are alike, nor can their problems be solved in the same way. "How often have I had the experience of teaching a class of three

¹ Arnold Jacobs as quoted in Brian Frederiksen, *Arnold Jacobs: Song and Wind* (n.p.: Windsong Press Ltd., 1996) 4.

² Ibid, 10.

or four, of correcting one student with a certain observation, and finding myself called upon to say the exact opposite to the next one.”³

Tabuteau likened his instrument to the voice, claiming that it could produce as many shadings and colors. Because of this, he encouraged his students to think vocally rather than mechanically, as the player of an instrument with a difficult reed and keys might be inclined to do. He also told his students that if they thought beautifully, then they would play beautifully, because it is what one has to say in music that determines the quality of one’s performance.

Jacobs was also favorably influenced by his tuba teacher at Curtis, Philip Donatelli, and by Fritz Reiner, the conductor of the Curtis orchestra. While Donatelli did not play nor say much in lessons, Jacobs heard him play a great deal in the Philadelphia Orchestra. According to Jacobs, he was a fine musician and played with a beautiful sound, two attributes that made a lasting impression on young Jacobs. Jacobs also learned from Reiner, who was demanding and always insisted on a high standard of performance from what ever ensemble he was conducting, including the student orchestra at Curtis.

An influence at Curtis that was less helpful was his voice teacher. Jacobs enjoyed singing and was offered a scholarship to stay on as a voice major but turned it down. He had not found singing easy with the teacher he was assigned, and often lost his voice due to the forcing this teacher seemed to encourage. These difficulties later led him to ask why he found playing the tuba so much easier than singing, which in turn led him to informal studies about the breath and its applications in music making later in his career.

Shortly after joining the Chicago Symphony, Jacobs took up a new hobby; the study of human physiology. This had always been a subject of interest to him since childhood, and it was a topic that he and his wife discussed. She had studied physiology

³ Marcel Tabuteau as quoted in Frederiksen, 10.

in high school and knew more about it than he. Jacobs' interest focused on the structure and function of the respiratory system and after a short while, he began to see how his studies could be applied to performance by singers and wind instrumentalists. Physicians are primarily concerned with the health of the body and its parts, not its application to playing instruments or singing. Jacobs became a pioneer in understanding the structure and function of the respiratory system as applied to performance on wind instruments.

Another area of interest and further study was in the realm of psychology as applied to music performance. He formalized Tabuteau's idea of thinking beautifully to play beautifully through learning more about the nervous system and how it works. He discovered that one's body is controlled by the brain through two systems of nerves; those that control autonomic activities such as the heartbeat and normal breathing, and the motor nerves or effectors, which act on specific messages from the brain. In using the latter, the brain sends commands based on the product desired rather than directly controlling muscles to achieve a particular result. For example, one does not consciously control the muscles of the arm to pick up a book off a desk. Instead, the final result of moving the book is what motivates the arm. Likewise, in music making, if one thinks of a beautiful, singing musical line when one plays (how the music should sound), then the body will do what is necessary to achieve the desired product.

Jacobs also came to understand that many musicians react to information received from another set of nerves; those that receive information and transmit it to the brain. These sensory nerves or receptors, are a third part of the nervous system which gather information to help humans relate to the outside world. In reacting to these signals, many musicians try to control a specific part of the body to make improvements when they should be calling up a product.

Teaching Philosophy and Approach

The lessons learned in Tabuteau's classes formed the foundation of Jacobs' teaching philosophy. 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."⁴

The most important aspect of Mr. Jacobs' philosophy was his insistence on ensuring that the musical idea dominates one's thoughts when performing on any instrument. To paraphrase Tabuteau, one must think beautifully to play beautifully. Jacobs often spoke of playing two tubas - the one in the head and the one in the hand. This encourages concept of tone and other musical aspects of performance in the brain, which then can be mirrored in performance on the physical instrument. "The important thing is not what you *sound* like. It's what you *want to sound like*. I have people who come to me and only listen to themselves - they are not conceiving."⁵ When one does not have a concept of the final product one is trying to achieve, one simply reacts to what one is hearing which can lead to too much analysis. If analysis occurs during performance then the performance is doomed to failure.

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 about how to play, he encouraged the wearing of the student's hat. When performing he

⁴ Arnold Jacobs as quoted in Frederiksen, 92.

⁵ Ibid, 137.

encouraged the wearing of the performer's hat so that the player would conceive of the musical message to be communicated to the audience. Jacobs tried to get students to change hats during lessons so that the moment they began to play, the performers hat was put on and thoughts of what the music should sound like would fill the brain. This idea reflects how the mind works, and the inclination of many students to confuse the activity of gathering information and analyzing it with that of communicating to others.

The act of going to school, of acquiring knowledge as a youngster, is receiving, not sending. It has to be turned around so that performance is always being able to tell a story in music, even at the most elementary stage. The attitude must always be that of somebody imparting knowledge to somebody else, even while he is learning.⁶

Very often, Jacobs found that players who came to him for help had confused the two activities of gathering information and communicating. They reacted to what they had heard themselves playing, and analyzed the attendant physical activities in too much detail. This often created difficulties that over time precluded successful musical performance on the instrument. When this happened, Jacobs would use his knowledge of physiology to try to normalize some of the physical activities that had become problematic. This usually happened away from the instrument so that the student could rediscover what the body is naturally capable of doing. Jacobs considered himself a type of therapist in these situations, and would work with the individual to normalize physical responses. Almost without exception, he found the root problem to be associated with an individual's improper use of his air supply.

Combining his understanding of how the mind works with how the body works allowed Jacobs to formulate an approach to teaching that was highly effective.

⁶ Ibid, 93.

Recognizing each student as an individual helped him apply his knowledge in the right proportions. Some students would have few physical problems, but might need encouragement in expressing musical thoughts. Others may have had strong musical ideas limited by prejudicial muscular activity. As Jacobs said: "You can't teach one way in terms of physical application. You teach principles."⁷

Teaching Principles

Simply put, Arnold Jacobs' approach to teaching players of brass instruments consisted of two basic principles:

1. To play a brass instrument successfully, one must have a strong concept in one's mind of what one must sound like.
2. One must take a sufficient quantity of air into the lungs and make efficient use of it when blowing.

These two principles were further distilled by Mr. Jacobs with the simple phrase "song and wind". While successful brass players before Mr. Jacobs may have made use of this approach, they did so perhaps without knowing it, and without stating it in this manner. Mr. Jacobs was the first to understand and articulate it in a way that others continue to find helpful and useful.

When one speaks of "song" in this context, one must understand that it includes pitch, tone quality, articulation, dynamic, rhythm, as well as phrase shape. In other words, all aspects of the final musical product must be conceived of in the brain before and during the playing of any given phrase. Failure to have this total picture in the brain will

⁷ Arnold Jacobs as quoted in "T.U.B.A. Profile - Arnold M. Jacobs: Tubist of the Chicago Symphony Orchestra," in an interview by Paul Haugan, *T.U.B.A. Journal* 4, no. 2 (1977): 7.

result in a performance that is lacking in some manner, either technical or musical. In order to be successful in producing the desired musical product on a brass instrument, Mr. Jacobs understood that one must have control over the “fuel” used to create vibration (sound). To this end, he emphasized proper respiration based on the structure and function of the respiratory system as applied to breathing in (inhalation) and subsequently blowing a brass instrument. This approach realizes that the vibrating surfaces used in creating sound on any brass instrument (the lips) are most responsive when the “fuel” or air is made into wind, and blown with minimal air pressure within the body. In other words, a “buzz” is created with wind or air flow rather than with air pressure alone. “With wind there is always air pressure, with air pressure there is not always wind.”⁸ When playing a brass instrument, wind is put at more or less pressure at the lips, depending on the instrument being played, the pitch range, and dynamic required by the music.

As discussed earlier, Mr. Jacobs studied both psychology and physiology over a number of years to arrive at his teaching approach. Through these informal studies he came to understand what psychological and physical requirements are necessary for a performer to be a successful musician on any brass instrument. While he collected a vast amount of information, Mr. Jacobs always stressed in his teaching the need for a performer (student) to simplify the process of playing the instrument as much as possible. As he repeatedly said, the art must be dominant in one’s performance, while attention to the mechanics should be minimized. However, it was his tremendous understanding of what motivates and facilitates excellent performance that informed his very successful teaching.

⁸ Arnold Jacobs as quoted in “The dynamics of breathing with Arnold Jacobs and David Cugell, MD,” interviewed by Kevin Kelly, (December 1983); reprinted in *The Brass Anthology* (Northfield IL.: The Instrumentalist Company, 1987), 1008.

Differences from Traditional Approaches

The ways in which this approach differs from other approaches to brass performance and pedagogy make it distinctive, and when Mr. Jacobs began teaching, quite unusual. His approach was based on pursuing a desired musical product and allowing the body to do what is necessary to realize that product.

When you go to the product of whatever you're trying to accomplish, you'll find the physical action required to do it is based in the computer activity of the brain. In other words, the conscious levels of the brain, where volitional thought takes place, handle the product. Another level of the brain . . . will handle motor impulses carried by nerves throughout the body. The firing up of systems is handled at subconscious levels, just like the ability to walk or to talk or to run. The muscle activity will result from what you are trying to accomplish. With all machines there is a set of controls, like an automobile, which has complex machinery under the hood but simple controls in the driver's compartment. There's nothing as complex on this planet as the human being; but man has magnificent controls and he goes through this control system. By this I mean there are divisions in the brain that are going to control all sorts of physical functions - cutting up food, bringing it to the mouth and chewing it. The thinking part of the brain is free to cope with life around us, it does not have to cope with life within us. It's with the thinking part of the brain that we begin to establish what we want in the way of product.⁹

Based on the literature discussed in the previous chapter, it appears that most teachers of brass instruments previous to, or outside Mr. Jacobs' influence, taught in the way that they themselves had been taught, based on accepted beliefs that were passed on through several generations. Indeed, at the time that Mr. Jacobs began to establish himself as a teacher by mid-century, this was the case. This approach involved trying to play any given passage in the correct style and musically, but without the benefit of any knowledge which might help the student get the desired results in the *most efficient* (and therefore easiest) manner. If the desired results were not achieved by the student, the reason was often believed to be the result of a lack of talent. As Richard Erb has written:

I (and my teachers) could only explain success or failure in terms of industry, application, and that utterly unquantifiable term "Talent." Used in this context

⁹ Ibid., 1007

talent meant something like predestination. If everything worked perfectly, you had it. If it didn't, well then you didn't, and you'd have to make do the best you could in an element to which you were obviously ill suited.¹⁰

In reality, while some students may have lacked talent, many most likely suffered from an inability to use their bodies effectively while playing or performing. M. Dee Stewart's book, *Arnold Jacobs: The Legacy of a Master*, is a testament to this fact. Many successful performers on brass instruments describe their own playing problems in this book and how they were helped by Mr. Jacobs and his approach.

While every musician's goal is to play musically, it is often the physical aspects of playing a given instrument which preclude musical success. Physical problems may be more difficult to detect on a wind instrument than on a stringed instrument for example, because so much of the physical activity involved in playing one of these instruments is not observable with the sense of sight. On the violin, a good teacher can see why a given student's tone is poor by observing any number of incorrect maneuvers ranging from an incorrect bow grip to not enough bow being used. On a wind instrument, a teacher cannot see if the air passageway is restricted by the tongue or if an insufficient amount of air is being blown. Likewise, while a violin teacher can see if a student is pressing on the strings with the bow too much (as well as hear it), a teacher of wind instruments cannot see the equivalent maneuver on a brass or woodwind instrument.

Judging from the material discussed in the previous chapter, it appears that difficulties encountered when trying to execute a musical passage would have been dealt with by working on physical techniques that *appeared* to be causing the difficulty. A medical analogy perhaps describes this approach best: treatment of the symptoms rather than of the illness itself. For example, a common difficulty for brass players arises when

¹⁰ Richard H. Erb, Untitled Contribution in *Arnold Jacobs The Legacy of a Master*, ed. M. Dee Stewart (Northfield, IL.: The Instrumentalist Publishing Company, 1987), 21.

trying to learn how to multiple tongue. When a brass student begins working on this technique the multiple tongue is usually not even; that is, the “t” and “k” syllables do not match. Apparently, most teachers when faced with this difficulty in a student would have worked with the student on the actual articulation, or consonants and vowels used to make the articulation, discussing where the tongue should be placed in the mouth for each. Philip Farkas, in *The Art of Brass Playing*, spends three pages discussing which syllables (consonant and vowel combinations) should be used when double and triple tonguing, while mentioning only once that the “ear must be checking the result constantly, and dictating to the tongue, lips, and breath what must be done to achieve the most even single-tongue effect possible.”¹¹ With so much emphasis placed on the physical activity of the tongue and only one sentence encouraging listening, a student could easily become preoccupied with trying to make the tongue do specific things while possibly ignoring what it sounds like. In Mr. Jacobs’ view, this approach would be analogous to getting under the hood of the car to drive it.

This chapter examines many of the same technical problems dealt with in the previous chapter (such as the one noted above) but from a different standpoint; that of Mr. Jacobs’ principles of “song and wind.” In discussions about articulation, respiration, embouchure, practice, and buzzing, application of these principles will be demonstrated in a way that will show the simplicity, ease, and portability of this approach to the teaching of all brass instrumentalists.

Articulation and the Shape of the Oral Cavity

Mr. Jacobs’ approach would be quite different in helping the student achieve an even multiple tongue. As he wrote: “There are differences in people’s tongues, so what is

¹¹ Philip Farkas, *The Art of Brass Playing* (Rochester: Wind Music Inc., 1962) 50.

proper placement for one will interfere with the tongue musculature of another.”¹² Instead of speaking directly to tongue placement and what combinations of consonants and vowels should be used, he would first ensure that the student was intensely aware of what the multiple tongue should *sound* like, either through demonstration on the instrument, or through singing the passage with the appropriate articulation. “I would suggest that the student be more aware of what good articulation sounds like, rather than what it should feel like.”¹³ After a brief explanation of the desired effect that one wishes to achieve with the multiple tongue, the coaching would be centered around the student trying to achieve quality based on what he or she could hear in his or her own effort relative to the model. The first efforts would be performed very slowly, with emphasis placed on tone quality as much as on even articulation.

Mr. Jacobs would remind the student that complete success at something new comes gradually. One must not expect perfection the first time, or even perhaps the tenth time one tries a new technique. “We don’t start anything with skill; skill is developed over a period of time in spite of yourself. We have to recognize what we are trying to accomplish; the orders that come from the various parts of the brain must be based on the sound of the instrument.”¹⁴ Hearing the product in the mind (the model) before attempting the technique each time is key for the student to realize success over a period of time. If a student was having general difficulties with articulation or “tonguing”, Mr. Jacobs would often work with that student away from the instrument to establish what was normal. To establish the norms of articulation he used language and the syllables closest to

¹² Arnold Jacobs, “Special Studies for the Tuba,” in *Hal Leonard Advanced Band Method*, by Harold W. Rusch (Winona: Hal Leonard Music Inc., 1963), 56.

¹³ Ibid.

¹⁴ Kelly, 1010.

those that would give the desired effect on the instrument. For example, enunciation of the syllable “tah” closely approximates the desired effect on the instrument when articulating. It provides clarity to the beginning of the tone while not obstructing the airway. Mr. Jacobs would have the student pronounce this syllable a number of times to establish it as normal. He would then have the student pronounce variations of it such as “ahtah” and “ahlah” to establish what is clear and what is not as clear. If the problem for the student had more to do with making a good tone while articulating rather than with the “attack”, Mr. Jacobs would work on the vowel shape being implemented; again away from the instrument, to establish the norm. In this case, he would have tried to establish what syllable would allow for the best tone by having the student pronounce it. Then he would introduce variants of it to illustrate what would inhibit good tone. For example, both “tah” and “toh” are syllables that promote a roundness of tone because they do not restrict the flow of wind through the oral cavity. On the other hand, a syllable such as “tee” or “teh” restricts air flow and constricts the tone. To achieve a uniform tone quality throughout the range of any given brass instrument it is necessary for the norm to be established.

A misinterpretation of a cause and effect relationship can be seen in the way basic articulation has been taught in the past. As discussed in the previous chapter, several sources, including Claude Gordon’s book from 1968, *Systematic Approach to Daily Practice for Trumpet*, promote the idea that different kinds of articulations should be used depending in which register one is playing. He advises using “taw” in the lowest register and “tee” in the highest. As Mr. Jacobs points out, such a conscious closing of the oral cavity when pronouncing the “ee” vowel causes a thinning of the tone quality. While the tongue *may* tend to arch as one ascends into the highest registers on all brass instruments, it does so without a conscious effort on the part of the player. This is an autonomic activity that does not have to be consciously controlled. It is instead desirable to concentrate on

maintaining one's tone quality (the product) while ascending through the registers, instead of trying to control the height of the tongue. In other words, one must pronounce each articulation in all registers with the most open vowel shape possible in order to match the tone in all registers. The level of the tongue will change automatically as one ascends or descends. It is not necessary to consciously raise the tongue to play high notes. A high tongue does not guarantee higher pitches. However, it may result in insufficient wind getting through to make the lips vibrate the desired frequency.

Respiration

When Mr. Jacobs began teaching there were some unusual ideas extant about how the human body functions when playing a brass instrument. As discussed in the previous chapter, many brass players were taught that to play well one had to make the anterior abdominal area hard, or play with a "tight gut" when blowing. They were also taught that when one breathes in, there should be no movement in the chest area, but that the abdominal area (front and back) should be distended. While both of these ideas were popular they are prejudicial to successful brass playing.

It is difficult to explain where these ideas came from and how they became so widespread among brass players. In my lessons with Mr. Jacobs, he associated the latter with teachers of singing. They traditionally insisted on seeing very little motion in the chest while inhaling, with only the area of the lower abdomen moving out or distending. In fact, when a full breath is taken, the rib cage lifts and expands with the aid of one of the two groups of intercostal muscles, which, for lack of a better word, "surround" the rib cage. (One can imagine that a case of solid bone around the organs of the thoracic cavity would be much better protection for them than is the rib cage, but this would not accommodate the expansion of the lungs.) When the diaphragm contracts to open the lungs, it does so in a

downward direction, displacing the organs below it. As there is only immovable bone below these organs, the only place they can move is out (forward) as long as the muscles of the anterior abdominal wall are relaxed.

The “tight gut” idea of blowing may have had the same origin, or it may have been the result of inaccurate observation. Vincent Cichowicz¹⁵ feels that player/teachers in the past perhaps noticed that when they played a high “C” at a *forte* dynamic, there was a perceived “stiffening” of the anterior abdominal wall. Perhaps such a teacher, who was uninformed in human physiology and psychology, took from this that it is necessary to tighten the muscles of the abdomen to achieve a high “C” at *forte*, when in fact the phenomenon of the stiffened muscles is a *result* of playing the high “C”. In other words, playing the high “C” causes increased firmness of the abdominal wall; firming the abdominal wall does not cause the high “C”.

In any event, Mr. Jacobs realized that producing sound on a brass instrument in the manner described was not efficient. He understood that to make the lips vibrate, one needs maximum air flow with minimal air pressure, a situation not possible with a stiff abdominal wall, nor with insufficient quantities of air in the lungs. To achieve efficiency in respiration for the purposes of playing an instrument, Mr. Jacobs simply observed how the respiratory system works and applied it. As the late Dr. Arend Bouhuys explains:

The respiratory muscles help to generate most of the energy that goes into playing a horn. They act on the chest, which is for our purposes an elastic bellows. When the chest (that is, the lungs in it) are full of air, the chest tends to collapse as it relaxes. Just try for yourself: inhale as far as you can, relax all muscles, and you exhale with a sigh. Now try the opposite, which is more difficult to do: breathe [out] about as far as you can. Now, relax all muscles, and the air flows in. The resting position of the chest bellows is somewhere in between, roughly in the middle of the volume excursion range of the chest. The respiratory muscles have

¹⁵ Vincent Cichowicz, interview with the author, July 1999.

to work with or against these elastic forces, [italics mine] depending on what the chest volume is and what pressure we need to play the horn.¹⁶

The implications of this are obvious for all brass players: the more full one's lungs are, the less the effort required to blow due to the natural elasticity of the body. In addition, the closer one blows to the bottom of one's capacity, the longer it will take to re-breathe to full capacity, with the tendency being to never fill up easily let alone, quickly.

An important aspect of Mr. Jacobs teaching was his understanding of how to get a student to achieve specific responses. While there was a certain psychology present in all of Mr. Jacobs' teaching, proper motivation is particularly important with regard to respiration, so that the most efficient use of one's air supply is achieved. For efficient (natural) inhalation of large quantities of air, and effective exhalation in creating wind for blowing, he suggested specific mental images which tend to motivate proper physical responses. Rather than using Mueller's image: "Concentrate on a spot deep inside your body, below the rib cage, yet above the belt, in the V-shaped area there. Slowly—very slowly—draw your breath to this point, as if you have just stepped out on a cabin deck overlooking a beautiful lake, to view an early morning sunrise."¹⁷, Mr. Jacobs advised something much simpler. He suggested that the idea of suction is the best motivation for filling the lungs. "The goal is to find the ability to inhale based on suction with minimal friction. In other words, suction is the clue for diaphragmatic descent. . . . Yawning without opening your mouth wide is a wonderful tool. Very little strength is involved. What we don't want is resistances."¹⁸ He gave a more detailed explanation at the 1995

¹⁶ Kelly, p. 1006

¹⁶ Herbert C. Mueller, *Learning to Teach Through Playing: A Brass Method*, (Reading, Ma.: Addison-Wesley Publishing Company, 1968) 3.

¹⁸ M. Dee Stewart, *Legacy of a Master*, 142, 143.

International Brassfest in Bloomington:

If you have a sudden dramatic change of blowing (when you breathe in), you suck so that the stimulus for inhalation is the pulling of air into the space between the lips. It has to go somewhere - so it goes straight into the lungs, which is where it is supposed to go. When that happens, the brain will automatically deactivate the muscles that are moving the air out. They completely deactivate the muscles to the point of even taking muscle tone out at the same time they activate the muscles that have to make you large, which will lower the air pressure and take the air in. It is done without any effort on your part.¹⁹

In other words, if one simply considers sucking air in (between the lips, as through a straw), a large quantity of air will fill the lungs and be available for blowing. “Between the lips” is another extremely important concept, especially when compared with other ideas regarding inhalation that have been stated in the past and discussed in the previous chapter. Suction between the lips, as opposed to inhaling through the corners of the mouth or through the nose, allows for the intake of a large quantity of air quickly, and with minimal friction.

Likewise, one cannot be completely successful in playing unless the proper motivation for blowing is present. The psychology of blowing involves the idea of blowing at something or visualizing where the wind will land *outside* of the body. Traditional discussion about “support” erroneously referred to the diaphragm as the muscle that provides it, and concentrated on stiffening the anterior abdominal wall to blow. The psychology of blowing is important. Without the proper motivation, a player can experience great difficulty by trying to blow with excessive pressure or force.

This has been a common problem for brass players for many years, and is perhaps the one that has ended more playing careers prematurely than any other. For players from

¹⁹ Arnold Jacobs as quoted in Frederiksen, 109.

the “tight gut” school, it means that more muscles are engaged in blowing than are necessary to effectively move air as wind. For others, (including most from that same school), it means creating resistances inside the body, such as those needed in the defecation of bodily wastes and in child birth. This building of pressure inside the body by closing off the air passageway either at the lips, tongue, or throat, is known as the Valsalva maneuver. It seems that until Mr. Jacobs articulated and explained why this maneuver is prejudicial to effective blowing, the ramifications of its accidental, or sometimes purposeful occurrence, seemed not to have been understood. The only explanation for it was “forcing”, and the way to overcome it was perhaps to be told by one’s teacher: “don’t force.” This problem was one of those which was dealt with in the manner quoted from Richard Erb earlier in this chapter; that is to say that if one had difficulty playing without forcing the sound, then one perhaps was in the wrong business.

Mr. Jacobs understood that there was another solution and explanation. He would take an approach of behavior modification. First of all, he would work with a given student away from the instrument to normalize respiration. Working away from the instrument is important because students who are having difficulty breathing and blowing efficiently have formed habits on the instrument. Each time the instrument is put to the mouth, it acts as a very strong psychological reminder of what the student has always done. This is so because of the amount of repetition that has taken place over a period of time that has reinforced certain behaviors and responses. These habits are the culprit, causing the lack of musical success on the instrument. By practicing breathing and blowing away from the instrument, the strong psychological trigger of the old habits is removed, and a recognition of what is normal can take place and be observed. Once observed and studied, this more natural approach to breathing and blowing can be incorporated into the playing of the instrument with the use of slow, easy exercises. Over a

period of time, new habits will be formed on the instrument which gradually replace the old ones. Once one experiences blowing with minimal pressure and force in the middle range on any given brass instrument, the technique can be expanded over the entire range of the instrument, provided one has patience. Those brass players who went to Mr. Jacobs for help with difficulties in their playing often got a surprise when he spent a large amount of time on their breathing. Usually, because they were not getting the results on the instrument that they wanted, they blamed the embouchure. As Richard Erb points out, this is not surprising considering where the sensory nerves in our bodies are located.

Information from the interior is both sketchy, and weak, and specialized. Your body is set up to know if you've got a chicken bone in your throat and you are going to choke and die; it will tell you that, but anything much more subtle than that, it's not interested in. And on the other hand, compare that to the enormous sensitivity of the lips. It is one of the most sensitive areas of the body in terms of tactile sensations, pressure sensations, and the measurement of muscular enervation. It is hyper sensitive. So when something goes wrong and you get this big red flag from the lips, any reasonable person would conclude that since that is what hurts and that's what sounds bad you must have a problem there.²⁰

“Attack”

Closely related to this is the use of the tongue, particularly after having taken a breath. As discussed in the previous chapter, it is quite remarkable to see how many authors referred to the use of the tongue as being similar to a valve, implying or directly stating that the tongue should form a seal (for the air) behind the teeth before being released. Mr. Jacobs discouraged any kind of “anchoring” of the tongue to the teeth as this can become a restriction that will trigger the Valsalva maneuver.

When you blow, the brain will deactivate the diaphragm, normally. If you are using air to create pelvic pressures, the diaphragm will not deactivate - it will remain stimulated. Abdominal muscles that would normally be expiratory will start contracting and there will be a closure at the throat or the tongue or the lips, which

²⁰ Richard Erb, interview with the author, July, 1999.

causes the air pressure to bear down on a downward-contracting diaphragm to increase the pelvic pressure for expulsion of fecal matter.²¹

Again, the psychology of blowing must take precedence over manipulating the tongue.

Embouchure

Many brass players are highly concerned with the embouchure. They attribute just about every problem they may experience in their playing to the embouchure. As discussed previously, much has been written about the embouchure from how it works, to where the mouthpiece should be placed on it. Mr. Jacobs' view of embouchure refers back to earlier discussions about cause and effect, as well as treating actual problems, not symptoms.

The most common problems I have seen over the past sixty-odd years of teaching are with respiration and the tongue. Surprisingly enough, I rarely find problems with the embouchure. That might sound strange because people come to see me because of problems with their embouchure, but frequently it is the embouchure reacting to a bad set of circumstances and failing — it is simply cause and effect. If we change the cause of the factor, it is easy to clear up the embouchure. The embouchure is not breaking down, it is trying to work under impossible conditions. When you are starving the embouchure of air volume, giving it all sorts of air pressure but not quantity, it cannot work. Very quickly you will be struggling to produce your tone. Just increase your volume of air not by blowing hard but by blowing a much thicker quality of air. Very frequently the air column is just too thin.²²

This deals with the “wind” aspect of Mr. Jacobs' simple philosophy of brass playing.

Another potential difficulty causing the embouchure to fail is a lack of song in the brain.

The lips are the source of vibration which becomes sound on a brass instrument. In order for them to make vibration one needs wind or “air in motion”, but one also needs a stimulus. The stimulus is the song, or the musical message in the mind. This signal is

²¹ Arnold Jacobs as quoted in *Song and Wind*, 107.

²² Arnold Jacobs as quoted in *Song and Wind*, 122

transmitted through a nerve (the seventh cranial nerve) from the brain to the lips, much as it is when we sing. The only difference is that when we sing, the signal is transmitted through the sixth cranial nerve to the voice. With air in motion the voice responds and we get vibration or sound. If one does not have a clear musical idea in one's head, the lips will not respond in the desired way; in other words they will not vibrate, causing the unsuspecting brass player to believe that there is something wrong with his or her embouchure. This brings attention to the tremendous importance of listening. Every brass player, especially inexperienced ones, must listen a great deal to fine musicians with fine sounds in order to develop a concept of sound and musicianship which can be imitated. It is extremely important for the player to flood the mind with thoughts of music rather than with controlling tissues.

Much has also been written about mouthpiece placement, with some authors advocating two-thirds upper lip to one-third lower lip, two-thirds lower lip to one-third upper lip and so on. Mr. Jacobs maintained that one could make a sound no matter where the rim of the mouthpiece was placed and demonstrated this by playing a simple tune on a mouthpiece visualizer. He would play the tune out of each corner of his mouth, as well as in the middle, and make quite a good buzz no matter where. By doing this, he clearly demonstrated the fact that when the musical message is sent from the brain to the lips, it is sent to every muscle fiber in the lips, not just those in the center, and not more to the fibers of the upper lip or vice - versa. Some of these fibers are perhaps more developed than others, but all are being sent the same message. Again, the guiding principal in mouthpiece placement should be tone quality.

There's too much attention paid to the appearance and feel of an 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. They can appear unorthodox and still work. An embouchure that looks perfect might be silent because there is no signal along the nervous system ordering the sound. You have

to order the note by the sound of it, not by shaping the lip and blowing against it as if it were a wooden reed.²³

Conditioned Response

A scenario that has repeated itself over and over among brass players is the one in which an experienced player all of a sudden realizes that he or she cannot play as well, or as easily as in the past. Another scenario is the one in which a player just finds that playing the instrument is too much work. Usually these people blame their difficulties on faulty embouchure as discussed above. These are the people (myself included) who went to Mr. Jacobs for help. In my own case, I had been practicing for a number of years not realizing that I was creating excessive pelvic pressures when blowing. In other words, I was taking a breath (not a very good one as it turned out) and was then trying to blow while closing the air passageway (Valsalva). Unbeknownst to me, I had been reinforcing this behaviour over a number of years, quite possibly since the first day I had picked up my instrument, so that I had become very good at obstructing the airway. As a result, whenever I picked up my instrument to play, I was conditioning myself to respond in this manner. It had become a habit that severely limited my ability to perform on my instrument. As Mr. Jacobs explains:

One part of the brain will accept what you order as you go through a period of conditioning. In music, we would call this practice -- conditioning studies, scales, intervals, drill forms, and so forth. We are actually creating a programming that goes in the brain where these things can be absorbed to become a conditioned reflex -- a reflex that we are not born with, but it becomes a reflex simply by the fact that we have repetition.²⁴

This same process can be used to re-condition the reflexes (responses) when something is not working so well in one's performance. In my case, Mr. Jacobs worked

²³ Ibid., 123, 124.

²⁴ Ibid., 143.

with me at opening the airway. He worked with others who thought they had embouchure problems, by re-conditioning some of the reflexes that led to their difficulties. As discussed above, the re-conditioning had more to do with blowing, or with concepts of tone and musicality, than it did with the embouchure. Leading the player to discover what is physically normal (such as in the example discussed above under the heading “Respiration”) would be the first step, followed by showing the player ways and methods of practicing these responses. As the new approach became familiar through repetition, the instrument would be reintroduced, performing very simple things such as long tones. With simplicity of a given task comes the opportunity for the player to concentrate completely on applying the new technique. Again, with repetition, the new technique becomes a new habit which, over time, replaces the old. The old habit is never completely gone, but can be bypassed with the development of the new. As Mr. Jacobs said: “You renew an old habit by trying to fight it. Rather, establish a new habit to replace it.”²⁵

Introducing Change

The importance that Mr. Jacobs placed on making changes in a student’s approach away from the instrument has been discussed. Psychologically, when the trigger for previous behaviors is removed (the instrument), new behaviors are more easily introduced and more readily accepted. To begin change, Mr. Jacobs would use various techniques to draw the student’s attention to what had been happening, as compared to what should have been happening. For example, to improve efficiency of blowing, and to overcome the bearing down on the air column inherent with the Valsalva maneuver, he might have the

²⁵ Ibid., 144.

student “hiss” onto the back of his or her hand, followed immediately by having the student blow without friction onto the back of the hand. He would usually demonstrate each type of blowing and then ask the student to imitate, noticing the difference in what each felt like on the back of the hand. When asked which of these kinds of blowing was more likely to cause vibration of the lips, the student would have to acknowledge that the second one would. With this activity many things are taking place, but the most important one at this point in the lesson was the modification of the stimulus for blowing. Instead of trying to make the lips buzz when blowing as before, the emphasis becomes getting the air to do something past the lips. This concept, which really is most natural, can be reinforced by having the student do other activities, such as blowing out imaginary candles on a birthday cake.

Mr. Jacobs also liked to use senses other than hearing as a stimulant for change. He understood that most people rely on their sense of sight more heavily than on the other senses to gather information about the world around them. He realized that “seeing is believing” and that this idea could be useful in teaching. To this end he had a number of devices in his studio which he could use when trying to get a particular point across. One of these was a simple decibel meter which he used to demonstrate the difference between perceived and actual volume. Some homemade devices included an old television screen rigged to a microphone, and a short, vertical post adorned with Christmas lights, also rigged to a microphone. If one were articulating too heavily or too lightly, it would be visible on one of these devices. These gadgets proved to be extremely useful in making students visually aware of aspects of their playing which they previously had been unaware of aurally. Change cannot occur if a student does not realize that something needs to be changed.

Buzzing the Mouthpiece

One of the simplest, yet most effective tools that Mr. Jacobs used in affecting change in a student's technique, was mouthpiece buzzing. One reason for its effectiveness is that it is often foreign to students. That is to say that a student, such as a hypothetical one having difficulties with blowing freely, may not have played on the mouthpiece without the instrument before. The newness or "strangeness" of blowing just the mouthpiece can bypass the old responses associated with blowing on the instrument. Buzzing the mouthpiece is also an excellent practice tool as it encourages the student to make a consistent tone on all notes without the benefit of a resonator or amplifier (the instrument). The instrument may hide faulty technique or tone production, leading to immediate playing problems, or possible difficulties later on in one's career. Buzzing on the mouthpiece requires the student to make music within and of him or herself, not relying on the instrument for musical feedback. Buzzing the mouthpiece also encourages the student to hear the pitch in his or her head, rather than relying on a valve combination or slide position to "guide" the pitch.

Summary

This overview of Arnold Jacobs' pedagogy has presented a brief account of his teaching philosophy and unique approach to teaching brass instrumentalists. The significance of his phrase "song and wind" and the importance of efficient use of the breath have been explained. What stands out is Mr. Jacobs' realization of the importance of "mind over matter"; that is, the primary importance and influence of strong musical messages over the physical aspects of performance. This approach lends itself to application on all of the brass instruments rather than being instrument specific. The next chapter examines its use by four experienced brass teachers.

CHAPTER FOUR

FOUR TEACHER PROFILES

In this chapter a profile for each of four brass teachers participating in the study will be constructed. Each profile is based on information gleaned from interviews given and lessons observed in April, May, and June of 1997. At that time two interviews were conducted with each teacher and six to eight hours of each teacher's private teaching was observed. Interviews were audio taped and lessons videotaped for analysis at a later date. Extensive notes made from the tapes are included in the appendices of this document and it is from these notes that the following profiles have been constructed. It is expected that through asking specific pedagogical questions and observing lessons taught, each teacher's approach to teaching will be made clear, and that a relationship to the teaching approach and principles of Arnold Jacobs will be evident.

Vincent Cichowicz, Trumpet

Vincent Cichowicz was born and raised in Chicago, where he began playing in a school program at the age of twelve. When he took an interest in symphonic music he began studying with Renold Schilke, one of the trumpeters with the Chicago Symphony. Schilke had him change his embouchure from one where he set the mouthpiece *into* the lower lip, to the more standard setting *on* the lip. This required a period of adjustment for Cichowicz, but he had realized a certain standard with the old setting, and managed to meet that standard once again fairly quickly. While he learned a great deal from Schilke, Cichowicz remembers that Schilke was of the old "tight gut" school of breathing.

According to Cichowicz, Schilke didn't really push his approach to breathing on him because he was able to achieve the things that Schilke asked.

By 1948 Cichowicz became a member of the Civic Orchestra of Chicago, the training orchestra of the Chicago Symphony. He had a few lessons with Adolph Herseth, the Principal Trumpeter, and also with Arnold Jacobs. Cichowicz recalls that he played quite well prior to meeting Jacobs and that he was not looking for changes that would improve his ability to play. The lessons with Jacobs turned out to be quite different from what he was used to, leading Cichowicz initially to reject many of the things Jacobs said.

In 1952 Cichowicz became a member of the Chicago Symphony and a colleague of Jacobs. They became great friends, realizing that they had a mutual interest in understanding the cause and effect relationships in brass performance. Cichowicz found that lessons and conversations with Jacobs gave him a new insight into his own playing. Jacobs' explanations of these relationships made the idea of having a "bad lip" day a thing of the past. By discussing Jacobs' ideas and listening to his colleagues play, Cichowicz found that some dramatic changes for the better evolved in his playing. He points out that in those days, conversations such as the ones he had with Jacobs did not normally occur among colleagues. The subject of how to play the trumpet never came up between him and other members of the trumpet section.

Cichowicz had a natural curiosity about such things and this led him to read a great deal about brass techniques. He was also curious as to why, if one person's talent was as great as that of another, that person could work so much harder than the other and not get nearly as good a result. Jacobs' ideas seemed to answer that question and others, and this new understanding helped lead Cichowicz to a path as a teacher.

With regard to teaching, Cichowicz had several goals for himself and for his students. First of all, he felt it important to treat each student well and provide a positive

experience. To that end, he felt that a nurturing approach in lessons was far more productive than a pressure situation. He preferred to coax musical results out of each individual. He also wanted to impart to his students a basic approach that would always allow them to sound good. That involved giving them the tools to play with an excellent tone quality and musically. After that he guided them with encouragement and empathy to playing stylistically. He hoped to inspire each student to demonstrate his musicianship, enjoy the experience of playing, and do so free of frustration.

These goals led Cichowicz to an approach to teaching that reflects the influence of Jacobs' pedagogical principals of "song and wind." He felt that any problems a student might encounter came down to two things. First, if a student had difficulty making an excellent tone then his general ability to play would suffer. He used the example of tonguing, saying that some teachers approach a tonguing problem with tonguing studies. He pointed out that one should first look at the basic habits of the player and see if the production of tone is healthy. If not, then no amount of tonguing studies would bring improvement. Second, and more important, is to ensure that the student has a good musical concept of what the articulation should sound like in the passage. The student may have an excellent approach to tone production, but if he does not have an absolutely clear musical idea of what the technique is to sound like, success will be impossible. As a result Cichowicz emphasized the practice of singing aloud with his students. He frequently asked his students to sing passages during lessons to ensure that the musical idea, or song, was very strong in the brain.

Specific Pedagogical Questions

Question #1: What principles guide your approach to teaching excellence of tone? Can you describe in general terms your approach to improving a poor sound?

Cichowicz explained that first of all, the student must have a concept of what an excellent tone quality is. Without this, there is no basis for comparison by the student between what he achieves and what he should achieve. Cichowicz believes that the best way for a student to experience an excellent tone is through demonstration by the teacher. In his own case, Cichowicz was no longer playing when responding to these questions, so demonstration was impossible. However, he pointed out that his students at Northwestern were surrounded by excellent trumpet players in the Chicago area, so that hearing excellent sounds was not a problem. While he considers recordings to be somewhat “phony,” they can be a solution for young players who are not so fortunate as to experience excellent sounds around them.

To help a student improve his sound, Cichowicz ensured that there was no rigidity in the body while inhaling and while blowing. To achieve this, he worked with the student away from the trumpet to establish what a normal breath is like, and then applied that to the instrument. He also used mouthpiece buzzing to help the student obtain a clear sound in simple tunes and drills. A staple of Cichowicz’s approach to further the ease in respiration and clarity of tone were what he calls flow studies. These consist of a variety of lyrical studies that he has compiled into a small, unpublished book. However, not included in this book, but a most important component of implementing the concept of “flow”, are the drills found in Herbert Clarke’s book of technical studies. Clarke wrote these as finger drills, but Cichowicz found their greatest benefit to be as flow studies in which the student is highly aware of taking a good breath, and then blowing steadily, no matter where the notes go. As Cichowicz explained, the notes may look like they are progressing vertically on the

page, but musically they follow each other in a horizontal direction, which is also the way the wind must be blown. Other studies of a more melodic nature (such as those found in his own book) were used to connect this principle to the musical principle of song.

Cichowicz used long tones sparingly as a tool for achieving relaxed air flow because he felt that they are static, and that there is a danger of a student trying to play them without truly blowing. He felt that the musical aspects of a flow study encourage students to give direction to the wind.

Question #2: To what extent do you emphasize the importance of ‘singing in the brain while playing’ with your students?

Cichowicz emphasized the importance of ‘singing in the brain’ frequently with his students. He often found that if a student was having difficulty with a passage it was usually because the student did not have an idea of how the passage should sound. He had students sing problematic passages to detect whether there was a good strong concept of song present. If not, he would have a student sing again to establish a proper style in the belief that the concept of one or more aspects of style could be reinforced. He used the example of articulation. If a student did not have a concept of what an appropriate articulation might be for a given passage, demonstrating with the voice and then having the student copy, would help establish the concept.

Question #3: How would you describe your approach to teaching respiration for performance purposes on your instrument?

Cichowicz elaborated on his answer to the first question in response to this. When discussing respiration with a student one must keep the instructions simple and avoid any mention of terms such as diaphragm. His approach was to tell the student that inhaling is

like an active yawn and that blowing is more vigorous than a regular exhalation. He used the analogy of a birthday cake, and the need to blow out all of the candles in one breath. He said that it is important that the teacher distinguish for the student the difference between air flow and air pressure. Blowing out candles or cooling hot soup are good analogies that help describe blowing, and encourage the student to create wind outside of the body. Suggesting to the student to imagine what he calls “the constipation syndrome,” or the bearing down on the air to force other things from the body, illustrates air pressure.

Cichowicz has developed a useful tool to aid trumpet players with blowing. He calls it either a wind pattern or air pattern, and used these to help normalize the blowing activity on the trumpet. The technique involves inhaling, forming the embouchure, and then blowing wind in the style of the passage to be played, without the trumpet. The result is that the musical idea for the passage in question is married to the blowing and articulation required to achieve that musical idea. Cichowicz found that this activity tended to normalize blowing, whereas simply playing the passage on the trumpet may have provoked the addition of resistance in the throat. This is quite a normal reaction by the body when some resistance is detected from the instrument upon blowing into it. Sometimes Cichowicz would have a student put his index finger in front of his lips as something visible at which to blow.

Wind patterns are helpful in all ranges of the trumpet, but they are particularly helpful in the upper register according to Cichowicz. Because there is additional back pressure in this range created by a smaller lip aperture, there is more of a tendency on the part of the player to block the air at the throat. The resulting feeling of extra effort to play high notes is misleading to the player, and actually results in very little air getting through to make the lips buzz.¹ Looking at the passage and blowing a wind pattern that matches the

¹ The situation described illustrates the Valsalva maneuver discussed in the previous chapter.

musical requirements of the passage can normalize the blowing, eliminating the extra pressure created internally at the throat. When this is taken back to the trumpet, the student usually finds that the passage is much easier.

Question #4: Do you advocate buzzing on the mouthpiece as a practice tool? If so, how can it be helpful for a student?

While a student may be able to sing what he wants musically, he may be far off with regard to pitch when he tries to buzz. Cichowicz used mouthpiece buzzing to make the connection between pitch and air flow, especially in the high range. Buzzing the mouthpiece requires that the student “shape” each pitch rather than simply blow more air at it. This can be the case in any pitch register, and mouthpiece buzzing connects the song in the head with the wind being blown. According to Cichowicz, mouthpiece buzzing ensures that “your lips are singing.” Another tool that Cichowicz used to ensure that the lips are singing is a device called a buzz-aid. This device fits into the mouthpipe of the instrument and has a receiver for the mouthpiece. While it looks like a mouthpiece extension, it actually blocks the passage of air from the mouthpiece to the instrument. It has a hole drilled in its side where the air escapes. When a player buzzes into the mouthpiece the sound of the buzz also escapes through this hole. The buzz-aid acts as an intermediate step between buzzing the mouthpiece and playing the instrument. As explained in chapter three, if a student has difficulty achieving success on a particular passage, it may be because of past experience where the instrument itself is now a psychological reminder of what used to take place. If the student achieved some measure of success on the passage through buzzing it, then buzzing on the buzz-aid should not be a problem. If the student is not successful in copying his previous performance from the mouthpiece to the buzz-aid, then he can instantly comprehend the psychological barrier that

the instrument has created. Once the student can buzz successfully on the buzz-aid in the instrument, making the lips sing into the instrument itself becomes quite natural.

Question #5: What principles guide your teaching of articulation on your instrument? Do you advocate teaching a specific placement of the tongue while articulating?

Cichowicz explained that each of us may strike the teeth with our tongues in different places when articulating because we all have different physical attributes inside our mouths. Therefore, if one says “tah” as one does in language, then the tongue will go to the proper place. The proper place is where the tongue makes contact to produce the appropriate sound of the articulation for the given musical passage. In other words, creating the desired musical effect will automatically place the tongue. Cichowicz also emphasized that articulation is a consonant *plus* a vowel, and that the “ah” part of the “tah” is just as important as the “t.” As explained in the previous two chapters, the tone quality will change if the air column is thinned by a high tongue. Cichowicz pointed out that the tone quality has to be one’s guide to what is right and wrong with regard to tongue placement.

Question #6: Are there any specific techniques you use to help your students learn to slur through the harmonics of the instrument? For valve (or slide) slurs?

Cichowicz exercised caution when helping students with harmonic slurs. For slurring stepwise, or any slur where the valves move, he ensured that the wind was moving steadily as described earlier. He felt that harmonic slurs are more treacherous, and considered this an advanced technique that should not be tackled too early in a student’s playing career, for doing so could cause more harm than good. Without the rhythm of the valve movement between notes, there is more of a tendency for the inexperienced student to

“lock” the air and discontinue blowing. Obviously one cannot avoid playing harmonic slurs until one has the technical ability to do so, so Cichowicz would have a student substitute alternate fingerings where possible until the technique had been improved. As a student’s playing matures, drills which deal with the technique of slurring through harmonics can be introduced.

Question #7: What do you find to be the most effective way of improving a student’s range?

Cichowicz’s simple answer to improving a student’s range was “all of the above.” This was not surprising since acquisition of a wider pitch range is not a pursuit in itself. When one blows properly, makes a good sound, and articulates clearly, pitch range increases. Making the connection between the wind and the buzz in all ranges is necessary, as is spending time playing in all ranges. It is not necessary however, to play in the high range for hours to “build chops,” one simply has to ensure that one is blowing. To achieve a wider pitch range, Cichowicz used scales and scale studies. He stressed that one must have the right mental approach and make music of them. It is important to remember that in spite of the fact that the pitches appear to be moving up and down on the page, the direction of the music is horizontal, and a sense of line must be present in the player’s imagination.

Many trumpet students spend time working on the upper register, but Cichowicz found that they neglect the low register because it is not as “glamorous.” As a result, low notes are often unfocused and sound dull. Without spending time playing in the low range, one cannot understand how much wind energy low notes require. The combination of sufficient wind and a musical message will overcome any deficiencies in this register.

Question #8: How would you describe your approach to accomplishing effective dynamic contrast with your students?

The right mental approach played a large role for Cichowicz in helping his students accomplish nuance and dynamic variation in their playing. This is an extremely important aspect of performance, which if not approached in a positive way, can rob a player of being an effective interpreter. Whether one is attempting to play softly or loudly, one must blow freely. For example, if a *fortissimo* is produced with air pressure, the tone will be dull and not sound like a true *fortissimo*. For students this is often a problem, because one would naturally expect to have to work harder to play louder. Blowing with pressure gives one that sense of strength and effort. However, to produce a good ringing *fortissimo* one must blow faster. One must not use more muscle to blow “harder,” but simply move more air more quickly through the lips. The same principle applies to playing softly. Rather than holding back to avoid playing loudly, it is more effective to think of blowing slowly and *gently*. If one thinks of playing gently in soft passages, the wind is slowed without being restricted. Cichowicz used the analogy of the bow on the violin. When a violinist plays softly, the bow moves very slowly, *but it is still moving*.

Question # 9: What approach do you take to ensuring a strong technical grounding for your students?

Cichowicz used the Clarke studies discussed earlier as basic material for technical grounding. He also used scales and scale studies, but felt that if the literature a student is playing is challenging enough, then the fingers tend to look after themselves. Coordinating the fingers with the tongue may be more of a challenge and to help with this he recommended Ernest Williams’ *Method of Scales*. He found that these provide a great

variety of challenges in articulation - more so than does Arban's *Complete Conservatory Method*.

Question #10: Are there any other techniques or ideas that you use in your teaching that you would like to comment about?

Cichowicz emphasized the importance of listening for his students. He felt that they must listen to artists, both instrumental and vocal, so that they could hear others make music. By doing this, they would find their own interpretive voice and become the individual musician that he could help to nurture.

Observations of Pedagogical Approach and Style

In watching eight hours of lessons given by Professor Cichowicz a number of features of his pedagogical approach can be seen consistently. First, he is always courteous, friendly, and complimentary to his students, and makes each one feel at ease. Second, he continually stresses the musical aspects of what is being played; from the simplest drill to the most technical of passages, the student is always challenged to convey the intrinsic musical message and keep a sense of musical line. Third, the importance of breathing with "minimal motors" is stressed constantly. Of particular interest however, is the effectiveness of the use of wind patterns. This is the tool that he used most frequently to achieve the desired results with his students.

Another aspect worth noting in Cichowicz's lessons was his use of the mouthpiece. Each student's lesson began with mouthpiece buzzing. Simple drills or melodic fragments preceded the lesson with the aim of establishing a good clear buzz made with little physical effort. He also used this tool along with the buzz-aid in at least one lesson where the student was having difficulties with harmonic slurs. Cichowicz had the student play the

third Clarke study in the key of the passage which presented the problem. When the student had difficulty with this, Cichowicz had him buzz the pitch on the mouthpiece and discovered that the lips were not buzzing the right pitches. Once this was corrected, (with frequent reminders of blowing easily) the connection between notes improved. Then the student played on the buzz-aid while depressing the appropriate valves listening for true pitch and tone. Finally, the improved technique was applied first to the study, and then back in the piece, with great improvement.

An effective technique Cichowicz used in these lessons was that of slowing problem passages down. When doing this he would always insist that the proper character be established at the slow tempo, and that an effective interpretation be achieved before the proper tempo was resumed. When the student did return to the proper tempo with greatly improved results, the importance of conceptualizing the song for achieving successful performance was made clear to the student.

Two final observations regarding Professor Cichowicz's lessons concern the amount of discussion of interpretation that occurred in each, and the simplicity with which the message of song and wind was delivered. As a result, lessons were always centered around music making, no matter what the level of the student. Interpretive suggestions and discussion about phrasing were common in each lesson, with the musical product always being stressed. This approach lacks much technical talk and frees the student to think musically, not being confused by trying to assimilate too much information.

Gail Williams, French Horn

Gail Williams grew up in a small town in New York state in the 1960s, where she began playing the horn at an early age. Her mother conducted the town band and Gail, her

father, and siblings played in it. She took up the horn because she wanted to play a different instrument from those of other family members, and also because she was left-handed.

As a high school senior, Williams thought she was headed to college as an athlete until she went to an All Eastern music competition. She played an audition for a band placement and came second out of sixteen players. This, along with encouragement from Walter Beeler, a member of the faculty at Ithaca College, started her thinking about music as a career choice.

At university, Williams went into a combined program of music education and performance and studied horn with John Covert. Covert had her play a lot of études and repertoire during her time there, and she attributes her good grounding on the horn to him. He played frequently in lessons, giving her a concept of tone. This was reinforced in the many horn quartet sessions which involved all of his students. He also discouraged her from asking too many questions about how to play, encouraging her instead to simply play the music. She feels that she made good progress under his guidance because he was well organized and disciplined. Whatever he required of her was well thought out and planned, so that material was always introduced in an appropriate sequence.

She decided to become a performer in the summer of 1972 after attending the Berkshire Music Festival at Tanglewood. Upon graduating from Ithaca in 1973, Williams went to Chicago, where she first studied with Frank Brouk at Northwestern. While taking a Masters there over the next two years, she also studied with Dick Oldberg and Dale Clevenger. In addition, she studied with Arnold Jacobs for several years after her arrival in Chicago.

The study with Jacobs was very important to her because he presented a different approach to the instrument. Although she thinks she probably heard many of the same

things from her other teachers, he expressed his ideas in a very different way. He encouraged her to focus the work away from the horn and into the music so that the horn became easy, and expressing the music became the most important aspect of playing. He also gave her ideas about different ways to practice when she was experiencing difficulties.

As a teacher, Williams hopes to give her students the good grounding that she received as an undergraduate. To this end she emphasizes basics and their daily renewal. Such things as re-establishing and refining tone, drill work on articulation, slurring, as well as scale work through the use of Schantl studies, contribute to this goal. She feels that if these things are not covered on a daily basis then one's playing deteriorates. She also hopes to teach her students to be their own teacher by not giving them every piece of information "on a platter." She wants them to be inquisitive and to try different musical ideas so that they think for themselves. Williams feels that if they have the basic technique of horn playing down, they should be able to work on any piece of music by themselves.

Specific Pedagogical Questions

Question #1: What principles guide your approach to teaching excellence of tone? Can you describe in general terms your approach to improving a poor sound?

Williams stresses the importance of having a concept of good tone first. One must know what one should sound like before a good sound can be produced, so she recommends that her students listen to a number of players and imitate. She also plays frequently in lessons, although she does not want them necessarily to sound like her. She plays recordings for her students, not only to give them samples of different sounds to hear, but also to expose them to alternative interpretations of repertoire they are studying. She feels that if one has a great sound as well as the song in one's head then success and satisfaction will be realized.

To improve a student's sound Williams watches and listens to ensure that the student is breathing properly. If not, she will work on that, ensuring that the student is inhaling to capacity and in a relaxed manner. She finds Jacobs' approach of sucking the air in between the lips to be a most effective way to achieve a relaxed, yet full intake of breath. This also encourages a round shape to the embouchure rather than the stretched shape caused by breathing through the corners.

With regard to blowing, she has the student play a great deal in the middle register to establish the tone. To do this, one must blow without tension in the body. She feels that beginning each phrase with a full breath goes a long way to ensuring proper blowing, but she also watches and listens to see and hear if the student is playing too long a phrase on a single breath. This can cause isometric tension as the subconscious mind sends signals to the diaphragm to contract and fill the lungs, while the conscious mind is telling the blowing muscles to continue to contract. For Williams, sports analogies are helpful to many students in understanding physical aspects of playing the horn. For breathing, she asks them to consider the windup and stroke of a tennis player or golfer who does not hesitate between the two parts of the move, and to compare this with the inhalation and exhalation of a breath. There should be no hesitation at the top of the breath so that the breathing activity is smooth and easy.

Question #2: To what extent do you emphasize the importance of 'singing in the brain while playing' with your students?

Williams feels that singing in the brain while playing is important for two reasons. First, to ensure that the correct pitch is in the head prior to starting, and second, to ensure that the musical concept is present while playing. She often has students sing in lessons to determine if a strong musical message is present.

Question #3: How would you describe your approach to teaching respiration for performance purposes on your instrument?

Williams discussed this in her answer to question #1 concerning improving a student's tone.

Question #4: Do you advocate buzzing on the mouthpiece as a practice tool? If so, how can it be helpful for a student?

Mouthpiece buzzing is a very important part of Williams' teaching. She says that generally speaking, it is not something that most horn players do. She became especially aware of its benefits through Jacobs, but also through Adolph Herseth, principal trumpeter of the Chicago Symphony. She heard the sound of his buzz and talked with him about buzzing in general. She came to the conclusion that there are a number of benefits associated with this practice. First, she believes that the better one sounds on the mouthpiece - that is, the more efficient the buzz, then the better one will sound on the instrument. In other words, tone quality can be improved through buzzing. Second, she finds that problem passages on the horn are usually improved through mouthpiece buzzing. This is because tone production problems are easily detected on the mouthpiece, and poor tone production is often the reason for lack of success on brass instruments. Williams points out that poor articulation can be heard easily, as can stopping the air between notes. A third benefit comes from buzzing in the upper register. Removing the instrument can remove the psychological barriers that may exist when trying to buzz the lips in the upper range. With students who are inexperienced in this pitch register, there may not even be a buzz in their attempts to play high on the instrument. Using the mouthpiece alone to establish and then improve a buzz can speed the process of tone production on the instrument substantially.

Question #5: What principles guide your teaching of articulation on your instrument? Do you advocate teaching a specific placement of the tongue while articulating?

Williams stresses that the vowel after the consonant is just as important as the consonant, if not more so. She prefers a “too” syllable on the horn, as she feels it gives a good focus to the horn sound. While she does not advocate a specific placement for the tongue to achieve the consonant “t,” neither does she advocate tonguing between the teeth. She says that this is quite common among students of her freshman class each year. She works with them to achieve the clarity and lightness that comes from tonguing behind the upper teeth as when pronouncing “t.” These qualities are achieved by giving each student a concept of what the articulation should sound like, and then asking them to copy the model.

With regard to multiple tonguing, Williams feels that acoustically it does not work that well on the horn, and she prefers a very fast single tongue. In some pieces multiple tonguing is necessary though, and she cites a passage from Ravel’s orchestration of *Pictures at an Exhibition* as an example. More and more solo repertoire requires this technique, so she has her students do as Jacobs told her: simply practice multiple tonguing away from the instrument by pronouncing the syllables while doing something else, such as walking to school. Williams points out that the tongue will fail both away from the instrument, and on the instrument, if there is not enough air flow or wind. As in single tonguing, she prefers a “koo” syllable to match the focus of the “too.”

Question #6: Are there any specific techniques you use to help your students learn to slur through the harmonics of the instrument? For valve (or slide) slurs?

The most important ingredient for success in slurring is learning to blow “fast air” between the notes of the slur. In other words, the air cannot stop; it needs to keep moving. This is the case for both valve slurs and for harmonic slurs. Williams recommends that

harmonic slurs using small intervals be approached initially so that freedom of blowing can be maintained, before moving to harmonic slurs at wider intervals. With valve slurs the same applies; one must keep the freedom of blowing and also move the valves firmly but smoothly, without “bumping” the valves down.

Question #7: What do you find to be the most effective way of improving a student’s range?

Williams finds that most of the young horn players who come to study with her have a very poor low range. She thinks that this is because they have been the best players in their respective school bands, and therefore have been put on the higher first horn parts. To help them improve the low range she finds that they need to open up and blow more air into these notes. She often will help a student achieve this by having him listen to his tone and intonation as he plays successively lower notes. She finds that the pinched tone in this range is directly related to sharp pitch, and that fixing one will also fix the other. In extreme cases where a student is playing very sharp and has difficulty opening up to improve the tone, she may use a tuner, asking the student to play a pitch while watching the tuner. She finds that in an attempt to lower the pitch, the student will often drop the jaw automatically. The pitch then requires more wind, is better in tune, and sounds better.

Williams finds that an anxious attitude about high range is usually a student’s biggest problem. In trying to play too high too soon many students tighten up and restrict the air flow. This results in a lack of sufficient wind passing through to vibrate the lips. She explains that the most important thing to remember when ascending is to keep the same relaxed sound as one has established in the middle register, and approach it with the same kind of air, free and relaxed. She finds that mouthpiece buzzing is an excellent tool for expanding the pitch range of a young player as they can more easily hear if the sound of the

buzz changes or indeed, stops. The quality of sound must remain the same in all registers, so if there is any problem with tone production it is always more easily detected on the mouthpiece.

Question #8: How would you describe your approach to accomplishing effective dynamic contrast with your students?

Williams explains that she has her students attach a number between zero and five to each dynamic, with zero representing *pianissimo* and five, *fortissimo*. She finds that this system gives a student a concept of dynamic variation that is consistent from one situation to another. She cautions that the overall dynamic quality of a given piece is dictated by the style of that piece; *forte* in Mozart is not the same as *forte* in Mahler. She finds that a system such as this is helpful for students faced with practicing in small rooms - the only available option at most music schools. Because such rooms can be extremely loud for brass players, they may tend to “back off,” particularly in loud passages. If they take the time to remind themselves each time what each number in the dynamic scale sounds like, they will play with dynamic contrast, rather than compressing the contrast. Williams also recommends practicing outside, or better still, in a large room whenever one has the opportunity. Since musicians generally perform in larger rooms, practicing in a larger room helps the player keep a realistic perspective on his tone and dynamics.

Question #9: What approach do you take to ensuring a strong technical grounding for your students?

Williams again stresses the importance of re-establishing basic concepts of playing on a daily basis through the use of drills and scale studies. These get the tone and the wind going. She then likes to use études to put these things into a musical context so that they are not solely technical pursuits. The scale studies by Schantl are favorites. These are

good because they put scales into a musical setting. While one is working through scales and improving technique, one must also play phrases and give them direction.

Question #10: Are there any other techniques or ideas that you use in your teaching that you would like to comment about?

An additional technique that Williams has her students practice is “air attacks.” She encourages starting notes without the tongue as a means of clearing up hesitation in articulation. In order to ensure that the lips begin vibrating when one wants to hear sound, one must hear the pitch in the head and also move the wind. Eliminating the articulation made by the tongue ensures that it does not linger too long prohibiting air flow. Williams also finds the technique has a practical application for assistant horn players. Very often it is necessary for an assistant to join the principal player on a soft sustained note, then continue on with the line. The last thing one wants to hear is a “bump” on the assistant’s entry.

Calling up the visual image of the violinist’s bow arm is another tool that Williams uses in her teaching. She uses the analogy of the bow arm with her students in two ways: as a visual equivalent of air movement and as a visual aid in conceptualizing phrase. She calls on a student’s imagination with regard to bow direction and what impact it has on the sound of a phrase. A simple example would be to have the student think “up bow” for an anacrusis, and how this motion effects the entire phrase.

Observations of Pedagogical Approach and Style

After observing six hours of individual lessons taught by Gail Williams, a number of consistent features are apparent in her teaching. As with Cichowicz, Williams makes

use of all of the pedagogical ideas expressed in the interviews when giving lessons, with some given more emphasis than others.

What one notices first is her approachable, casual nature in lessons. She is relaxed and interested in each student as an individual, often engaging them in conversation about things other than music and the horn. This serves to help each student relax and feel comfortable in this situation. A healthy atmosphere of give and take exists; one that helps the student learn not by being told information, but by discovering it.

Drill work is something that Williams returns to frequently in lessons when a student is having difficulty with a particular technique. Instead of working on the problem in the context of the *étude* or piece of music, she often leaves the music in favor of a drill. She does this realizing that the problem is not only a problem in the piece being performed, but that it is a general problem in the student's playing; one that will benefit from further training of tissues through the repetition drills can provide.

Singing plays a large role in Williams' horn studio. If a student seems to be missing the musical message of a particular passage then Williams will have the student sing it. If the student needs some help interpreting, or in making more of a particular musical effect, then Williams will sing asking the student to copy. She may have the student sing first, or copy directly on the horn.

The importance given to singing reflects Williams' preoccupation with music and musical line. Most lessons began not with scales, but with scale studies that were musically interesting. These studies would sound dull if the player's musical imagination were not engaged. Many of them made interesting use of rhythm and meter while others were more straightforward. However, even the more straightforward studies were written in such a way that they could be given some musical shape. These kinds of studies ensure that the player cannot "tune out" while practicing scales. The musical approach continued

throughout each lesson observed. All of the material covered from études to repertoire, to excerpts, was accompanied by discussions about interpretation.

Perhaps most striking is the frequent mouthpiece buzzing she requires of her students. As was pointed out in the previous section, Williams feels that if one can do something on the mouthpiece, then one can do it on the instrument. To that end, she would have her students use the mouthpiece frequently to buzz passages that were causing difficulty. After having done so, one could always hear a noticeable improvement in the passage when played on the horn. Williams also uses mouthpiece buzzing as a tool for improving sound. Several examples of this occurred in the lessons, where the student was experiencing difficulties making a good sound in a particular register. While there was some talk about the embouchure, it was always accompanied by buzzing to achieve the appropriate sound.

Frequently Williams used mouthpiece buzzing not only to improve the sound, but also to detect other problems not clearly obvious on the horn. These difficulties might include whether a student is forcing the tone, whether there is enough air flow to sustain a given pitch at a particular volume, whether the articulation is musically appropriate, or whether the student can keep a consistent tone from one pitch register to another. Buzzing the mouthpiece exposes such difficulties instantly.

Throughout the lessons observed Williams' students took full, yet relaxed breaths, enabling them to blow freely and achieve a good sound. She frequently reminded them to fill when re-breathing, and to blow in a relaxed manner. Williams often spoke of blowing with "thick air," a term used by Mr. Jacobs to give a student the idea of an air column which is not thinned before reaching the lips. She also encouraged students to "let the air fly," meaning that the flow must be fast and uninhibited. Frequently, free blowing would be achieved in articulated passages by having the student take the articulation away and

simply slur the passage. By eliminating the tongue, the student could experience the free blowing achieved in slurring, and try to maintain that same freedom when the articulation was added again.

The pedagogical concepts of song and wind are clearly in evidence in Gail Williams' horn studio. Emphasis is placed on tone production through frequent use of the mouthpiece as a diagnostic and therapeutic tool. There appear to be no alterations made to this basic approach due to the specific instrument being taught. One is only aware of special considerations for the horn regarding fingerings (due to the use of the double horn and the alternatives that provides) and the position and use of the right hand in the bell (to help control tone quality and pitch).

Frank Crisafulli, Trombone

Frank Crisafulli was born and raised in Chicago, and was the son of a professional trombonist. He began playing trombone in the late 1920s when he joined his high school band. Crisafulli considered his father to be his first trombone teacher even though his father did not give him any formal lessons. Young Crisafulli learned how to play by listening to his father play. Looking back upon this experience, Crisafulli recognized that he did not learn a disciplined approach to practicing, but he did gain a fine concept of tone and musicianship. As he got older, he had lessons with other teachers as he could manage it, but nothing on a regular basis.

As he progressed on the trombone, Crisafulli realized that while he had a natural ability, he had some difficulties playing the instrument. The worst problem was the pain in his lip that he felt after playing for a short period of time. He attributes this to a sledding accident as a youngster in which he suffered a severe cut in his upper lip. The cut was never stitched and as a result the lip did not heal properly. To overcome the pain he moved

the mouthpiece off center to play, where he found that he had more success.

Psychologically though, this had an effect on his self-confidence as a trombonist, resulting in his decision not to pursue music as a career.

Crisafulli went to Northwestern as an Arts student and continued to play, but with some difficulty. He eventually quit university, but continued to play with various amateur orchestras in Chicago. He became a member of the Chicago Civic Orchestra, and by 1940 played an audition for the Chicago Symphony. He joined the orchestra as the associate principal, and after a year became the principal trombonist when the incumbent stepped down to another position within the section.

Crisafulli always suffered with nerves and hyper-tension as a result of his lip problems. Although he managed very well with playing off center, he never felt the confidence that he wanted in his own playing. He thought that he should be able to play in the center where the embouchure would be balanced, and that doing so would restore his confidence.

In 1944 Arnold Jacobs joined the Chicago Symphony and Crisafulli began working with him to see if he could make the change back to the center. Jacobs felt that Crisafulli did very well playing as he did, and helped him with his nerves by helping him with his breathing. Crisafulli continued to play off center but realized how important relaxed respiration is to good tone production. He found at the time that while getting better control over his breathing helped his playing generally, the psychological barrier still existed, and he continued to lack the confidence he wished to have.

Crisafulli took great pleasure from teaching and tried to help his students enjoy playing as much as they could. He always tried to impress upon his students the importance of keeping their approach to playing the trombone very simple. He would tell them that before they began a phrase, it was important to commit oneself to that phrase by

taking a breath and playing the whole phrase, even if the first note did not sound very good. His other priority was excellent rhythm. He felt that if a trombonist did not have a perfect sense of timing, the slide action would not be coordinated with both the buzz and the articulation. Above all else he emphasized the importance of having a strong musical idea or song in one's head. Without this, one could not be successful as a trombonist. To illustrate this, he used the analogy of two expert drivers heading for the same destination. One of the drivers has a map and the other does not. As Crisafulli said, it is obvious who will be more successful in reaching his destination.

Specific Pedagogical Questions

Question #1: What principles guide your approach to teaching excellence of tone? Can you describe in general terms your approach to improving a poor sound?

Crisafulli felt that any difficulties with tone are related to not breathing well, provided one has a good concept of tone. A phrase he used was "breathe and blow," indicating that the trombonist's respiration must be relaxed and free from tension or restriction in the body. He used the analogy of the bow on a stringed instrument and likened it to the brass player's blowing, implying that one must blow steady, relaxed wind just as the violinist uses a steady, relaxed bow. The only other thing Crisafulli felt may cause a poor tone was the use of a smile embouchure.

Question #2: To what extent do you emphasize the importance of 'singing in the brain while playing' with your students?

Crisafulli believed that singing in the brain is absolutely necessary on two levels. First, one must be able to hear pitches so that one can play them. Second, one must hear the phrases in one's head to play musically on the instrument. Crisafulli would have his

students play individual phrases over several times so that the student would get the sound of it in his ear. This repetition not only helped secure pitch and musical line, but also helped train the slide arm. He would often have the student do these repetitions slowly to help the ear learn the phrase, and if a phrase was particularly high, he would ask the student to do the repetitions down an octave where it was easier to relax the body. After having the ear and the breath trained down the octave, he would have the student play the phrase in its original octave. If the passage was meant to be played at a faster speed the tempo would gradually be increased. Simplifying tasks was Crisafulli's main concern, to help the student achieve success one step at a time. He said that he always had students who would "bash and crash" and he would try to slow them down at lessons. As he observed, some students have more patience than others.

Question #3: How would you describe your approach to teaching respiration for performance purposes on your instrument?

When answering this question Crisafulli re-iterated many of the points made in his answer to the first question about tone production. When teaching respiration he tried to simplify it as much as possible, encouraging openness and ease. He found that most students stiffened up when playing difficult or fast passages with the result that they did not sound very good. To overcome this Crisafulli would have a student play the offending passage beginning with a full, yet relaxed breath. He would encourage the student to play the passage until he needed more breath, then stop, take another full, yet relaxed breath, and continue on. He wanted each student to experience playing such passages successfully, and to do this requires sufficient air. He felt that the technique of breathing would improve in time as long as the student remembered to take the breath in a relaxed manner and maintain a quality sound.

Question #4: Do you advocate buzzing on the mouthpiece as a practice tool? If so, how can it be helpful for a student?

Crisafulli used buzzing with his students mainly to establish pitch. If a student was having difficulty playing pitches because the connection was not being made between ear and lips, then he would have the student buzz the mouthpiece. As a rule he did not advocate it as a warm-up tool, as he preferred to make beautiful sound on the trombone first, and then use the mouthpiece as a therapeutic tool if necessary. As far as he was concerned, it was something each individual may find helpful to varying degrees, so he used it as necessary, as a teaching tool.

Question #5: What principles guide your teaching of articulation on your instrument? Do you advocate teaching a specific placement of the tongue while articulating?

Crisafulli did not advocate a specific placement of the tongue when articulating other than not to articulate between the teeth. He felt that speech helped with articulation; that one should simply say “tah” in order to hear that articulation on the instrument. For Crisafulli there were two important things one has to realize about tonguing: first, one does not start the tone with the tongue, but rather with the breath; and second, one must get the tongue out of the way as soon after articulating as possible so that there will be tone.

Question #6: Are there any specific techniques you use to help your students learn to slur through the harmonics of the instrument? For valve (or slide) slurs?

Crisafulli thought that the most important thing to remember when slurring on trombone is to keep the air steady. Always take a good breath and then blow. A technique Crisafulli used to help students keep the sound going in stepwise slurs was to glissando without articulation from one note to the next. One can get a good sense of air flow by using this technique because of the elimination of any restriction the tongue may provide.

For harmonic slurs he found that students usually found success if they did them descending first. Once they discovered that this worked well, they could do it in the opposite direction as long as they kept blowing. Crisafulli was suspicious of flexibility exercises that go through the harmonic series of each slide position. He preferred slower, simpler slurs that encourage students to think of blowing as one would for a long tone.

Question #7: What do you find to be the most effective way of improving a student's range?

Crisafulli recommended improving range by starting with a good tone in the middle range and gradually adding pitches to both bottom and top. The key is to follow through with the blowing, especially ascending, and not to restrict air flow by becoming physically tense. The same applies when descending into the low register where the air is used more quickly; follow through with the wind. He also believed that one need not shape the oral cavity by raising or lowering the tongue to achieve the different registers. He felt that this is not something one can control. Flexibility slurs can be helpful in developing range if one plays them like long tones and is always aware of the tone quality. Keep the same timbre starting with simple intervals. As one's skill increases, then one can gradually add wider intervals.

Question #8: How would you describe your approach to accomplishing effective dynamic contrast with your students?

Crisafulli's approach to creating effective dynamic contrast was simple: "breath, pure breath." To play louder one must blow faster and to play softly, one must blow slowly without restriction. To practice this his students played long tones with crescendo

and diminuendo, always without forcing the tone. He cautioned against making an ordeal out of this exercise, but to always make it sound beautiful.

Question #9: What approach do you take to ensuring a strong technical grounding for your students?

Crisafulli used études in different keys to help his students achieve a strong technical grounding. He found that having students play études slowly, one section at a time, gave them a security about all aspects of the music, including phrase, breath, key, and slide. A technique he employed to encourage blowing through technical passages eliminated note changes within the passage. The student would play the articulation and rhythm of the passage on a single note to ensure the tone quality was not compromised. Once the student was comfortable with blowing through the rhythm and articulation, then Crisafulli would encourage the student to reintroduce the changing notes and maintain the blowing and tone. Another technique he used involved subdividing with the tongue on the note prior to a slide change. This set a rhythmic framework for a more accurate movement of the slide. He found that most technical problems on trombone were a result of poor timing of the slide.

Question #10: Are there any other techniques or ideas that you use in your teaching that you would like to comment about?

Other approaches he used to help develop technique included practicing articulation away from the instrument. For example, to give his students a sense of the difference between detached and smooth articulations, he would have them sing both articulations on a given pitch to hear the differences. Then he would have the student try to copy what he

had done singing, on the trombone. Singing could also be used in this manner for practicing other articulations, such as double and triple tonguing.

Tuning is an issue for trombonists because of the slide. Crisafulli advocated using any kind of drill that would keep the student in contact with first position, or “home.” He employed any slow exercise that would help a student hear the relationships between intervals. Getting back to first position within these would be the equivalent of a violinist comparing tuning of pitches in a given passage with an open string.

Another issue for trombonists is the free and flexible use of the arm in moving the slide. Crisafulli spoke very little about this because it tends to come naturally when one works slowly with rhythmic movement of the slide in scales and études. He felt that young people’s tendency to hurry was the biggest problem; if one hurries the rhythm when playing the trombone then the slide gets out of synchronization with the articulation and the buzz, resulting in stiffness in the arm.

Crisafulli also pointed out that he never discussed embouchure with students. He had seen some very strange things throughout his teaching career, and observed that if the air was right, an odd looking embouchure could sound good. He did allow that if a student was having tremendous difficulty making a sound after extensive time had been spent working on the breath, he may make some specific suggestions about the embouchure. He was generally reticent to make any comments about embouchure to his students as he felt that this could interfere with any naturalness they had achieved in blowing. Such talk can simply make a student tense and rigid.

Observations of Pedagogical Approach and Style

After observing Frank Crisafulli through seven hours of individual lessons on videotape, one can see that the very simple approach he used was highly successful. As

one would expect from the interviews, his manner was calm and his message clear; one must have a good musical idea in one's head when playing trombone, and one must breathe and blow without tension.

Lessons with Crisafulli always began with some chat, setting up an informal and relaxed atmosphere. Scales would be used as warm-up material to establish a clear tone, clear articulation and accurate slide execution. Scales were always performed slowly so that relaxed breathing was never compromised, and excellence of tone could be realized. Very often he would stop a student in order to clean up sloppy slide technique. The approach utilized was always the one described earlier in which he would ask the student to add a subdivision with the tongue. This would improve the timing of the slide change and eliminate any inaccuracy. Another problem that this technique helped overcome was the student's tendency to want to "help" the slide with the breath. Crisafulli observed that students often stop blowing at large slide position changes to avoid hearing a glissando between notes. What it achieves however, is a choppy style. Crisafulli told his students that a little glissando was all right between notes and that it would eventually disappear as one's rhythm improved.

After scales Crisafulli would hear at least one *étude*. These were lyrical in nature, yet technical with regard to slide technique. Again, Crisafulli's approach to these was to ensure that relaxed, efficient breathing was never compromised. He also used these as exercises in showing younger students how to practice. The student would begin the *étude* and play until a problem arose. If the student was insecure with notes due to a lack of familiarity, he would have the student play the offending passage again slowly. Once the student had the passage in his ear, then Crisafulli would have him speed it up. When it sounded as it should, he would have the student put the passage back in context and proceed. With this exercise Crisafulli was showing the student both patience and

persistence, two qualities he felt to be absolutely necessary in learning how to play the trombone.

Crisafulli's approach to repertoire was consistent with his approach to scales and études. His over-riding concerns were to recreate the correct style and to produce the tone as efficiently as possible. One is struck by how much singing he did in lessons to demonstrate style. He had his students sing as well, but he sang most of the time, often while students played.

One is also struck by just how simple he made trombone playing. Crisafulli always told his students to keep the breath relaxed and to enjoy the music they were playing. This simple philosophy demanded that everything a student played must be simplified at the beginning so that relaxed breathing could be maintained. As skill developed more difficult challenges could be added, eventually leading to beautiful song produced efficiently with relaxation, and freedom in the breath.

Rex Martin, Tuba

Rex Martin grew up in a small town in central Illinois where he started playing tuba in the fourth grade. Other than his music teachers at school, he had no tuba teacher until he went to university. As a youngster, there were no other tuba players in the area to listen to but he did have many opportunities to hear good music played well on instruments other than the tuba. He attributes developing a taste for good music early to a junior high band director who arranged many transcriptions. Martin does not view the lack of an actual tuba teacher during his school days as a disadvantage. Instead, he feels that he may have avoided bad teaching. He says that by the time he went to university he had quite a good sound and technique.

Martin decided to become a professional musician after hearing an excellent young euphonium player at a band camp. Hearing her play and speaking with her helped him decide to attend Illinois State University. At University he came into contact with his first tuba teacher, Edward Livingston, who had been a student of William Bell and Arnold Jacobs. Martin found Livingston to be an excellent teacher, giving him a good technical, and musical grounding. While Livingston ensured that his students got through all their scales and covered all aspects of tuba technique on a daily basis, his biggest strength was that he always taught from a musical perspective.

In his third year at Illinois State Martin began taking occasional lessons with Arnold Jacobs. He remembers being bowled over when Jacobs took his tuba from him and played it for him. The sound that Jacobs produced was so beautiful that Martin remembers wanting to emulate that sound. He continued to study with Jacobs, eventually attending Northwestern to do a Masters in Tuba Performance.

Martin counts Livingston and Jacobs as the major influences on him as a tuba player. Livingston gave him a discipline for practice, while Jacobs gave him a sense of tonal excellence and style. He also learned about high standards from Jacobs, and that nothing is impossible. He remembers taking repertoire to Jacobs that he considered to be difficult, only to have Jacobs give a little chuckle and play the difficult parts with ease. Jacobs helped him understand that it is possible to play anything if one puts the time into becoming very familiar with it.

Martin was also influenced by recordings of some excellent tuba players such as William Bell and John Fletcher. He remembers Bell's beautiful tone and Fletcher's tasteful and soulful playing. He also recalls a recital by Michael Lind in which he was amazed by what Lind could do on the tuba. That was a great motivation for his own playing.

As a teacher and player, Martin has developed a philosophy about tuba playing that places good taste and good tone as the most important aspects of performance. He also feels that it is important to have sufficient technique so that it becomes invisible and acts only to serve one's musical goals. As a teacher his general approach is to have his students play good music and let the techniques of playing improve in that context. This philosophy does not exclude having students play drills and exercises; rather it puts emphasis on musicianship and the solving of problems with a musical, rather than technical approach.

Specific Pedagogical Questions

Question #1: What principles guide your approach to teaching excellence of tone? Can you describe in general terms your approach to improving a poor sound?

For Martin the guiding principles to attaining excellence of tone are clarity and beauty, and the best way to have a student achieve these is to demonstrate and have him imitate. If a student came to him playing with a pinched tone, he would draw attention to that tone and ask the student to listen carefully and compare it to Martin's tone. In trying to imitate, the student's tone would gradually improve. Martin finds that the best way to encourage good tone is to have the student play études that require a good tone to sound acceptable. He also requires students to play at a *mezzo forte* to *forte* dynamic range, explaining that it is the best range in which to establish a fine tone. Mouthpiece buzzing can also help the student improve tone quality by encouraging openness and ease in the blowing, especially when trying to imitate the teacher's buzz.

Martin rarely discusses embouchure with a student. He believes that creating and producing an excellent tone consistently throughout the range of the instrument demands a good embouchure. On a rare occasion he may have a student move the position of the

mouthpiece on the lips, but he never speaks of an embouchure change as this destroys all confidence.

Question #2: To what extent do you emphasize the importance of ‘singing in the brain while playing’ with your students?

Martin tries to make ‘singing in the brain’ natural for his students by first having them audibly sing an étude. He believes that this helps turn the voice on in the brain so that it will be there when the student plays. With practice this voice becomes stronger, and performance on the instrument improves. Once the student hears how much better he sounds, that becomes the motivation, and singing in the brain becomes less of a conscious effort.

Question #3: How would you describe your approach to teaching respiration for performance purposes on your instrument?

Martin prefers to keep direct references to breathing to a minimum. He finds that a few students do not need to hear the words and can simply imitate what he does. For others he starts by asking them to take a deep breath. From this he can see what they consider to be a deep breath, and what they do most naturally to take it. From there he can take the necessary steps to help them become as efficient as possible in their breathing. To do this Martin demonstrates what a deep breath is and how easily one can move the breath. It is also important that the student understand why he must take in so much air. Martin tells students that to play with an excellent tone one must be able to use air freely or “waste” it. Excellent tone is not possible if one tries to “save” air. Once a student realizes the advantages of having a great deal of air to work with and the beautiful tone it promotes, then he is motivated to take that kind of breath again and again.

Another important aspect of breathing for Martin is that it should not be a distraction to the listener. Tuba players must fill their lungs completely upon inhaling because there is so little resistance to the air when it is blown. There can be nothing more distracting to an audience than hearing frequent, noisy breaths from the tuba player, especially in a solo. Martin teaches his students to take full, relaxed breaths, as quietly as possible. This requires maximum suction with minimal friction.

Question #4: Do you advocate buzzing on the mouthpiece as a practice tool? If so, how can it be helpful for a student?

Martin is a firm believer in the advantages of mouthpiece buzzing. He encourages his students to buzz frequently, not just as a warm-up tool, but mainly as tool for liberating musical thoughts. He says that because there are no valves, one is free to play whatever music one wishes on the mouthpiece, overcoming any technical barriers that may exist on the instrument. To make the buzz sound musical, one must really be ‘singing in the brain.’ He also uses it as a therapeutic tool in refining a number of aspects of a student’s playing. Having a student buzz a passage on the mouthpiece can improve blowing, articulation, and tone, and generally refines the embouchure. Buzzing in the high range helps to improve that range quickly, strengthening the connection between the pitch the player hears in his head and his embouchure.

Question #5: What principles guide your teaching of articulation on your instrument? Do you advocate teaching a specific placement of the tongue while articulating?

For Martin, the guiding principles in teaching articulation are clarity and musical appropriateness. The basic sounds required for various articulations can be taken from language, and he uses the consonant “t” as an example. If a student’s basic articulation

does not sound clear then Martin will ask the student to say a word such as “Tom” to hear the sound of both consonant and vowel. To improve the articulation he may have a student sing a musical passage listening for the sound of the appropriate articulation. He then would have the student buzz the passage copying the sound of the articulation, followed by playing the passage on the instrument. He does not speak of specific placement of the tongue, pointing out that each person’s tongue and aural cavity is different.

Question #6: Are there any specific techniques you use to help your students learn to slur through the harmonics of the instrument? For valve (or slide) slurs?

Martin teaches slurring through the use of appropriate études. Provided a student is producing a good tone, slurring of any kind, whether valve or harmonic, will become easier with practice. Upon assigning an étude or drill, Martin demonstrates and asks the student to imitate. If a student has difficulty, Martin avoids pointing out what the problem may be (such as a closed throat) and emphasizes the concept of creating wind past the lips. Blowing outside the body, or having the student focus on where the air is going, will overcome any problems. Such problems as a closed throat will only arise in the absence of real blowing.

Question #7: What do you find to be the most effective way of improving a student’s range?

Most young tuba and euphonium players are not aware of the range of their instrument, so Martin familiarizes them with that first. After establishing good tone production habits in the mid range, he will introduce musical material that requires the student to play in both high and low registers. He emphasizes that it is important always to return to the middle register to re-establish the norms of respiration and tone. Martin

recommends playing twice as much in the middle register as in either the high or the low in any given practice session. For example, if one were to play an étude that kept the player in the high register throughout, it should be followed by playing two études in the middle register.

Martin also points out that various drills, scales, and lip slurs are useful in enhancing one's range, and that they need not necessarily be introduced as range building exercises. If approached as tone building studies, scales can be an effective way of getting a student into ranges he may normally neglect.

Question #8: How would you describe your approach to accomplishing effective dynamic contrast with your students.

Again, Martin believes that the best way of increasing a student's dynamic range is to assign appropriate études and repertoire. For example, the performance of many orchestral excerpts requires playing at high volumes. Upon assigning an excerpt, Martin will demonstrate it first and then send the student to practice. If the student returns playing the excerpt loudly but out of control, then Martin will work with the student to regain control of the tone. This involves more demonstration and imitation, accompanied in some situations by drill work. Martin's approach always begins with having the student produce his best sound, followed by increasing or decreasing the volume while protecting the tone. Martin encourages his students not to be afraid to try dynamic extremes. He explains that while the sound may be crude at the beginning, this will disappear as skill develops.

Question #9: What approach do you take to ensuring a strong technical grounding for your students?

Martin believes that a performer is the product of the kind of music he chooses to play. If a player wants to develop a wonderful technical facility, then he must choose technically challenging music. This approach can be augmented with scales and drills that help refine the technique, as well as build it beyond what is needed. This extra technique is what Martin refers to as the player's "reserve tank."

He reassures students that no music is too difficult to play once they familiarize themselves sufficiently with it. This approach encourages development of technique as a servant to the music being performed, and not as an end in itself. He feels that a performer's technical facility should be hidden by the musical message he is communicating.

Martin teaches both tuba and euphonium and uses the same teaching approach for both instruments. He acknowledges that euphonium players are faced with greater technical demands and that playing music which requires excellent technique is the best way to meet these demands.

Question #10: Are there any other techniques or ideas that you use in your teaching that you would like to comment about?

Overall, Martin tries to instill in his students a love of playing. He tells them not to practice only to improve, but also to have fun. He discourages students from being too hard on themselves, and reminds them that if they are not enjoying making their music, the audience will not enjoy listening to it. He asks them to do a great deal of listening to other musicians, not just tuba players, to hear what musical possibilities exist, and how artists express themselves. He also stresses the importance of practice and repetition.

Observations of Pedagogical Approach and Style

After observing eight hours of Rex Martin teaching both euphonium and tuba students, it is clear that he uses all of the tools and practices espoused in the interviews. There are some features that stand out consistently.

The first thing that one becomes aware of is the intensity of the lesson experience. Martin demands a high level of concentration in each lesson by requiring his students to listen very carefully to his playing, and to their own. He challenges their listening abilities by concentrating on subtleties of such things as rhythm. He is meticulous about rhythm, insisting on clarity and precision. He uses a tape recorder in his studio that has the capability of half speed play-back. Hearing one's performance of a passage at half speed illustrates very clearly any rhythmic deficiencies that might have existed.

He also challenges his students by asking them to divorce dynamic from style; something that is difficult for many young performers. He may ask a student to change the dynamic of a particular étude while retaining the style. He feels that many students link style with dynamic and need to be more flexible in this regard.

Martin's students perform a great deal of étude material in lessons. These are approached on many different levels. In some lessons several were used as sight-reading materials. In others, a single étude may occupy teacher and student for the entire lesson time, so that many aspects of the étude could be explored.

Other things that stood out were the frequency with which Martin demonstrated musical ideas in lessons. Very often demonstrations of tone, articulation, dynamics, rhythm, and technique were carried out on the tuba. In addition, Martin used his voice and the mouthpiece as tools for demonstrating musical and technical ideas. With such frequent use of demonstration, he was able to forego lengthy verbal instructions unless they were necessary.

Martin always reminds his students about playing with style and excellent tone. He is vigilant with them about breathing well in order to play with a good tone consistently. In the lessons observed his over-riding concern was that his students produce the tone efficiently, so that their musical goals could be realized with the least amount of effort.

Summary

In this chapter a profile of each of four brass teachers' pedagogical approach has been constructed. Specific questions were asked in two interviews in an effort to understand each teacher's approach to teaching. In addition, individual lessons were observed in order to witness first hand, the pedagogical approach of each teacher. The information presented in this chapter will be analysed in the next, and conclusions drawn about the relationship of each teachers' respective teaching approach to that of Arnold Jacobs.

CHAPTER FIVE

ANALYSIS AND CONCLUSIONS

By the middle of the twentieth century a small revolution was taking place in the field of brass pedagogy. Old ideas about how tone is produced on brass instruments were being challenged by the tuba player in the Chicago Symphony Orchestra. Arnold Jacobs recognized that many of these ideas were counter-productive. He articulated an approach to brass performance based on an understanding of human respiratory physiology. From his informal studies in this area he developed and articulated a pedagogical approach which demystified how tone is produced on brass instruments. With his understanding of psychology, he was able to attach this approach to making music on brass instruments. He summarized his approach in the phrase “song and wind.”

In the 1950s Arnold Jacobs’ reputation as a teacher widened and brass players from Chicago and beyond visited him for lessons. His reputation as a teacher continued to grow through the ensuing decades with the result that his ideas about brass playing became more widespread. His teaching made such an impression on his students that many adopted his approach in their own teaching. These teachers continue to carry forth his approach and pass it on to their students.

It has been the intent of this document to show that Arnold Jacobs’ unique pedagogical approach lends itself to all brass instruments without modification, and that it is used by teachers of those various instruments. To that end, his approach has been shown in the context of what was being generally taught to brass players when he began teaching in the 1940s. In addition, his approach has been documented through research of the available literature, interviews with former students, and through the author’s personal

experience in lessons with Jacobs. And finally, four teachers of the various brass instruments have been interviewed and observed in order to establish each one's connection to Jacobs' pedagogical approach.

The simplicity of Jacobs' approach, and its focus on tone production within a musical context, are the features that make it adaptable to all brass instruments. Based on the evidence presented in the previous chapter, those teachers who participated in the study use this approach in their teaching. Vincent Cichowicz, trumpet; Gail Williams, horn; Frank Crisafulli, trombone; and Rex Martin, euphonium/tuba, were each asked the same questions in order to establish their individual backgrounds, influences, and teaching approaches. Six to eight hours of videotaped lessons of different students taught by each were observed in an attempt to understand each teacher's approach and teaching philosophy. From the information gleaned through this process, it is apparent that Arnold Jacobs' pedagogical principles of "song and wind" were the guiding principles of these teachers. It is also apparent that the pedagogical approach that these principles support can be used without modification in teaching all the brass instruments. The answers to several of the questions posed in the interviews demonstrate each teacher's belief in the value of the teaching principles of "song and wind."

According to the responses regarding the importance of "singing in the brain" while playing, singing aloud played a role in each teacher's studio. Williams and Crisafulli both stated that hearing pitches in one's head is necessary for a performer in order to play the pitches on one's instrument. All four discussed the usefulness of having students actually vocalize. Cichowicz and Williams both found this to be an excellent way to discern if a student truly has a strong musical idea about the passage to be played. Cichowicz often had a student sing a passage again after he demonstrated through singing. Martin also used this approach. He stated that having a student sing the passage to be played helps to "turn

on the voice in the brain” so that it will be there when the student plays. Crisafulli also had students sing but emphasized it less than the other three. He accomplished the same goal by having students play passages slowly. He asked students to play slowly so that they could really hear how a passage should sound both technically and musically. He would have them repeat the passage until security and musicality were achieved. This kind of slow repetition provides repeated opportunities for the sound of the passage to be absorbed by the student. The end result of either singing aloud, or playing passages slowly a number of times, is that the musical idea is strengthened in one’s mind. With a strong musical message, or song in the brain, execution on the instrument is made easier.

The second question concerned the teaching of tonal excellence and how each teacher would go about improving a poor tone. All four teachers agreed that a student must have a concept of excellent tone before he can achieve it himself. While Martin did not state this directly as the others did, he described excellent tone with the words “clarity” and “beauty.” He also felt that the best way to help a student achieve these qualities was through demonstration. Cichowicz and Williams both agreed with this approach. Williams also liked to play recordings of other players for her students to give them a wider experience of tone qualities and musical approaches. She stated that she does not necessarily want her students to sound like her. In spite of this, she played a great deal in the lessons, providing an excellent example of many aspects of horn playing.

It is interesting to note that when the teachers were asked about how they help students improve a poor sound, three out of four discussed respiration. Cichowicz, Williams, and Crisafulli all felt that the key to excellent tone lay in eliminating any stiffness in the body so that respiration can occur with as little resistance as possible. This allows for efficient tone production in which the greatest amount of vibration, or buzz, is created with the least amount of physical effort. Martin expressed the same idea slightly differently

when discussing respiration. He explains to students that to play with an excellent tone one must have a sufficient quantity of air in the lungs so that it can be “wasted.” He stresses that excellent tone cannot be achieved if one tries to “save” air. In other words, one cannot hold the air back to achieve excellent tone but rather must blow freely and without restriction.

Responses to the question about articulation revealed common elements that reflected Jacobs’ approach. All four acknowledged the fact that each person’s oral characteristics differ, and for that reason what works for one when articulating will not necessarily work for another. All of them believed that the sound of the articulation is what is most important and that using sounds in language as models is the best way to achieve good, basic articulation. They all discussed the appropriate consonant to use as the model for basic articulation, and emphasized the importance of the subsequent use of an open vowel. All four discouraged articulating between the teeth, presumably because doing so would not sound good. Both Cichowicz and Martin pointed out that “correct” articulation is what sounds musically appropriate. Crisafulli emphasized that one must realize that the tongue does not start tone but rather the wind supplied sets the lips vibrating.

Mouthpiece buzzing is perhaps the last issue that closely links the teaching of each of the four teachers to Jacobs. All of them recognize its value in associating pitch made by the lips with pitch heard in the head. As Cichowicz stated, buzzing the mouthpiece ensures that “your lips are singing.” Martin felt that the greatest advantage of mouthpiece buzzing is its ability to liberate a player musically, pointing out that with no valves to manipulate a player is free to perform whatever music comes to mind. Williams noted that mouthpiece buzzing is something that not many horn players do, but that it has value both as a diagnostic and therapeutic tool. Cichowicz, Williams, and Martin agreed about the value of mouthpiece buzzing in improving various aspects of one’s playing such as tone,

articulation, and blowing. These three also mentioned the additional benefit of mouthpiece buzzing in improving high register playing. Crisafulli found that mouthpiece buzzing was more beneficial for some students than for others. He used it as a tool in situations where a student was not having success on the instrument.

What becomes clear in this analysis of each teacher's responses is the emphasis on controlling sound rather than tissues in order to play music on brass instruments.

Responses to the others questions asked regarding specific technical challenges further confirm this approach. For example, when each teacher was asked about helping a student improve range, none of them suggested raising or lowering the height of the tongue to facilitate a change in range.

What also becomes clear is that successful execution on each of these brass instruments is contingent upon having a clear musical message in the mind. This message must be accompanied by efficient use of the air to make the lips vibrate; in other words, song and wind. There appears to be no need to modify this simple approach because of the instrument being taught. The special concerns of both horn and trombone players noted previously are independent of tone production and musical message.

Interpretation by a third party of what is being taught in lessons and what is being learned are two different things. By observing a number of lessons one gets a sense of what is important to each instructor. However, it is much more difficult to get a sense of what is being learned by each student. Students whose lessons were videotaped were asked to respond to a questionnaire¹ to better understand what they felt they had received in the lesson.

Although participation in answering these questions was low, those received were illuminating. The answer to one question was particularly revealing and helped confirm

¹ The questionnaire and answers can be found in the appendix to this document.

that the basic approach of “song and wind” was being experienced. When asked: “Which of the concepts presented to you in your lessons do you find to be the most helpful in your playing?”, Cichowicz’s students responded that thinking musically and playing with free air were the most helpful. Williams’ student responded in a similar manner citing breathing, tone, and thinking about the style of the piece about to be played as being the most helpful concepts. Crisafulli’s students mentioned his emphasis on musicality, and one commented on how much he liked it when Crisafulli sang as he played. “I find it most helpful when he sings while I am playing. I find myself “singing” more on my instrument, using more air, and less preoccupied with each little detail - just relaxing and playing.” Another noted the helpfulness of Crisafulli’s insistence that the flow of air be unaffected by anything else, and that one must hear all music as a tune. Martin’s students mentioned tone, breathing, musicality, and rhythm as the concepts that were most helpful. It is clear that all of these students were getting the same basic message - that of song and wind.

One aspect of Jacobs’ approach that none of the four teachers appeared to stress is the usefulness of visual aids. As discussed in chapter three, Jacobs used various gadgets at times to help students see the results of their playing efforts. In one of Williams’ lessons, she demonstrated a breathing device for a student and explained its value but she did not have him try it. Martin made a passing comment about using “devices” to show a student what a deep breath is, but did not use any in the lessons observed. The absence of the use of visual aids in these teachers’ studios may have been due to the fact that none of the students required such assistance. On the other hand, it may simply be that all four teachers preferred to have their students associate more strongly with the sound by emphasizing careful listening.

As expected, no two teachers taught in exactly the same way. While I believe that this study demonstrates each teacher’s use of basic principles in his or her studio, it also

shows that each one emphasizes various aspects of these principles to various degrees. Observation of lessons taught reveals this perhaps more than the answers given to specific questions in interviews. For example, Crisafulli did not actually ask any of his students to buzz the mouthpiece and Cichowicz only asked for this in a few instances. On the other hand, Williams and Martin had every student buzz in each lesson. Another example concerns emphasis on singing in lessons. Martin appeared to require his students to sing more frequently in lessons than did the others, while Crisafulli sang most of the time as a means of demonstration. These variations undoubtedly reflect what each teacher perceived to be the best way to get the simple message of “song and wind” across to his or her students.

The various differences in emphasis may also reflect influences in each teacher’s personal background. Some experienced more teaching in their respective backgrounds than others. Crisafulli for example, had a minimum of teaching when learning how to play. All four teachers played in the Chicago Symphony for various lengths of time.² While it is difficult to assess any direct influence that this experience had on each person’s teaching, it did effect all of them as musicians. One would expect this influence to have an impact on how each trained his or her students.

All four mentioned the influence of Adolph Herseth, Principal Trumpeter of the Chicago Symphony since 1947. All acknowledged Herseth’s influence on the sound of the brass section and on the orchestra. Crisafulli commented that Herseth was a wonderful musician who established an approach to playing to which everyone in the brass section responded. Williams, Cichowicz, and Martin all agreed with this assessment. Cichowicz observed that even with personnel changes in the brass section the standard and approach

² While Martin was never an actual member of the Chicago Symphony, he performed with them on a regular basis in the early 1980s when Mr. Jacobs was unable to play.

set by Herseth continued.

Williams and Martin also acknowledged the influence of Arnold Jacobs' sound and approach as the tuba player in the Chicago Symphony. They felt that having Herseth on the top of the sound and Jacobs on the bottom set a standard of excellence. Williams noted that what one heard when listening to these two players as well as the rest of the brass section, was efficiency in producing the sound. This is perhaps the element that links each teacher's experience of playing in the Chicago Symphony to their teaching. To be in the midst of an incredible sound that was being produced so easily demonstrated immediately the advantages of an approach to playing and teaching that emphasized efficient tone production.

This experience probably had the greatest impact on Crisafulli's teaching. Where there was very little actual instruction (other than that with Jacobs) in his background, one must assume that his understanding of how to play, and how to teach others to play, came mostly from his playing experience. Crisafulli played in the Chicago Symphony for fifty years and heard his colleagues demonstrate almost daily the principles that Jacobs articulated.

A fundamental part of Jacobs' approach to pedagogy is the necessity of having a concept of excellent tone in one's ear to emulate. As noted in the previous chapter, both Williams and Martin played for and with their students frequently. While Cichowicz and Crisafulli were no longer performing and could not demonstrate, their students had the advantage of being able to hear excellent brass sounds because of where they chose to study. This raises the question of how Jacobs' approach can be applied in smaller places where it might be difficult to hear live performances of excellent brass players. One can take the question further and ask how this approach might be applied in a beginning band program in a small town. In spite of Cichowicz's reservations, it would appear that the

best way to introduce a concept of excellent tone in these situations would be through regular playing of recordings of excellent performances. The effectiveness of this approach to teaching concept of tone to inexperienced brass players could provide fertile ground for future study.

APPENDIX 1
INTERVIEW QUESTIONS AND ANSWERS

Brass Teachers' Interview #1: Questions

Purpose:

a) To establish the background and approach to teaching of each of the teachers designated for observing and, b) to establish whether or not being performers in a common musical organization has had a particular influence on each teachers' teaching.

a) Background and early influences.

1. What is your background as a student of your instrument? How did you get started and who were your principal teachers?

2. Who was the biggest influence on you as a student? If it was a teacher can you describe the nature of the influence. (Personality, musical, both, other?)

3. Looking back, do you recall experiencing an approach to playing your instrument by any of your teachers that seems to have been ineffective?

4. Was there an approach that seems to have been particularly effective?

5. Is there a particular approach or philosophy to teaching your instrument that you have adopted? If so, can you describe it and how you came by it?

6. As an experienced teacher of your instrument, what do you expect and hope that your students will take with them from studying with you?

b) Influences as a player in the Chicago Symphony.

For many years, people have talked about the Brass Section sound of the Chicago Symphony. Of course, the sound has changed and evolved with different conductors and with different players coming into the section over the years, but this "sound" is still discussed.

7. What do you feel these people may be referring to when discussing "sound"?

8. Could they mean approach to producing the sound? If so, can you describe this approach?

9. In what ways has this approach differed from the approach of other fine players in other orchestras particularly in North America?

10. Do you feel that this approach to producing sound is something that distinguishes the teaching going on here from that going on elsewhere?

Brass Teachers' Interview #1: Answers

Vincent Cichowicz, trumpet

a) Background and early influences.

1. What is your background as a student of your instrument? How did you get started and who were your principal teachers?

- began trumpet at age 12 in a school program
- first teacher was a cornetist whose emphasis was on technique and not tone production or sound
- with his interest in symphonic music he went to Schilke - primary teacher
- Cichowicz played with his mouthpiece set in his lower lip and Schilke changed that
- period of adjustment but he had reached quite a high standard the old way - didn't take long to get back to where he had been
- in 1948 - 49 in Civic and had some lessons with Herseth - not many
- a few lessons with Jacobs throughout the early '50s - initially rejected what he had to say
- then it gradually started to make sense - they became colleagues and friends and Cichowicz made some changes in his playing that helped significantly
- joined the CSO in '52.
- they hung out together on tours - talked politics, books, musical, and brass concepts.

2. Who was the biggest influence on you as a student? If it was a teacher can you describe the nature of the influence. (Personality, musical, both, other?)

- Herseth was a big influence musically
- playing under great conductors
- perhaps didn't get as much from trumpet teachers
- Influences: got a lot from Schilke, from playing in the section, and from Jacobs

3. Looking back, do you recall experiencing an approach to playing your instrument by any of your teachers that seems to have been ineffective?

- Schilke - an old German school of the "tight gut" - didn't really take hold for V C and Schilke didn't push it as long as he could play the assigned material.

4. Was there an approach that seems to have been particularly effective?

- played pretty well before he met Jacobs
- in discussions and lessons with Jacobs though, he gained an insight into why things didn't sound good - Jacobs could explain clearly the cause and effect relationships of playing that eliminated any possibility of "chance" entering one's playing
- a refinement and insight came to his playing
- this also came through observation of his colleagues

- dramatic changes that evolved - removed the idea of good-days, bad-days or “good lip” and ‘bad lip”
- trumpet colleagues other than Herseth were trained in Boston - they both played well
- in those days you played well or you didn’t - there wasn’t any discussion about pedagogical concepts

5. Is there a particular approach or philosophy to teaching your instrument that you have adopted? If so, can you describe it and how you came by it?

- always curious about why there could be so much difference in ability between one player and the next. Why, other than different levels of talent, could a lot of hard work not get the same benefit for one player as it might for another?
- As a teacher - treat each student as you would like to be treated, with courtesy and respect.
- his curiosity led him to read about and discuss brass playing to continue to find out more - method books, articles, and conversations with other players to learn more about teaching and playing.

6. As an experienced teacher of your instrument, what do you expect and hope that your students will take with them from studying with you?

- wants to promote individualism
- most important thing is the basic approach - excellent tone always, then guide the student in lessons to always pay attention to good tone and technique - how it sounds not how one does it.
- must also have musical inspiration - the other (technique) is extremely academic - without inspiration and musical goals one will be frustrated.
- Also important is the psychology of nurturing and coaxing rather than pressuring.
- pressuring is usually counter-productive.

His approach:

- Problems of all sorts boil down to tone production. Other teachers approach a tonguing problem with tonguing studies
- need to look first though at basic production
- also, the musical conception may be faulty so that even if the pedagogical approach to tone production may be good, the musical idea has to be absolutely clear in the student’s head for the technique to work.

b) Influences as a player in the Chicago Symphony.

For many years, people have talked about the Brass Section sound of the Chicago Symphony. Of course, the sound has changed and evolved with different conductors and with different players coming into the section over the years, but this “sound” is still discussed.

7. What do you feel these people may be referring to when discussing “sound”?

- there is a “sound”
- like a good team there was a desire to meet the standard of the best players in the orchestra - all sections
- Obvious that Herseth set the standard, also Jacobs, Farkas (marvelous) and Kleinhammer. There was a spirit
- different players joined the orchestra and left but the desire to fit in kept the standard.
- no organized effort and Herseth rarely said anything but led by example - people tried to match.
- Clevenger a strong player and personality so there was a change in the horn sound when he came.
- as more Chicago trained players joined there were fewer noticeable differences in style.

8. Could they mean approach to producing the sound? If so, can you describe this approach?

- a real effort to fit in and play like what was already around you and what you were hearing.

9. In what ways has this approach differed from the approach of other fine players in other orchestras particularly in North America?

- there was a difference probably in approach to playing, again every one wanted to play to a standard so there was unanimity in the end result.
- education and emulation combined to bring this unanimity.
- respect for the work of the finest players - suppression of the individual ego to the benefit of the whole.
- not really aware of what others were doing, but this orchestra always played with a wide dynamic range and concept of sound that everyone focused on. All good musicians.

10. Do you feel that this approach to producing sound is something that distinguishes the teaching going on here from that going on elsewhere?

- demands of the job made him aware of how important producing *the* sound was

Gail Williams, Horn

a) Background and early influences.

1. What is your background as a student of your instrument? How did you get started and who were your principal teachers?

- small town in NY state - mother was a music teacher.
- town band which every one played in - her mother conducted
- took the French Horn because she was left handed
- man that started her on horn told her an important thing - you have to buzz your lips
- he was a good trumpet player and played in the town band so you could hear him play

- he left - new band director -he gave brief lessons - 10 minutes a week - wasn't very good but got her through some repertoire
- solo competitions - 1st time in 5th grade - adjudicator wrote that horn players have to hear everything they play - you have to be able to sing it to play it
- this and being told to buzz the lips and mouthpiece were the most influential things she was told early on.
- wanted to go to Ithaca as a phys-ed major - didn't think that she would end up in music
- she went to an All Eastern competition and auditioned for a band - she came 2nd out of 16 players
- she reconsidered a career in music - Walter Beeler encouraged her to go into music.
- auditioned at Ithaca and went into combined program of music Ed and applied.
- John Covert was her horn teacher - went through a lot of literature and études - no excerpts - gave her a good grounding.
- learned how to play the instrument before being faced with 'Till, for example.
- she played in the orchestra so she hit a few excerpts.
- went to Tangelwood in summer of 72 where she got the bug to play - graduated from Ithaca in May 73
- Came to Chicago to study with Frank Brouk (Jan. 74) NU part time
- fall of 74 played extra in Lyric
- next year went back to school part time and studied with Clevenger - Brouk had retired
- Made the Symphony finals in 74

2. Who was the biggest influence on you as a student? If it was a teacher can you describe the nature of the influence. (Personality, musical, both, other?)

- principal teacher was Covert
- Covert was very dedicated.
- he demonstrated a lot and they played together - he gave her a concept of tone
- other students who were good to play quartets - she played them for hours
- he was disciplined and strict
- definite order to what one played when - sequencing of material
- took regular lessons with Jacobs the whole time she was at NU and after when in Lyric.
- he presented a different approach to the instrument
- freedom instead of work - let the work be in the music
- probably getting the same information from other teachers but the way he put it was special
- lessons with him when in the Symphony too
- gave her ideas of different ways of practicing: like Strauss 2
- gone to his Master classes and that has helped her teaching

3. Looking back, do you recall experiencing an approach to playing your instrument by any of your teachers that seems to have been ineffective?

- All pretty straight forward
- played naturally
- Covert said - don't think - just play.
- he could answer - just knew when not to answer.

4. Was there an approach that seems to have been particularly effective?

- Jacobs lessons - she'll never forget those
- Frank Brouk demonstrated a lot and that helped
- Clevenger did a lot of excerpts
- Oldberg told her some things differently than Clevenger
- she tried to combine all the influences
- Oldberg got her to practice auditioning - the ten minute thing - play through a group of pieces on the list for ten minutes 2 or 3 times a week.
- she was able to sort through all the different approaches because of the solid grounding she had with Covert.
- In her own teaching she tries to give students the same solid foundation.

5. Is there a particular approach or philosophy to teaching your instrument that you have adopted? If so, can you describe it and how you came by it?

- this is her approach - give a good grounding
- also approach it like an athlete - you don't run races without doing the long, slow miles
- do the basics every day or your playing goes downhill - she uses the Shantl book - scales, thirds and so on

6. As an experienced teacher of your instrument, what do you expect and hope that your students will take with them from studying with you?

- to continually get better - to be their own best teacher
 - she asks them questions about what they think happened - doesn't just hand it to them - otherwise they don't think for themselves
 - if they have the basic technique down then they can work on things by themselves.
- b) Influences as a player in the Chicago Symphony.

For many years, people have talked about the Brass Section sound of the Chicago Symphony. Of course, the sound has changed and evolved with different conductors and with different players coming into the section over the years, but this "sound" is still discussed.

- 2 men that influence the sound - Jacobs influence as a teacher and player - Herseth - his strong leadership

- now with Pokorny - (who studied with Jacobs at the time of this interview) you have the same bass voice concept.
 - Herseth just does it - she talked to Bud a lot and asked him about buzzing because horn players just don't buzz as a rule - he turned her on to buzzing as a practice tool
 - Herseth's sound and approach - you just match it
7. What do you feel these people may be referring to when discussing "sound"?
- very focused brass sound - horns match the focus of the trumpets and trombones
8. Could they mean approach to producing the sound? If so, can you describe this approach?
- part of it is the breathing one hears all around - everyone takes a big breath and then blows easily - efficient!
9. In what ways has this approach differed from the approach of other fine players in other orchestras particularly in North America?
- part of it is the hall - dead hall
 - when one hears the focused sound of the trumpet and trombone, you can't put an unfocused horn sound into that
 - the Conn 8D has a less focused tone than other instruments
 - they say they blow really easily.
 - she finds that to get a centered sound on one you have to add resistance - there goes your freedom
10. Do you feel that this approach to producing sound is something that distinguishes the teaching going on here from that going on elsewhere?
- I suppose - the emphasis is on efficiency
 - nobody buzzed at Summit when she first started going there 15 years ago - gave 20 lessons this trip there and none of the horn students buzzed their mouthpieces.

Frank Crisafulli, trombone

a) Background and early influences.

1. What is your background as a student of your instrument? How did you get started and who were your principal teachers?

- 1st teacher was his father - a trombonist with the Chicago Civic Opera
- began in the late 20s
- father not a good teacher
- his older sister was a genius - an excellent pianist who got most of the attention
- he started playing when he was in high school band

- father never laid out a disciplined approach to practice
- his father played for him a lot but didn't tell him much
- had quite a natural ability
- had difficulties though, including pain in the lip
- this he traces back to a sledding accident as a child that severely cut his lip
- caused him to have to move the mouthpiece off to the side to avoid the pain of playing
- had more success playing off to the side
- went to NU as an arts major
- continued to play but with difficulty
- took up the cello while in high school as well
- floundering in college, he wasn't sure what he wanted to do
- went to orchestra rehearsals with different groups on the trombone
- he got in Civic Orchestra
- played an audition for associate in the CSO (1940)
- after a year he became the principal trombone
- had nerves mainly because he had this lip problem
- he also had some kind of cyst in his lower lip that had to be removed

2. Who was the biggest influence on you as a student? If it was a teacher can you describe the nature of the influence. (Personality, musical, both, other?)

- studied with some others when he could manage it
- got his concept of tone and musicianship from listening to his father play
- high school teacher was encouraging but not much help on the trombone
- didn't really seek out anyone else during his problems in the orchestra
- after 1944 he spent some time studying with Jacobs and worked on his breathing
- discovered how important this was to good tone production
- he realizes this more and more even now
- Jacobs was very helpful on this
- he has always suffered from hyper-tension and nervousness
- the relaxed breathing helped this problem somewhat
- some of the jazz players at WGN where he subbed were good musical influences

3. Looking back, do you recall experiencing an approach to playing your instrument by any of your teachers that seems to have been ineffective?

N/A

4. Was there an approach that seems to have been particularly effective?

- becoming aware of the free use of the breath

5. Is there a particular approach or philosophy to teaching your instrument that you have adopted? If so, can you describe it and how you came by it?

- enjoys teaching
- keep it simple - approach playing from the standpoint of simplicity
- play through a phrase even though the first note is not so good
- take the breath and blow - don't think too much
- commit yourself to the following phrase
- rhythm must be natural as well, not forced
- one can't under-estimate the need for having a strong musical idea - this must be dominant - His analogy is of 2 expert drivers, one of which has a map to the destination while the other doesn't - who will have more success in getting to the destination?
- one must work at slow tempos for rhythmic coordination

6. As an experienced teacher of your instrument, what do you expect and hope that your students will take with them from studying with you?

- to enjoy playing
- to keep a perspective on playing

b) Influences as a player in the Chicago Symphony.

For many years, people have talked about the Brass Section sound of the Chicago Symphony. Of course, the sound has changed and evolved with different conductors and with different players coming into the section over the years, but this "sound" is still discussed.

7. What do you feel these people may be referring to when discussing "sound"?

- always tried to play the style of the music
- the whole trombone section originally played a Schmidt trombone - slightly different sound - they retained some of that sound when moving to American instruments.

8. Could they mean approach to producing the sound? If so, can you describe this approach?

- Herseth - a wonderful musician that established an approach - one wanted to fit in and respond to that

9. In what ways has this approach differed from the approach of other fine players in other orchestras particularly in North America?

- every member of the brass section was willing to fit in and not try to be so much of an individual
- have the confidence to fit in - to be a unit
- no soloists
- always wanting to play to the highest standard

10. Do you feel that this approach to producing sound is something that distinguishes the teaching going on here from that going on elsewhere?

N/A

Rex Martin, euphonium/tuba

a) Background and early influences.

1. What is your background as a student of your instrument? How did you get started and who were your principal teachers?

- started in 4th grade with no tuba teachers - only school teachers - avoided bad habits by not having bad teaching
- experience was mostly with hearing good sounds of players on other instruments
- no other tuba players around in central Illinois
- had a good junior high teacher who insisted on playing good music - also had a great high school teacher who encouraged him to play out and with a full sound
- developed a good technique and tone while in high school
- Ed Livingston was his teacher at Illinois State and was the first tuba teacher he had - first real tuba player that he heard
- also heard Sherri Huff at a band camp (euphonium) before going to IS who had a beautiful sound - hearing her really made him decide to study music.
- after his sophomore year, Livingston sent him to Jacobs for lessons - first dramatic influence on him when he heard Jacobs play his horn and heard the beautiful sound

2. Who was the biggest influence on you as a student? If it was a teacher can you describe the nature of the influence. (Personality, musical, both, other?)

- Jacobs taught him about standards and about always making the best tone on his instrument.
- hearing John Fletcher on recordings - he played with so much taste and heart
- other recordings such as Floyd Cooley, Bill Bell, Harvey Phillips
- Ed Livingston was a big influence - Livingston taught from a musical perspective - got him through a lot of études, scales, etc.
- prepared his students for the profession - taught about the tradition of the tuba

3. Looking back, do you recall experiencing an approach to playing your instrument by any of your teachers that seems to have been ineffective?

- there probably were but he learned to use the things that made sense and worked and discard the other stuff.
- different syllables for different sounds for example from Kleinhammer - didn't work so he forgot about them
- Jacobs sometimes strayed from Song and Wind and talked about anatomical things - Rex didn't really get it and it wasn't a problem for him so he ignored it

- he related well to sound
 - heard a Michael Lind recital and that really gave him something to work for
4. Was there an approach that seems to have been particularly effective?
- Livingston's approach to practicing - the discipline
 - Jacobs' sound, style and exuberance - high standard from Jacobs
 - that everything is easy to play also from Jacobs - work it up and play it
5. Is there a particular approach or philosophy to teaching your instrument that you have adopted? If so, can you describe it and how you came by it?
- after sifting through a lot of musical influences
 - Play with good taste and with good tone
 - a good enough technique that it becomes invisible
 - tone of the utmost clarity - hierarchy of importance: tone and then rhythm
 - to get this across to students it depends on the student - may have to explain a lot with some and for others just demonstrate - others he'll have them play all the time
 - tries to have a musical approach in whatever the student is playing and usually some other technique will be improved by working on it in the context of the étude
6. As an experienced teacher of your instrument, what do you expect and hope that your students will take with them from studying with you?
- idealistic - hopes that by pursuing music they will become a good person and a good musician and excellent students of life
 - also hopes to make his students independent of him when they leave so that they can be their own teachers
- b) Influences as a player in the Chicago Symphony.

For many years, people have talked about the Brass Section sound of the Chicago Symphony. Of course, the sound has changed and evolved with different conductors and with different players coming into the section over the years, but this "sound" is still discussed.

7. What do you feel these people may be referring to when discussing "sound"?
- beauty and clarity and tone - unforced sound in any dynamic and consistency of sound between dynamics
 - Herseth such a big influence on the sound of the orchestra and on individuals - leads by example - absolute professional conduct
 - Jacobs' sound was always impeccable
 - articulation style of the brass section - sound from beginning to end of each note is so consistent - almost a competition among the members of the brass section to play their parts perfectly - when that's together it sounds perfect
 - if it's not perfect the first time everyone has an ear out for Herseth and the second time it'll be right because they go with him

- the consistency throughout the decades comes from Herseth on the top and Jacobs on the bottom
- mainly from Herseth though

8. Could they mean approach to producing the sound? If so, can you describe this approach?

- not a uniform pedagogical approach but everyone has the same goal - uniformity of articulation - style - listen to Herseth
- balance

9. In what ways has this approach differed from the approach of other fine players in other orchestras particularly in North America?

- The above
- also very strong players in every position and especially in the solo seats
- the section has a default style as well

10. Do you feel that this approach to producing sound is something that distinguishes the teaching going on here from that going on elsewhere?

- absolutely - playing with those players had a tremendous effect on him and his musicianship
- that style and approach is ingrained and will be passed on
- approach to rhythm comes from playing with them
- “unbridled enthusiasm” sometimes - sometimes that can carry the day
- the unanimous approach is tremendously exciting
- super high craftsmanship

Brass Teachers' Interview #2: Questions

Purpose:

To discover each teacher's approach to teaching specific concepts and techniques on their respective instrument.

1. To what extent do you emphasize the importance of 'singing in the brain while playing' with your students?
2. Describe your approach to teaching respiration for performance purposes on your instrument.
3. What principles guide your teaching of articulation on your instrument? Do you advocate teaching a specific placement of the tongue while articulating?

4. What principles guide your approach to teaching excellence of tone? Can you describe in general terms your approach to improving a poor sound?
5. Are there any specific techniques you use to help your students learn to slur through the harmonics of the instrument? For valve (or slide) slurs?
6. What do you find to be the most effective way of improving a student's range?
7. Describe your approach to accomplishing effective dynamic contrast with your students.
8. What approach do you take to ensuring a strong technical grounding for your students?
9. Do you advocate buzzing on the mouthpiece as a practice tool? If so, how can it be helpful for a student?
10. Are there any additional or different approaches you use to increase a student's technical facility?

Brass Teachers' Interview #2: Answers

Vincent Cichowicz, trumpet

1. To what extent do you emphasize the importance of 'singing in the brain while playing' with your students?
 - frequently
 - actually has a student sing sometimes
 - for example: if articulation not achieved it may be because the student doesn't know what it should sound like - may improve by experiencing the proper articulation through singing.
 - hear what it should sound like - it is often a conceptual problem, not a physical one - have to have the song in the head
 - got to have a balance between the song and the technique, otherwise the song can't be realized effectively.
2. Describe your approach to teaching respiration for performance purposes on your instrument.
 - keep it simple - taking a breath is like taking an active yawn or sigh - more vigorous when playing
 - "hiss" is not good for intake but "ha" is
 - exhalation - separate the ideas of pressure and flow (wind) with analogies such as cooling hot soup
 - the other way is "constipation syndrome"
 - the muscles don't know the difference - one has to train oneself to the difference between true blowing and pressing it out.
 - wind patterns - these tend to normalize the body

- if a student does a wind pattern on a piece, for ex: Petrushka, and can't speak on the same air immediately after, then you can hear the restriction in the throat - if there is pressure because of restriction in the throat then the voice won't work
- strong resistance on trumpet in the high register especially - has to emphasize acceptance of that without fighting it. The fight will cause more resistance in the body.
- add the energy to the breath and have the tune going
- mouthpiece buzzing and buzz-aid balance the song in the head with the blowing aspect
- a student may be able to sing a passage but when he tries it on the mouthpiece or buzz aid, he might be far off - the buzzing ensures that the tune is there.
- "are your lips singing?"

3. What principles guide your teaching of articulation on your instrument? Do you advocate teaching a specific placement of the tongue while articulating?

- language - each of us may strike the teeth in a different place but if one says: "tah" the tongue will go to the proper place.
- the sound of what you want to hear must guide the sound of the articulation
- uses the analogy of an actor; the actor articulates much differently when acting than when conversing
- extremes are a variation of the norm - such as a *sfz* - one doesn't speak with the equivalent in normal conversation but when acting there is exaggeration.
- how should the passage sound? - that dictates what will happen
- always stresses that articulation is a consonant plus a vowel.
- "staccato is an illusion" - in rapid passages the character of the "attack" can be changed to make the length of the notes sound short or long.

4. What principles guide your approach to teaching excellence of tone? Can you describe in general terms your approach to improving a poor sound?

- concept - you have to have heard a good sound - best done by demonstration.
- stresses listening - finds that recordings are a bit phony.
- the students at NU have many good examples to listen to in the area.
- improving a poor sound - refinement of breathing - can't have rigidity in the body
- second - buzzing has a way of clarifying sound
- use of flow studies - Clarke studies traditionally used as finger studies but he sees that as a side benefit to the aspect of flow that can be achieved to maintain even tone throughout.
- other studies such as Rochut and Russian studies
- long tones can be good - doesn't use them much - they have a danger because they are static - musical aspects of a flow study overcomes this potential problem.

5. Are there any specific techniques you use to help your students learn to slur through the harmonics of the instrument? For valve (or slide) slurs?

- in the past used to correct things although these can be dangerous too. One can easily lock when trying to play without the rhythm of the valve changes - Clarke #3 is good because one starts with valve slurs and immediately to harmonic slurs - keep the flow going on the latter as it was on the former.
 - got to be buzzing all the notes
 - waits until the playing is quite mature before introducing harmonic slurs because they can make one's playing worse if introduced too soon.
 - starts in Eb and goes to the subdominant - keep the 2-3 fingers down and keep the flow going
6. What do you find to be the most effective way of improving a student's range?
- all of the above - uses scales also
 - the notation is often vertical - the lines ascend and descend as you scan the page. playing the notes is horizontal - not reaching for high notes and dipping for low notes
 - expenditure of energy is increased in the upper register - to realize this without transforming it into tensions or pressures is important
 - sometimes difficulty telling what is increased energy and what is tension - the guide is what it sounds like
 - designed a procedure for learning the Brandenburg which started on a "C" trumpet with the piccolo transposition (so no fingerings would change) - worked a lot especially on releases - starting each note after a rest to ensure there was no tension
 - then moved to Eb keeping the ease, then F or G trumpet then to the piccolo.
 - every student who has used that method has succeeded with the piece - a 2-3 week process
 - also uses this on other high note pieces of Bach and Handel - this helps figuring out the fingers and the breathing spots without the mental stress of range
 - low range - just play down there - most people don't realize how much energy it takes
 - many just don't blow - musical message must be communicated there as in any other range - not the glamour range
 - have to be serious about the material - if you put the time in you will get the result.
 - pays much more attention now to initial attack - this is so revealing
 - if one locks it's like putting the gas and the brake on at the same time
 - high register doesn't take hours of playing to build chops - one has to be blowing
7. Describe your approach to accomplishing effective dynamic contrast with your students.
- the musical message dictates - nuance and dynamics provide contrast - that's music
 - Brandt book - fanfares often get a muscle forte - tries to get these to be full sounding with ease.
 - in *ff* one moves the air as rapidly as one can - you don't need more muscle to do that
 - wind patterns with flow gives a good *f* sound but with pressure, gives noise.
 - likewise with *pp*. slower air, not restricted air - not to be viewed as "don't play loud" then you will block - play gently to play softly.

- likens it to the bow - first 2 chords of the Eroica Symphony - full bows for each quarter note.
 - softer things use a slower bow *but it is still moving*.
8. What approach do you take to ensuring a strong technical grounding for your students?
- Clarke studies
 - if the literature is challenging then this looks after itself
 - start in easy keys in the Clarks and then move to the more challenging keys once the ease is established
 - also scale studies with various articulations, mixing slurs with tongued notes
 - Ernest Williams Scale studies - *Method of Scales* - provides more variation than Arban.
9. Do you advocate buzzing on the mouthpiece as a practice tool? If so, how can it be helpful for a student?
- always starts with some mouthpiece playing - simple studies, tunes
 - uses it to connect the song
 - especially uses it for upper register - connecting pitch to blowing so that the player “shapes” the pitch and doesn’t just blow harder.
10. Are there any other techniques or ideas that you use in your teaching that you would like to comment about?
- talks a lot about listening - wide range of materials - not just trumpet players
 - basic study material: Arban, Bousquet - light, agile playing, Brandt - orchestral fanfare style, Charlier are like Chopin for the trumpet - calls upon everything, Practical Studies of Goldman for articulation, Sachse for transposition (Hundred Études), Getchell for remedial work and early transposition, plus the vocalise types of things
 - Solos: Aria con Variatione, Fantasia in Eb by Barat, Oskar Boehme concerto in a romantic style, well written, and challenging.

Gail Williams, horn

1. To what extent do you emphasize the importance of ‘singing in the brain while playing’ with your students?
- must be able to sing each pitch with a musical idea in the mind.
 - doesn’t remind her students about that enough
 - more and more she asks her students to sing passages out loud to ensure that there is a musical idea present
 - problem for female horn students because of the transposition - the instrument sounds a fifth lower than written - has them sing written pitch - the relationships are the same.
 - should be able to sing whatever you are going to play on the instrument.
 - for pitch but also for musical ideas

2. Describe your approach to teaching respiration for performance purposes on your instrument.

- she tries to simplify it more and more and more - suck the air in between the lips - it will go to the right place.
- exercise of four short inhalations and four exhalations
- seemed to open them all up at a recent workshop
- really helped the high school students
- uses pieces of plastic tubing to help students to open up - the roundness of the shape
- Jacobs said "suck air in over your bottom lip" - tells students that and they try it- it gets the round shape
- most students when they play spread the embouchure back - if you take the breath through the corners it encourages that
- the shape is really important - just returned from the Summit Brass Institute where she repeated this over and over
- she found herself contradicting other teachers
- one student said that her teacher told her to smile when breathing in - Gail told her that was just plain wrong.
- she also heard a horn player who plays in a major orchestra tell students to take a breath, hold it in with the tongue, and then say "tee"
- she can't imagine that he'll still be playing well in several years.
- uses sport as an analogy - watch a tennis player or golf player - there is one motion in the swing or stroke beginning with the back-swing through to contact with the ball and beyond.
- she had a student who took the air in and stopped it with the throat before blowing - she asked Jacobs about the possibility of this student developing a Hernia and he assured her that it could happen.

3. What principles guide your teaching of articulation on your instrument? Do you advocate teaching a specific placement of the tongue while articulating?

- she uses the syllable "tu." she feels this syllable gives a good focus to the horn tone rather than "tah" which she thinks promotes a "flat" sound
- keep the tongue down after articulating so the air can get through
- does not tell students where to place the tongue - where one says "tu" is right because everybody's teeth and tongues are different
- does not advocate tonguing between the teeth - too explosive - less variety in articulation available
- she sees a lot of students that come to her tonguing between the teeth - quite common.
- she does have her students buzz without the mouthpiece to get the "pooh" shape.
- then she can see if they articulate between the teeth
- she doesn't teach multiple tonguing much - she feels that acoustically a fast single tongue sounds better on the horn
- most horn repertoire doesn't require it but there are exceptions

- Pictures requires it.
- she gets students to do it away from the horn - like language again for the actual articulation
- her teacher insisted on a fast single tongue
- she makes her students single tongue - some are better than others - related to speech
- “Practical Guide to Horn Playing” Yancich is better than Arban because of the range it employs. Good studies for fast articulation.
- most problems with multiple tonguing are caused by the blowing being stopped.
- tries to keep the “ku” up front - same as the “tu”
- Jacobs told her to just walk around and say it - it gets better
- you have to blow the air - imitate the violinist’s bow arm
- the visual aspect of the tennis stroke helps in many different aspects of playing - follow through with the air (blowing).

4. What principles guide your approach to teaching excellence of tone? Can you describe in general terms your approach to improving a poor sound?

- Shape of the vowel - must be open
- one must have a concept of the tone one is trying to produce
- listen a lot and imitate - listen to many different horn players.
- she plays a bit in lessons but doesn’t want them to sound like her.
- she plays a lot of different recordings of different players for her students
- concept of sound plus the song in your head and you’ve got it
- physical things notwithstanding, one can change their tone
- she thinks that with a smaller lung capacity she is used to focusing her air on the buzz
- to improve a student’s sound - watch their breathing - look at the embouchure to see if there is a smile happening
- she doesn’t talk a lot about opening the throat - she finds that reminding them to blow easy takes care of that.
- keep the tension out of the body - chest sinks down and it gets tight - sit (or stand) tall with the rib cage high and don’t go too long on a single breath.
- having a student play a lot in the middle register helps (the easiest register to make a good sound in)

5. Are there any specific techniques you use to help your students learn to slur through the harmonics of the instrument? For valve (or slide) slurs?

- learning to blow fast air between the notes - not getting stuck
- smaller partials first - then wider - get the freedom of blowing first on these and then one can move to the wider intervals
- the slurs in the lower register (bottom of the staff) are the “bumpiest” on the horn
- valve slurs - don’t bump the valves - blow the wind

- with Oldberg as an advanced player she worked on some embouchure things for certain portamento type articulations, to manipulate notes
 - one has to be really loose and relaxed with blowing to do this
6. What do you find to be the most effective way of improving a student's range?
- mouthpiece buzzing
 - not to be anxious to get to the high register too soon
 - approaching simply with the right kind of air
 - don't force it - make your best tone - that is the most important thing
 - always has to be with ease and not with effort.
 - its always going to "feel" different every day
 - sound has to be good
 - sometimes the tuning can be way out especially when working on low register
 - once a student sees this - perhaps with the help of a tuner, he will open up and instantly get a better tone that is better in tune
 - low range is usually a worse sound with student horn players
 - many have been playing the first parts by the time they get to university because they were the best players at home
 - high and low player idea is gone these days - came from the natural horn players - horn players have to play in all ranges these days.
7. Describe your approach to accomplishing effective dynamic contrast with your students.
- she uses numbers: 5 is *fortissimo* and 0 is *pp* - crescendos & diminuendos on long tones
 - get into a big room occasionally or outside - helps keep the perspective on dynamics
 - small rooms make it difficult to hear - can lose perspective
 - use of numbers gives some consistency to dynamic range
 - Mozart and Mahler use different dynamic ranges!
8. What approach do you take to ensuring a strong technical grounding for your students?
- basics every day - scales etc.
 - Shantl book in all keys and interval studies - forces students to cover everything
 - étude books with études in different keys help put this and musicality together - put the song and wind together.
9. Do you advocate buzzing on the mouthpiece as a practice tool? If so, how can it be helpful for a student?
- absolutely
 - the better it comes out of the mouthpiece - the better it will be on the horn
 - if a passage causes problems - buzz
 - this helped her especially in high notes

- it is a great diagnostic tool - one can hear poor articulation easily - stopping the air, etc.
- also one can hear from it if the student is making a good tone - get a good “buzzy” sound on the mouthpiece - then one will have a better tone on the instrument.
- she also uses the rim - it helps with efficiency - not too much - Jacobs suggested 3-4 minutes - but get it to work - really good indicator for tonguing - if no rim - isolate the embouchure with two fingers - it’ll do - not ideal

10. Are there any other techniques or ideas that you use in your teaching that you would like to comment about?

- air attacks - she uses them to get rid of hesitation - also good for an assistant horn player - one has to have pitch in the head to get the lips to vibrate
- she also uses the analogy of bowing a lot to liken to the air and its use. This visual aspect helps students deal with the musical application of the blowing.

Study material and repertoire:

- Shantl, Maxime Alphonse, Gallay, Gugle, Kling
- she used mostly French material in her studies
- Chayne, Barbiteau,
- Verne Reynolds 48 études
- Gallay unmeasured études - for freedom
- uses the two volume Pottag set (blue and red) - have a lot of good things
- Red book has low stuff
- Neuling are good for low range
- Bach cello suites in bass clef in horn transposition for musicality
- all the standard repertoire
- excerpts for auditions although she doesn’t want to do a lot of that - have to be able to play the instrument to do the excerpts

Embouchure:

- she tries to avoid talking about it
- she tries not to “muck” with it as long as things are working
- might be an issue with different tissues depending on race
- rule of thumb - place the bottom rim on the edge of the red - say “m” and go.
- many variations on that - goes to show that many good players play on weird embouchures
- she doesn’t like to “change” an embouchure - she might use a little bigger mouthpiece to get more top lip in the mouthpiece - this has worked in the past
- if a student can get around then she doesn’t worry about embouchure - it evolves if the student is talented musically

Frank Crisafulli, trombone

1. To what extent do you emphasize the importance of 'singing in the brain while playing' with your students?

- he asks students to sing and many are so afraid
- he encourages singing so that they can hear the pitches
- he used to go to the piano to pick out pitches and sing them in his own practice
- playing the instrument - repetition of phrases to get it in the ear - this repetition is also training the slide
- sometimes things are difficult to hear in the high register - he has the student play it down an octave so that the air is relaxed and the pitches are easier to achieve - get it in the ear and relaxed, then put it back up.
- slowing things down helps the ear learn
- keep it simple - some students bash and crash - they come back and you try to slow them down
- also work out the section slowly and ask the student to then go back - if he can play it in context then he can go on - if not then more slow practice has to go on - some students have less patience for this than others and one has to expect this.

2. Describe your approach to teaching respiration for performance purposes on your instrument.

- tries to simplify as much as possible
- if a student is struggling with something they stiffen up
- encourages playing with ease and openness
- finish the phrase and then take a relaxed breath - one is not "packing" air in but letting it be easy
- especially in fast passages
- in an extended passage, practice the passage not worrying about getting to the end of it - play it and sound good until you run out of air - rebreathe and sound good on the next section - practice so you get used to hearing yourself sound good
- if you learn it well enough without stumbling you may be able to carry it through on a single breath
- then one uses the breath properly
- sound good and breathe well and the technique will come

3. What principles guide your teaching of articulation on your instrument? Do you advocate teaching a specific placement of the tongue while articulating?

- does not advocate specific placement of the tongue except - not between the teeth
- also doesn't go for using different shapes for different ranges - if that takes place it is not something one has to control
- speech helps on articulation - one does not start the sound with the tongue but with the breath - get the tongue out of the way so there is tone

4. What principles guide your approach to teaching excellence of tone? Can you describe in general terms your approach to improving a poor sound?
 - the problem may have started with poor breathing - any technique that will get the student to move air in and out
 - uses the analogy of bowing to show how the breath should work
 - if a student doesn't have a concept ? Tone is tone - he feels that one must form the embouchure so that the corners are not pulled back - but otherwise the problem is with moving the wind
 - the mouthpiece is useful for getting the breath flowing between notes - especially after the student has some experience with the instrument
 - has to start with air - pushing and jamming without air - it sounds not so good - one has to flow otherwise there will be no tone because the student will press the mouthpiece hard on his lips
5. Are there any specific techniques you use to help your students learn to slur through the harmonics of the instrument? For valve (or slide) slurs?
 - much the same as we've gone over - comes down to taking a good inhalation and then blowing - keep the steady air
 - slurring without the tongue sometimes helps in step-wise
 - finds that with harmonic slurs it works better to start descending - if it works this way it should work in the other
 - glissing with flow helps as if playing on the mouthpiece
 - some of these flexibility things can be bad - prefers slower, simpler slurs so that they think of playing it as one would a long tone
6. What do you find to be the most effective way of improving a student's range?
 - Scales are very good
 - must follow through on the air especially as they go up - add a note each time and keep the tone
 - same thing going down
 - be patient - start in the middle and keep the tone when going up and going down
 - flexibility slurs - play them like long tones and keep the timbre - as one goes up or down in the range make the timbre match - simple intervals to start and then go wider
7. Describe your approach to accomplishing effective dynamic contrast with your students.
 - simple - breath, pure breath
 - faster air for louder and slower air without restriction for softer
 - some crescendo and decrescendo in long tones without forcing - don't make it an ordeal - make it sound beautiful
 - try different things for different people - it depends on the personality involved
8. What approach do you take to ensuring a strong technical grounding for your students?
 - études in different keys

- take études and do them in sections slowly - make studies of the simple breath - the rhythm on a single note
- uses the idea of playing rhythmic passages on a single note to ensure that the air flow is happening
- students have to be able to blow even when the slide is moving
- subdividing the note before the slide has to change can help free up the blowing because of the rhythm it sets up for coordinating slide and buzz

9. Do you advocate buzzing on the mouthpiece as a practice tool? If so, how can it be helpful for a student?

- he does but finds it best to go from the horn to the mouthpiece and back if a student is having difficulty with a particular passage and his usual approach is not successful
- also good for pitch especially - ensures that the student is hearing the pitch in his head.
- depends on the individual - it helps some more than others
- not so much for warming up - again prefers to establish the sound on the instrument first

10. Are there any other techniques or ideas that you use in your teaching that you would like to comment about?

- has students sing both detached and smooth and then carry that over to the trombone
- make your most beautiful sound simply produced
- rhythm and articulation have to be coordinated with the slide
- double the tonguing to supply a rhythm in technical passages - this helps the slide motion and the blowing through the change
- tuning is an issue on the trombone - one has to get "home" to learn where the slide must be for good intonation on every pitch
- one also must play without fear - you have to go for it.
- patience and persistence
- scales are excellent for this
- fluidity with the arm without being stiff
- keep the beat the same - don't rush so that the slide gets out of sync.

Study materials and repertoire: Robert Jones: Sonatina - first movement is long to begin - start with the 2nd movement

Mueller book - these have variety of articulation, Rochut - these can be too long and difficult - Fink is more straight forward, Kopprasch, Raph - Studies in Legato, Bona, Pasquale: Rhythmical Articulations - these ones can be transposed into tenor clef
Advanced students - Blazevitch clef studies - get familiar with these first then play on the horn.

Embouchure:

- If the student sounds good but the embouchure looks strange, he doesn't discuss it. If a student is having tremendous difficulty and has trouble sounding good then one may need to make suggestions.

- the air is important though - one doesn't want a student to lose the naturalness by making some suggestion that is going to make him uptight

Rex Martin, euphonium/tuba

1. To what extent do you emphasize the importance of 'singing in the brain while playing' with your students?

- he thinks he emphasizes it a lot - tries to make it a natural thing
- has students sing out loud so that it turns that voice on in the brain so that when the student plays it is there
- they will hear their own performance sound so much better as a result of this that they will tend to do this on their own
- once they hear the instrument sound so much better then that becomes the motivation so that singing in the brain is not so much a conscious effort any more
- rather the conscious effort becomes reproducing the tone which is associated in the imagination with the song

2. Describe your approach to teaching respiration for performance purposes on your instrument.

- keep it basic - almost at the subconscious level
- some students don't need to hear the words - others follow the example given by watching RM play - they imitate.
- many need instruction - he starts by saying "take a deep breath" and he can observe what they do most naturally - how do they function and what do they consider to be a deep breath
- he also will take a deep breath just before the student is about to play - this reminds them to do so
- if a student has had a lot of teaching becoming efficient usually takes longer - it may take any number of suggestions to get it working
- tries to get them playing in a much more relaxed and efficient manner where the focus is on taking a musical breath
- let them know that if they are going to make a beautiful tone then they must be able to waste the air - if they are going to waste the air then they must have enough in the lungs to do so
- breathing therefore is not the focus but rather what full breaths mean to the music
- can show the student with devices what a deep breath really is and how one can easily move it - once they realize that they have all of this air and what they can do with it that is a strong motivation to do it over again and again
- also tries to keep it from being a distraction to the audience
- for a young player with no experience, would there be a difference in the approach - not technical references - have them play music that requires deep breaths with dynamics and model it for them - they'll do it without breath being in their conscious mind
- otherwise, just say take a deep breath

3. What principles guide your teaching of articulation on your instrument? Do you advocate teaching a specific placement of the tongue while articulating?

- what should the articulation sound like as compared to what it does sound like/
- this must be flexible depending on the music
- establish correct articulation on the mouthpiece and in singing - trying to think about where they put the tongue really screws most brass players up
- go to speech which is not a conscious effort and let that guide the sound of the articulation
- only time he might refer to placement of the "T" is to tell the student to place it where he says "Tom" - that placement might be very different from one person to the next
- it must be a good clear sound
- some European students articulate between their lips - he can only tell because they don't sound very good
- if they sound good with appropriate articulations then that is what is important
- might have a student who has difficulty with this to use every letter of the alphabet to articulate a sound on either the rim, the mouthpiece or the tuba. He then comes to realize that "t" is just another letter in the alphabet. There are several that will work but "tah", "dah" and "gah" are the ones that sound the best - this is needed very rarely

4. What principles guide your approach to teaching excellence of tone? Can you describe in general terms your approach to improving a poor sound?

- guiding principle is clarity and beauty
- imitation is the best way to get it - this works the best - give a clear concept of tone to the student through demonstrating
- draw attention to the tone the student is making - some students may be reticent because they believe they already play with a good tone
- once they hear themselves playing with a better tone though, they are usually sold
- approach is to have the student play a lot of études in which making a good tone is possible - not the direct approach
- occasionally talk about vowel sounds and shapes and have them try the extremes - black and white - to hear what an effect this can have on one's tone
- a variety of styles in which they are loathe to play with a bad tone
- buzzing is very good because it forces the student to sing in the brain - imitating his buzz
- music with a wide dynamic range - mf - f is a good dynamic at which to establish a fine tone

5. Are there any specific techniques you use to help your students learn to slur through the harmonics of the instrument? For valve (or slide) slurs?

- études and drills that require these - he demonstrates to show them how and then they go off and practice until they can do it

- usually finds that there is no problem with slurring other than that a student hasn't spent the time practicing
 - tries to avoid drawing attention to a closed throat for example but rather emphasizes the concept of blowing wind outside the body
 - make them sound smooth
 - also play music that requires slurring - take the slurs away and then add them back
 - Schlossberg and Arban have excellent slurring drills in them
 - lip slurs bring refinement to the embouchure. He doesn't tell the student this though
6. What do you find to be the most effective way of improving a student's range?
- play music in that range
 - rarely talks about rolling the lips in for highs and out for lows if the range isn't happening
 - generally - play music of various styles throughout the range of the instrument
 - some are not aware of what the usable range of the instrument is - middle range - two octaves from the "middle" C in the second space of the bass clef staff
 - practice twice as much in the middle range as you do in either of the extremes
 - keep the tone by re-establishing it in the middle and carry that tone into the high and low ranges
 - drills, scales, and lips slurs are useful
7. Describe your approach to accomplishing effective dynamic contrast with your students.
- approach it from the standpoint of the demands of the music - an excerpt can require very loud playing for example - they may come back after practicing without making their best tone so they work on that - he'll demonstrate so they hear what is possible and then try to copy it
 - augments with some drills
 - Hal Leonard, Arban
 - get your best tone and then increase it or decrease it as required
 - repetition at the medium dynamic and then adjust it up or down
 - don't be afraid to try the extremes - in time the crudity of the louds will decrease as skill is developed - same with softs - control
8. What approach do you take to ensuring a strong technical grounding for your students?
- product of what we play - comes from the music we play - assigning études and solos that require great technique
 - re-assures his students that there is nothing they can't play - once they familiarize themselves with it, they will be able to play it - an organic or natural approach
 - learn it through the music and refine it with drills to build a reserve tank
9. Do you advocate buzzing on the mouthpiece as a practice tool? If so, how can it be helpful for a student?

- yes, early and often and throughout the day
- gets students to do call and response on the mouthpiece with him so that they begin to approach the mouthpiece as an artist rather than a mechanic
- often students use the mouthpiece only as a warm-up tool with which they are trying to warm up their lips somehow
- it can get a student to think like a performer - very liberating because one can play anything on the mouthpiece - even a jazz solo if one doesn't feel comfortable doing that on the instrument
- once in a while he'll use it to refine things like tone or tuning - it really gets the student singing in the brain
- buzzing helps in the high range especially
- also helpful in dynamic range - especially soft playing because the sound isn't being amplified by the horn, they get some self confidence in this dynamic range on the mouthpiece
- refines and shapes the embouchure but he doesn't discuss this with the student
- also tends to refine and improve what we do with our air but he generally doesn't discuss this with the student
- can help with posture so that the student can find a natural position while buzzing and then hold the tuba so that this position is maintained - rather than craning or slouching to reach the mouthpiece
- rim: only occasionally - can cause forcing - it really requires that the student sing loudly in the brain - really helps shape the muscles for the embouchure

10. Are there any other techniques or ideas that you use in your teaching that you would like to comment about?

- Good taste & good tone
- Hierarchy - "Tone, Technique and Style and the greatest of these is Rhythm"
- Enjoy playing - don't always play just to improve things - don't get down on oneself - if you aren't enjoying playing then the audience won't enjoy listening
- keep doing it and you'll get better.
- Stresses listening a lot - listen as much as they possibly can.
- any differences between teaching euphonium players and tuba players - no - the demands he makes are the same
- lets them know that the technical demands are greater - mostly solo and étude material
- vibrato taught by imitation of various speeds - always jaw - listening to singers, other players etc. to get a sense of what is appropriate - some rhythmic drills, etc.

Suggested material: good teaching material for tuba - Vaughan Williams and - Perschetti

- Euphonium - G Jacob Fantasia excellent for tone - they play out of tuba books for basics : Arban, Blazhevitch and Fink - for clef
- Tuba: Tyrell, Kopprasch, Fink

Embouchure:

- almost never speaks about it - finds that asking a student to play music with a great tone looks after embouchure problems
- assign music that requires a refined embouchure to play it, the student will move to that position to play it
- rarely he tells a student to simply move the mouthpiece a bit but never talks about embouchure change because it takes all confidence away
- smile embouchure? - talks about firm corners and gives them material that requires a flexible embouchure - the embouchure accommodates and adjusts to the music to be performed
- occasionally he'll have these players try buzzing without a rim - can't be done with a smile

APPENDIX 2
NOTES FROM VIDEOTAPES

Vincent Cichowicz Teaching, April-May 1997

Student #1: (German visitor)

- lesson begins with mouthpiece buzzing to get wind/sound going
- a bit of talk about the tongue coordinating with the breath at the start of a passage
- brief discussion likening the breath to the violin bow - when the bow begins with the down motion the sound begins.
- the student plays a technical study (legato style)
- one stop when the end of one phrase and beginning of the next is a bit rough
- instructions on ease and "naturalness" of inhalation especially during technical passages.
- student plays again and does so beautifully - VC praises the student - tells him that it sounds very good.

On to a piece in a Baroque style:

Praised as good:

- discussion about articulation and whether or not it fits the style of a given piece
- For this Baroque piece, the articulation is a bit heavy. To overcome this VC has the student do a "wind pattern" away from the trumpet. He feels that there is a bit of compression behind the articulations making the articulations heavy.
- VC demonstrates the wind pattern, the student copies - then there is improvement on the instrument
 - describes the blowing immediately after the articulation as "throwing the note away"

Wind Pattern:

Simply blowing as one should away from the instrument and articulating the rhythm of a given passage. This is a technique which VC has developed based on the principal of separating the task at hand from the instrument. Psychologically this frees the body from reacting as it normally might when faced with the same situation on the instrument. It allows the student to normalize his/her blowing without the complication of the instrument. "Wind Patterns" are a significant part of VC's pedagogical approach.

- moves on to a faster section which is more "picatto" in style
 - in passages consisting of "short" notes one must blow through them so that they have "life". Demonstrates the musical idea through wind patterns; contrasting what is not desirable with what is. Blow through the passage so that shorter notes do not disturb the musical line - blow through with clarity of articulation. Let the articulation reflect the style of the music.
 - a small difference but a significant one - uses the violin bow as an analogy again - even on the shortest notes the violin bow moves back and forth.
 - the student continues to play and one can hear the ease in the shortest notes.
- More praise - VC feels that the student has grasped the concept well because he is able to make the adjustment so quickly - he tells him so.

On to a more lyrical passage.

- stops to give some advice and praises the student first
- then sings to demonstrate what he thinks would work better musically.
- student plays more and finishes the section - more praise

On to the next section - a more cadenza-like passage.

- playing followed by musical suggestions demonstrated with wind patterns
- demonstration of a more articulated style so that the general level of the dynamic doesn't go up in the passage.

On to a variation:

- wonders about tempo - VC says to keep the style and that will dictate the tempo
- not so fast as to lose clarity - keep it light
- clarity without disturbing the line

Student plays and it doesn't sound nervous anymore

- they move the tempo faster and try to keep the style and clarity

- same process with the next tricky passage - praises the student after the slow try - then speeds it up - finishes and sounds great - praise follows and VC talks more about finding the right tempo without sticking *exactly* to the MM given.

VC uses the example of Stravinsky conducting the same piece 3 times with VC playing. Stravinsky performed the same piece at three different tempos in spite of the fact that he was quite strict about what was written in the music - achieve the spirit first and make it sound convincing.

- uses another example of the last movement of Hummel - it can sound fast and frantic - make the style right - don't play it to show off.

On to a Piccolo Trumpet piece:

Plays a slow, legato piece and VC gives praise

- after a stop and then a cracked high note discussion ensues about throwing the first note away
 - just because the embouchure is very firm, don't let the wind be "firm" - let it go!
- Tries an experiment - a wind pattern with a very firm embouchure and it works.

- Discussion of mouthpieces (7D with the piccolo backbore is recommended)
- a large mouthpiece like he's using robs some of the focus of the tone.

Bach: Cantata with the soprano (#22?)

- discussion about the length of a trill for musical purposes.
- also about accenting slightly in repeated notes to drive the music without getting heavy.
- more discussion about musical considerations
- octave type passages - don't lose the sense of the line but put a little weight on the bottom note - more praise
- brief discussion about musical interpretation of another passage.

The lesson ends with praise. This is this student's last lesson before he returns to Germany.

Student #2 (freshman)

- begins by trying to get the student to express musicality even in the simplest warm-up study
- complements him on his sound production but asks him to make it expressive
- think of it as the beginning of a beautiful melody - not just a technical exercise
- cautions him to not over-emphasize the technical aspect of how to blow at the expense of the music.

- Clarke studies should have a sense of flow and line - not so heavy - make it sweeter
- have a musical idea in your head before you begin so that you will not sound indecisive. ("Make statements, don't ask questions.")
- compliments the student on his improvement since the last lesson

Discussion about upcoming jury

- they work on a piece - a scherzo
- gets him to try a wind pattern to establish the character after an initial forceful attempt
- explains 2 kinds of blowing - one just from the mouth and the other using wind
- shows a breathing spot that is early on in the piece but explains that it is better to take the breath early rather than not, so there will be sufficient air for later in the line
- works briefly on blowing from the gut regardless of the style of articulation required.
- identify the character at a slow tempo and then keep that as you speed it up
- comes back again to the musical message that is trying to be transmitted - play with "inflection"
- compliments the student on what sounds good and then slows down the problem passage
- works with the student on achieving a consistent, clear articulation while lightening up
- has him sing it to clarify in his mind what he wants the music to sound like
- then speeds it up a bit
- compliments him on the improvement and asks if he understands the musical concept and going for the style
- a scherzo must be light and not heavy - reminds him to keep the tempo steady
- student plays again - VC compliments him and tells him that he is not that far - tempo-wise from where it should be - keep it light
- from the beginning at the faster tempo to keep the character - "not bad" - a little bit of lack of clarity

VC emphasizes coming back to something such as a wind pattern throughout the piece and the practice session to remind oneself of ease and physical relaxation for producing a sound. Always take a full breath before.

- works on the sound of the wind pattern so it doesn't sound thin.
- reminds him to always take a huge breath
- tries again on the trumpet and it is less brittle sounding
- VC compliments him on the improvement - student continues on

- discussion of interpretation - more expression with dynamic will make a *calando* more convincing - sounding good but it gets to a higher spot and the sound cracks - VC reminds the student to keep the blowing easy and not to "bear down" on the wind

Slurs - lips slurs are causing problems at this point - tells him about Clarke 3 - use false fingerings in lip slurs until the ease and consistency of blowing that is required is achieved VC explains that one may try to "help" the slur by manipulating the air column (actually closing down) - Slurring using a change of valves helps with the timing of the slur by the lip. Eventually the timing will come without the change of fingering.

- student complains that this problem is related for him to playing higher and softly
- VC says let soft playing be a "positive" activity so that you don't hold back; keep blowing and think gently - works on substitution of false fingerings mixed in with the open slur
- goes back to Clarke 3 and establishes free air flow with the wind pattern first
- it works pretty well but "a little rough"
- gets the buzz-aid and has him play with ease on it - Clarke #3 good for the lip slur (g maj. version)

- when he heard that the pitch wasn't right and corrected that - the connection between notes improved as a result
- then on the trumpet it sounded so much better
- VC asks him to work on these and over a period of time it will get easier and better.
- back to the piece and it sounds a lot better
- a problem passage comes up and they slow it down
- VC reminds him that it is easy to start crashing away in the practice room - step back and do a wind pattern for relaxation but still with energy - "Increase the energy" as one ascends in range - what often happens instead is that we start to compress
- keep the articulation as well - don't let the character change - "Keep the character" even when one slows something down to work on it.
- recapitulation - starts it but very tight - student does a wind pattern - helps and the next time on the trumpet it starts easily
- Naturalness comes usually *away from the instrument*; therefore the reason for "wind patterns" - Then to have the courage to let it go and happen on the instrument.
- discussion about the advantages of the Alexander technique.
- VC talks about repetition making things more natural over time.

Student # 3 (another German visitor)

- starts with a Clarke study - a low one - VC advises him to practice the higher ones (mid-range) and apply the same ease of blowing for security in the high register

- flow study based on thirds next: the student sounds very good on this study but complains of excessive motion at the lips for changes of register. VC's advice is not to worry about it unless the sound is poor or there is a disruption of the sound.

Russian study - it starts a little stiff but is better the third time - advice is to not let the fact that it starts a little higher effect the way one starts the first note

- VC praises his sound generally but questions articulation: tongue not being supported by the wind and gives a heavy, dull effect
- suggests some breathing spot changes to make the breath more manageable - keep the flow going so that the direction of the music keeps going - now it sounds with much less effort - VC praises the student's musicianship.

On to another étude with emphasis on blowing after taking a breath.

- has the student do a passage of faster notes in wind pattern to get a style happening with a swing for clarity of articulation - on the horn again and it is much clearer
- VC - after the breath, keep the music going. Nice free and easy breath

- next study in the book - VC coaches the student on keeping direction going in short notes so that one plays the line, not individual notes - otherwise you get stopped up

Haydn, first mvm't:

- difficulty with the big lick up to the high note
- VC advises before the ascending scale, take a big breath in an easy fashion, keeping the body the same as before - relaxed, then: without tension and pour on the energy as you go up. Also advises student to breathe sooner in this passage so that he doesn't go too long on one breath

- keep practicing it with the breath in this new spot so that you don't go so long that it takes too long to get a breath.

Finale: VC reminds the student: "Ease" on the intake of the breathe; avoid having the intake sound as though you have been startled - keep the body calm

- VC compliments him on the part that sounds good and reminds of the calmness required on the intake in the part that didn't go well
- compliments on the passage just played - but keep the tone in technical passages - FLOW - get the energy in the wind at the first note - big improvement on the repetition.

Next section with the theme - keep the energy - don't let it sound tired.

Moving on: to the arpeggiated section - VC suggests the first note of each to have a little stress and length - student tries on a wind pattern and gets the sensation of how free the wind goes- don't be afraid and careful

- after a little rest the student tries again - misses the first high note - but VC reminds him about the energy in the wind - one sets the lips for the high note but not the body
- final section with energy and a bright style
- discussion about the musical direction of the trills

- after the cadenza, VC suggests that now the tune should be less pointed as a reflection on what happened earlier - then it ends with the "military" fanfare style - move the wind very fast - not just a hard tongue

Haydn's sense of humor: "Your instrument is still a military instrument even though I wrote a concerto for it!"

On to an orchestral study "Meistersinger": a fanfare style passage - VC tells the student that it needs to sound more "military" - discussion of the "point" of an articulation in a fanfare-type passage

- more point on the first note so there is lots of energy in the wind and therefore, the music
- keep the point throughout - with repeated fanfare passages like this the tongue can get a bit lazy - keep the character - lots of energy

Advises that the "C" trumpet also gives a crisper articulation than the Bb - sometimes the instrument choice can make a big difference

Beethoven: Leonore # 2 - VC wants to hear more on the accent on the first note and energy in the 16ths after - don't let it get stiff so that you kill the sound

- always with the wind to make the strong accent and *f*. If you muscle it the sound gets dull
- VC compliments him on good playing and tells him that he is a good musician.

Student #4 (freshman)

- starts with a basic warm-up

Rochut study: - compliments her on improvements in sound since the last time

- musical discussion about finishing phrases without an accent - she tries again and it is much improved

- VC talks about grace notes and cautions her that they can sound like mistakes - they need to be deliberate to avoid this - compliments her again on how good she sounds

- asks her to just relax a bit because she is pushing through repeated eighth note passages and it sounds rushed

- some difficulty with large leaps. "Avoid having your body help out when going up"

Picture the sound as going horizontal in spite of the fact that the notes go up and down on

the page. He flattens the music stand as a visual analogy - she plays again and there is improvement - just a couple of scratches

- VC uses the analogy of the violin bow: it keeps going no matter how high the notes or low the notes - the bow speed doesn't change
- to work it out VC has her slow the passage down
- also uses a wind pattern to work on the even blowing
- next attempt is better - VC compliments her again on her sound and how much it has improved since the last session.

On to a piece: "Rustiques"

- she sounds very good on this and he tells her so
 - mostly musical suggestions about rubato and dynamics to give it more excitement
 - more compliments - she goes on and sounds good - VC cautions her again about "clipping" the ends of notes before a breath - VC compliments her again but cautions her against rushing a passage
 - she has a problem starting a passage on a G at the top of the staff - no problem in the context of the piece - tries a wind pattern - the body doesn't try to do anything - then on the trumpet and it works much better - wind pattern again - then on the horn - VC: "Hear the g then blow" - it continues to improve - she tries it slowly and gradually speeds the passage up - it just needs repetition and understanding of what the real problem (with blowing) is
 - about another passage that must sound strong: VC tells her to hear the musical product you want. What will give you that product? 1) an energetic air column & 2) precise articulation. No need to make it *feel* strong with extra muscles. - then do the same on the trumpet - she tries it - it sounds much better
 - musical discussion about a triplet rhythm that is coming into a lyrical passage.
- Problem: Ascending in the range while getting softer. The body wants to shut down the air. One needs to train oneself to not allow this in decrescendo.
- air flow must be continuous, not restricted. VC demonstrates this through a wind pattern
- Student does the pattern to normalize the blowing and then tries on the trumpet again with better success - VC works with her on getting the character with the wind pattern
- then puts it all together.

On to the next lyrical passage: VC comments on her not letting it get too urgent so that the music won't sound pushed - VC compliments on her progress - he compliments her on her triplets in the next section - some talk about breathing - compliments her on her breathing because she is trying too hard in one place - VC tells her that her breathing is fine - don't worry so about it - think about the music and then the breath won't be obtrusive

they go on - ascending chromatic passage; VC uses a wind pattern to demonstrate the increase of air speed but not air pressure with a crescendo - she tries the wind pattern then on the trumpet - improved on the trumpet - VC warns: don't confuse blowing louder with compressing - better the next time - remember that the 1st note has to be free if the rest are going to be - you can have 2 kinds of blowing: wind and compression

The student is reminded to take an easy breath and to blow the wind on the first note without compression - compression gives a false sense of strength - the wind really needs velocity - more of a "blow" in the ascending passages.

- discussion about how getting a free flow takes care of a previous problem of losing some buzz and air leaks
- Clarke #5 recommended for up and down with flow

- visual image for high notes: that each successive higher note is farther away: low Bb is 2 feet from the bell - an octave above is 4 feet, etc., so that one must blow faster to get the wind to it - VC is very complimentary about her tone and progress since the last time.

Student #5 (junior)

- flow study to begin - generally all slurred - VC gives instruction to make the articulated notes clearer - he does
- when the notes start to get away the pulse goes - VC instructs him to decrease the tempo in those sections until the notes are secure - he goes a bit slower and the pulse is secure
- VC: the rhythm is vital - don't go fast and let that suffer

- Rachmaninoff Vocalise;

- talk about the tempo - VC says don't take it too fast - trill needs to be a little slower in this tempo for the character of the piece - mainly discussion about musical things - VC compliments him on how well he is playing and on the tone - the student plays more
- VC compliments him again on how beautiful he is playing it and says that it will be perhaps more impressive than something flashy when played well

Charlier Étude:

- work on double tonguing - determine what the style of the piece is - this needs more of a sense of line - student plays it but loses the clarity - VC says: practice with a cup mute at first on double tonguing studies - mute encourages one to blow whereas one may be tempted to back off on the open horn - VC has the student do a wind pattern first to determine that the character is right - then on the trumpet and there is improvement with the mute - a discussion about cup mutes

- student plays again - VC reminds him to keep the rhythm so it doesn't run away
- VC complements him on the quality of the articulation but they are getting dry - sense the line so you get a vowel and not just the sound of the consonant - Keep the flow going so you get more vowel but not less consonant - VC tells the student that it is better not to analyze the articulation problem with words - listen to the effect; is it musical and does it fit the passage? Approach double tonguing with a strong musical image in mind. Keep the sense of line and a strong musical image

- student plays on - VC: don't stiffen up on the wider leaps - VC takes out something else to work on the double tongue

Instead of going to a purely technical study that highlighted double tonguing, VC chose something the student was familiar with (Carnival of Venice) so that he could focus on the musical aspects of what he was trying to achieve. The context of musical line and effect will help give the right character to the articulation.

- student tries one of the double tonguing variations - a bit choppy - wind pattern
- then on the horn - ensure that you are hearing it in the correct style - it works better then
- VC: ensure that you don't hammer to make it clean - it gets stiff and mechanical - make sure that the musical idea guides you so that it sings - student tries it again and speeds it up
- now it flows - Student says that once he changed his idea about the passage it was much easier - Carnival is so familiar that it provides a good musical framework in which to practice multiple tonguing.

Student #6 (grad)

Begins with mouthpiece, for flow, ease - VC notes that there is a little stiffness at starting - this observation makes a big difference - the wind pattern gets around this so remind yourself on the first articulation of that.

- warm-up should be used to refine things like this - ensure that you remember the basics
- VC reminds the student that even in an accented beginning one shouldn't stiffen up - when the student lets the wind go, the tone is buzzier
- then on the horn - first notes have to have flow: Good image given: pretend that the note is already inside you and you simply need to get it outside you - release it to let it leave your body - don't shove it out - VC relates it to the bow of a violinist

- on to a Clarke - VC compliments him on it

Effective use of lip flexibility studies next: Irons studies (arpeggiated one liners)- start it with a long tone to establish the flow - student plays and they sound very good - VC compliments him - these get up into the high range

- make the fine distinctions - flow is so important - hard to know why such a simple, seemingly minor thing can mess things up and give you a bad day
- VC speaks of *rigidity* in the abdomen and how this is undesirable and leads to missed notes - no inhibition in the blowing - likens playing in these exercises to playing like a good lead player - flow the air very fast - VC warns the student that this book can screw somebody up who has blowing problems - you have to know how to use it
- next study goes even higher - "let the wind really fly" - sounds great - up to a "D" - student comments: "I haven't played a D in 2 weeks!"
- VC says you've got to blow freely

They go on to repertoire: Songs by De Falla:

1st song - some musical comments - goes on to the next one

VC compliments him on his style

- discussion of finding a couple of other songs that have some spirit to make a set

A discussion about confidence and how it differs from arrogance.

They go on to excerpts:

Miraculous Mandarin excerpt - needs character in the attack - get a good beat going in 2 is the advice so that the rhythm is steady - also keep the volume in the fast parts - don't let it fade - keep the blowing through the fast notes

- don't rush it - they work on it down tempo a bit - keep it very "mathematical"
- then up to tempo - VC compliments him on it

Elborado del Grazioso:

- start working on it slowly without any kind of "pushing" on the first note - adds duples, then triples - difficulty on the triples - does a wind pattern
- they work on triple tonguing: VC says don't choke by concerning oneself with the "K" syllable - Nothing wrong with your "K" syllable - don't worry about it - as soon as you do worry about it everything is going to shut down - having enough flow will keep it going and make it sound good.

VC uses a study from Arban (#70 on p. 172) modified to a triplet on each printed note, for practice.

VC related that he practiced this daily and at first the tongue seemed to get tired very early. It gets better each day as long as the flow is there and there is no pressure on the release. Keep going even if they get a little muddled.

- It's not a tonguing problem - you don't have to think about doing something different for each problem - you have to have that free release of the wind

Next excerpt: Pines of Rome. Fanfare passages

Same release with a sharp marcato - don't let the body get in the way - connect this to the Irons studies - student does a wind pattern with the proper style and energy - then it sounds better on the horn - some discussion of the rhythm - internal counting.

VC: "Be sure that your body doesn't get in the way." - wind patterns help you "throw" the notes away.

VC compliments him and the lesson ends.

Student #7 (freshman?)

Starts with buzzing; - don't overblow on the buzz - advice is to put even the most basic of drills in the context of music. Make it sound musical. This will take care of the physical aspects - nice musical articulation and shape - don't detach the musical connection

- then to the Cichowicz warm-up on the horn but it is a "bunch of notes" VC tells him to make it expressive - give it some shape - make a tune out of it - tries a wind pattern on it to get a nice articulation - thinking in this way on these warm-ups will help you gain subtlety and control over both the embouchure and the wind.

Clarke #1: "f" major 1st - always with the repeat to ensure that you took a good breath

- VC comments on the steadiness - tends to rush when the student thinks it's easy

- technique is useless without a strong rhythmic foundation.

on to Clarke #4 (trill-like) - VC compliments him on the evenness in this one and encourages him to make a project out of playing the more obscure keys - use this one as a model

On to a flow study - start it like you would sing it - think of that nice wind pattern

- the student lost it at the end of the phrase - VC asks the student if he knows why

- student says he was almost out of air and he tightened up - right - even though you are running out of air, don't panic and squeeze - let the phrase diminuendo - VC then works with wind pattern to establish what character the end of the phrase should have.

- "Keep the singing part going." - always make the connection of keeping the wind easy - work out the ending of the phrase for blowing and character of articulation with the wind pattern

- the student continues on and VC complains that the sound is lifeless - he's missing the musical message - again - "Put some life in it."

- student plays - better - "Do you have any question about this?"

VC tells the student that playing the exercises won't give benefit without putting it in a musical context. No matter what you are playing, you need to always make the context a musical one whether it is in a band or whatever.

On to a Russian Study - "basically good" - VC tells him needs some more expression over and above what you see on the page - pay close attention to the time, especially when working on something simple and seemingly straight forward - he plays it again - generally much better and VC compliments him - VC asks him if he knows what *morendo* means and explains

- VC advises: always ask yourself: “Does this sound interesting?”

On to the Hummel (first movement): works on the opening fanfare - discussion about playing it with a full sound but you don't have to “feel” like you are playing loud
 - tries it first as a wind pattern - uses the birthday cake analogy to blow the candles out - put energy in the air column and use an articulation that is fanfare-like
 - VC says: “If I were the pianist I'd murder you here.” - makes the point to keep the rhythm even when your part is not so interesting - student plays and it is better - VC compliments him on the opening - student tries another time and has some problem - they work on the wind pattern again to get the opening right. - plays again and it sounds better - VC tells him that it was much, much better that time
 - student says it felt easier - VC stresses the importance of starting out right so that one sets oneself up for ease and success

Next section:

- keep it light - talks about the style and playing some notes a bit shorter than indicated to keep the proper character - VC recommends getting a good recording as a reference and/or model to listen to the sounds of great players
 - VC tells him to watch the grace notes so that they don't destroy the rhythm
 - be careful not to lose your sound in the fast notes - the student tries again and it is much better this time - still loses the sound a little but improved

Goes on:

- VC changes an articulation to avoid chopiness - reminds him to keep the “stomach” from becoming rigid - keep the song going though - wind pattern on the passage with the wide leaps and encourages him to have courage to not stop blowing
 - cautions him not to go by the feel too much - could confuse the increased energy required for needing more muscle - What is really important is how it sounds
 The musical idea will alter what the response (from the instrument) sounds like.
 - VC tells the student to keep the rhythm steady and watch that you don't get stiff because of the staccatos you see
 - the student tightens up - VC tells him to keep the blowing going - it improves
 VC says yes - this is better but on the descent the character is not decided upon in the brain for the eighth notes - keep the connection between the musical idea with blowing - you can talk all you want about blowing but it will be frustrating without having a musical concept. The student indicates that understands the process and what he needs to do.

Student #8 (sophomore)

Flow study to start: - started and it went well for about 6 notes then the sound changed
 - admits he wasn't thinking about any more than black notes - VC tells him to make the melody come alive
 - VC: “If one has a strong musical message to express, small “anomalies” will not occur.”
 - concentration - stay in the moment by hearing the tune in a musical way
 - student thinks he lost concentration on the moment and jumped ahead - he starts again on the 3rd line - sounded great for awhile and then it squeezed - lost the end - VC says don't worry about getting the breath in the spot coming up - it will happen - stay in the musical moment
 - student continues on and the tempo tends to get uneven - VC warns him not to let simple things lose tempo.

- Student has gone too long on a breath and is getting cramped at the end of a long section - VC suggests taking the breath earlier - student still having difficulties - slows it down and straightens it out
- student complains that he is distracted by feeling a little on edge - VC reminds him to deal with the music so that you don't get distracted by it - don't pay any attention to how you feel - just get the song out
- next phrase is low and long and it caught him short of breath
- VC: what is the solution? - student: "play more gently?" - VC: yes but also - there is a comma written that the student ignored trying to keep the tempo - relax the tempo a bit and take the breath - tries it and it sounds much better
- student rushes in the chromatic scale - keep it steady
- also getting some nasal quality - bearing down on the air a bit - a wind pattern fixes it
- VC warns the student to keep an ear out for that in the practice room - you can hear it
- discussion about the relationship of the muscles for blowing and for going to the bathroom: the "constipation syndrome" - this effects upper register, tone, and so on
- VC advises him to eliminate it in the simplest warm-ups and studies

Bousquet study next: does a wind pattern first to prepare mentally

- (used for articulation - step-wise mainly - a good swing in "one")
- couldn't keep going - lost the sense of the wind pattern and the music it gave to the first bar - big improvement the next time
- VC tells this student that he needs to be alert to free blowing at this point in time and eventually it will be normal so that so much energy will not have to be expended in thinking about it
- a long phrase and he didn't quite make it to the end - the lack of air in the lungs distracted him - better the next time with a bit more air in the lungs - VC compliments him. These studies are good because you have to be doing things right in order to get through them.

Brandt: this study is approached from a musical standpoint to work on articulation Discusses "scherzando" and the kind of articulation that style demands. It needs lightness.

- a musical idea used to dictate a physical response.
- VC has him sing the style he wants - sings it with the right style - plays it and it sounds right for a while then reverts back
- discern the correct style and the articulation to match it
- student tries again - VC tells him: very good - now ensure that you are blowing very freely - plays again - VC: very good!
- process to the end includes singing a portion in the desired style, then a wind pattern in the style, then on the instrument.

VC tells this student that the practice session has to be a session in which confidence is built. This is achieved through playing stylistically.

Gail Williams teaching, April - May, 1997

Student #1 (sophomore)

A scale study to begin

- GW instructs: let the wind "fly" through the horn in scale studies
- GW plays with her on the tonic and holds each while student plays each scale

- GW asks the student to play the study faster and asks her what she hears - the student says it sounds freer - GW emphasizes the importance of air speed.

A different scale study that has a 6/8 pattern - it has more swing or lilt

- GW tells the student that this has a different sound than the previous study - "sounds freer"

- they talk about 2 up bows - analogy from the violin to get the sense of the pick-ups

- same study descending - GW encourages the student to get a bounce into her interpretation

- student plays - GW compliments her on the improvement

There is some question about what appears on the page - time spent trying to figure out what the editor may have changed

On to another study that makes more use of the low register:

- gestures for the student to really flow the air - in descending part of this study, GW really emphasizes the lyrical aspects

- talks about matching the tone quality on all the notes in this low register - used a different fingering to get the matching sound

- they discuss choices of fingerings based on what sounds the best - Bb side focuses the sound on some low notes better than the F side.

On to a Rochut study:

- to start she burbles the second note - GW: "How would you sing it?" - student sings without direction - then GW sings the passage with direction - the student emulates on the instrument and has success

- GW also suggests subdividing the long note following the pick-up in the mind while crescendoing to establish pulse, so the timing of the interval change following is clearer.

- uses bow strokes to illustrate the phrasing - compliments her in a rest

- GW plays along in the next section - asks for more contrast in a crescendo going back to recap.

- on the recap gestures for the student to blow through the phrase - GW emphasizes getting a sense of continuous flow of the wind and the music in the playing

- hear the phrase - let the wind flow to give direction to that phrase

- when ascending keep the focus of the embouchure so the tone doesn't thin - GW tells her what is happening to cause the change in sound: the bottom lip flattens - the "oooo" shape is important to maintain the tone. Keep the tone.

- asks her how Rostropovitch would play this last passage? Student responds that he wouldn't play it so straight - GW sings it and the student emulates

- GW has her start the étude again with musical freedom but in rhythm - GW compliments her on the improved tone.

Student complains of having difficulty starting an étude or piece.

-GW asks her what she does with her air first - student replies that she tries to take a good breath

GW asks if she takes it in time and in the style that will set up what she is about to do

musically - GW explains that the right kind of inhalation is so important for an initial attack

- It must be in the time of the passage coming up but easy (not tight).

- she says that not doing so can cause one to hold the air in at the throat, then the air can't move to make the buzz.

GW gives an example: - mental approach before - set yourself up musically before you start

- Tchaikovsky 5 solo - hear the chords before in your mind and take a breath in that style
- she also talks about how the violinist would bow that - picture that when you play it to get the right musical approach

Simulated 10 minute audition. This student is preparing to take an audition and GW feels that it is helpful to put oneself in that situation often for practice purposes.

Mozart Concerto to begin:

- very opening - the sound is not focused. GW stresses the importance of buzzing, fuzz free - since this will be the first thing on the audition GW recommends buzzing the mouthpiece before going on to get the tone focused
- GW advises: ends of phrases have to ring through - they stop - caress them to the end
- this is the result of thinking about the next phrase instead of finishing the one you are on
- mentally you have to sing through more - so the connection and direction is there
- play it on your violin (this student also plays the violin apparently) for the sense of phrasing
- There needs to be more dynamic contrast

1st Brandenburg Concerto - trio of 1st movement.: Student removes "F" slides presumably to lighten the instrument and make a lighter sound

- very high - a few misses - GW advises keeping the air flow even on separated notes - get a sense of line even through the notes are separated.
- make it more joyful - a little louder will help that
- GW has her slur a passage to get the sense of flow - then back to the articulated version

Brahms 3:

- more expressiveness and warmth required - give the line a sense of direction and make more of the dynamics - do the crescendo rhythmically (using numbers) a few times to get the sense of each subdivision being successively louder - the student tries it and it is improved
- pay attention to the rhythm - be steady and clear

Bruckner 4, 1st movement:

- compliments her on the performance of this
- speaks of intensity of sound on some notes - that they need more
- talks about more movement and flow as it approaches the loud part to increase the intensity - don't taper the end of that note so much - keep the direction going to the next line

Tchaikovsky 5, 2nd movement solo:

- sing it - speed up the air to start
- the tempo was not steady - some things got a bit too fast proportionally to the general tempo - play with the metronome several times to get a good sense of the 12 pulse.

Don Juan:

- needs to be more exciting - a bit too careful
- even though these "calls" are quite loud, blow easy so that the air isn't tight - after the Tchaikovsky you will probably be tight - practice putting difficult things next to each other
- blow easy on those and don't pressurize.

- they agree to do more short auditions in upcoming lessons.

- GW asks her to continue to do Rochut studies as well
- “Spin the air,” “sing,” and “don’t let the air get tight” are phrases that one hears frequently in this lesson..

Student # 2 (junior)

They discuss a recent performance - the student complains about having a vibrato but says that she wasn’t nervous -GW gestures indicating air and musical direction - stresses the importance not letting such a thing be a distraction from playing the music - focus on the music.

The student starts something and it sounds rough - they play a few interval drills together - these are slurred, flexibility type drills to warm-up on
 - on to some lip trill drills - GW encourages her use more air on these to free up the sound
 Then harmonic slurs throughout the range of the instrument
 - there is some discussion about the tuning of low notes and the use of the hand
 - then some rhythmic harmonic slurs in triple meter with a good swing - these really get the air going - they get right down into the low register

Scale study in the low register:

- make it sound clearer “point your tongue” is the image GW suggests
- descending in 6/8 with a good lilt - this study really encourages a musical approach to playing the scale
- in a certain pitch range the student complains of having to back off with the air
- GW suggests trying the passage on the mouthpiece - the student does and then back on the instrument -it sounds better.
- GW says to focus the sound - do not let it get diffused - focus the embouchure in the middle/low range and keep blowing. Advice is that buzzing really helps this. Ensure that you flow the wind.
- GW points out that student’s fingers are out of sync in the passage - student slows it down to straighten this out.
- GW advises again to really focus the air in the low register

This study makes use of descending scales with a quick leap up to the next descending passage each time - GW advises the student to hear every pitch - don’t move up before you play the bottom note

- GW has her change the articulation around so that she emphasizes the bottom note
- this improves it and GW compliments her - GW gestures for the air to “fly” through the passage

This student complained of having taken a day off the day before. She buzzed the mouthpiece only before coming for her lesson and tried to pick up where she had left off 2 days previous - The advice given by GW was to take perhaps a little more time coming back after a day off with a slow and easy warm-up - GW reasons that one takes a day off to rest oneself - don’t come crashing back

On to a piece of repertoire:

- GW encourages the student to be creative in a place where there is a climactic high note - take a breath before it but not in time - stretch it out - make something of it - go after it with conviction

- an interpretive discussion about 2 ways of approaching a particular passage - to go for it or die away
- in the next part GW suggests a warmer crescendo and to not leave it too late
- The student gets to a passage where she is having trouble with the articulation - GW has her do it on the mouthpiece - then on the horn - works well on the mouthpiece and then very well on the instrument.

- a cadenza-like passage - they try some different things with tempo - accelerando and ritardando to make it sound right

next passage - a recap of the earlier place they worked on - GW sings it - the student plays it - tries a different interpretation for contrast

- then for the climactic high note again the student reminds herself to get a good breath before.

- they work on different ways to do a valve glissando with an accent on the bottom and a crescendo

- when technical problems arise the response from GW is always a very musical one stressing "line" and making it sound convincing.

GW compliments the student on her work on this very difficult piece.

The student continues with the piece:

- much discussion about interpretation - using dynamics effectively.

- discussion of letting the air "really fly" in a passage

- descending passage diminuendo - in spite of the combination of going lower in the range and getting softer, one must keep the air flow going.

There is a discussion about vibrato - when is it appropriate on the horn? Is this passage one of those places? - GW advises that it can change the whole quality of a passage by warming the sound

GW compliments her again on how well she is playing this very difficult piece.

- they then work on the ending for time and rhythm

- The student complains of having trouble with her accompanist on this piece. This has made the student think that maybe she is off rhythmically so GW listens closely for rhythm through the last section - the student is right on.

- mouthpiece buzzing is used to help smooth a slurred passage - then played on the instrument - it is better but they determine that it is a problem coordinating the fingers with the buzz - some practice of the passage ensues - it gets better but this will have to be practiced more in the practice room

GW compliments her again - tells her it sounds really good.

They move on to an articulated passage that is causing some problems - GW has her slur the articulated passage to get the consistent air flow by eliminating the tongue - this brings improvement when the student plays with articulation

- another articulated (double tonguing, two articulations per pitch) passage in the low register causes difficulty - GW suggests practicing triple tonguing to help the double tonguing in this register - they work on this passage

- the approach taken is: 1) to articulate each pitch as a single note; still inaccurate from one note to the next.

2) slur the passage - the air flow is re-established and the buzz responds as a result. Once the airflow is established and some confidence is gained by the student in the passage through repetition, the tongue is added again.

Discussion of double tonguing includes the idea of keeping both articulations, especially the "k" "up front". GW believes that the vowel shape used should be "tooo - kooo" instead of "ta - ka" to achieve this and keep the focus of the tone..

- GW recommends practicing multiple tonguing away from the instrument while walking from one place to another for example.

Student #3 (sophomore)

Scale study to start

-GW gestures for her to really keep the air going in the lows

- compliments her on a more even sound throughout the registers - GW compliments this student - she doesn't have to spend so much time getting her "turned around" at the beginning of the lesson as in the past.

The student complains about some days being a quicker warm-up than others

GW advises her that some days might be better than others - the mind set has to be to do the job - don't worry about it - just get the job done - hear what you want and try to achieve it - with experimenting she'll find that one day one needs to do more slurring, or more articulation another day, to get "warmed -up" because of the different demands that playing presents on different days - when one is working, it is good to do opposites - for example: a heavy day of loud rehearsals - practice soft things

Next scale exercise:

- gets her to think in term of bowing and blowing - the analogy of the moving violin bow.

- gets a little "fluffy" sounding - sounds like "la-la -la" articulation instead of being clear

- GW asks her to listen closely and make it sound more "too" like

- GW asks the student to ensure that a particular scale passage doesn't sound choppy - GW demonstrates the scale passage run with a sense of line on her mouthpiece

- student copies on the mouthpiece -GW compliments her on the improvement

-GW likens this to the bow again with bow-like gestures

- reminds her again about the flow of wind and music - the student plays the passage and it is improved

- mouthpiece buzzing used again to get the desired result in an articulated passage - then transferred back to the horn - noticeable improvement.

- GW encourages her by telling her that this particular study is improving - there is still room for improvement

-GW coaches the student in terms of keeping the sound of the articulation clear by keeping the tongue pointed and not letting it sound "wide" - also continually reminds the student about air flow.

On to the next study:

- the student plays it quite well - GW suggests playing this study with a mix of articulated and slurred notes as a challenge. Make them hard for yourself but remember to always keep the air going

They talk about what this student should be practicing over the summer

GW suggests that the student tape herself occasionally over the summer - if she does this once a week it will be like having a weekly lesson. The student will be able to hear what the teacher normally would hear and can make improvements - "be your own teacher"

- GW cautions against taping herself all the time as she may begin to tune out while playing, only listening to the tape
- GW also suggests regular sight-reading practice over the summer - the Red and Blue books (Max Pottag) are good for that because of the variety of material they contain
- Work out of the Maxime - Alphonse book 5 - very practical studies that cover many techniques
- recommends the Cheynes book for variety - good mix of articulated and slurred material

This student is also preparing for an audition

GW again recommends "practicing" taking auditions to get used to the situation.

- Brandenburg 1st movement 1: good tempo - GW tells the student that the articulations need to be clearer, not shorter
- GW tells her that it had nice direction
- GW sings to demonstrate the lightness the student needs in this excerpt.

Beethoven 3rd:

- need to switch gears faster from the Bach - it took the student too long to get into the mood of this excerpt.
- thicker air and faster air are required when descending to the bottom notes

Beethoven 6th:

- GW tells her that the time (rhythm) needs work
- compliments her on the dynamic contrast

Mahler 9th:

- GW tells her that it sounds very good in general
- needs more fire at times, then lightness - get the contrast - be sure you know what instruments you are playing with - play lighter in the flute spots
- watch tempos - give direction through the triplets - she sings to demonstrate.
- compliments her on a trill - draws her attention to accents

Ein Heldenleben:

- get a good breath before the 1st note - take the breath over 2 beats to ensure full capacity - the breath can still be energetic to reflect the style
- pay attention to tuning - count the rests carefully
- more lyrical and singing to give it a noble feeling - sings to demonstrate - more the noble hero - not just fire and excitement

Brahms 2:

1st movement: pay attention to the pitch - good pacing - needs more heart, expressivity - GW sings to demonstrate - try closing the right hand a bit to darken the sound - watch the dynamics

2nd movement: watch the tuning - the climax needed more weight - don't come down too much too soon after the climax - picture the *forte* here as being round

Siegfried call:

- take time before you start it - don't rush into it - let your brain focus on the next excerpt and get the music happening in the mind before you start
- after the beginning GW tells her that she did well and went for it

- practice it using the slur at a slower tempo to work out the notes with air flow
- the air was quite good but the fingers weren't coordinated - hear it before you start it
- remedy again for difficult articulated passage is slurring it at a slower tempo.

Continual references to "thick air" & "fast air" throughout the lesson

Student #4, (grad)

- preparing for several auditions - has decided to play Strauss 2nd Concerto - 1st movement as his solo piece - GW thinks it's a great choice if one has full control. If one does then one can make a very good 1st impression

Student complains about feeling stiff today

- he says that some notes have "fur" on them - he plays a relatively low note and GW watches and listens - she notices that he isn't keeping the "ooo" shape but is rolling his lower lip in and flattening it

- GW gets him to play on the mouthpiece to get the sound he wants and make the right shape - points out that to get the sound he wants he is doing something different on the mouthpiece than he is on the horn - tells him to go over and look at his buzz in the mirror - he sees and makes the adjustment - tries playing again and it sounds better on the horn - he also notices that the pitch is more steady - she reminds him not to force - but to blow easily

GW tells him that the buzz becomes less focused and "diffused" when one loses the "oo" shape.

The student then asks about volume in this low register - he feels like he can't get as much sound - GW explains that you can't play down there without having the mouthpiece firmly placed on the embouchure to get the isolation of the buzzing part of the lips

- experiments a bit and GW gestures for him to flow the air

- she tells him what she does to play in the low register but cautions him that everyone is different and that what works for one may not work for the other - therefore one has to know what sound one is trying to make in that range - he experiments some more to find the right sound - she has him play the low solo from the 3rd movement of Mahler 1 to put this into a musical context

- The advice given to remedy lack of response generally in the low register is: to avoid flattening the lower lip by rolling it over the lower teeth. This bit of "physical" advice is backed up with "... so the sound stays even and consistent."

- reminds him to blow easily and gives him a slur exercise into the low register

- he tries and has a little trouble - GW tells him not to worry about his face so much and listen for the tone quality

- they do some play/response slur drills, where GW plays something and the student echoes to get his ears listening - these gradually get lower

- she admonishes him when he gets overly analytical about his embouchure to keep the sound the same - that's what is important.

They move on to the Strauss:

- she suggests listening to several recordings for musical ideas, tempi, and sound

- she recommends one by Petr Dam (sp?) and another by Ratavan (sp?)

- suggests he think of downbows for the octave at the opening so that he gets the motion of the air and a full sound - "full bows"

- GW has him buzz the mouthpiece to improve a passage that is not sounding well.

- He sounds like he's forcing - GW complains that the sound is out of focus - asks him to slur it - she thinks he's tonguing the passage too hard and losing the air flow and the sense of line

- she remarks that he does sound stiff and asks if he is doing any soft playing in his practice to balance the loud.

- he says he is and is trying to get the soft playing to not be forced

- trying to relax that but he is just getting started on practicing that technique

The concept of blowing softly without holding back on the air seems to be a new one for this student - or perhaps one that was slow to take hold.

- GW suggests scale studies at the back of the Schantl book to work on this - play them fast and *p* with a metronome - keep it relaxed in the blowing - play them with ease and with "wonderful air - like angel hair pasta" - fast air so it's easy but not loud

- also shows him a lip slur drill at the top of the staff, to be played softly - he tries this to understand how it works

Back to the passage in the Strauss: he plays - she asks what he wants to do musically and he says he hasn't decided but thinks he wants to come away - he plays it coming away

- she complains that his sound is a little unclear in this passage - she suggests trying it another way and he does - she suggests that he keep experimenting with the approach to this passage .

- She also suggests that he not put his hand so far into the bell so that the sound does not become muffled - has him sing the passage and then play it with the adjusted hand position - it is clearer

- they buzz the passage together and she points out to him that he is working too hard

- GW tells him again that he is too concerned about his lips and "face" - she advises him not to worry about his face so much and put that effort into the music

- for the next passage she demonstrates on the mouthpiece twice - first the way he played it which sounded very "notey" - then she played it on the mouthpiece so it has direction.

- then he plays on the horn - She compliments him saying that now it has more flow.

They go on to discuss some musical ideas and she sings a passage demonstrating where the line is going

- they talk about appropriate decrescendos - he plays some different ideas on the horn

- they decide on some new dynamics for a particular passage that seem to make more sense musically

After this detailed work, GW suggests that he needs to think of the first page (exposition) in terms of "long, long lines"

- the student wonders how to get breaths without disturbing those lines - she makes some suggestions by singing

- GW suggests that he needs to pay close attention to the dynamics so that he can make the phrases without running out of air - he tries a passage and tries to balance the dynamic with phrasing and breathing - her suggestions help

- GW then puts on a recording to get another player's idea about the phrasing and where he breathes.

GW comments that this particular player has "a whole bunch of different ideas."

- they discuss some things the player can do in relation to what the orchestra does - this makes a difference - in an audition setting, the student will be playing the horn part unaccompanied so that breaths will be more noticeable.

GW relates the idea of the masculine and the feminine in music and that maybe he should consider looking at this exposition in a different way

- she thinks that maybe he's trying to push the tempo too much - that it may need to lay back a bit and be less urgent - perhaps a more 'feminine' approach - He considers this and the lesson concludes.

Throughout this lesson there was much talk about air flow as well as gestures of flow. She also emphasized practicing opposites - eg: when the job calls for high and loud, increase soft and low in the practice session.

The student sounds a little frustrated after the lesson and GW tells him that he has to stick to playing music!

- GW asks if he sings - he says not much anymore - she encourages him to sing through things to get that sense of song - he's too analytical.

Student #5 (sophomore)

The lesson begins with a chat about what the student is doing in the summer. He tells her of the festivals he is planning to attend where he will be participating in masterclasses with several horn teachers

They talk about chamber music repertoire that the student will be participating in over the summer and GW suggests that whatever he studies and performs he should plan to do another performance next year at school - put on a recital

The conversation then goes to talk about attending recitals to hear different pieces and interpretations. GW's message is to listen a lot over the summer when the student is in these different situations

She then suggests some things that he should work on over the summer.

- études: he has started book 5 of Maxime-Alphonse

- Barbiteaux and others

There is quite a bit of conversation at the beginning of this lesson because this student had a performance that night

He asks her about a warm-up he has tried - GW says that whatever it takes to get a good buzz going is fine - make it easy - blow easily - maybe one has to do something a little different every day but that is how one learns - always make it sound good.

- GW talks about breathing as part of the warm-up - she demonstrates some breathing exercises on a device that one blows into to raise a small ball - turn it over and one must raise the ball while breathing in.

- this device is used for breathing practice - she explains that it is a good thing to use to get things going before one plays

GW also recommends buzzing for a very short time on a visualizer

- he then shows her what he was doing on the mouthpiece - trying to get a good air flow

- she compliments him on his breathing - says he's taking more air than he used to

They then move on and he plays an arpeggiated study - she stops him

- asks him where his tongue is - says it sounds like its in the way and he isn't letting enough air through especially on the higher notes at the top of each arpeggio - the vowel has to be an open one after the "t"
- he tries again and it sounds much better - it sounds much clearer.
- GW reminds him to think of bowing and of "thick air," - not letting the air column be thinned - GW: "good, now slur it"
- sit tall and breathe all the way up to the collar bones
- goes back and forth between tongue and slur
- GW asks him if he hears a difference in his sound now that he is really flowing the air?
- he does - she says it now has more ring and is not as covered - he says he likes the covered tone quality but doesn't like the fact that it doesn't project as much
- GW thinks that it doesn't project as much and that it sounds stuffy - the wind in motion gives the sound more "ring" and it sounds more resonant

They move on: she reminds him to keep the tongue down to let the air through - gestures for him to move the wind -again: "thick air"

- she thinks he needs to be more focused on what he is playing - he's missing too many notes - She has him go back to the beginning each time he chips a note - this was something that Frank Brouk would do to make a student concentrate.
- passages that he has trouble with - she gets him to slur so that the flow is better
- she plays along and encourages him to take in more air - he is "longer wasted" than she but isn't making as long phrases.

GW tells him that when one concentrates on getting notes, that is when notes are missed - don't think about notes - think song and airflow.

Next study:

- GW talks about keeping the rhythm even with a grace note - he plays and the figure sounds much better - she compliments him
- she recommends he tape himself over the summer - same advice as to the other student.

Student #6 (junior)

The student is concerned about her breathing - she gets a very tight shoulder and thinks that she just isn't relaxing her body when playing

- GW suggests doing some exercises from Alexander Technique for relaxation - they discuss this a bit more

Student warms up a little

They do a drill together - slurs - first by half steps above and below the principal note, and increase the intervals by half steps so it becomes a flexibility drill with quick motion to and from the principal note in both directions

- they take relaxed, full breaths out of tempo to promote filling the lungs and blowing easily.

Then on to a low arpeggio and harmonic slur- GW asks her to move the air faster down there - GW says when you take a breath relax your shoulders

- "thick air" when you blow - keep the air column thick, not thin
- this student doesn't play in this register very much - GW encourages this student to not be afraid of the things she can't do such as slur evenly in the low register - do them - otherwise they won't get better.

GW also tells her that it helps in the low register to open the hand in the bell as well.

GW reminds her that the lows take so much air - waste it - tongue down so that the air can get through - This discussion is mixed with drill work to train the tissues in this low register.

An octave drill through a scale also.

On to a piece:

- interpreting some markings
- question about tempo and accelerando
- figure out a breathing spot before going to a climax on a high note.
- more interpretive talk about the piece - appropriate dynamic for a passage
- goes on to a more rhythmic passage - GW compliments her - says it is very good
- GW suggests maybe more sparkle on the articulated notes- another compliment
- They discuss fingerings for a particular high note - discussion of high range: teaching oneself how to play a particular high pitch GW uses a Jacobs drill in which one plays the pitch beginning it without the tongue. A scale is used with pairs of pitches descending always beginning on the tonic - take the mouthpiece off of the lips between each pair
- followed by the reverse, always ending on the tonic (high note). This drill is done at "mp". - GW says that Jacobs told her not to do this more than 2 or 3 times a week. - the purpose of this drill is for training the tissues for the high pitch - conditioning the desired reflexes through repetition - gaining "muscle memory"
- GW tells her that this drill will also work on low notes

On to the next section:

- it is very high and stopped - They figure out fingerings that work - GW plays the octave below to hear the tuning of the fingerings they chose.

Next section.

- They work out some glissandi.

Next is a passage containing some low short notes - GW asks her to put more air on each

- She also suggests playing the whole passage on the Bb horn to help focus the sound - her intent here was unclear - as a practice aid or all the time?

Next:

- another passage that moves throughout the range - it's articulated - works on it slurred to regain flow - Discussion about breathing here and ensuring that she fills up
- GW suggests that sitting forward is a way of helping to ensure that the chest doesn't collapse - keep the wind going like the bow - the student does the passage on the mouthpiece to hear the notes and make the connection between the pitches - make sure she's hearing them
- she also articulates more gently because she can hear that she is tonguing too hard as well. This work on the mouthpiece brings noticeable improvement.

Frank Crisafulli teaching, April - May, 1997

Student #1: (sophomore)

Warm-up: Long tones - put the first note in the context of musical phrase, with the tongue secondary to the breath in terms of thought process. KEEP it SIMPLE; Breathe and blow.

- breathe in terms of a musical idea - have the quality you want in your mind before you start

Scale- no tongue this time - make it sound beautiful - don't work too hard with the slide
 - next: same with a legato tongue - triplet on each pitch - make the blowing as if you were on the same pitch so that the slide is not a big deal - when slurring, hear the notes (pitches)

- when practicing step back once in a while and play something simple to remind yourself of relaxation.

This student complains of not having enough time to work on his ensemble music and solo repertoire - FC advises him to take time every day always to at least establish the basics as they just did.

A brass quintet piece:

- as the slide gets farther out, don't respond to the changes you feel. Listen closely and make the tone and technique as clear as when the slide is in close. "Go by the sound."
- as he went lower (farther out on the slide), the articulation and character changed - so FC asked him to keep the same musical character
- FC reminds him about counting the rests - not to rush - then fit the easy breath in time before the next entrance
- the student plays the passage and FC sings along - keep the wind flow continuous through technical passages and they will be clear.
- FC advises: pay attention to the articulations marked - the student continues on
- a low, technical passage takes some work - there is a possibility of two different slide sequences: one with the valve - one without.
- FC tells the student to ensure that the wind keeps going no matter which slide pattern is chosen - neither will be clear without air flow

FC asks the student to go back to the beginning and try to play the style of the piece as indicated on the music now that he has the notes.

- the student does so - then stops to ask about whether his choice of breathing spots was appropriate.

FC: don't try to save air; take a breath and blow and work out the best places to breathe once you have become more familiar with the piece.

- trying to save air will only cause one to tighten up.
- discussion about the style

They move on to the next piece (1st trombone part to a band piece):

The student expresses having difficulty with a high passage - he plays - there is some discussion about the use of vibrato in a passage - FC tells him about different styles and when to use them.

- FC compliments the student on his sound but suggests the use of the slide vibrato - the student does so - FC compliments
- student goes on to the next section - it is higher and stays in the upper register - he plays it and misses a few notes
- student shows FC where he starts to feel tired - FC sympathizes with him because it is an extended passage - FC is not surprised that the student gets tired and explains that endurance comes with experience - he feels that this part is taxing especially for a sophomore

His advice is: practice high passages out of context so that you can be fresh. Experience these sensations of freshness enough that you can memorize them as normal. They can then be emulated when not so fresh.

- the student plays the passage after having a break - it sounds good - play the passage when you are fresh and you will retain some memory of that each time
- FC gives an example from Heldenleben bass trombone part that goes from the lowest to the highest range - he has students play just the high parts when they are fresh (out of context) to teach the lips where those notes are - once the player is used to playing these notes easily then they can be put back in the context of the line with better success
- FC talks about taking a good breath when one has the opportunity within the passage
- student plays again - he misses a couple of notes and FC tells him to keep practicing it but not to do so when he feels tired - take breaks so that you get used to what the result is when not tired - this will encourage enjoyment of playing rather than being afraid of the passage

Student plays more

Advice: don't keep trying to practice or play when physically worn out Be realistic.

- he plays more - FC tells the student to make clear articulations and play the passage with good rhythm - he sounds much better the next time - FC compliments him.

FC- don't go too far in your practice of such passages that you begin to experience failure - that is what one comes to expect after enough times through when tired - warm-up before but don't wear yourself out

Whatever happens in the high passage - keep the wind going - don't tighten up.

Recurring theme: when the trombonist gets out to lower positions the tendency is to tighten up and stop blowing.

Also uses the image of the bow to communicate the activity of the wind when blowing.

Two others join the lesson for a sectional coaching on excerpts.

Student #2 (year unknown)

Warm-up on scales: legato articulation used on each pitch, both triplets and 16^{ths} to help the coordination of blowing, tongue, and slide in legato. Timing is worked on and improved.

Lesson on Gröndahl concerto.

FC works with the student on the piece with the idea of "singing" it to keep motion of the wind and line even through passages where there is a lot of travel of the slide.

- FC says to never feel guilty about taking a breath - take it early enough so that you don't go too long on the breath

The student goes on - FC compliments the student - asks to hear a passage again

-FC gestures for the breath to keep going as the line descends - tells the student not to try to "help" the slide by changing the blowing

- on to the next (slower) section - FC sings much of this with him as he plays

They discuss pianists and the difficulty of finding one.

On to the next section - FC tells the student to play the tune here - concern yourself with the tune and not just getting the high note at the end of it.

- he plays again - FC tells him to keep the music going and polish this section.

They go on to the next section - the slow section again

- the legato tongue technique is used again to aid in the timing of the slide
- keep the blowing of the wind going on a dotted eighth & 16th pickup figure (4 16ths)
- this helps - big improvement - FC compliments him on this section

Next section:

- a difficult technical section of four notes - FC gets him to slow it down to listen to the notes to ensure that the student is hearing every pitch.
- FC has him alter the passage slightly so it is somewhat simplified note-wise - he practices it - returns to the original notes and it sounds better.

Keep it simple - don't try too hard on technical passages and allow the flow to become restricted. One can try too hard.

This is for a jury - FC asks if he has another solo going - no - tells him that he should get another piece going

- About this piece - don't run through it all the time but rather polish the sections that still need work
- play it through only occasionally
- takes some time for a rest - then he plays again - this is a run-through - FC compliments him - on to the next section:

- he plays - FC compliments again
- student plays the next section and misses at the end of it - he complains that he is "dying"
- FC tells him that it doesn't sound like it - that it sounds quite good - think about how it sounds - that is what is important - the listener can't necessarily hear the tiredness

Scale study: Kopprasch - based on thirds - FC compliments him on the style and the articulation and steadiness

Werner study: FC compliments him - asks to hear it faster - FC says its pretty close - try it again a bit faster still- don't try to be perfect but get the feeling as much as you can

- the student stumbles more - FC compliments him on his articulation though - keep at it.

On to a Bona study:

- a legato study - compliments the student on his interpretation
- He advises the student that he can make it more interesting as he becomes more familiar with this study.

Student #3 (freshman)

Student begins by warming up on slurred scales - not fast

Rhythmic pattern on each note of a scale to help with the flow and timing of the slide.

- has him do the rhythm on a single note - now apply that to the notes of the scale
- don't try to help slide with your breath - keep the wind going steadily - that is your tone
- keep it as simple as it is on one note
- Make the slide fit - don't you try to fit the slide - you are in charge - same scale with a triplet on every pitch
- favor the breath a bit - take a little extra time for it then go on

- you can do some variations on these - put the accent on the 3rd note of the triplet but change pitches in the same place - this helps the timing but with more of a challenge

On to a Rochut study:

“A little glissando between the notes is better than trying to clean it up directly - eventually as the rhythm improves the glissando will disappear.” - sounds much better after this exercise

- FC: “keep that sound alive”

- “hear the tune” - to this end he has the student slow the étude down so that the notes can be heard and the slide gets to the right position (accurate) - don’t accent - it must be precise but don’t assist that with the breath - FC complements him

- the student goes on to the next section - FC tells him to take a good breath.

- the student is having problems with mispitching

- FC tells him that he has to learn the tune - not the positions - “Learn every phrase so that you can sing it.”

- he has the student sing it with the articulation he will use when he plays it - then the student plays it and it sounds better

FC advises the student to put the horn down and sing the phrases to get the tune in his ear

repertoire: Larsson Concertino

Advice: slow the passages down until they are in your ear and in your slide - “a la cadenza” - otherwise they won’t settle in.

The student plays - FC advises him on some dynamic considerations - asks to hear a passage over - the student plays - FC compliments him

- he goes on - has difficulty with notes - FC tells him to slow it down to hear the pitches - the student works it out with slow repetitions

- then goes on - FC questions some pitches - what are they supposed to be?

- the student goes on - FC makes some musical suggestions - student tries them and it sounds better - FC reiterates that one must learn the notes slowly and then speed up.

- they go on - FC stops him on another passage where the notes aren’t clear - they clear them up through slow repetitions.

- going on to a more technical part - FC suggests some musical ideas - asks for more accent and to ensure that the slide is in the right place at the right time “let them (the notes) sound”

- another passage where the student is not hearing the pitches - they slow it down and it improves

FC makes some suggestions for making a passage more interesting - FC compliments him on getting off to a good start on this movement.

2nd movement:

- explains the interpretation of the markings for the student to get the right style - the

student plays and FC sings along to demonstrate the phrasing - FC compliments the student

- goes to a low section - FC encourages the student to keep the sound going in this register and not to let it die out.

Third Movement:

- down tempo a bit - the student isn’t comfortable - tries going on too long on a breath

- FC says to breathe more frequently - don't go until you are out - replenish the top of the breath - work this out slowly, planning your breaths so that you replenish frequently and just have to top up.

- FC tells the student to lay it down - don't back off in this passage - comes to a high note - the student can't play it - FC stops him to ask him to hear the notes ascending to the high C - Hear the preceding notes and ensure that the slide is in the right place so that the timbre doesn't change when you play the passage.

FC reminds the student that when practicing, especially something that is unfamiliar, choose a deliberate practice tempo and a deliberate volume until you feel like you know the notes and what the piece is doing.

They continue on: keep at it to learn the tunes - it sounds pretty straight now - he is still learning the notes to this passage.

A recap of the material from the 2nd movement: FC suggests that this would be more interesting if it were more legato.

- they go on - problems with the notes - FC has him go back and play it deliberately - and again it starts to improve.

- FC tells the student to be patient - don't make an ordeal out of sight-reading - take your time to work things out.

Student #4 (grad)

Repertoire: Groendahl Concerto:

She plays; FC says - some tuning is not good - Gbs are not quite in tune - he has her play it again - it is better on the repeat

He asks her to start again at the beginning - watch the dynamic - not too loud to start - she plays again - misses a note - he tells her to make sure that she is hearing the passage in her head while playing.

FC gives her some musical suggestions with regard to tempo - he advises her to sing through this first section and smooth it out a bit

legato section: suggestions about the rhythm - asks her to play it again and "sing" through the section

- FC - "Keep a fine sense of rhythm so the slide will not be early or late." - she plays again and it sounds better

He asks her if she ever practices sitting - some discussion about her back problems

- discussion about rhythm - FC suggest how to make it a bit more interesting - she does - he compliments her

- he reminds her about not clutching for a breath - relax - he then sings the passage for her in a dramatic manner - she plays and copies

- she has difficulty with another passage - he has her play the rhythm on one note to get the wind moving - then plays the notes and it is better.

- he has her play the whole section - she has difficulty again with "the lick" - he reminds her to practice this in isolation so that she gets used to hearing it sound good - then she will remember that when she puts it back in context.

- when having difficulty with a technical passage, try playing the rhythm on one note to ensure that the blowing is not stopping - "the simplicity of the blowing must be dominant."
- then apply that to the passage.

He talks about earlier in the passage where she needs to let it be more lyrical - also don't rush the last passage - let it sound.

On to a movement of a Bach 'cello suite:

- she plays and has difficulty - he sings it so it sounds more musical - she copies - there is improvement.
- he stops her - encourages her to finish the phrases and not rush through them so that she compromises the breath - she plays on - he warns her not to play with the rhythm too much in the middle of phrases
- FC says that she seems to be a little short of breath - he also tells her that she must make it sound as smooth as valves - FC talks about the phrasing and not gasping for air - she plays a bit more after a brief rest - he compliments her

Excerpts:

Sibelius Symphony #7 - FC suggests using some vibrato and giving more direction to the first note - she plays - it sounds more effective - he compliments her

Next section:

- they talk dynamics - there isn't much marked and FC would like to hear more direction
- shows her where and how to take a little more time in the passage - he compliments her

Next excerpt is a Duke Ellington piece

- FC encourages her to use a slide vibrato when she lands on long notes - she plays with the vibrato - he compliments her

Zarathustra is next:

FC tells her that her 1st position high "D" is flat - Also cautions her about starting too loud

- it is only marked *forte* - she plays it again - better "D" but keep the marcato - she plays it once more - he compliments her
- next section - goes up to a high note and she misses - he cautions her to not rush into it - take your time - she plays it more deliberately and it sounds better - he says that she sounds much better - try it once again - she plays it well and he compliments her
- he says to keep it simple - ensure that you hear all of the pitches and then - keep the rhythm - don't push because the slide gets out of sync.

Ride of the Valkyries

- she plays - he compliments her - he tells her that she doesn't have to play too loud - "You have lots of sound."
- they work on the rhythm of the pick-up. He cautions her to not take it out of rhythm
- continue to practice it without the 16th to keep the integrity of the triplet.
- also take it just a bit faster

Student #5 (sophomore)

The student does sirens on the mouthpiece to warm up

FC compliments him on the solo he had in the band performance a couple of nights ago.

- student warms up a bit on long tones and harmonic slurs - FC stops him - asks him to repeat one and improve the pitch with the slide - this is more the case when one gets out to 4th position and beyond - listen and adjust the slide - don't "lip"
- play them slowly and over a period of time you will hear which notes need to be adjusted

- FC suggests trying Clarke trumpet studies on the trombone to smooth the stepwise slur - he thinks they will help get over the tendency to help the slide with the air - play it as you would play it on the mouthpiece - he adds the repeated tongue on some notes to help the rhythm of the slide - he encourages the student to change the rhythm in these exercises - "This will help you learn it."

Student talks about wanting to do a recital next year - in winter quarter - FC wants him to start preparing now - learn how to prepare - don't leave it 'till the last moment or you will try to do too much and not be successful

- they talk about nerves: FC advises not to worry about performances if you take your time in preparing - then you will enjoy what you are doing - otherwise you will rush yourself and it will be a stressful situation - they discuss potential repertoire

Repertoire: Tellemann - unaccompanied sonata?

- student has obviously started this recently - doesn't know the tune
- FC talks about the rhythm of the opening and making the duple eighth different from the triplet eighths that come after it - the student plays again - and FC sings along trying to help him with the phrasing - student stops and FC compliments him telling him that it is better
- FC also cautions him to not rush

Student plays the next section: - FC reminds him again about the rhythm - the student corrects it - FC tells him to be more convincing with his dynamic contrasts - also make sure that you hear all the notes in the context of phrase - work them out slowly so that the notes are secure

faster section: watch the articulation markings so that the phrases are clear. Also pay attention to the key signature and the clef!

- FC is singing the whole time trying to help the student hear the lines
- FC stops him for the phrasing - the student plays and it is better - FC compliments him on his reading - start polishing - FC gives him a tempo to work toward.

3rd Movement

- FC corrects the rhythm - he suggests doing this in divided time and make it legato
- don't rush the 2 16th notes after the dotted 1/4 - blow through that dotted 1/4
- the student goes on and FC sings along to direct phrasing, notes and rhythm

FC admonishes the student about pitch and slide speed on a low passage - get the correct pitches and the timing of them with the slide - he plays it again - FC asks him to play out a bit more to make an *mf* - plays and it sounds more convincing - FC says to play like a soloist!

They move on to the next movement.

- the student plays down tempo - not really sure of the pitches - FC stops him and sings some of it for him - give the slide a chance - "there is a lot of slide action in this" - don't push it

- a question arises about which combination of positions to use - FC says it doesn't matter which slide position you use - keep the blowing steady - performance wise: decide on one and practice it so that there is no doubt when you get to the concert.
- tells him to stay relaxed on this slide passage and has him do it both tongued and slurred as practice for keeping the air flow going.

Student #6 (grad)

- study to begin: Kopprasch
- FC talks about the rhythm and style: don't clip the eighth after the 2 16ths.
- they work on the first line breaking up the 8ths from the 16ths to hear the 2 separate lines
- keep the wind going - don't think too much - enjoy yourself - FC compliments him
- sight-reading - when you read - don't penalize your sound - keep it beautiful
- Remember - the breath is always simple - it is a constant whether one plays fast or slow - keep the breath simple - if you have a technical passage - play it on one note so you can relax the breathing - hear what you are doing rather than feel what you are doing

Another study from Kopprasch book 2:

- the student is reading - FC stops him and asks him to change the articulation - student does so - FC: now do it this way - sings - the student does - FC complements him

On to another study: take it slowly to get the coordination and timing - make the slide have the same precision as valves - take your time and make it always beautifully rhythmic - FC tells him it sounds good - has him play it next with different slide positions for a challenge

FC: "Good - now lets go faster." - he does - and misses because of lack of time to breathe
 FC: "Learn to breathe successfully fast, but learn to breathe successfully first."

- you can go fast but don't work too hard - student goes back and plays it slowly - then faster - keep the wind going at the faster tempo
- don't stop for every little thing - go back after - especially when preparing for an audition
- otherwise you get into the habit of stopping

Excerpts: advises the student to listen to recordings to get used to what else is going on
 Mozart Requiem - make it very smooth - try playing it with alternate positions for practice to work on timing - he plays it again and sounds good

- FC says that for an audition make the dynamic soloistic
- work on it so that it is even more legato - FC complements him

Russian Easter Overture: make the line of these passages as though you are the priest singing the chant - the student plays - it sounds very expressive with good dynamics and direction - FC complements him

Hungarian March - he plays - FC asks him to try playing all eighth notes - he does - then back to what is written - FC asks him to make the note in 5th position sound as good as the other pitches

- talks about tuning and blowing - don't let anything compromise the breath - a little slow, it should go faster

The Ride of the Valkyries: FC tells him that he practiced this as straight triplets - without the 16th - play it in rhythm and don't take the pick-up out of rhythm

FC also talks to him about the rhythm beginning Lohengrin - remember that the trombones are joining in - often they slow that triplet down.

Student #7 (senior)

This is a coaching session - trombone and piano: Casterede Sonata - preparing for a senior recital - FC says "bravo!" - it sounds excellent

On to the slow movement: sounds beautiful - FC gestures for them to proceed

Last movement: this also sounds very good - very technical - FC is very complimentary

FC asks what else is on the program - tells him to take it easy that day and not to keep running back to the horn and "peck" at it. They talk to give the student a rest.

FC compliments both on a good job.

Mozart: Bassoon Concerto, 1st movement - FC complements them

on to the 2nd movement.: FC - very good

3rd movement: - FC - Bravo - very good! - tells them it's in good shape - FC tells the student that he is blossoming musically - that he is responding musically, very well - very nice phrasing - he tells him to enjoy being the soloist

Rex Martin teaching, April-May 1997

Student #1 (senior, euphonium)

RM begins by asking the student what he is working on

- student shows him a piece and RM asks about how he is managing the breathing in it - it is a technical piece that doesn't leave places to breathe, from the Arban *Characteristic*

Studies

- the student plays the whole study - RM compliments him at the end

- RM talks a bit about the style of the cadenza and sings to demonstrate - it is a cornet solo -

RM points out that this approach connects two sections

- the student tries it and does pretty well

RM talks about always taking a full breath when the time is available so that the student doesn't get a little less each time throughout and eventually start to starve the embouchure of air so that it doesn't work as well

- find the opportunities and take advantage of them

- he has the student play it again at the beginning with a full breath.

- reminds him to take that kind of breath at each place he has the time

- asks the student what he can do to get that breath he needs - student suggests taking a little length off of a note - RM suggests ways to get around having it sound short.

On to the lyrical section - emphasis on musicality and expressiveness in the contrasting lyrical section of this characteristic study - RM asks him to make it sound more like he is singing it, rather than playing it.

- don't let the breathing disrupt the phrases - keep the music dominant and the breathing will not interfere - make it sound beautiful and the rhythm will sound right

- RM has him play the lyrical section again

RM asks him about the tempo - Arban really didn't indicate so choose a tempo that sounds good.

- RM gives advice to keep playing these studies throughout his career because they cover every find of technique you will encounter.

- student tries it down an octave next

- has trouble with making all the notes sound the same

- RM: hear the tone you want in your head before you play - conception of an excellent tone must take place before one plays a note that doesn't match
He plays it again and it sounds much better - RM compliments him and talks to him about keeping the phrase going.

RM asks him what he does to practice in the low register - RM reminds him that one has to practice articulation in the low register - make up little drills - over time this will improve - also suggests slurring between fundamental Bb and B natural for smoothness but also for tone - this will really help one's tone in that register.

Next exercise: Vasiliev: low study from a tuba book that jumps around
- he plays it - RM asks him what he's thinking of when playing this - The student says he's trying to hear it in the octave it is written - RM suggests better to hear it up the octave - emphasizes the singing of it to get the pitches in the head - this makes the tone better.
- RM: make it sound like a piece of music - it sounds like a drill now - it has to make sense as a piece of music - They play it together

Student #2 (sophomore, tuba)

Rochut study to start:

- the student plays all the way through - RM compliments him on his musical ideas
RM asks him to work on a bad habit of legato tonguing slurred notes. This is important to how the audience perceives the music.
- RM asks the student if he knows the difference - he does - they discuss the differences - works on slurring when so marked - first on the mouthpiece
- the student tries - then RM demonstrates - shows the student how there is lots of time to breathe as well
- the student plays - RM encourages him to slur - student thinks he may be articulating it with his throat
RM demonstrates - supply the lips with wind - keep the wind steady
- student plays - RM puts his fingers under the chin of the student - he doesn't use the throat again
RM asks him to work on this - "It must sound like it is being slurred."
- discussion and demonstration of "blowing through" a line.

The next study - another Rochut:

- during this RM keeps reminding him to blow out in front of him - past his lips not to his lips - he stops him and they work on an upward slur of a fourth - plays it again in context and there is improvement

RM talks about keeping the concentration and the tone on long notes.

- they talk about a passage and what rhythm the audience is going to perceive - RM demonstrates and the student imitates - he plays - RM compliments.
- student plays the ending a couple of times to practice, keeping the tone on the long notes as well as good rhythm on the moving eighth notes
- RM talks about subdivision to help sustain long notes the proper length of time
- RM talks to the student about preparation and compliments him on being better prepared this week

RM gives him one study (Rochut #11) for facility to do at three different tempos to work on different things - asks the student to "work that out"

They read it together at 144 beats per minute

- then they read it at 160 and RM tells him that he'll find that he gets a lot of benefits from this - tells him to not to be too concerned about the accuracy and tone at the fast tempos - those will come especially after some work at a slower tempo

They read another Rochut down two octaves from where it's written

- it is very low and RM compliments him on his attempt.

RM asks him to start looking at excerpts.

The lesson ends

Student #3 (junior, euphonium)

RM asks him how much time he is able to practice - the student replies that he is getting about an hour and a half a day - RM says that he finds that is only enough for him to maintain a level, not to improve. Encourages him to find more time.

Characteristic Study #1 (Arban) -RM asks if the student has any questions before he starts -the student plays through the whole study - RM has the student conduct and sing to help him straighten out the rhythm - he is leaving out a rest - this exercise helps him realize what he has done

-asks the student what he wants to get out of the piece - student answers technique and flexibility - RM points out: don't leave the widest leaps out for breathing if you want flexibility

RM - what else? - student says more of a sense of line - RM says yes - style - this was lacking

- RM says that he is really into being efficient in practice sessions and asks the student what else he can be working on when getting technique

- RM talks about the best tone and style despite the technical difficulties. Encourages him not to limit himself in what he uses this for - he plays it again

- RM stops him and asks: "are the breathing spots chosen appropriate stylistically and musically?"

- student says that one place is now a habit - RM says don't try to break the habit, but find other places that fit better - RM compliments him on his improved tone

- student plays it again but at a slower tempo to give himself time to figure out better breathing spots

-RM has the student buzz from the opening - slower, then up to speed - use of buzzing a passage to improve tone and articulation - the student is chopping a 16th at the end of a group of 3.

- more buzzing - now on the horn "with a beautiful tone and very, very light"

The student plays again on the horn - there is an obvious difference in the tone when plays the passage again on the instrument after buzzing it several times. It is more open and RM compliments him

- softer to achieve a lighter style first on the mouthpiece

- then on the instrument - better but still focus on the musical aspects

Now he is not hammering and it is a better, lighter style

RM says the side benefit is also that he can now make the phrases without having to breathe so often. If you want to play it louder simply increase the volume but don't change the style

- student plays it again but tries to hold back - then tries again after RM tells him to keep the sound and it improves

Stylistic problem with the shortness of the 3rd note in the 4 16th pattern. RM tries to get the student to hear the musical difference between what is happening and what should be happening - RM calls that a "freshman mistake"

- the student sings it and it gets better - then on the instrument - RM tells him to hear his voice singing it as he plays it

- working with "the horn in the head" rather than "the horn in the hand" - reminds him that if there is a problem with the horn in the hand then one has to fix it in the horn in the head

- He has the student sing the passage again and then play it - the tone was better again - Keep the sound of your voice singing in your head

- RM asks the student to work on the horn in his head - "You've got to trust yourself."

RM has him sing it in his head without singing out loud.

- can you hear it clearly?

- now play it and hear the voice in your head while playing - be honest with yourself and stop when you lose the sound of the voice in your head.

- the student plays and stops after several measures - RM marks the spot in the music lightly and asks him to play again and try to go past that spot.

- the student goes again and gets farther - RM marks the spot lightly and asks him to practice like this - the student plays it again and gets a little farther - they talk about the student losing the song because he was concerned about getting a breath - RM says make the breath part of what your voice sings - plays it again and stops

Difficulty with concentration - RM plays a different study at the same time to try to get the student to focus more on what he is doing - Tells the student to ensure that he keeps his song going

RM asks him how it was - the student says not too bad

- they do it again - RM: could you hear that voice? - not clearly - RM says turn the voice up

- they do it again

RM asks him if it is getting better?

- student isn't sure - they do it again

RM tells the student that he needs to really focus on the voice in his head

They move on to the next section - RM talks about building the phrase one note at a time - hear all the pitches and don't rush

On to the next section with a more lyrical approach

- they discuss ways to play the turns with good rhythm

The bottom line is it needs to sound good before it is rhythmically correct.

This lesson was devoted to getting the student to play musically in a technical piece. RM worked on getting a student who was very "note oriented" to play with a sense of style.

This was a big challenge for this student.

Student #4 (senior, tuba)

They begin by talking about a recent performance

- some discussion of balancing one's playing, especially when one is playing a lot of solo or small ensemble material - these things can tighten one up - get relaxed again by playing excerpts and études that open you up and help you blow freely.

Student wants to work on Meistersinger:

- he plays it and plays quite well - RM compliments him
 - 2 reasons he might not be advanced to the next round of an audition: rhythm and tone
 - work on internalizing the rhythm - RM sets the metronome to click on the downbeats only and asks the student to play - lining up with the click.

- the student plays - it is pretty close but he rushes a little here and slows a little there - this exercise helps him internalize the time

- plays with the metronome on beats 1 & 3 - RM asks if he can feel it better now - student responds yes - plays it again and it is better

RM then puts the metronome on 1 again - the student plays again - RM compliments him on the improvement

- then no metronome at all - RM tells him he tends to pull back on the quarters a bit - Has him sing it for rhythm and musical direction

- the student sings it for good time - RM demonstrates by singing - the student sings again and it sounds better - then plays it

RM compliments him and cautions the student to be careful that the long notes don't get a pulse in them because of the pre-occupation with rhythm.

- talks about phrasing - RM plays for the student to demonstrate - after, he points out some of the things that he did to make it sound musical

- the student plays it again - RM compliments the student again

Talks about taping and listening back - like an audition committee member

- be careful not to become hyper-critical so that the music becomes cold.

They move on to the "F" tuba - the student plays some of the Hungarian March - tries it with another mouthpiece RM coaches him on the rhythm - so that it is even - plays it again

- then he tries another mouthpiece a couple of times

- then back to one of the others. They talk a little about the sound of each mouthpiece - he plays some of the Vaughan Williams.

- on to another mouthpiece. - RM says he likes the tone

they keep trading the mouthpieces

RM says that it would be best to make a decision in a big hall

- student liked one in particular for the articulation he was able to get on the Berlioz

- student gets out another piece of music to try

- he tries another mouthpiece - etc.

- there are two out of three that have qualities they like - each is a compromise - neither gives everything the student would like

- the student plays on RM's "F" tuba

- RM has the student sing - then play - it sounds better - RM talks about reprogramming the music in the head by singing

- the student continues to trade around mouthpieces.

Student #5 (grad, tuba)

- they chat about breathing and shifts of embouchure
- RM talks about being a product of what we play - if one plays something enough one will be able to play it well
- talk about a particular study book - talk about playing in the low register and why it is so helpful for everything else - very good for tone

Student plays the entire Rochut study

- RM makes some suggestions about rhythm especially at the end - get in the groove - it gets better - plays several times to try to fix a particular rhythm after a tie.
- RM turns on the tape recorder and plays it back for the student to hear the subtle inaccuracy in a triplet rhythm

RM demonstrates

- has the student play and records it again - this time with the metronome
- they listen back and it has improved

RM talks about generally how rhythms after ties get out of time.

Talks a bit about how different people learn - some people can't relate to drawings while others can't relate to imitating - talks about Jacobs who bombards the student with so much visual, aural, and verbal information - the different approaches allow different students the option they need to relate to the technique or whatever

They talk more about rhythm and working in ensembles

On to some sight-reading:

breathing exercise: finger across the lips while inhaling - the sound of suction is important.

- student applies that kind of breathing to the study
- finger away - silence at the lips with the same suction will yield a better tone
- the student plays - they work on breathing a bit with a very quiet inhalation
- student plays again with quieter breaths
- RM points out how much better the tone is as a result
- study the slow breath to learn the fast breath - don't become obsessed with it
- has the student sing the first note for pitch
- he plays the étude again for tone and breathing

RM then goes back to the previous study and the student plays it trying to use the new ways - the tone is better.

Talks about mental focus and ways to get that happening -I.E.: he plays a different étude from what the student is - the student realizes that he can focus in spite of the distraction.

- Talks next about having the singing voice going strongly in the head while playing - technique for self challenge: mark the spot in the étude lightly where you get to successfully singing while playing - then try to pass it the next time.
- the student plays again and goes quite a bit farther.
- this takes a lot of focus - to keep the sound of one's voice singing loudly in the head while playing.

Student #6 (sophomore, tuba)

- they talk about some frustration the student is experiencing on the "F" tuba
RM suggests when practicing the "F" tuba, practice a lot of things in the usual tuba range; if you only play solos in the upper range the sound thins out.

- also buzz on the bigger mouthpiece when playing the "F" - that helps normalize things
An étude: Blazhevitch - RM compliments him at the end

- suggests trying to use both alternates and regular fingerings to stay on top of the 3 valve and 4 valve possibilities.

RM wonders if the student can play this étude this fast but with a more relaxed or lighter approach throughout - sometimes it seems to really "drive" - choose the style in which you intend to play the étude, then stick with it regardless of the tempo, volume etc.

- has the student start it again in an aggressive style - then in the lightest style possible

- Now choose which one you like and keep that style going throughout

- student plays it all the way through again

- it is much better now - RM asks him if he can keep the light style and play it louder - the student plays again - the articulation is a bit heavy but RM compliments him

RM suggests playing Rochuts with loud dynamics but unchanged style for practice purposes

- asks about the fingerings - keep the hand relaxed so that you will automatically have the dexterity you need - looks like it gets quite stiff.

They get out the Arban book: A Characteristic Study - triplets which really work on fingering dexterity - they play it together and it is too fast - they play it again but slower

- RM points out that you can't play this one fast if your hand is stiff - play this one every day for the next week

- back to the Blazhevitch - the student sings it while moving the valves.

They work on a passage with the rhythm after a tie.

- sings again with the valves - still problem with the rhythm after the tie

They play the study together

RM asks the student how his arm is - he says it hurts - RM says to take heart because he used to make the "claw" all the time and now it is only sometimes - eventually it won't happen any more.

RM puts pennies on the spatulas - chromatic scale in slow motion - keep contact with the fingers but relax.

- he goes through chromatic scales silently to keep the fingers on the valves - RM talks about good finger technique and position of some other people

- after a little rest the student plays on the horn trying to think of pennies on the valves - it's working better - he says his fingers are not so stiff now.

RM demonstrates and has the student notice how little his fingers fly and how relaxed they are

On to the next étude:

- syncops followed by triplets - RM stops him for playing through the crescendos - compliments him for his rhythm on these figures

RM demonstrates the dotted rhythms for precision

- the student plays

RM talks about style of the *pesante* and asks him to put some *sostenuto* on it.

- the student continues on and RM joins - they play together to the end

RM talks about going back to studies every so often that one has already worked up because then one can approach it simply as a piece of music

Next étude: - the student plays through it

RM compliments the student and points out a place he'd like to hear

- RM compliments him again and suggests trying playing it faster and softer.

"We are products of what we play."

- assigns some other études

RM talks about tempos and interpretation in the next study.

- another one for heaviness and a kind of orchestral style - RM demonstrates it

They read another one together - RM talks about style in this one and relying on one's instincts and what you know about the musical style of the composer.

Ends the lesson asking the student if he has any questions

Student #7, (junior, tuba)

- the student hasn't warmed-up yet.

RM asks him how he normally starts his day on the tuba - first challenge in the day - get the brain working either by mouthpiece reading or with something technical.

RM plays and the student buzzes his mouthpiece along with him for a warm-up - At the end, RM reminds him to always make it sound musical

- RM plays another and the student buzzes - RM checks on the student's breathing - try to get everything happening right away.

On to the instrument - sight-reading:

- before sight-reading, scan the page to look where the extra ink is - unusual markings, accidentals, etc. - RM gives some tips - tell yourself "4 flats" rather than Ab - that will mean more probably

- they play it together.

RM tells him that the more one sight-reads, the easier it gets

- they play another one after the student looks up *giocoso*

- sight-reading - be sure to play in style and stay relaxed - then it will be easy.

They try it again in unison - the student struggles with a low passage - he takes it out of context and after a couple of attempts, plays it well

- They scan another and play it in unison - RM asks the student what troubled him in this one - some rhythms - patterns, key - this is hard to read because of the printing.

RM - I would recommend this as a very efficient warm-up.

RM asks the student how Rite of Spring is going - this student is playing it with the orchestra.

They play a passage from Rite of Spring - RM gives him some tips on how to play the short notes - not too loud and don't tongue too hard - think of each note as vibration - RM draws his attention to the rhythm - tells him to ensure that he and the other tuba player are playing them the same way

On to an étude: Concone?

- student has some trouble with the key - trouble focusing generally

RM shows him some rhythmic things to make the performance clearer to the listener - they then play in octaves

Now the student plays in the octave written - RM "with your finest tone"

RM compliments him at the end - RM draws his attention to an inaccurate rhythm - student plays again and it sounds much better.

RM asks if he has any questions - no

On to another étude for reading: student plays it up an octave - RM plays it in octave below
 RM asks him how often he does this - it is tiring but it will build your endurance
 - high range: play an étude once in the upper octave and then twice in the middle -
 otherwise you never re-establish the norm.

They go on to the next one:

- sight-reading - RM stops him - tells him that he is playing on empty lungs
- make sure one can hear all the pitches. - fill up and make your best tone.
- RM demonstrates - the student imitates and does much better - he goes on

RM suggests to him that some rhythms will have to be exaggerated in order for the audience to know what is going on
 The lesson ends.

Student #8 (Sophomore Tuba)

They discuss a piece that the student has coming up

- they play a piece in harmony with each other - RM has the student play his part on the mouthpiece as RM plays the bass part on the tuba to work on the student's hearing of the tuning.

- work on tuning on the mouthpiece - then tuning on the tuba improves.

RM has the student listen to his tuba note while buzzing his own note - this really makes the student listen

RM calls this ear-training - talks about pitch and balance and how the balance means so much to pitch

- in ensembles - intonation sounds better and is easier when the lowest voices are the strongest.

On to an ensemble part - it is an ostinato of some kind that goes on and on

RM asks the student how he feels - the student says he feels brain tired - RM tells him that this is good for the concentration.

They talk about the piece and other sections of it - RM gives advice about how to do some things in it

On to a study: Tyrell?

- the student plays through with the metronome on - RM cautions him against not listening so that the fingers are right but the pitch isn't

The student plays and tongues a downbeat instead of observing the tie. This helps with the rhythm when he goes back to the slur

- has the student buzz it and hears that the articulation is not clear

- he reminds the student that any articulation is 95% air and 5% tongue - he tells the student that he has it turned around - get the tone happening right away

- quite a bit of time spent on articulation and rhythm on the mouthpiece - having him try different articulations and dynamics

RM talks about a *pomposo* style - sustain more instead of hammering the articulation

- has him work on the first note for sound and flow - asks the student to reduce the air pressure - talks about thick air and thin air.

- then the student plays on the instrument and the tone and rhythm are much improved

RM then talks about the phrasing

RM- hear each and every note in that little run - RM demonstrates the passage - points out that the student is rushing a bit and this is taking away from the clarity
 RM demonstrates again - one can hear every pitch

They take a little break and talk about his horn a bit

- has the student play and sing the passage - it gets better on the tuba after the singing
- RM gets after him about the tied 16th followed by 3 more sixteenths
- RM puts the tape recorder on play back at half speed with metronome going to hear rhythmic and tuning problems.

RM puts his fingers lightly over the student's to keep them from flailing

- don't let change in dynamic change the style (articulation, etc.)
- they listen back at half speed - very revealing about tuning and rhythm
- they can hear the lack of consistency in the performance of that rhythm

RM wants him to keep working on this étude and others like it to improve this sense of rhythm - RM assigns some others to work on for the summer

RM asks if he has been doing some sight-reading - student tells him that he has been doing some Kopprasch

- recommends becoming fluent in treble clef - they play a study together out of the red Pottag book - slowly for reading

RM compliments him

RM tells him that he wants him to get good at reading in treble clef so that he can play a lot more and better music, and assigns work for the summer.

APPENDIX 3
STUDENT RESPONSES

Thank you in advance for participating in this study.

Your lesson is being videotaped to provide me with information on your teacher's teaching techniques and style. I am doing a comparative study of the teaching approaches of four brass teachers in the School of Music in order to ascertain the similarities and the differences among these approaches on the various instruments.

The information gleaned from my observations of the tapes will form the basic research material required to write the Major Document which is one of the requirements of my degree program.

You are not the subject of this study, your teacher's techniques are. Please ignore the camera and enjoy your lesson as usual. The tape is not for public consumption, but is for my own private viewing.

I would appreciate it if you would answer the following questions. Your input will help substantiate any findings resulting from the study. When you have finished, please put this sheet in my mail box in room 219.

Thank you, Greg Irvine

Please circle your teacher's name. Vincent Cichowicz, Gail Williams, Frank Crisafulli, Rex Martin

1. What concepts with regard to playing your instrument do you think your teacher is trying to convey to you in your lessons?

Students of Cichowicz:

- I need to think more musically, especially in private practice. Must not tighten up, rather stay relaxed and blow controlled air.
- Playing with free air and trying to make playing as natural as possible. Not to have fear if difficult passages are approaching.

Student of Williams:

- Always play with a good sound, play in the style of the piece.

Students of Crisafulli:

- Mr. C's main concentration is on musicality - enjoyment of your music and playing not to impress but for yourself. He stresses if you play with these things the music and slide will take care of themselves.
- to play with as little effort and physical stress as possible; effective practice, and hearing a tune in all music and playing [not legible] literature.
- Don't play the notes too short - let them sound. Don't force or try to help the sound - beautiful air, beautiful sound. Don't make a fuss about all the notes or "stick your nose in it" - it should all sound like fine bowing. Don't be too upset if you should miss a

note or have to work a little harder than usual to sound good - enjoy what you do because there are many things you do very well.

Students of Martin:

- proper breathing, perfect rhythm, good technique and musicality.
 - Musical concepts are always taught. Prof. Martin teaches musicians; however most of the musicians happen to play tuba and various other brass.
2. Is there one concept or idea that seems to come across to you in your lessons more strongly and perhaps more frequently than any other?

Students of Cichowicz:

- the ones mentioned above but rhythm more than others.
- Solve technical problems with paying attention to make good music and [by] listening to your sound.

Student of Williams:

- Air - breathing in the style of the piece, breathing early (before I really need it), taking a huge relaxed breath (not stiff).

Students of Crisafulli:

- The above concepts. But also the need to play things slowly and beautifully and legato. For you to be able to play things musically and in tune at tempo "you must train the slide" to go where you want it.
- that the breath not be effected by anything like [such as] the slide
- There is no need to do any more than you are doing, just let them all sound.

Students of Martin:

- proper breathing, rhythm
 - Concept of Sound/tone (Beautiful)
3. Which of the concepts presented to you in your lessons do you find to be the most helpful in your playing?

Students of Cichowicz:

- not to tighten up and to think musically. Also, today is the first day I really tried to blow the air pattern previous to playing, which helped a lot.
- all of them [playing musically, listening for sound, playing with free air]

Student of Williams:

- Thinking about breathing and always making a good sound. Thinking about the style of the piece before I play.

Students of Crisafulli:

- These concepts above freed up my ears and capacity to play and keep my focus on the music, not the technical aspects.
- to keep the flow of air unaffected, to work [?] easie [sic], hearing all music as a tune.
- I find it most helpful when he sings while I am playing. I find myself “singing” more on my instrument, using more air, and less preoccupied with each little detail - just relaxing and playing.

Students of Martin:

- all (breathing, rhythm, and musicality)
- Full breathing, replenishment breaths, “Full Tanks” (the concept of sound/tone is my #1 priority. Since I think my breathing is not “up to par” with my tone, I value the breathing concept more than the sound/tone concept)

SOURCES CONSULTED

Arban, J. B. *Complete Conservatory Method for Trumpet (Cornet)*, edited by E. F. Goldman and W.M. Smith, with annotations by Claude Gordon. New York: Carl Fischer Inc., 1982.

Arban published his original manuscript c. 1859. Many European and American editions have followed, with the one cited here being the most recent. This edition includes the original French text written by Arban, as well as translations into several languages including English. In studying the original French and comparing it to the English translation provided, it seems that the meaning and intent of Arban's original text has been retained.

Arban, J.B. *Famous Method for Trombone*, edited by Charles L. Randall and Simone Mantia. New York : Carl Fischer Inc., 1936.

An adaptation of the original for trombone containing much of the original text with appropriate instructions and commentary for the slide trombone.

Bauer, Paul Donald. "Bass Trombone Pedagogy as Practiced by Selected Bass Trombonists in Major American Orchestras: Origins and Techniques." DM diss., Northwestern University, 1986.

Bailey, Wayne, Patrick Miles, Alan Siebert, William Stanley, and Thomas Stein. *Teaching Brass: A Resource Manual*. New York: McGraw-Hill, Inc., 1992.

Beeler, Walter. *Method for the BB b Tuba: Book 1*. New York: Remick Music Corporation, 1961.

Bellemah, Joseph L. *A Survey of Modern Brass Teaching Philosophies*. San Antonio: Southern Music Company, 1976.

Bell, William J. *Daily Routine and V. Blazevich Tuba Interpretations*. vol. 2. ed. Charles Colin. New York: New Sounds in Modern Music, 1961.

_____. *The Arban-Bell Tuba Method*. New York: Charles Colin, 1975.

_____. *Foundation to Tuba and Sousaphone Playing: a Complete Method*. New York: Carl Fischer, Inc., 1931.

Brewer, Robert Gary. "A Guide to the Use of Études and Exercises in Teaching the Tuba." DMA diss., University of Illinois at Urbana-Champaign, 1991.

Buck, Percy C. *Psychology for Musicians*. London: Oxford University Press, 1944.

Call, Robert Steven. "Three Case Studies of Highly Effective Teachers," Ph.D. diss., University of Utah, 2000.

- Carter, William. "The Role of the Glottis in Brass Playing." 1947; reprint, *The Brass Anthology*, Northfield, IL.: The Instrumentalist Co., 1986. 425-428.
- Chase, Deforest. "Improving Brass Instrument Performance." 1957; reprint, *The Brass Anthology* Northfield, IL.: The Instrumentalist Co., 1986. 207-208.
- Cherry, Gordon. Telephone interview by author. 22 January 2001.
- Cimera, Jaroslav and Floyd C. Ostlie. "Teaching the Trombone." 1948; reprint, *The Brass Anthology*, Northfield, IL.: The Instrumentalist Co., 1986) 31-32.
- Clark, Wayne Ray. "Teaching Concepts and Techniques Utilized by Three American Trombone Professors." DMA diss., University of Oklahoma, 1996.
- Colin, Charles. *The Brass Player*. New York: Chas. Colin, 1972.
- _____. *Vital Brass Notes*. Kenosha, WI.: G. Leblanc Corp., 1955; reprint, New York: Chas. Colin, 1972.
- Costello, William. "Faulty Breathing Causes 90% of All Horn Troubles." *The Metronome* 51 (March 1935): 20.
- _____. "Developing Correct Embouchure." *The Metronome* 51 (June 1935): 43.
- Deye, Howard W. "The Use of the Tongue in Brass Instruments." 1947; reprint, *The Brass Anthology*, Northfield, IL.: The Instrumentalist Co., 1986. 15-16.
- Dunn, F. Earl. "The Brass Instrument Class -- A Workbook-Text for the Teacher or Student of the Cornet, French Horn, and Trombone." Masters thesis, Iowa State Teacher's College, 1954.
- Erb, Richard H. Untitled Contribution. In *Arnold Jacobs: The Legacy of a Master*, ed. M. Dee Stewart. Northfield, IL.: The Instrumentalist Publishing Company, 1987. 13-26.
- _____. Interview by author, July 1999, Kingston, Ont.
- Erdmann, Thomas Ross. "The Twentieth Century Topics of Trumpet Pedagogy and an Analysis of the Trumpet Pedagogy of Sigmund Hering." DMA diss., University of Illinois at Urbana-Champaign, 1991.
- Farkas, Philip. *The Art of Brass Playing*. Rochester: Wind Music Inc., 1962.
- _____. *The Art of French Horn Playing*. Evanston, IL.: Summy-Birchard Company, 1956.
- _____. Untitled Contribution. In *Arnold Jacobs: The Legacy of a Master*, ed. M. Dee Stewart. Northfield, IL.: The Instrumentalist Publishing Company, 1987. 27-28.

- Fasman, Mark J. *Brass bibliography*. Bloomington: Indiana University Press, 1990.
- Faulkner, Maurice. "Twenty-five Years of Brass Instrument Playing." 1970; reprint, *The Brass Anthology*, Northfield, IL.: The Instrumentalist Co., 1986. 553-4.
- Fitzgerald Bernard. "Tone Production." 1949; reprint, *The Brass Anthology*, Northfield, IL. The Instrumentalist Co., 1986. 37-8.
- Frederiksen, Brian. *Arnold Jacobs: Song and Wind*. n.p., WindSong Press Ltd., 1996.
- Funderburk, Jeffrey. "Proper Breath." *T.U.B.A. Journal* 14, no. 2 (1986): 17-18.
- Gardner Jr., James Edward. "The Use of Pitch Imagery in the Management of Trumpet Embouchure: A Theoretical Consideration." DMA diss., The University of North Carolina at Greensboro, 1990.
- Getchell, Robert W. *Teacher's guide to the Brass Instruments*. Toronto: Selmer Corporation, 1959.
- Gibson, Daryl J. *A Textbook for Trumpet*. Minneapolis: Schmitt, Hall & McCearry Company, 1962.
- Gordon, Claude. *Systematic Approach to Daily Practice for Trumpet*. New York: Carl Fischer Inc., 1965.
- Griffiths, John R. *The Low Brass Guide*. Hackensack, NJ: Jerona Music Corporation, 1980.
- Grocock, Robert. *Advanced Method for Trumpet*. Greencastle, IN.: The Argree Music Press, 1968.
- Hall, Jody. "To 'Ah-ee' or not to 'Ah-ee'." 1955; reprint, *The Brass Anthology* Northfield, IL.: The Instrumentalist Co., 1986. 173-174.
- Hanson, Fay. *Brass Playing: Mechanism and Technic*. New York: Carl Fischer, Inc., 1968.
- Hauser, Eric. *Foundation to French Horn Playing: An Elementary Method*. New York: Carl Fischer Inc., 1927.
- Haugan, Paul W. "T.U.B.A. Profile - Arnold M. Jacobs, Tubaist of the Chicago Symphony Orchestra." *T.U.B.A. Journal* 4, no. 2 (1977): 2-10.
- Huff, Sharon Elise. "The Life and Career Contributions of Brian L. Bowman Through 1991." DMA diss., University of Illinois at Urbana-Champaign, 1994.
- Hunsberger, Donald, ed. *The Remington Warm-Up Studies*. Athens, OH: Accura Music, 1980.

- Hunt, Norman J. *Brass Ensemble Method for Teacher Education*. Dubuque, IA: Wm. C. Brown Company, 1960.
- _____. and Dan Bachelder. *Guide to Teaching Brass*. Dubuque, IA: Wm. C. Brown Publishers, 1991.
- Jenkins, Harry. "Practicing With the Mouthpiece." 1963; reprint, *The Brass Anthology*, Northfield, IL.: The Instrumentalist Co., 1986. 348.
- Kleinhammer, Edward. *The Art of Trombone Playing*. Princeton: Summy-Birchard Music, 1963.
- Knaub, Donald. *Progressive Techniques for Tuba*. New York: MCA Music, 1970.
- _____. *Trombone Teaching Techniques*. Fairport, NY: Rochester Music Publishers, Inc., 1964.
- Leidig, Vernon F. *Contemporary Brass Technique*. Hollywood: Highland Music Company, 1960.
- Little, Lowell. *Embouchure Builder for BB b Tuba*. Melville, NY: Belwin-Mills Publishing Corp., 1954.
- Livingston, Edward. Telephone interview by author, 28 January 2001.
- _____. Letter to the author, 11 February 2001.
- Malek, Vincent. "The Closed Throat Shuts the Door on Musical Performance." 1957; reprint, *The Brass Anthology* Northfield, IL.: The Instrumentalist Co., 1986. 210-211.
- Mason, J. Kent. *The Tuba Handbook*. Toronto: Sonate Publications, 1977.
- McCann, John Lawrence. "A History of Trumpet and Cornet Pedagogy in the United States 1840-1942." DM diss., Northwestern University, 1989.
- Miller, Thomas. "Developing the Trumpet Embouchure." 1964; reprint, *The Brass Anthology*, Northfield, IL.: The Instrumentalist Co., 1986. 357-9.
- Mole, Miff. "Thoughts About Trombone Technique: Practicing for Range." 1940; reprint, *Journal of the International Trombone Association* 6 (1978): 15-16.
- Moore, E. C. *The Brass Book*, rev. James Neilson, rev. ed. Kenosha, WI.: Leblanc Publications Inc., 1964.
- Morris, R. Winston and Edward R. Goldstein. *The Tuba Source Book*. Bloomington: Indiana University Press, 1996.
- Mueller, Herbert C. *Learning to Teach Through Playing: A Brass Method*. Reading, Ma.: Addison-Wesley Publishing Company, 1968.

- Nelson, Scott Arnold. "Respiratory Physiology of the Wind Instrumentalist." DMA diss., University of Cincinnati, 1989.
- Phillips, Harvey. Telephone interview by author, 23 January 2001.
- _____. and William Winkle. *The Art of Tuba and Euphonium*. Secaucus, NJ: Summy-Birchard Inc., 1992.
- Pottag, Max. "Playing the French Horn." 1947; reprint, *The Brass Anthology* Northfield, IL.: The Instrumentalist Co., 1986. 16-17.
- Rathke, Paul Hinman. "R. Bernard Fitzgerald: His Principles of Brass Pedagogy and Solo Works for Trumpet (Cornet)." DMA diss., University of Kentucky, 1993.
- Reinhardt, Donald S. *The Encyclopedia of the Pivot System*. New York: Charles Colin, 1964.
- Reynolds, Paul David. "The Development of a Curriculum and Text for the Study of Trumpet Pedagogy." DMA diss., University of Maryland College Park, 1994.
- Rittich, Eugene. Telephone interview by author, 5 February 2001.
- Robinson, William C. *An Illustrated Method for French Horn*. ed. Philip Farkas. San Antonio: Southern Music Company, 1968.
- Saint-Jacome, Louis Antoine. *Saint-Jacome's New and Modern Grand Method for the Cornet or Trumpet*. New York: Carl Fischer Inc., 1894.
- Sargent, Bradley Kent. "Vincent Cichowicz, Vincent DiMartino, and Armando Ghitalla: Three American Trumpet Master Teachers." DMA diss., University of North Carolina at Greensboro, 2000.
- Saverino, Louis. "Breathe into your Tuba." *The School Musician* 23 (February 1952): 12.
- Schlossberg, Max. *Daily Drills and Technical Studies for Trumpet*. With a forward by Harry Freistadt. New York: Baron, Inc. 1965.
- Schuller, Gunther. *Horn Technique*. New York: Oxford University Press, 1962.
- Sheridan-Rabideau, Mark Gerard. "The Incorporation of Jazz Pedagogy in the Traditional Trombone Studio." Ph. D. diss., University of Illinois at Urbana-Champaign, 1998.
- Sherman, Roger. *The Trumpeter's Handbook*. Athens, OH: Accura Music, 1979.
- Smith, André M. "Respiration for Wind Musicians: From the Bronze Age to the End of the 20th Century: a Synoptic Review." *Tuba Journal* 20, no. 4 (1993): 28-45.
- Smith, Douglas. "The Diaphragm: Teacher's Pedagogical Pet." 1966; reprint, *The Brass Anthology*, Northfield, IL.: The Instrumentalist Co., 1986. 409-410.

- Snapp, Kenneth. "Professional Brass Tone." 1954; reprint, *The Brass Anthology*, Northfield, IL.: The Instrumentalist Co., 1986. 157-8.
- Sweeney, Leslie. *Teaching Techniques for the Brasses*. Rockville Centre, Long Island., NY: Belwin Inc., 1953.
- Teirila, Marjatta. "Physiology of Wind Instrument Playing and the Implications for Pedagogy." Dr. Phil. diss., University of Jyväskylä, Seminaarink, Finland, 1998.
- Van Winkle, Ken. "Trumpet Studies: An Evaluation of Physical and Instructional Properties According to Selected Procedures of Educational Textbook Evaluation." DMA diss., University of Oregon, 1994.
- Weast, Robert W. "Development and Meaning of Breath Support." 1960; reprint, *The Brass Anthology*. Northfield, IL.: The Instrumentalist Co., 1986. 259.
- _____. *Brass Performance: An Analytical Text*. New York: McGinnis and Marx, Publishers, 1961.
- Whitener, Scott. *A Complete Guide to Brass: Instruments and Pedagogy*. New York, Schirmer Books, 1990.
- Williams, Ernest S. *Modern Method for Cornet or Trumpet*. originally published by author (?) 1936, reprint, New York: Chas. Colin, 1961.
- Winslow, Robert and John Green. *Playing and Teaching Brass Instruments*. Englewood Cliffs, NJ: Prentice-Hall Inc. 1961.
- Winter, James Hamilton. *The Brass Instruments*. Boston: Allyn and Bacon, 1964.
- Woolworth, William Neal. "A Biography of Adolph S. Herseth: His Performance and Pedagogical Contributions." DMA diss., Arizona State University, 1993.
- Zorn, Jay D. *Brass Ensemble Method for Music Educators*. Belmont, CA: Wadsworth Publishing Company, Inc. 1977.

VITA

Gregory Boyd Irvine was born in Fredericton, New Brunswick, Canada on December 15, 1956. He grew up in Middleton, Nova Scotia, where he began playing the tuba at the age of twelve. Upon completing high school, he attended Mount Allison University in Sackville, New Brunswick for two years before transferring to the University of Toronto, where he studied tuba with Charles Daellenbach.

He graduated in 1978 and began his professional career as the Principal Tubaist in the Hamilton (Ontario) Philharmonic Orchestra, a position he held for eleven years. While a member of the Hamilton Philharmonic, Gregory also pursued an active free-lance schedule in the Toronto area. He performed with a number of orchestras including the Toronto Symphony, and Toronto Philharmonic. In 1984 Gregory took a leave of absence from the Hamilton Orchestra to pursue a Masters degree at Northwestern University, where he studied with Arnold Jacobs. He graduated in 1985 and returned to his position in the Hamilton Philharmonic.

In 1990 he left the Orchestra to take up teaching responsibilities at the University of Prince Edward Island, where he currently teaches. An Assistant Professor, Gregory teaches all brass instrument majors, Brass Techniques, Instrumental Conducting, and Music History. He also conducted the University Band for six years. In addition to his teaching responsibilities, Gregory performs frequently with Symphony Nova Scotia, is a member of the Prince Edward Island Symphony Orchestra, and conducts the Northumberland Brass, a large brass ensemble heard frequently on CBC radio. Gregory lives in Charlottetown, Prince Edward Island, with his wife and son.