

Influencing Sound:
Myths, Metaphors, and Musicianship

A Practical Theory of Conducting

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Prologue

"Not that the story need be long, but it will take a long while to make it short."

Henry David Thoreau

Thoreau hit the nail on the head. What began as a simple attempt to define what it means to conduct, and to describe how my definition might be applied to pedagogical as well as artistic advantage, soon grew exponentially. The one-sentence definition, like a tightly packed parachute when the rip-chord is pulled, exploded into a vast network of cords extending to remote but essential points of connection. Eventually it became clear: the concept and technique of conducting must be connected to ideas and disciplines beyond their own limited sphere in order to be effective – or to exist at all. Without the cords, the parachute won't work.

I embarked upon my research and was met by many fellow musicians who asked the question: if it isn't broken, why fix it? It would seem the majority of musicians view conducting as a "done deal." They know exactly what a conductor is... until you ask them to put it into words. Then, no two answers are alike. Ask them to pinpoint what makes one conductor better than another and the fun really begins.

It took several months to sort out the myriad opinions and convictions I had come across in more than ten years of searching. It took even more time to untangle the cords of the

metaphorical parachute. Everywhere I went there was another link, and every book, journal, performance and lecture contained more. It quickly became obvious that conducting is anything but a “done deal” – particularly wind band conducting.

As my research progressed, I learned that not only does our parachute lack many essential cords, but in most cases there are huge holes in the fabric too. Ironically, rather than repairing it most conductors have come to accept crashing unimpeded into the ground as the necessary, indeed proper, *modus operandi*. There is even a large population who believe the harder you hit, the better you are.

Most of the breaks I came across are not recent. In fact, many of them have been there so long that most musicians (let alone the public at large) have come to view the flaws as the essence of what conducting truly should be. Worse still, these flaws are perpetuated through conducting courses in schools of music, conservatories and symposia every day. In other words, each time a new conductor is outfitted for duty, he’s given broken equipment and taught to use it as if it were pristine. The few who transcend this process are hailed as geniuses; the rest are simply called conductors.

"By the end of the story, what I've witnessed and experienced as a reader is so interesting, so intense, so transcendent that if someone were to ask me what the story is about, I would not be able to distill it into an easy answer... The whole story is what the story is about, and there is no shorthanding it. I can only say, please read it yourself."

Amy Tan

“Shorthanding” something as complicated as conducting is nearly impossible. As the reader will shortly discover in chapter one, everything counts. The conductor’s playing field is a complete life span and he is playing with the total human experience. This book is not an attempt to cram all of that into a neat, marketable package. It is not yet another

conducting text intended to fall in the line already well established by Rudolf, Green, et al. In fact, it's not a textbook at all. Although exercises and practical tips are included, it is not intended for classroom use. It is intended as a reference and catalyst for practicing conductors and teachers of conducting.

A Practical Theory of Conducting is an attempt to discover not only what conducting is, but also how it came to be as it is and why it works. It is also an attempt to understand more clearly what distinguishes great conductors from those who are merely serviceable or frankly inept. Although it is written from the vantage point of wind band conducting, most of the content should resonate with conductors of any genre or degree of experience.

Ambitious though this effort is, it only begins to scratch the surface to reveal the pressures that have shaped the practice and pedagogy of conducting into its present form. Remaining true to my assertion that our metaphorical parachute has serious flaws, I will strive to identify specific problematic perceptions and practices, and suggest solutions. These solutions work for me, for my conducting students, and for the ensembles I conduct. I believe they will work for others, and to great effect. This book is not meant to be the miracle cure-all; it is merely a step in a new and, one hopes, positive direction.

Who knows... once we've repaired the parachute, we might discover that it's not a parachute at all and we've been using it for the wrong purpose all along. For, in the immortal words of Oliver Wendell Holmes:

“No man has earned the right to intellectual ambition until he has learned to lay his course by a star which he has never seen – to dig by the divining rod for springs which he may never reach. In saying this, I point to that which will make your study heroic. For I say to you in all sadness of conviction, that to think great thoughts you must be heroes as well as idealists. Only when you have worked alone – when you have felt around you a black gulf of solitude more isolating

than that which surrounds a dying man, and in hope and in despair have trusted your own unshaken will – then only will you have achieved. Thus only can you gain the secret isolated joy of the thinker, who knows that, a hundred years after he is dead and forgotten, men who never heard of him will be moving to the measure of his thought – the subtle rapture of a postponed power, which the world knows not because it has no external trappings, but which to his prophetic vision is more real than that which commands an army.”

Chapter one will reveal the context that has inured so many to the defects in the modern conducting mechanism. It is my answer to the question: if it isn't broken, why fix it? For me to assert that it's broken is one thing; for the reader to see it for himself is quite another. Necessity is the mother of invention and the first chapter in combination with the reader's own experience and intuition, will reveal the need that incited me to write this book. The ultimate value of my theory is in the reader's effort to draw his own conclusions based upon the material presented. Although we may reach different conclusions, the process of identifying and connecting the cords of each person's metaphorical parachute will have begun. In other words, the theory will be on its way to proving itself.

I

Clearing the Path

“To see far is one thing; going there is another.”

Constantin Brancusi

(Henceforward, my own thoughts, analyses and conclusions will be shown as italicized text. Material from other sources is shown in plain text, and every effort has been made to accurately identify its provenance).

The Big Picture

“Nothing in nature is isolated; nothing is without connection to the whole.”

Goethe

The concept and technique of conducting must be connected to ideas and disciplines beyond their own limited sphere in order to be effective – or to exist at all. In other words, there can be virtually nothing in a conductor’s work that exists or has meaning exclusively in the rehearsal or performance setting. Everything that a conductor does must have a point of reference in the wider world in order for the conductor to be able to function effectively. That is not to say that conducting gestures must represent objects or actions that exist in non-musical environments. They must, however, relate in some way to the established laws of nature and innate aspects of human interaction. Conducting is

not acting, or mime, or dance, but it is a quintessentially human endeavor. As such, points of reference are to be found in the disciplines of physics and psychology, to name just two of many.

The thesis will continue to reach outward while sorting out problematic internal issues. Although a conductor operates in the center of a complex network of connections, his task is actually very simple. Chapter two is devoted to the definition of conducting that is the fundamental principle upon which this thesis rests. It is presented in section two, rather than in section one, for two important reasons.

First: the very idea of conducting has become fragmented and obscured. In order to establish a clear foundation from which to present practical and philosophical concepts, it is necessary to clear away the detritus that has accumulated during the development of modern conducting practice and pedagogy. Chapter one serves this function.

Second: before we attempt to move in a new direction, we need to understand where we are and how we got here. For those who would like to discover the ties that bind the modern practice of conducting to historical trends and political necessities, extensive notes are provided following the main body of the text. For those less inclined to dwell on the past, our present circumstances may well be preferable to those of fifty years ago, but we now find ourselves in a place that shows all the signs of being a dead end. All the signs but one: retracing our steps will not lead us out. The way out is through what many believe to be a solid wall. The “wall” however is just a pile of debris. Move the debris and the path is clear. As the work of clearing grows increasingly abstract and obscure rest assured: there is a light at the end of the tunnel.

Current Beliefs and Trends

Perhaps the most fundamental contextual element, the one that became apparent to me first and continued to crop up incessantly throughout my work, was the dichotomy that strongly characterizes modern communities of musicians. This division places performers in one category, and teachers in another. In the halls of academe, a third category tends to emerge: that of scholars. Whether true or false, significant or petty, that these distinctions exist cannot be disputed. Within the context that results from such a divided view, conductors are most often at the nexus of the debate.

- “‘I am a band director’ should be synonymous with ‘I am a band teacher.’ However, a bachelor’s degree in music education, with teaching certification for instrumental music in grades K-12, does not guarantee effective teaching...Some public school band directors are competent conductors who demonstrate the ‘art of conducting’ quite well, but perhaps are insecure in HOW TO TEACH band.”¹
- “Many college and university wind band/ensemble conductors earn undergraduate degrees in music education, where training in conducting is minimal and knowledge of the repertoire primarily confined to music serving pedagogical purposes. Often weak basic musicianship skills makes it impossible for wind band conductors to deal with the challenges of complex contemporary music.”²
- “The student bent on conducting is often the least worthy and the least promising.”³
- William Revelli regarding his band winning the 1930 National Band Contest: “The band’s success was the source of what was probably the greatest community pride that Hobart ever developed. Hobart became famous and respected. The community responded by providing the moral and economic support necessary for the band to develop into and remain the best.”⁴

¹ Banister, Suzanne. “I Am a Band Director vs. I Am a Band Teacher.” *National Band Association Journal*. Volume 43/Number 3. May 2003. p. 11.

² Battisti, Frank. *The Winds of Change*. Galesville, MD: Meredith Music, 2002. p. 281.

³ Lukas Foss in McElheran, Brock. *Conducting Technique for Beginners and Professionals*. Oxford: Oxford University Press, 1964. (revised 1989). p. v.

- “Often the rehearsal and performance objective of the wind band/ensemble conductor is the achievement of perfection in the execution of the musical work’s elements such as instrumental technique, tone, balance, rhythm, dynamics, etc. Receiving high scores in these elements is very important for ensembles that participate in contests and wish to receive outstanding ratings. ...will wind band/ensemble conductors be able to get beyond the ability to create great sounding ensembles and make the focus of their work the interpretation/expression of music...?”⁵

Based upon the given examples, Frank Battisti would seem to be the prime spokesman for one particular side of the debate. However, Battisti’s text, The Winds of Change, provides numerous points of view from diverse sources to support his assertions. There are also many who embrace the opposing viewpoints, represented here by Banister and Revelli.

What is the cause of this argument and the origin of the apparent polarization? At the center is widespread disagreement concerning the definition of conducting and the role of the conductor. In short, most people really don’t know what conducting is – even those who consider themselves conductors at least part of the time.

In the spring of 2003 I distributed a highly unscientific questionnaire via email to a random sampling of approximately 20 experienced, successful elementary, middle and high school music educators. Below is a representative collection of unedited responses to the question: what is conducting?

- “Conducting is the way a conductor ‘communicates’ to his/her players to get them to do what is expected of them (e.g. dynamics, phrasing, etc.)”
- “To me, being a conductor in a school setting is also being a teacher, with rehearsal techniques, advanced planning, adaptation to problems, recruiter, etc.”

⁴ Battisti, p. 219.

⁵ Battisti, p. 243.

- “Conducting to me is bringing to reality that which is on the printed musical page.”
- “Visual presentation of musical ideas.”
- “As a drama teacher instructs their students on the emotions of acting, we instruct our students on the emotions of music with our baton interpretations, facial expressions, eye contact.”
- “For the public school conductor it is a combination of educating and performing.”
- “Conducting is bringing out the expressive qualities in music.”
- “I see conducting as a combination of teaching (educating us about the composer and the piece), leadership (keeping us all in time, rhythm, dynamics, and the ‘feel’ of the music), and setting and maintaining a sense of purpose and commitment for the group.”
- “Conducting is the art of physically communicating with a musical ensemble.”

Another useful viewpoint might be called the academic perspective, or the opinions of scholars whose research touches upon conducting in some way. The first example is a common sentiment of researchers that is expressed in the introductory remarks of numerous studies. The second is a reflection of the first, written nearly 30 years later. The third is a common dictionary definition, the fourth and fifth are samples of textbook definitions that are similar in many such sources.

- “While there is much debate concerning the behaviors that constitute good conducting, it would appear that no decisive conclusions acceptable to everyone have been reached.”⁶
- “...it occurred to me that while much is written about how to conduct, little is understood either of why it is necessary or what function it serves.”⁷
- “Conducting means directing a performing group – orchestra, chorus, opera – in order to bring about complete coordination of all players and singers.”⁸ [*Unfortunately, “directing” is not defined elsewhere in this text*].
- “This [ability to inspire the performers] might be given other names: leadership, hypnotic power, contagious enthusiasm, or just good teaching ability (for a rehearsal is simply a class in which the conductor teaches the performers how to play the music).”⁹
- “The conductor is the communicator, inspiration and overseer of the musical message; the conveyor of the composer’s intent, and the courier of the music being sent to the listener via the performance.”¹⁰

An often neglected viewpoint, and the source of still more attempts to explain the essence of conducting, is the historical perspective or the opinions of conductors of bygone eras. What follows is a small but representative sample from this category.

- Peter Fuchs: “An efficient timebeater is not necessarily a good conductor, and some marvelous conductors are not particularly efficient timebeaters.” The difference is what Barbirolli calls that ‘certain something’.”
- Josef Krips: “A conductor who has learned not to interfere with the playing of the orchestra is already a pretty good conductor.”

⁶ Yarbrough, Cornelia. “Effect of Magnitude of Conductor Behavior on Students in Selected Mixed Choruses.” *Journal of Research in Music Education*. Volume 23/Number 2. Summer 1975. p. 135.

⁷ Mark Gibson in Green, Elizabeth and Mark Gibson. *The Modern Conductor*. 7th edition. Upper Saddle River, New Jersey: Prentice Hall, 2004. p. xviii.

⁸ Apel, Willi, ed. *Harvard Dictionary of Music*. 2nd edition. Cambridge: Harvard University Press, 1972. p. 196.

⁹ McElheran, Brock. *Conducting Technique for Beginners and Professionals*. Oxford: Oxford University Press, 1964. (revised 1989). p. 3.

¹⁰ Maiello, Anthony. *Conducting: A Hands-On Approach*. Belwin-Mills, 1996. p. 7.

- Sir Georg Solti: “Conducting is a mysterium consisting of the mixing together of some sort of spiritual inspirational guidance with mental control, which is something you can never leave out. The right mixture is like an alchemist’s secret. Too much control and you lose intensity; too little control and you become rhapsodic and abandoned.”

With fourteen attempts and one abstention now on the table there is still no clear trend, no consensus to which we might point. It is no wonder that conductors are variously categorized: sometimes performers, sometimes educators, occasionally even scholars or a hybrid of all of these. The majority of wind band conductors will adamantly defend the belief that a conductor is a hybrid, specifically asserting that conducting and teaching are virtually synonymous. Of all the debris that is blocking our path and creating a seemingly dead end, this assertion is the most problematic.

While conducting is clearly linked to a plethora of disciplines, it remains distinct. The belief that it cannot be separated from teaching has ample historical underpinnings (see notes), is currently politically advantageous in the public educational system of the United States, and is emotionally appealing to music educators, but it is simply false.

Challenging Assertions

“Very few men investigate. Hence, most men are led by authority; and the errors of learned men are received as truth and incorporated into public opinion.”

Noah Webster

“Education is not to make anything of anybody but simply to open the minds – to go from cocksure ignorance to thoughtful uncertainty.”

Max Rudolf

To begin the process of clearing the debris that blocks our path we must first discover the errors we have been led to believe, often by those we revere. To achieve a state of thoughtful uncertainty, we simply have to spend some time reviewing the body of research that touches upon conducting. To expedite the process, an objective summary of each of the most relevant studies will be provided, followed by my own analysis of the findings as they pertain to the practice of conducting.

Price and Winter (1991) studied 52 8th grade band students from a program that had received superior ratings at contests with their present director for six years prior to the study. Their research was intended to illuminate the effect of two different conducting styles on the attitude and performance of the ensemble. The same conductor was used to demonstrate both the expressive and strict conditions; this person was the band's regular director. "Strict" referred to little or no body movement, expressive gestures, group eye contact, or approving or disapproving facial expressions. "Expressive" indicated frequent body movement, expressive gestures, group eye contact, and approving and disapproving facial expressions. Two pieces of music appropriate to the band's ability were used, and the director conducted using both strict and expressive styles for each piece (a total of four performances of each work). The performances were recorded on high quality cassette recorders, and the students anonymously responded to the following opinion survey using a 7 point Likert scale:

- I like this music a lot.
- I like the way this piece was conducted.
- I like playing this music.
- This conductor was easy to follow.
- The conductor helped me to play better.

The cassette recordings were evaluated by 3 experienced adjudicators, 11 graduating instrumental music education majors, and 31 ensemble members.

The results of Price and Winter's research indicated no significant differences in the evaluations of the performances related to conducting styles, among groups, or their interactions. There was a measurable conducting style effect on popular opinion, but not on performance. Band members preferred the expressive conductor over the strict conductor. To the authors, this was especially notable since the expressive and strict conductors were the same person. The students' ability to discriminate between the two styles replicated previous research with older subjects.

Although the band members preferred one style of conducting, no difference was found between performances under strict v. expressive conductors. Price and Winter found no data to support the idea that more expressive conducting would result in more musical performances, although it is a widely held belief. Several possible reasons for the conflict of the study's results and commonly held beliefs were proposed. Chief among these was the fact that although the ensemble was an accomplished 8th grade band, they were still 8th graders and therefore were hindered by limited performance skills and musical sophistication. It was suggested that perhaps more advanced groups would yield different performances.¹¹

¹¹ Price, Harry and Suzanne Winter. "Effect of Strict and Expressive Conducting on Performances and Opinions of Eighth-Grade Band Students," Journal of Band Research, Volume 27/Number 1. Fall 1991. p. 30-43.

Price and Winter's attempts to explain why divergent conducting styles had no effect on the performance of this ensemble reflect a thought process that is pandemic. Typically, when the performance of an ensemble does not appear to relate to the work of the conductor, it is assumed that the ensemble is not watching or is not capable of responding. In the Price and Winter study however, the band was performing music appropriate to the students' level of musical sophistication. Their response capability should have been adequate, and the researchers would have noted if the students were not attentive. Interestingly, Price and Winter's findings echo those of an earlier study.

Yarbrough (1975) examined the effect of conductor magnitude on students in mixed choruses (college and high school). The choruses were rehearsed under a regular, high magnitude, and low magnitude conductor. "High magnitude" was defined as maintaining eye contact with the group throughout the rehearsal, approach and departure to and from the group, variation of voice pitch and volume, use of hands and arms to aid musical phrasing, variation in the beat size to indicate dynamic changes, facial expressions of approval and disapproval, and quick rehearsal pace. The "low magnitude" director never looked at the ensemble, stood behind the stand, spoke with unvaried volume and pitch, used a strict conducting pattern, and had a neutral face. Students were more attentive when under the high magnitude conductor, and significantly preferred the high magnitude conductor to the low magnitude conductor. However, no significant difference was found between the musical performances under high and low magnitude conductors. Yarbrough goes on to state that studies have shown "that musical performance, whether it be scale singing or the performance of a choral

work, improves regardless of the ration of teacher approvals/disapprovals or other kinds of rewards (pennies, listening to rock music, and so forth).”¹²

Although dealing with an instrumental ensemble, Price and Winters' findings are remarkably consistent with Yarbrough's earlier research. Furthermore, Yarbrough's conclusions belie Price and Winters' hypothesis that more advanced groups would produce different performances corresponding to different conducting styles. If the ensemble is watching, and if the ensemble is capable of responding, what would cause the uniformity of performance shown in these studies? The following study attempts to shed some light on the subject.

Cofer (1998) found that short term conducting gesture instruction had significant effects on 7th grade band students' recognition and performance response to common conducting gestures. In earlier studies, Cofer (1994), Mayne (1993) and Sousa (1988) administered paper and pencil tests to determine middle schoolers' recognition of conducting gestures. Sousa adapted the non-musical research of Ekman and Friesen (1975) to identify conducting "emblems." In Sousa's study, a conducting emblem would be a gesture recognized by, arbitrarily, 70% of instrumental performers at various age levels. To determine the emblematic status of gestures, students watched a video of a conductor demonstrating 55 common conducting gestures and selected the item that best described the gestures on a multiple choice test. The results: using the 70% criterion, 38 of the 55 gestures could be considered emblems by the total sample. The high school group recognized 37 gestures, the college group 47 gestures, and the middle school group only 19 out of 55. Mayne (1993) added facial expressions to

¹² Cornelia Yarbrough. "Effect of Magnitude of Conductor Behavior on Students in Selected Mixed Choruses." Journal of Research in Music Education. Volume 23/Number 2. Summer 1975. p. 134-146.

Sousa's gestures, yielding similar results: the high school group recognized 29 out of 53, the college group 40 gestures, and the middle school group only 14.

Cofer (interpreting the above): "The results of the studies by Sousa and Mayne seem to indicate that ensemble experience has a positive effect on performers' ability to successfully recognize musical conducting emblems. The lack of recognition by junior high students has serious implications for the teacher of young instrumentalists. Since a conductor's effectiveness depends on students' ability to recognize and respond to conducting gestures while they play their instruments, it is clear that less experienced performers need to be taught the standard conducting gestures (*emblems*) at an earlier age."¹³

Cofer is not alone in his conclusion, as the following statements of Eric Fried will attest:

"Most students need to be trained to recognize the meanings of a conductor's gestures... By teaching communication through body language, orchestra directors can train student musicians to respond emotionally..."¹⁴

The findings of the Cofer, Mayne and Sousa studies were groundbreaking and influential. If students, especially less experienced players, were taught to understand the meaning of a conductor's gestures, then the effectiveness of the conductor would improve. Or would it?

Kelly (1997) studied 151 5th grade beginning band students in 8 bands. Half were the control group, the other half received a maximum of 10 minutes of conducting instruction per 30 minute band rehearsal. The instruction included oral

¹³ Cofer, R. Shayne. "Effects of Conducting-Gesture Instruction on Seventh-Grade Band Students' Performance Response to Conducting Emblems." *Journal of Research in Music Education*, Volume 46/Number 3 Fall 1998. p. 360-373.

explanation as well as modeling, patterns in 4 and 3, preparatory and cut-off gestures, dynamics, staccato, legato, and phrasing based on Elizabeth Green The Modern Conductor text, employing the right hand only, without a baton. Pre- and post-tests for rhythm performing abilities, and pre- and post-tests for ensemble performance (Yamaha Band Student, book 1) were administered and audio taped for later evaluation. At the conclusion of the study, 7 judges independently evaluated the ensembles' pre- and post-test ensemble performance audio tapes in a "blind" procedure. The results: conducting instruction was effective in improving the experimental ensembles' rhythm reading and phrasing abilities in comparison to those of the control group. However, the treatments were not effective in improving the performances of dynamics, legato and staccato musical styles, and overall general performance. Kelly concluded: "A possible explanation could be that these concepts are too complex for students of this age to recognize and perform simultaneously."¹⁵

If the ensemble is watching, and if they are capable of responding, and if they have been taught what the gestures mean and there is still no distinction between performances, then Kelly must be right: youngsters must not be able to recognize and respond to this type of information. However, there is ample evidence in non-musical research studies to contradict Kelly's hypothesis.

In the late 1970s and early 1980s, researchers Meltzoff and Moore argued that "infants are born with the ability to use what they call 'intermodal equivalencies,' which means that the infant is able to use the 'equivalence between the act seen and the act done as the fundamental basis for generating a behavioral match.'

¹⁴ Fried, Eric. "Using Body Language to Express the Music in Conducting." American String Teacher, Volume 51/Number 3, August 2001. pp. 68-73.

Perception and production, then, are closely linked and mediated by a common representational system from birth.” Furthermore, 9-month-old infants can imitate behavior from memory after a 24-hour delay. In a 1982 study, Kuhl and Meltzoff discovered that an “infant’s ability to visually process the connection between mouth shape and sound, e.g. that the ‘ah’ sound comes from a mouth with the lips wide open and the ‘ee’ sound comes from a mouth where the corners are pulled back.” Charlesworth and Kreutzer, in 1973, showed that 6-month-old infants seemed to discriminate between expressions of anger, happiness, sadness and “neutral”, sometimes mirroring the response given them.¹⁶

Clearly, human perceptive capabilities are developed at a very early age. Apropos to conducting, it is also apparent that our ability to perceive precedes our ability to produce. We understand that the ‘ah’ sound comes from a particular mouth shape before we have the ability to form such a shape intentionally to say ‘ah.’ Closer still to relating research to beginning instrumentalists...

Researchers Michael and Willis showed that 4-7 year old kids are better interpreters of “emblems” (nonverbal actions/gestures that have a direct verbal translation or dictionary definition – like the “okay” hand sign) than they are encoders or creators of them. Kids seem to learn to interpret/decode emblems after age 3.5, even if they cannot yet produce them intentionally.¹⁷

It is likely, therefore, that a 9-year-old saxophone player understands the gestures of the conductor even if he cannot yet control the instrument to respond. It is even more likely

¹⁵ Kelly, Steven. “Effects of Conducting Instruction on the Musical Performance of Beginning Band Students.” *Journal of Research in Music Education*. Volume 45/Number 2 Summer 1997. p. 295-305.

¹⁶ Knapp, Mark and Judith Hall. *Nonverbal Communication in Human Interaction*. 3rd edition. Fort Worth: Holt Rinehart and Winston, Inc. 1992.

¹⁷ Ibid.

that a middle school, high school or college student can both understand the conductor's gestures and control the instrument sufficiently to respond. Why then did the studies addressed thus far fail to produce any evidence that the conductor's gestures had an effect on the overall performance of the ensemble?

Byo (1990): "If the nonverbal skills (gestures) of a conductor are to make a difference in attentiveness, attitude, and performance of musicians, it seems necessary that musicians (observers) be able to recognize qualitative differences in conducting gestures and, furthermore, to be able to interpret the conductor's gestural intent accurately. If musicians can see these differences, both subtle and pronounced, one might expect a conductor whose gestures are technically correct and appropriately intense to elicit different musical responses than would one whose gestures are simply correct." In this study, the concept of "intensity" was taken from Standley and Madsen (1987). Byo notes that a later study (Madsen, Standley & Cassidy, 1989) indicated that intensity contrasts were recognized by those presumed to have little or no training in the concept of teacher intensity. The purpose of Byo's study was to determine whether high and low contrasts in conductor intensity could be demonstrated by beginning conductors and whether observers untrained in the concept of intensity could see these contrasts. To this end, intensity was demonstrated by undergraduate conducting students (beginners). The resulting video was viewed and evaluated by 4 groups: graduate music majors, undergraduate music majors, undergraduate non-music majors, and high school band/choir members. The results: overall 77% correctly identified the intensity portrayed (high or low). Byo believes these findings are remarkable because the demonstrations were done by beginning/unskilled conductors and were recognized by 70% of non-musicians (the percentage was higher for

musicians, and the graduate students' perceptions were highest). Perhaps most importantly, the viewers were not trained in the concept of intensity.¹⁸

Clearly the perception and demonstration of a conductor's intensity is a fairly simple matter. The subject of teacher intensity and its effects is popular among researchers, Madsen foremost among them.

Recent research in teacher intensity appears to indicate that high intensity teachers are more effective (Madsen 88& 89). “The intensity is defined as 1) sustained control of the student-teacher interaction with 2) efficient, accurate presentation of subject matter combined with 3) enthusiastic affect and pacing.” (Madsen 1990).

High magnitude, high intensity and expressive are synonymous in most research studies related to conducting, as are their counterparts low magnitude, low intensity and strict. Since the vast majority of research in the area of conducting is related to ensembles in educational settings, the assumption that high intensity teaching behavior is analogous to high intensity conducting behavior is natural. This assumption is illustrated in the description of nonverbal gestures in the following study.

Grechesky (1986) investigated the differences among conductors of more musical and less musical bands, and whether certain types of verbal and nonverbal behaviors were more effective, expressive, and musical than others.

Audiocassettes of 20 randomly selected bands were evaluated by an expert panel of judges. Video recordings of the bands with the 5 highest and 5 lowest scores were then analyzed for conductor behaviors, and their ensemble performance was

¹⁸ James Byo. “Recognition of Intensity Contrasts in the Gestures of Beginning Conductors.” Journal of

evaluated by a panel of judges. The results: performance rank was related to both the verbal and nonverbal behaviors of the conductors, and verbal imagery and explanation had a positive relationship. Nonverbal gestures that reinforced what was being said, approach and departure movements, approving facial expressions and left hand use also had strong positive relationships to performance ranking.¹⁹

Burnsed and Kind (1987) suggested that a director's conducting style was one factor that appeared to influence the evaluation of "overall effect", with the festival rating of a band performance being strongly related to "overall effect."²⁰

Grechesky, Burnsed and Kind are drawing the conclusion that the musicality of an ensemble and the overall effect of its performance are directly related to the conducting style/behavior of the director. In short, high intensity has a positive influence. This remains a common belief, although as we have seen in studies cited earlier, there is no evidence to suggest that the conductor's style of behavior has any effect on an ensemble's performance. This is to say that those who were rating the ensembles in these studies were responding to how the conductor looked, rather than to the effect the conductor may or may not have had on the actual performance of the ensembles. Once again we see that a conductor's style and behavior influences opinion but not necessarily performance.

Conversely, the research of Madsen and others has conclusively determined that high intensity teachers are actually more effective than low intensity teachers. But, similar research in the area of conducting has determined that high intensity conductors are not necessarily more effective than low intensity conductors. At first glance these

Research in Music Education. Volume 38/Number 3. Fall, 1990. p. 157-163.

¹⁹ Grechesky, P.N. (1986). An Analysis of Nonverbal and Verbal Conducting Behaviors and Their Relationship to Expressive Musical Performances. (Doctoral dissertation, University of Wisconsin-Madison, 1985).

conclusions will seem contradictory to most musicians. In fact, nearly all will insist that high intensity/high magnitude/expressive conducting as it has been described above actually does result in better, more musical performances.

If studies show that conducting style affects opinion but not performance, why do we continue to believe that more expressive conducting will result in a more musical performance? We believe it because we have witnessed it in the performances of some of the world's greatest professional conductors and ensembles. Such experiences lead many to believe that only the best players are capable of responding to a conductor's gestures. Others realize that perhaps their own gestures are not adequate to elicit such a response from even the most skillful musicians. The latter group of conductors then sets out to learn to be more "expressive" on the podium.

The astute person will quickly discover that, among conductors, "expressive" is an insidious term fraught with innuendo. Most conducting students and many conductors at large, if asked to conduct expressively, will automatically demonstrate legato or fluid gestures. Still more will assume that an elastic, flexible sense of pulse is called for. In texts such as Elizabeth Green's The Modern Conductor, there is a distinct chapter devoted to expressive gestures (Chapter 5 in the 6th edition), and the employment of these gestures is considered by most pedagogues to be an intermediate to advanced technique. An expressive conductor is, therefore, someone whose gestures are sufficiently controlled and coordinated to allow activity beyond the basics (whatever they may be). Among conductors, particularly wind band conductors, the term "expressive" has become a synonym for skillful, effective, impressive, and/or laudable technique... even if that which the conductor is expressing has no relation to the music at hand or the performance of

²⁰ cited in Kelly, Steven. "Effects of Conducting Instruction on the Musical Performance of Beginning Band Students." Journal of Research in Music Education. Volume 45/Number 2 Summer 1997. p. 295-305.

the ensemble. The research of Grechesky, Burnsed and Kind in conjunction with the findings of Yarbrough, Kelly, Byo, Price and Winter bear this out.

Why do we tend to prefer and admire conductors who are physically adept, even if their activity on the podium is disconnected from the performance of the ensemble? As before, a foray into the world of non-musical research proves instructive.

Wells and Siegel (1961) determined that an individual's build and physical attractiveness affects how others perceive and respond to him or her. This phenomenon is true for adults and children alike.²¹ Additional studies have shown that physically attractive people are more persuasive, especially in the initial efforts/stages of an interaction, even if the persuader is the same person simply made to look different with clothes, hairstyle, makeup, etc. The same person, delivering the same message, but with an "improved" outward appearance will be more persuasive.²²

Wells and Siegel also stated that "If a case can be made that there are clearly defined and generally accepted physique-temperament stereotypes, we can reason that they will have a lot to do with the way you are perceived and responded to by others, and with the personality traits expected of you by others... A stereotype may be more accurate than we wish to admit – there may be some reason for the stereotype other than prejudicial whims. Clearly, the evidence shows we do associate certain personality and temperament traits with certain body builds. These expectations may or may not be accurate, but they do exist; they are a part of the psychological mortar in interpersonal communication. We must recognize

²¹ W. Wells, and B. Siegel, 1961. "Stereotyped Somatypes." *Psychological Reports* 8: 77-78.

²² Knapp and Hall, p. 100-101.

these stereotypes as potential stimuli for communication responses, so we can deal with them more effectively.”²³

Wells and Siegel refer to W.H. Sheldon’s (1940) classification of body types and their accompanying stereotypical personality traits:

- Ectomorph (light body build with slight muscular development): younger, more ambitious, taller, more tense and nervous, and more pessimistic and quiet.
- Mesomorph (husky muscular body build): stronger, more masculine, better looking, more adventurous, more mature in behavior, and more self-reliant.
- Endomorph (having a rounded body build often with a marked tendency to become fat): older, shorter, less good-looking, more talkative, more good-natured and agreeable, more dependent on others, and more trusting of others.

These studies revolve around the concept of “charisma,” or the endowment of unusual credibility or unique personal influence in an individual. Charismatic individuals are believed, stereotypically, to be endowed with certain traits such as physical coordination and extroversion. This is not to say that someone without these characteristics cannot be influential or skillful. It simply means that we are predisposed to believe that people with these traits are pro forma persuasive and capable – even if there is clear evidence to the contrary.

²³ Wells and Siegel, p. 72-73.

Given the complex nature of the relationship between a conductor's gestures and the performance of an ensemble, and the natural predilections described in these and other studies, it should be no surprise that musicians and audiences alike prefer to watch more physically coordinated, "charismatic" conductors even if the performance of the ensemble is not effected by the conductor's gestures. In her 2002 study, VanWeelden cites the work of several other researchers in this area:

"Investigators have also discovered that the first impression of a conductor's effectiveness is lasting, even if more recent information is gained over time."
 (from Robinson, 2000) "A conductor's nonverbal behavior off the podium is just as influential to ratings of overall conducting effectiveness as are nonverbal behaviors on the podium." (from Fredrickson et al., 1998) "The assumption that a musician's likability as well as quality of his or her performance could be perceived as more or less effective due to the individual's physical attractiveness is not unreasonable. Research in the areas of sociology and educational psychology has shown that persons with higher levels of physical attractiveness are thought to possess greater achievement and quality of work." (from Clifford and Walster 1973)²⁴

VanWeelden (2002) studied the impact of conductors' body type on the perception of undergraduate music majors (both choral and instrumental, men and women). She used an evaluation form with 12 questions pertaining to ensemble performance and conductor effectiveness. Questions 1-7 asked the evaluators to rate, using a 5-point Likert scale, the ensemble's intonation, tone, attacks and releases, dynamics, phrasing, balance and blend, and diction. Questions 8-12

²⁴ VanWeelden, Kimberly. "Relationships between Perceptions of Conducting Effectiveness and Ensemble Performance." *Journal of Research in Music Education*, Volume 50/Number 2, Summer 2002. pp. 165-176.

asked them to rate the conductor's eye contact, facial expression, posture, overall effectiveness, and the evaluator's confidence in the conductor. The conductors were 6 women (graduate students and faculty) who represented varying degrees of ecto (thin) and endo (large) body types. Each conductor's general body type was identifiable with 100% accuracy in a pre-test situation; there were 3 ectos and 3 endos. Each conductor was asked to conduct the same recorded excerpt, but the background on the video tape was made to look as if they were in fact conducting different ensembles in different venues (the viewer could not see that there was no actual ensemble). All 6 conductors wore long-sleeved tops, minimal jewelry, and no glasses. Their hair was also arranged to enable their faces to be seen clearly. The results: 163 evaluators from 6 universities indicated no significant bias based on body type. There was a slight preference shown for the ecto conductors in the area of posture, eye contact, and facial expression except among male instrumentalists (they had a slight preference for the endo type). Interestingly, posture and facial expression – if positive – had a positive effect on the evaluator's rating of the performance and confidence in the conductor even though the sound they heard was exactly the same each time. Perhaps most noteworthy: the 2 top-rated conductors and the conductor consistently rated the lowest were all ectomorphs.²⁵

VanWeelden's research sheds light on several issues. First: if the conductors in her study were truly endo- and ectomorphs without any representation from the mesomorph category, then her findings would support the earlier non-musical studies of Wells and Siegel, for it is the mesomorph body type that is stereotypically endowed with the lion's share of "charisma." However, it is just as likely that societal views have changed in the last 40 years and we are less likely to make distinctions of skill or believability based on

²⁵ Ibid.

physical appearances. In that case, VanWeelden's great contribution was to reinforce the fact that we believe certain conductors are more or less effective even if they have absolutely no effect on the performance of the ensemble. We have developed the habit of separating the work of the conductor from the work of the ensemble in the context of performance. In the rehearsal setting we have developed a similar habit, unconsciously separating that which the conductor says from that which the conductor shows.

On one hand, research has shown that "expressive" conducting does not necessarily cause the performance of an ensemble to be better. On the other, research has also shown that "strict" conducting does not necessarily cause the performance of an ensemble to be worse. The following study helps to explain the latter phenomenon, and the habit of separation described above.

Knapp and Hall (1992) report that when confronted with contradictory verbal and nonverbal messages, nonverbal channels carry more information and are believed more than verbal, and visual cues generally carry more weight than vocal ones – unless the discrepancy is great, then we tend to rely on the audio signals. For example, when teachers combined positive words with negative nonverbal demeanor, studies showed that students learned more. Similarly, when doctors combined positive words with a negative voice tone patient satisfaction was highest. Knapp and Hall concluded that this contradictory behavior was perhaps perceived as more "serious" and "concerned", and it therefore made a better impression.²⁶

There are numerous examples of conductors whose physical stature and coordination is less than ideal yet their work is held in high esteem. In many cases these individuals are

²⁶ Knapp and Hall, p. 20-22.

the epitome of the “strict” conducting style described in the research excerpts above, yet the performance of their ensembles is in some cases spectacular. Coincidentally, these conductors tend to have the reputation of being no-nonsense or “tough” based on their spoken commentary and demeanor both in and out of rehearsals. In most cases, there is a significant discrepancy between what they portray physically and what they convey verbally. If Knapp and Hall are correct, these conductors are persuasive precisely because of the great discrepancy between their verbal and nonverbal channels of communication.

Returning to the research of Madsen and others, the question remains: why are high intensity teachers more effective than low intensity teachers, and yet high intensity conductors are not necessarily more effective than low intensity conductors (even though we prefer to watch them)? The answer is simple:

The characteristics that cause teaching to be effective are not necessarily the characteristics that cause conducting to be effective.

Because they share certain characteristics, the concepts of teaching and conducting are commonly understood to be interchangeable, as the research studies cited above illustrate. However, there are critical differences between the acts of teaching and conducting that are often overlooked. For example, although “enthusiastic affect and pacing” will improve a teacher’s ability to develop a student’s knowledge of algebra, it will hinder a conductor’s ability to influence an ensemble’s performance of O Sacred Head Now Wounded. The teacher’s demeanor and rate of delivery are linked to the student, not the subject. The conductor’s demeanor and rate of delivery are linked to the score, not the ensemble. Algebraic equations can be accurately conveyed with any affect

and at any pace. The conveyance of musical impulses is inextricably linked to both affect and pace, and any change will effect accuracy (i.e. fidelity to the score).

Problems with Pedagogy

The development of conducting pedagogy has had several adverse effects. First, the evolution of pedagogical methods specifically designed to support teacher training has caused the distinctions between conducting and teaching to blur. Second, in order to teach people how to conduct it became necessary to break up the activity into component parts, as a quick glance at the table of contents in virtually any conducting textbook will show. In order to assess student mastery, these components had to become standardized. In order to create a standard, these components had to be able to exist without reference to a specific context. The result of this process is what enables Byo (1990) to make the following assertion:

“If musicians can see these differences, both subtle and pronounced, one might expect a conductor whose gestures are technically correct and appropriately intense to elicit different musical responses than would one whose gestures are simply correct.”²⁷

Byo’s logic is consistent with common beliefs and practices, and is echoed in the research of Cofer, Sousa, and Mayne related to the recognition of conducting “emblems.”

As stated earlier, Sousa’s work was adapted from the research of Ekman and Friesen:

In The Repertoire of Nonverbal Behavior: Categories, Origin, Usage, and Coding, Paul Ekman and Wallace Friesen described five modern categories of movements:

- Emblems: gestures with a direct verbal translation (e.g. hand wave translated is "hello" or "goodbye").
- Illustrators: gestures that punctuate messages. There are three basic kinds of illustrators:
 - Batons: gestures that accent or simplify a spoken message (e.g. pounding of fist to show urgency).
 - Kinetographs: gestures that show where something is located (e.g. pointing).
 - Ideographs: gestures that represent the thinking process (e.g. snapping the fingers when trying to recall something).
- Regulators: gestures that help us interact with others, used in conversation to request, deny or maintain one's turn in dialogue (e.g. nods, shifts in posture).
- Affect Displays: gestures that reflect the intensity with which we feel emotion (e.g. tension displayed in face, clenching fists, etc.).
- Adaptors: highly unintentional motions, often displayed as a result of anxiety or stress (e.g. lip or nail biting, tapping a pen, etc.).

In the studies of Cofer, Sousa and Mayne, observers were asked to identify, in a paper and pencil format, a given conducting gesture - in essence to translate the gesture into words. Any gesture that could be accurately translated by at least 70% of the viewers was dubbed an "emblem." For example: the video example of a conductor moving his left hand in the manner of a violinist employing vibrato was meant to elicit the translation "intensity" or some similar term. However, conducting gestures are not

²⁷ Byo, p. 157-163.

meant to illustrate or elicit verbal descriptors at all; they are meant to illustrate and influence musical sounds.

The attempt to classify conducting gestures as emblems and to teach them as such is the root cause of conductors failing to effect the performance of ensembles.

The gestures are meaningless to the ensemble not because the ensemble needs to be taught what they mean, but because they are literally meaningless. For example, consider the basic left hand "elevator" gesture (hand is lifted while keeping the palm up). This gesture appears in textbooks often in conjunction with metric patterns in the right hand as a convenient means of developing independence between the two sides. It is also commonly taught as the "emblem" for crescendo. However, even within a musical context this gesture might mean crescendo, it might mean sustain intensity, it might even mean dissipate depending on the amount of tension in the fingers and the specific context of the piece of music. To nearly everyone in the U.S., musicians included, this gesture is more likely to be emblematic of "stand up." By their nature, effective conducting gestures are more likely to be illustrators, regulators, affect displays and/or adaptors rather than emblems.

Byo's study is an important link between discussions of intensity and discussions of emblems. The question he poses opens the door to reveal another fundamental flaw in the development of the concept of conducting: can a conducting gesture be "correct" if it is not appropriately intense? As with questions posed earlier, the answer is simple if not widely understood: a conducting gesture cannot be "correct" if it is not appropriately intense. Consider an analogous question: is a horn player playing the "correct" note if his fingers, embouchure, etc. are in the proper position but when he blows into the instrument no sound is emitted? For either a horn player or a conductor, the behavior is

“correct” only if the sound is correct. An inappropriately intense conducting gesture will influence the players inappropriately, or not at all. In either case, the resulting sound will not be “correct,” and therefore the gesture itself will have failed.

The progress of research related to conducting has had unfortunate and unintended consequences. At first, the efforts to codify effective conducting behaviors made sense. If we could connect certain actions with improved ensemble performance, then we could isolate and teach those behaviors to aspiring conductors. But after the first several studies demonstrated that high magnitude/high intensity/expressive conducting did not necessarily improve ensemble performance, researchers inexplicably continued to try to prove that it did. The practice and pedagogy of conducting became impacted. Instead of asking the question, “what conducting style or behavior does positively influence ensemble performance?” we continued to ask, “why doesn’t this behavior that we like so much influence ensemble performance?” Having provided the answer to the latter question, it is time to begin to address the former.

II

Sighting the Objective

A Working Definition

Although our path is not yet completely clear, it is time to call in the surveyors to clearly establish the boundaries within which we will work henceforward. Perhaps the most difficult task I faced during the research process, and the most crucial, was defining in unequivocal terms what it means to conduct.

Conducting is the act of influencing, by design, the sound of an ensemble using nonverbal means.

This definition is the result of many years of work identifying and paring away the superfluous or misleading elements that have attached themselves, barnacle-like, to our understanding of the conductor's role. It distinguishes its object from any closely related objects in clear and concise language. As a result, a conductor's efficacy can be assessed with relative ease.

Is the conductor influencing the sound of the ensemble? As the studies in chapter one demonstrated, it is common for a director to influence the attitude and/or behavior of an ensemble, but there are many actions that might be the cause. What distinguishes the act of conducting is its unique relationship to the sound the ensemble produces. If the sound is not affected when the director's actions change, then he is not conducting.

If there is evidence of the conductor's influence, is this influence deliberate? Is the conductor having an effect upon that which he intends to affect, or is his influence merely a happy (or unhappy) accident? For example, a conductor may unwittingly display gestures that are always the same size or amplitude. The ensemble may simultaneously produce a sound that is without contour. The conductor's gestures may well have influenced the monotony of the ensemble's sound, or the ensemble may just be monotonous all by itself. It is impossible to tell unless the conductor deliberately alters his gestures. If the new gestures correspond with new sounds and no verbal instruction has intervened, then conducting is actually taking place. If the new gestures do not alter the monotony of the ensemble, then conducting is not taking place; there is no connection between the conductor and the players.

If the conductor's influence is apparent and intentional, has it been achieved through nonverbal means, or is it the result of other related verbal activities such as teaching or coaching? Another distinguishing feature of conducting is its nature as a purely nonverbal activity. A director can deliberately influence the sound of an ensemble by telling them to play louder. This is not conducting, it is instructing. Unless the director can connect his actions to the sound of the ensemble, he is not conducting. It is worthwhile to note here that instruction as described above is the activity most commonly confused with conducting. The director who tells the ensemble to play a crescendo but neglects to alter his own gestures may soon begin to believe that his gestures are causing the sound to change. The following anecdote reflects upon this phenomenon.

“How vague the general concept of conducting is was brought home to me in a letter from a record buff who fancied himself a born chef d’orchestra, though he admitted never having studied music. From his résumé, I visualized my correspondent spending many hours cutting a graceful figure in front of his speakers as the glorious strains poured from the magic machine. Many students have practiced baton technique in such a manner, but this gentleman had come to believe that his choreography was actually the cause of the wondrous beauty sounded forth. He was convinced, moreover, that he could produce the same

results with a group of musicians on a public platform. Not for a moment did I consider the man deranged. He has merely confused cause and effect, as many do when they try to imagine the task of the musical conductor. Anyone with some musical instinct can follow the outlines of a symphony with appropriately synchronized gestures and create the illusion that the follower is the leader.”²⁸

The concept of influence is often confused with the concept of control. Contrary to popular belief (illustrated in the prologue), a conductor cannot control the sound of an ensemble because he does not produce the sound. As obvious as this may seem, conductors invest a great deal of time, energy and ego in the quest for control. It is also widely believed that a conductor can neither control nor influence the sound of beginning instrumentalists, therefore conducting is often viewed as a specialty skill or luxury enjoyed by those with sufficiently skillful ensembles. However, as we have seen in part two, the source of the sound is irrelevant.

If you are conducting the Chicago Symphony or the P.S. 109 6th grade band, in either case, there is still sound to be influenced. The degree and nature of the influence will differ with different ensembles, but the principal remains the same. With more experienced players comes the possibility of more subtle distinctions in their control of the sound, therefore a more variegated palette of gestures is called for. With less experienced players their ability to control the sound is limited, but the conductor’s role remains the same: to influence whatever sound can be produced.

It is a common mistake to assume that because an ensemble cannot or is not controlling the sound they cannot or are not processing or understanding what the conductor is doing. The ability of any player to play an instrument with any degree of control is distinct from that player’s ability to understand a conductor’s gestures. Conductors who wait for the ensemble to have well established technical skills before trying to influence the sound are teaching the players that the conductor is only a human metronome. Then,

²⁸ Leinsdorf, Erich. *The Composer’s Advocate*. New Haven: Yale University Press, 1981. p. 167.

once the ensemble is thoroughly conditioned to ignore the conductor, the conductor begins to try to influence the sound and cannot because what ought to be a natural connection has atrophied. At this point, the conductor then begins to believe that the ensemble has to be taught what gestures mean or that only the most skillful players have the artistic sense to work with gestures.

The study of conducting is not the study of gestures; it is the study of human interaction.

A conducting gesture is effective not because of what it represents, but because of what it does - how it influences the players as they produce sound.

“If you were to ask a first-class orchestra player, he would say that few conductors have any influence on the orchestra. They play the tempi indicated by the conductor, adding the nuances or the balance he wants, and that is the end of it. But with a good conductor, musical contact can be so strong that the musicians react to the slightest movement of his hand, his finger, his eye or his body. If the orchestra is at one with the conductor, they play differently if he stands up straight, or bends forward, or sideways or backwards. They are influenced by every movement.”²⁹

Consider the differences between telling someone to move (communication), demonstrating motion (expression), moving someone (control), and causing someone to move (influence). The first two may or may not have any effect on the person to be moved; in fact, a person can be completely alone and do both. The third is not only offensive but, to transfer the analogy to the conductor’s realm, literally impossible. Only the fourth requires the presence and mutual attention of two parties. Only the possibility of influence can truly justify the presence of a conductor in front of an ensemble during a performance.

²⁹ Barenboim, Daniel. A Life in Music. New York: Charles Scribner’s Sons, 1991. p. 84.

If the conductor cannot control the sound but must influence its production, then the conductor must control himself in order for his actions to deliberately serve his purpose.

Studies have shown that “in a normal 2 person conversation, the verbal components probably carry less than 35% of the social meaning of the situation; more than 65% is carried on the nonverbal band.” (Knapp and Hall)³⁰ And, “the impact of a typical message sent from one person to another is 7% what is said, 38% how it is said, and 55% how we look, move, act & react.” (Burgoon and Saine)³¹

No matter which study you choose, there is powerful evidence that most of the influence we exert in normal situations is on a habitual, non-conscious level and is non-verbal in nature. Therefore, it is reasonable to assume that much of what a conductor conveys to an ensemble is inadvertent. Apropos to the earlier discussion of conducting v. instructing:

Adler coined the concept of “nonverbal leakage.” Nonverbal information that is unconsciously leaked by a speaker can contaminate and confuse the intended message (e.g. while reflecting a calm face, a speaker may show anxiety by shuffling his feet, or through awkward use of the hands). Furthermore, research shows that when actions contradict words, people rely more heavily on the actions to interpret another’s communication. Conversely, when both words and expressions are in synchronization, the redundancy of the messages intensifies meaning.³²

³⁰ Byo, p. 29.

³¹ Burgoon & Saine. “Taxonomy of Nonverbal Communication.” *The Unspoken Dialogue: An Introduction to Nonverbal Communication*. Boston: Houghton-Mifflin, 1978.

³² cited in Mark Knapp. *Nonverbal Communication in Human Interaction*. NY: Holt, Rinehart and Winston, 1972. p. 1-2

To use Adler's term, conductors must "leak" as little as possible in order to be effective. Also, since instruction is an integral part of the normal rehearsal process, it is essential that the conductor bring his verbal instructing in line with his nonverbal conducting for either to be effective. This fundamental concept has been an integral part of conducting pedagogy for decades. However, what has not been addressed are the essential connections between who we are, what we perceive when interacting with others, and the conductor's role as a performing musician. These connections will be explored in greater detail in section four.

“The self-image is the root system from which our overt communication behavior grows. Our overt communication behavior is an extension of the accumulated experiences that have made up our understanding of self. In short, what you are, or think you are, organizes what you say and do.”³³

“They [the dancers] were shown how feelings can emerge through contractions, releases, stretches, and pulls and spasms of the muscles of the torso, rather than primarily from gestures of the hands or the arms.” (Martha Graham)

“If music consists in movement, or what I have called inner gesture, it is the performer who supplies the impulse and the energy through which the movement and gesture as conceived in the composer’s imagination is given concrete form. This impulse and energy will come inevitably through him and will inevitably gain their particular character through his personality. The more truly he is able, in these terms, to engage himself completely in the music, to bring to it his own feeling for rhythm and movement, the more vital will be the performance.” (Roger Sessions)

Communication

In the quest to clarify the definition of conducting, I came across many diverse descriptions and synonyms. The most common was unquestionably the belief that

³³ Knapp and Hall, p. 113.

conducting is a form of communication. This is a longstanding belief. Nicolai Malko, one of the principal sources for the exercises and philosophy of Elizabeth Green's The Modern Conductor, is credited with having said:

“Every precise and easily understood gesture is clear speaking, but every unnecessary motion is idle chatter.”

Or consider the following, from an article in Teaching Music (2000):

“So, what is conducting and what is its purpose? Ask 20 different conductors and you will probably receive 20 different answers; however, few will dispute the fact that conducting is communication... He or she must be able to communicate the music to the performers in a way that they can understand and that can benefit both the performers and the audience.”³⁴

Communication is typically understood to be the exchange and expression of thoughts, feelings or information. Communication, to be effective, requires a common language (verbal or otherwise). Those who believe that conducting is communicating are likely to be allied with those who believe certain conducting gestures are "emblems," as discussed earlier. Emblematic gestures would then take the place of spoken language to convey the conductor's intentions.

However, because conducting is inextricably linked to the production of sound within the specific context of performance, and because conducting is an inherently kinesic system, research would support the conclusion that it is neither a language nor a communication system.

Birdwhistell (1967): “My own research has led me to the point that I am no longer willing to call either linguistic or kinesic* systems communication systems. All of the emerging data seems to me to support the contention that linguistics and kinesics are infra-communicational systems. Only in their interrelationships with

³⁴ Mailman, Matthew. “The ‘White Canvas’ Approach to Beginning Conducting.” Teaching Music, Volume 7/Number 4, February 2000. pp. 60-62.

each other and with comparable systems from other sensory modalities is the emergent communication system achieved.”³⁵

(* *kinesic*: relating to non-linguistic body motions)

In other words, conducting is only one element in a much larger system of communication. To adapt Birdwhistell’s terminology, conducting is akin to “paralanguage.” Language refers to what is said, paralanguage refers to how it is said. In a musical context, the notation of the composer refers to what is said (the sound to be produced by the ensemble), the actions of the conductor refer to how it is said (the ensemble’s “tone of voice” so to speak). Just as a person is able to use pacing, inflection, and tone of voice in conjunction with verbal language to convey meaning to another, the conductor is able to influence the pacing, inflection, and tone of the ensemble in conjunction with the score to convey the substance of the music. The conductor alone is not communicating, but he is a part of a larger, more complex communication system.

Perhaps the most intriguing aspect of the conductor’s work lies in the fact that, if we extend our linguistic analogy, he has to influence and inflect someone else’s voice. The means to this peculiar end are typically addressed by conducting pedagogues in only the most vague or rudimentary terms. Here the variegated subtexts of “expressive conducting” are often brought into play, usually with little success (i.e. with little influence on the sound of the ensemble, although the conductor tends to be more pleasing to look at).

It is common to find in modern conducting texts and curricula some explanation of how a conductor might conduct “expressively.” However, virtually no attempt has been made to

³⁵ Knapp and Hall, p. 17.

explain why this so-called “expressive conducting” would influence the sound of an ensemble. As we have seen in section two, what is commonly understood to be “expressive conducting” does not in fact work, and there is a very clear reason why. Furthermore, if we reach beyond the context of ensembles, beyond the context of music, and into more universal realms we will discover how to conduct in a manner that will work, and we will understand why it does.

III

Tools of the Trade

Metaphors and Elaborative Processing

“The highest human capacity is the capacity for metaphor.” (Aristotle)

Technically, metaphors are figures of speech in which a word or phrase literally denoting one kind of object or idea is used in place of another to suggest a likeness between them; an implied comparison. The term metaphor is derived from the Greek “metapherein,” meaning to transfer or carry over. An excellent example of such a device is Carl Sandburg’s poem Fog:

The fog comes
on little cat feet.
It sits looking
over harbor and city
on silent haunches
and then moves on.

Even if you had never experienced fog, the metaphor provides the essential points of reference that enable your mind to conjure an image of the unknown entity. Other linguistic devices that achieve the same end through similar means are analogies (Santa Claus is to Christmas as the Easter Bunny is to Easter), and similes:

- McBride fell twelve stories, hitting the pavement like a Hefty bag filled with vegetable soup.
- Her hair glistened in the rain like nose hair after a sneeze.

- His thoughts tumbled in his head, making and breaking alliances like underpants in a dryer without Cling Free.
- Her date was pleasant enough, but she knew that if her life were a movie, this guy would be buried in the credits as something like “Second Tall Man.”

These devices are frequent fodder for studies in the fields associated with cognitive science, or the areas of inquiry devoted to understanding the nature of the human mind. From the time we are born, our brains begin to lay the groundwork that will allow us to process information in the form of metaphors, similes and analogies.

In her book A Child's Mind, Muriel Beadle explores the development of these cognitive processes.

Conceptualization is the intellectual process which enables us to group diverse things according to certain common properties, then speedily dissolve that grouping and relate the same items to each other in different ways or to different objects on the basis of other common properties. The general ideas that result are referred to as concepts. Concepts deal with concrete things, but are themselves abstract. Consider golf balls, oranges, and pearls. All are round, but “roundness” as a concept exists only in our minds. A concept like “roundness” speeds thought and action because it substitutes a single idea – the commonality of shape – for separate awareness of that quality in each golf ball, orange, etc. Beadle states: “We organize all experience into abstractions – clumsily at first, then with more and more skill... It takes us, in fact, fifteen or more years to acquire the full complement of concepts and the techniques of using them that underlie the rational thought of adults.”³⁶

³⁶ Beadle, Muriel. A Child's Mind. Garden City, NY: Anchor Books, 1971. p. 123.

Those approximately fifteen years of development were categorized by Jean Piaget.

Beadle summarizes Piaget's work in this way:

In the research of Jean Piaget our sense of causality is in place by the time we are 2 years old. To Piaget, thought is internalized action. "We begin, as babies, by having basically slow-paced physical interactions with concrete objects; progress, as children, to a state in which we replicate such action sequences mentally; and finally, as adults, transmute these actions into symbols and systems which flash through our brains too fast for conscious comprehension."³⁷

According to Piaget, we experience four developmental stages. The first stage (birth – 2 years old) is the Sensory-Motor Period, during which an infant's knowledge of the world derives entirely from his bodily interaction with concrete objects. Time = now, space = here, orientation = me. Mental functioning is dependent on the perception of events the infant has seen occur or has made occur. The signal that the next phase is approaching is the baby's ability to anticipate the trajectory of something thrown which lands out of sight, or to conceive of something happening where he cannot see it at the same time something is happening where he can see it.

The second stage (2-7 years old) is the Period of Preoperational Thought, during which we become capable of letting one thing stand for another (e.g. learning that words represent objects). At this stage, play reinforces this notion. When a child "drives a car" using a pot lid as a steering wheel and a big box as the car itself, he is symbolizing past experience and relating it to the present. He is also dealing with cause and effect. Around age 5-6, a child's thinking is dominated by the

³⁷ Beadle, p. 129.

appearance of things. He will tend to “center” on one characteristic of an object (e.g. loud, rather than loud and high). The biggest achievement at the end of this stage is the ability to count, and the acquisition of the concept of number.

The third stage (7-11 years old) is the Period of Concrete Operations.

“Operations” are an organized network of related mental acts that are carried on simultaneously and with regard for the changes wrought by each of the others. During stage three a child bases most operations on concrete objects or specific situations and cannot transfer what he has learned in one physical context to another. He cannot extrapolate. The ability to “conserve” weight, for example, is achieved around age 9. At this point, the child will understand that two equal balls of clay squeezed into different shapes are still equal. A 7 year old will believe that the weight of the two objects is different because they look different.

The final stage (11-15 years old) is the Period of Formal Operations. At last we are finally divorced from thinking in terms of concrete things. We become capable of hypothetical deductive reasoning.

A conductor is likely to encounter musicians who are, at the very earliest, in the third stage described by Piaget (probably around the time that the concept of conservation is taking hold). The groundwork for metaphorical thinking is largely in place. The child has accumulated (and will continue to accumulate) a working knowledge of the world around him and the ability to anticipate the nature or action of an object based on what he has learned through his experience with similar objects or operations. In the final stage he will develop his capacity to transfer these concepts freely and in increasingly abstract terms.

Beadle and Piaget were investigating how we think and when we develop specific capabilities. David Sousa, in his book How the Brain Learns, focuses on the learning process.

According to Sousa, as the learning task changes, learners automatically shift to different patterns of “rehearsal.” *[In Sousa’s research the term “rehearsal” is used literally and refers to repetition or revisiting; he is not working within or relating concepts to a musical context].* One such pattern is rote rehearsal, which is used when we need to remember and store information exactly as it is entered into our working memory. Strategies associated with rote rehearsal are simple repetition, and cumulative repetition. Another learning pattern is elaborative rehearsal, which is used when it is not necessary for us to store information exactly as we learned it, but is used when it is more important for us to associate new learnings with prior learnings to detect relationships between them. Strategies associated with elaborative rehearsal are paraphrasing, selecting and note taking, predicting, questioning, and summarizing.

According to Sousa, we use rote rehearsal to memorize a poem, but elaborative rehearsal to interpret its message. “When students get very little time for, or training in, elaborative rehearsal, they resort more frequently to rote rehearsal for nearly all processing. Consequently, they fail to make the associations or discover the relationships that only elaborative rehearsal can provide. Also, they continue to believe that learning is merely the recalling of information as learned rather than its value for generating new ideas, concepts, and solutions.”³⁸

³⁸ Sousa, David. How the Brain Learns. 2nd edition. Thousand Oaks, CA: Corwin Press, 2001. p. 86.

In musical terms, the typical ensemble member (elementary through college) is never called upon to engage in elaborative mental processing as Sousa defines it, nor are they taught how to do it. Rather, they are taught to be receivers of orders (“that should be louder... shorter... higher... “ etc.) and they are conditioned to engage solely in rote mental processing. When asked to present an independently drawn point of view in an ensemble setting, most non-professional or pre-professional musicians literally do not know what to do. If it is presented at all, Sousa’s concept of elaborative processing is reserved for advanced solo playing where it is taught as a part of “expressive” performance.

Ensemble activities, particularly in classroom settings, are instances of training rather than education. According to Peter Abbs:

“[Training] involves a narrowing down of consciousness to master certain techniques or skills. These... are known in advance and can be unambiguously imparted by the trainer and assimilated by the learner. What is transmitted is functional and predetermined, a set of skills matching a set of operations.”³⁹

The emphasis placed on control in many descriptions of conducting is a direct outgrowth of the way players are taught – or trained. If the players are to be receivers of orders, someone has to be giving those orders. However, if the players were taught to shoulder the creative responsibility of elaborative processing, they would be conditioned to draw musical conclusions and present their part to the ensemble as a carefully considered aesthetic object, rather than a sterile decoding of notation.

“[Education involves] an opening out of the mind that transcends detail and skill and whose movement cannot be predicted.”⁴⁰

³⁹ Quoted in Bowman, p. 65.

⁴⁰ Bowman, p. 66.

The conductor would then serve as a moderator rather than a dictator, engaged in a higher order of elaborative processing that would use the work of each player in performance to generate new ideas, concepts, and solutions. Of course, to respond to the ensemble in this manner would require the conductor to be an educated person as well.

According to Wayne Bowman:

“To be educated is to be responsive to the needs of others yet capable of self-reliance, able to think and act on one’s own, guided by one’s own sense of rightness. Accordingly, the educated person approaches new experience open-mindedly, with a capacity to weigh rival claims judiciously and to examine issues from alternative points of view and value orientations. Part of what it means to be educated is to be resourceful, agile, and flexible, and to be able to discern what is important in novel or unfamiliar circumstances and to adapt where necessary.”⁴¹

That’s a tall order; one not filled in any conducting class or symposium. It calls for a new understanding of the nature and value of performance. In fact, Abbs’ description of education could just as aptly be applied to performance:

“[It does not have] a direct utilitarian purpose; it leads to a certain mode of consciousness, a delicate, sustained reflective disposition toward experience, and openness toward potential truth and possible meaning, though it generally presupposes the internalization of various skills and techniques.”⁴²

That’s a far cry from the common view expressed (in unusually vehement terms) by

Roberta Lamb:

“Performance is about control by a master, a conductor, usually male, usually white.”⁴³

What is required to move from one philosophical foundation to the other? How can one adopt and practice the flexible, improvisatory model described by Abbs and Bowman?

Part of the answer lies once again with Sousa.

⁴¹ Bowman, p. 66.

⁴² Quoted in Bowman, p. 66.

Chunking and Transfer

Another process essential to learning is "chunking." According to Sousa, chunking occurs when our working memory perceives a set of data as a single item. For example: 4915082637 can be seen as ten individual numbers, or three chunks as in a phone number 491-508-2637. Since three items are within the working memory's functional capacity we can remember the digits. The working memory's typical capacity is seven items; if we have to deal with more than seven "items" simultaneously we will begin to lose track. Chunking allows us to deal with a few large blocks of information rather than many small fragments. "The more a person is able to chunk in a particular area, the more expert the person becomes... Experience has changed the experts' brains so that they can encode relevant information in greater detail and more fully than the non-experts. As they gain experience, more patterns are chunked and linked and the expertise becomes less conscious and more intuitive."⁴⁴

To move this concept into the realm of music, an expert musician will read notation not as individual symbols, but as rhythmic and melodic motives or chunks. This chunking enables the expert to focus more attention on phrasing, articulation, dynamics, etc. Furthermore, an expert trumpeter, for example, will have acquired the ability to process breathing, embouchure setting, and tongue placement as one chunk thereby enabling more attention to be diverted to tone, pitch audiation, blend and balance issues. The earlier the chunking process can be engaged, the greater the potential for expertise. The more facile a musician is at chunking, the more he will be able to engage in elaborative rehearsal.

⁴³ Quoted in Bowman, p. 64.

In addition to that which has already been discussed, there is one more element of learning that must be engaged for metaphorical thinking to exist. Here, Sousa describes the concept of "transfer."

The transfer process is usually unconscious and follows this general pattern: New learning moves into working memory and long term memory simultaneously searches the long term storage sites for any past learnings that are similar to, or associated with, the new learning. If the experiences exist, the memory networks are activated and also move into working memory.

A learner's understanding of how the combined learning can be used in the future largely determines the success of this transfer. "The information processing system depends on past learnings to associate with, make sense of, and treat new information."⁴⁵ Sousa describes transfer as the "So what?" phase of learning.

Transfer can be positive or negative. In positive transfers, the long-term memory retrievals support and/or agree with the new learnings. For example: experienced drivers getting used to the placement of mirrors and controls in a rental car would benefit from positive transfer, since all cars share the same basic blueprint. In negative transfer, the long-term memory retrievals contradict and/or confuse the new learnings. For example: an experienced American driver renting a car in England would suffer negative transfer since the placement of certain controls is on the opposite side. In such a case, the brain has to consciously set down a new template to deal with a familiar task.

⁴⁴ Sousa, p. 109-110.

In most conducting classes there is an astounding amount of negative transfer taking place because traditional conducting practice often contradicts the knowledge of the physical world our bodies and minds have acquired over a lifetime. Conductors pass along the habit of negative transfer to their ensembles by teaching them that certain gestures have certain meanings. The purported meaning of these gestures in a musical setting is often different than the meaning the same gestures would have in a non-musical setting. In such a case, two distinct mental templates have to be created: one for gestures made in a non-musical setting, and one for gestures made in front of an ensemble. In the most egregious cases of negative transfer, the musicians are conditioned to believe that the gestures of the conductor are completely unrelated to the performance of the ensemble.

Sousa takes the concept of transfer one step further, and here we see the progression of part four looping back to where we began this chapter.

According to Sousa, complex transfer requires the learner to make an abstract application of knowledge and skills to a new situation. Metaphors, analogies and similes are good for promoting abstract transfer, and can convey meaning of abstract material as well and as rapidly as literal language (often better as they encourage students to seek out associations and connections they would not ordinarily make).

The ability to engage in complex transfer is the cornerstone of the relationship between a conductor and an ensemble. It is the keystone of all artistic endeavors and it is a product of our development as human beings.

⁴⁵ Sousa, p. 137.

Kinesthetic Metaphors

In his book The Actor's Eyes, David Downs frequently refers to the power of metaphor.

“Metaphor, a form of artistic shorthand, is one way among many through which the artist seeks to make known the unknown, by working, as with any other aspect of imagination, with and through known experience... You cannot imagine something that is not based in images you have already perceived, nor can you imagine something whose elements you have not perceived.”⁴⁶ Downs gives the example that aliens on television and in movies always look like bugs, or fish, or goo. They are fashioned from everyday earth realities because that is all we know.

Kinesthesia is the sensation of movement or strain in muscles, tendons and joints (sometimes known as "muscle sense"). Metaphors, as described above, are implied comparisons.

Conducting gestures are kinesthetic metaphors.

A conductor manipulates the movement and tension of his own muscles, tendons and joints to influence the sound of the ensemble. For conducting gestures to be influential, they must be rooted in normal physical reality, because that is all the ensemble knows (or can be expected to know). Conducting gestures are influential because they relate to experiences and sensations that are familiar to us all. For example, if a conductor moves his arms with the same speed, range of motion and degree of muscle tension as someone throwing a dart at a dartboard, the ensemble will accept that action as a metaphor for

the nature of the sound they are to produce. They will, in turn, calibrate their own musculature and breathing mechanism according to what they already know about dart-like objects (shape, weight, texture, mass, trajectory when thrown with the indicated amount of force...) and the sound they produce will change accordingly.

Because we have all grown up in the same world, we have a common, intuitive understanding of the laws of physics gleaned through our senses - including our "muscle sense." A conductor's job is to establish and operate within a metaphorical context that coincides with his understanding of the composer's intent at any given moment. If the established context is that of the dart-like object described above, and the conductor manipulates his body as if he were pushing a cement truck, then the conductor's gestures will contradict the context and will influence the ensemble's sound inappropriately. In such a case, some of the players may leap to the new context and respond accordingly while others will remain linked to the original metaphor because it corresponds to their own concept of the music (acquired through elaborative rehearsal). If the conductor ignores the conflict, negative transfer will occur. The players may strive to understand that throwing a dart and pushing a cement truck are equivalent. However, because these two modes of action are not, and cannot be, equivalent according to the laws of physics, the conductor's gestures will become literally meaningless and ultimately fruitless - until a consistent, sensible metaphorical context is reestablished.

Metaphorical Contexts

Metaphorical context is admittedly an awkward term. It is not a context that is metaphorical, rather it is an environment within which various kinesthetic metaphors will be employed, all governed by an overarching character or atmosphere. For example, an

⁴⁶ Downs, David. *The Actor's Eyes*. New York: Applause Theatre Books, 1995. p. 148.

action such as kicking a ball will have a distinctly different effect depending upon the environment in which it is executed (e.g. underwater, or in a gym, or on the moon). The context influences the activity by causing the kicker's body to compensate for the characteristics of the environment. In musical terms, to be influential the conductor's body must operate within a context that is analogous to the environment of the score. If his gestures are not influenced by the atmosphere of the score, they will be like the structures in an Escher painting: intriguing but practically useless – an illusion that defies logic. The conductor must operate under the same conditions as the players. If one is kicking the ball on the moon and the other is at the bottom of the pool, they cannot hope to connect.

Once the context has been determined through score study, gestures (kinesthetic metaphors) must follow suit. When discussing the use of metaphors in understanding and conducting a score, the potential for misunderstanding is enormous. According to Ramona Wis:

“When we link the physical and abstract domains, we typically describe this connection verbally, using metaphorical language. But what is important to note is that verbal metaphor is essentially the after-the-fact reporting of that which has been experienced physically. The mind, at a pre-reflective level, searches for ways to connect the new with the old, the unknown with the known, and finds similarities rooted in physical experience.”⁴⁷

Although they are related concepts, verbal metaphor and kinesthetic metaphor are not simply two different means of describing the same object or event. Most of our schooling teaches us to deal with rational information through verbal or numerical channels, but most of the information processed by the brain at any given moment is not linguistically mediated. In other words, we “know” a great deal more than we can say. For example, we know exactly what water tastes like, even though we have no words to describe it.

It is tempting for conductors to rely exclusively on verbal metaphors in rehearsal because of the emphasis on language in most traditional teaching and communication processes. But music is not a language and words, no matter how vivid, cannot express musical thought.

“One [experiential teaching] strategy is the use of metaphors to focus the emotional qualities of the performance by creating an emotional state within the performer (Davidson & Scripp, 1992)... Although metaphors can be effective (Kohut, 1985), there are some problems with them. One problem is that metaphors depend on the performer’s personal experience with words and images. Since different performers have different experiences, metaphors are often ambiguous.”⁴⁸

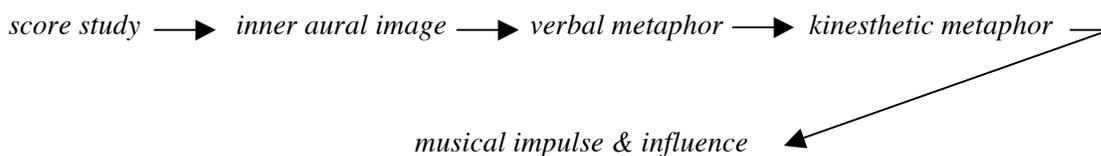
Also, verbal metaphors represent an extra step in a musician’s mental processing – a step that often proves inaccurate or inefficient. For example, a simile such as “this passage should sound like elephants on roller skates” might influence an ensemble to move closer to the stylistic goal, but to do so it requires the players to translate the words into an image, the image into a physical sensation, and (finally) the physical sensation into a musical impulse. Since the performance of music is fundamentally an athletic endeavor, the path from a physical impulse to a musical impulse is naturally shorter than the path from a verbal impulse to a musical one.

In the early stages of learning to conduct, verbal metaphors can be a helpful device to bridge the gap between the conductor’s inner aural image of the score and the gestures he will employ to influence the ensemble. For example, the beginning of Weber’s Overture to “Oberon” may suggest an atmosphere (metaphorical context) that is calm, weightless and uncluttered, which in turn brings to mind a metaphor of a leaf floating in

⁴⁷ Wis, Ramona. “Physical Metaphor in the Choral Rehearsal: A Gesture-Based Approach to Developing Vocal Skill and Musical Understanding.” Choral Journal. Volume 40/Number 3. October 1999. p. 26.

the air on a warm afternoon, which in turn suggests a particular spectrum of gestures (fluid, graceful, on a higher focal plane, with little resistance...), which ultimately influences the horn soloist to focus and literally warm up the air stream while moving through the rhythms thoughtfully and organically (as opposed to mechanically), resulting in a sound that is “at home” in an environment that is calm, weightless and uncluttered.

Early:



This is a fairly cumbersome process that will become more streamlined as the conductor gains experience. Gradually, as the conductor’s physical coordination and imagination improves, the need for verbal metaphors in this process will lessen. At this stage, the conductor’s mind will begin to move automatically from his inner aural image to various categories of physical gestures without the need for a verbal prompt.

Intermediate:



Finally, even the conscious employment of kinesthetic metaphors will dissipate and the conductor’s body will simply respond to his aural imagination. Physical gestures become a natural extension of musical thought. As Isaac Stern said:

“You don’t think about the music; you simply become part of it.”

⁴⁸ Juslin, Patrik and Roland Persson. “Emotional Communication.” In The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning. ed. R. Parncutt and G. McPherson. Oxford: University Press, 2002. pp. 228-229.

Advanced:

score study → *inner aural image* → *musical impulse & influence*

Citing the work of George Lakoff and Mark Johnson (Metaphors We Live By, Chicago: University of Chicago Press, 1980), Wis pinpoints the critical importance of the physical, rather than the intellectual, in the human experience:

“Lakoff and Johnson go on to say that all concepts, no matter how abstract, are rooted in physical experience. The fact that we all operate in a physical body within a physical world is critical to understanding how the human mind works.”⁴⁹

“First, based on the work of Lakoff and Johnson, it is clear that whatever is recalled in the imagination will be dependent upon physical experience – there is no purely conceptual experience.”⁵⁰

Although the perspective she offers is valuable for the purposes of this thesis, Wis promotes the use of physical metaphors as teaching and classroom management tools. As such, the metaphors are isolated – in essence, they are “snapshots” of particular sounds. In this regard, her work sharply diverges from the concept of kinesthetic metaphor that is central to this thesis and fundamental to any conductor’s work. Conducting is not a string of individual metaphors running the length of a composition like a slide show.

There have been other notable investigations into the importance of physical metaphor in musical contexts. Thiiring Bräm and Penny Boyes Braem also cite the work of Lakoff and Johnson in their comparison of conducting gestures and hand shapes used in sign languages for the deaf. Bräm and Braem’s work approaches the concept of kinesthetic metaphor more closely than does Wis’ because of their emphasis on context.

⁴⁹ Wis, p. 26.

“In other words, the handshapes themselves are not tied to any one meaning, but are polysemous, capable of conveying several meanings, depending on the context of the other parameters.”⁵¹

The parameters to which they refer were determined by linguists studying the visual-corporal sign languages used by deaf persons. They fall into two basic categories: manual (location, shape and orientation, and movement), and nonmanual (facial expression, position and movement of the head and torso, direction of eye gaze). These parameters function similarly to the trace forms, motion factors and effort elements categorized by Rudolf Laban (discussed in section ten). In either case, it is the specific combination of various elements that endows a gesture with its unique character or meaning.

Conducting gestures are a complex combination of myriad physical parameters that function metaphorically.

“...most conducting gestures are based on metaphoric/metonymic connections between aspects of the music and physical experiences which human beings have with objects in everyday life.”⁵²

While Bräm and Braem emphasize the importance of metaphor and context in conducting they, like Wis, veer off course because they adhere to the commonly held belief that conducting is communication.

“[The orchestra] understands the gestural message and translates the underlying metaphors into sounds for the audience, a process of translating a theater for the eye into one for the ear.”⁵³

⁵⁰ Wis, p. 27.

⁵¹ Bräm, Thüring and Penny Boyes Braem. “A Pilot Study of the Expressive Gestures Used by Classical Orchestra Conductors.” *Journal of the Conductors Guild*. Volume 22/Numbers 1 & 2. Winter/Spring – Summer/Fall 2001. p. 16.

“Unlike sign language, the conducting gestures are polysemous entities whose exact meaning is only clear when set in a specific context... However, the special derived meaning of these gestures is only interpretable to persons who know the second target domain of these gestural metaphors, the playing of classical orchestral music.”⁵⁴

The context to which Bräm and Braem refer is the playing of classical orchestral music.

Within this context, conducting gestures have meaning that is communicated to and translated by the players into sound. These assertions are antithetical to the definition of conducting and the concept of metaphorical contexts that are central to this thesis.

Conducting gestures do not (cannot) communicate meaning; they influence sound. They are impulses that spring from the interaction of the conductor’s inner aural image of the score with the physical, intellectual, emotional and musical presence of the ensemble.

Furthermore, gestures are influential precisely because they resonate within the totality of the human experience, not merely among those “in the know.” They are not emblems, they are manifestations of physical realities.

Given the fact that we are all subject to the laws of nature, the only context that is essential to establish when working with kinesthetic metaphors comes from the score – it is the specific environment created by the composer and discovered through study.

Once the context or environment is clearly understood, the conductor is free to move intuitively within it according to the ever-shifting variables inherent to human performance.

⁵² Bräm and Braem, p. 26.

⁵³ Bräm and Braem, p. 17.

⁵⁴ Bräm and Braem, p. 27.

“...they should not forget that after the intellect has finished work, the instinct must take over. In performance the analysis should be forgotten and the pieces played as if they were at that moment being composed.”⁵⁵

More Problems with Pedagogy

Downs discusses metaphor in relation to acting, but his advice is apt for all artists:

“An actor creating a character who waits in the darkness like a coiled cobra, must avoid the temptation of an intellectual understanding of the metaphor: ‘Oh yes, coiled like a cobra; I understand that.’ General intellectual comprehension often leads to generalized emotional responses.”⁵⁶

Downs encourages actors to avoid making an intellectual decision about how your body would or should respond, or imposing a psychological reason as to why it would or should.

“If you give power to your analytical intellect, it will only force your body to do something pre-conceived, eliminating any chance of honest discovery in terms of muscles and sense.”⁵⁷

In conducting classes we frequently teach gestures based on analytical, generalized, preconceived concepts, for example "loud dynamic = large gestures." However, if we are dealing strictly with volume, I myself have experienced hearing a single small motorcycle that was louder than a multi-ton cargo ship. Metaphors based on generalized concepts will influence ensembles generally, or not at all. To provide a linguistic equivalent, imagine the impact of the following statement: "The sound should be as loud as something this big." As idiotic as that sentence is, many conductors operate at precisely that level and teach others to do the same. Large can be quiet (like a hot air

⁵⁵ Stein, Erwin. Form and Performance. New York: Alfred A. Knopf, 1962. p. 8.

⁵⁶ Downs, p. 150.

⁵⁷ Downs, p. 17.

balloon) just as easily as small can be loud (like a mosquito when you are trying to fall asleep). The conductor's task is to observe reality, and put into long-term memory storage the images and sensations of actual objects and experiences upon which later metaphors will be built.

Conducting technique is not a pre-established set of gestures and rules. Conducting technique is predicated upon observation and complex transfer. The characteristics of the score call to mind certain experiences or observations, which in turn cause the conductor's body to operate as if it were in a particular context, which in turn influences the sound production of the ensemble, which causes new experiences and observations to come to the conductor's mind, etc. The question conductors must ask is: what does this score require, and how can I use my understanding of the world to operate on those terms?

Downs attributes the following quotation to his teacher, Alvina Krause:

“Before any understanding of acting, or any art, can exist, teachers and students must learn to use eyes, ears, all senses, to perceive, to understand in terms of immediate surroundings, to become aware of human beings...”⁵⁸

Later, he writes:

“The more actual reality you perceive and store up, the more of it you can bring to your exploration through improvisation. To be of any value, improvisational work must be based on reality; otherwise, it becomes an exercise in how clever the individual actors can be. ...you must root your creativity in the fundamental truths of human behavior.”⁵⁹

Too many conducting methods culminate in clever conducting rather than influential conducting. Some are as extreme as to advocate the conveyance of independent streams

⁵⁸ Downs, p. 7.

of information from different parts of the body simultaneously (e.g. dynamics portrayed by the face while each hand/arm conducts a different metrical pattern). Human interaction is complex, but it is organically so. To contrive a multi-appendage, multi-stream message is to lose all credibility by bypassing what is natural, and therefore coherent, in favor of what is technically possible but unnatural. Such an unnatural process will require an equally unnatural and complex decoding process on the part of the players which defeats the purpose of striving to employ such gestures in the first place. Furthermore, the coordination necessary to execute these gestures requires calculated planning that precludes spontaneity. Without the possibility of improvisatory action, a conductor cannot respond to the ensemble and his influence is severely curtailed.

“Conducting, as Richard Strauss pointed out, is an act that forces the artist into finding some equilibrium between a sense of faithfulness to the composer’s text and inspired improvisation.”⁶⁰

It is essential for conductors to realize that a vast amount of information is naturally exchanged and processed in any human interaction with virtually no conscious effort expended.

T.G.R. Bower: “What the experiments seem to show is that evolution has tuned the human perceptual system to register not the low-grade information in momentary retinal images, but rather the high-fidelity information in sequences of images or in simultaneous complexes of images.”⁶¹

Beadle refers to certain universal “laws” of perception, such as the common tendency to group things that are similar, and to make judgements of reality on

⁵⁹ Downs, p. 68.

⁶⁰ Botstein, Leon. “On Conducting.” The Musical Quarterly, Volume 81/Number 1, Spring 1997. p. 9.

the basis of the perceived object's relationship with other things in its "field". We have a tendency to fill in gaps, and whenever we see an object that is partially hidden by another object we perceive it as a solid whole.⁶² Along these same lines, the brain seems to use multiple strategies to decode information. For example, when reading the following sentence the brain will refer to word shape, word sound, and word function in addition to letter recognition to determine meaning:

It deosnt mtttaer in waht oredr the ltteers in soem wrods are; a snentece can be a total mses and you can sitll raed it wouthit porbelm.

Allen T. Dittman, recognized for his work in movement communication, points out that "people communicate through words, tone of voice, facial expressions, body movements, proxemic behavior, and by psychophysiological responses such as blushing and speed or depth of breathing."⁶³

M.K. Adler states: "We do not hear with our ears only; we do not see with our eyes only: both these senses go together and form a whole which makes human communication complete... The whole of the human body is a means by which to express what happens in a man's inner being. The way he walks, he stands or slouches, how his eye shines or is dull, every facial expression, every sound of his throat, every movement of his mouth-everything in and on him is a continuous, ever-changing projection of his inner feelings in respect to the outside world."⁶⁴

⁶¹ Beadle. p. 14.

⁶² Ibid.

⁶³ Siegman, Aaron and Stanley Feldstein, eds. Nonverbal Behavior and Communication. (Hillsdale, NJ: Lawrence Erlbaum Assoc, 1987). p. 49.

⁶⁴ Adler, M.K. Non-Vocal Language and Language Substitutes: A Sociolinguistic Study. (Hamburg: Buske, 1979).

Downs writes: “Our ears tell us where we are in the world... Hearing is largely responsible for our orientation in space.”⁶⁵ Our sense of hearing creates a 360-degree, three-dimensional perception of our environment. The ears also house the mechanisms that regulate our sense of balance. Apropos to acting (and conducting) Downs states: “We hear not only a particular sound but whatever experiences we bring to that sound. These are not simply mental images or abstract memories, but actual re-lived experiences, however instantaneous that re-living is... Learn to hear with your whole body, not just your ears.”⁶⁶

Regarding our sense of sight, conductor Rodney Eichenberger states: “I am convinced that the more one is drawn into the visual aspects of another person’s movement, the more one will imitate that action... I remember my first experience with a Cinerama movie that had a scene involving a roller coaster ride. As the roller coaster went around a corner, the entire audience, sitting in absolutely stationary chairs, went around the corner in their chairs. They moved backwards and forwards, then up and down. I was intrigued with the degree of empathy that the audience had simply because of the visual stimuli around them.”⁶⁷

“Visual cliff” experiments have shown that if a 6-month old baby perceives a drop, he cannot make himself go out beyond the edge of the “cliff”, even if there is support (glass) there. The perception of distance, and an innate understanding of the laws of gravity, outweigh other sensory input, even the tactile evidence of support.

⁶⁵ Downs, p. 39.

⁶⁶ Downs, pp. 40-41.

E. Roy John at New York Medical College's Brain Research Laboratories: "...the impressive speed and efficiency of observational learning, contrasted with the slowness and need for repetition which often characterize conventional conditioning, suggest that the latter may well utilize relatively unnatural mechanisms. Observational learning may be the primary method of acquiring language, ideas, and social habits in man..."⁶⁸

When confronted with the tremendous amount of research devoted to human interaction and perception, it becomes clear that the conductor's task is not to self-consciously enact or portray specific images and emotions through gestures, as many conducting methods would have us believe. The conductor's task is to respond to the score and the ensemble on a genuine, human level and let nature take its course. Our bodies are designed to process and convey far more information than we could ever hope to handle on a conscious level. The great conductors have known and practiced this intuitively for generations.

Charles Gounod: "It is an error to think that the conductor can make himself entirely understood by means of the baton or the bow which he holds in his hand. His whole demeanor should instruct and animate those who obey him. His attitude, his physiognomy, his glance..."⁶⁹

Georg Solti: "Walter had a strange, not very clear beat, but he was proof that the beat is not an essential part of a conductor. You are conducting with your eyes and with your soul...If your imagination is clear, then you will communicate with the orchestra even if your beat and technique are not first-rate..."⁷⁰

If you follow Solti's line of reasoning, you will end up with a principle shared by so many of his players in the Chicago Symphony, most notably tubist Arnold Jacobs:

⁶⁷ McClung, Alan. "The Relationship between Nonverbal Communication and Conducting: An Interview with Rodney Eichenberger." *Choral Journal*. Volume 36/Number 10. May 1996. p. 17-24.

⁶⁸ Beadle, p. 10.

⁶⁹ Whitwell, David. *The Art of Musical Conducting*. Northridge, CA: Winds, 1998. p. 177.

⁷⁰ Ibid.

“One thing is that we never know what we are doing. Now, we have to know what we are doing as musicians, but we will never know what we are doing in the sense of physical structures at work. We can only get signals from a small number of muscles that are functioning, missing all sorts of signals from other muscles that we cannot know about; we just don’t have the appropriate receptors. We don’t have a nerve in many of the muscles that are going to feed to the thinking part of the brain; it will feed to the brain but to other levels. The part we are conscious with will not be able to perceive in a physical sense what we are doing... I think this is so important that people realize that in this art form, we do not have to know what we are doing. We have to know what our message is going to be, we have to have fuel (air), we have to use it, but we don’t play by air... we play by song. In other words, we go by the complete product, the message.”⁷¹

But Jacobs is referring to a single individual who is actually producing sound, rather than a conductor who can only influence it. To transfer the concept from one sphere to the other, the conductor’s message is how he intends to influence the sound of the ensemble, which should be based on his understanding of the score as well as his perceptions of the ensemble’s performance at any given moment. To deliver this message, the conductor creates and operates within a metaphorical context that is also based on his study of the score. This context is established only as a means of influence, not as an end in itself. In this sense, it is more like the fuel to which Jacobs refers; it is only a tool and it should operate as unconsciously (naturally) as possible. If the metaphor becomes the message, then the conductor’s influence will cease. His gestures will become more akin to dance or mime. For example, he will actually be portraying

someone lifting a heavy object rather than simply using his body in a manner analogous to heavy lifting in order to influence the sound production of the ensemble. Portrayal is a dead end; it is a demonstration rather than a cause, or in Jacobs' terms it is "playing by air."

Age and Experience

For a metaphorical context to be effective as a foundation for influential behavior, it has to be familiar. Although musicians as young as those categorized in Piaget's third developmental stage (7-11 years old) have the rudimentary cognitive tools for metaphorical thinking, they do not have the same life experiences to draw upon as adults. As we learned from Downs, our imaginations are inextricably linked to what we know and have experienced. For example, if you have never suffered the death of a loved one, gestures presented from within a context of mourning will be unintelligible to you, or will be misconstrued as the observer searches for a metaphor from his own life that is an approximate match (depression? boredom? illness?).

There are a few facial expressions that are universally recognized, but these enable the creation of only the most generalized metaphors.

Numerous studies have amassed conclusive evidence that there are some emotions for which the facial expression is universal. Charles Darwin was the first to make such a claim. Since his initial assertion, six basic "universals" have been identified: happiness, sadness, anger, disgust, surprise, and fear. A seventh, contempt, has been added more recently.

⁷¹ Quoted from Arnold Jacobs Masterclass Lecture, 1973 International Tuba and Euphonium Conference.

As we mature, our ability to appreciate subtlety increases as a result of accumulated life experience. We begin with the recognition of basic emotions (e.g. sadness) and progress to the recognition of degrees of emotion (e.g. depression v. grief). This phenomenon has been studied in musical terms in several research projects.

Burnsed (2001) conducted a series of investigations into the effects of expressive variation in dynamics on the musical preferences of middle school and elementary school students (Burnsed & Sochinski, 1995; Burnsed, 1998). The earlier two studies showed that a significant number of students preferred the expressive versions of the sample folk songs in which the dynamic variations were very explicit. The 2001 study was devised to investigate student preference if the dynamics were more subtle/realistic and representative of musical performance. The results of the latter study showed that elementary students did not perceive a difference between the subtle expressive versions and the non-expressive versions. Burnsed suggests that the elementary students did not perceive the subtle nuance, lacked the ability to conserve and compare the song versions, or did not have a consistent preference for either version of the ten folk songs. However, dynamics is one of the first concepts formed and perceived by young children (Zimmerman, 1971), though according to Haack (1992) there is ample evidence to suggest an age factor in the development of listening abilities. Research also shows that age plays a role in conservation in music (Hargreaves & Zimmerman, 1992). In his third study, Burnsed found that older listeners gave much more reliable results and clearly preferred the expressive versions. Burnsed: "...expressive performance must be very explicit to affect musical preferences in the younger grades, and extensive music study may be necessary before the more subtle nuances of expressive performance are perceived and

preferred... The results of this study imply that what's noticeable may be different for listeners of different ages and levels of musical experience."⁷²

It is likely that Burnsed's conclusions would apply to what is noticeable for viewers as well as listeners. If this is true, conductors of young musicians must acquire the ability to see themselves, and the contexts they create, as a child would see.

Pablo Picasso: "When I was a kid I drew like Michaelangelo. It took me years to learn to draw like a kid."

Howard Ikemoto: "When my daughter was about seven years old, she asked me one day what I did at work. I told her I worked at the college – that my job was to teach people how to draw. She stared back at me, incredulous, and said, 'You mean they forget?'"

Kids have fewer life experiences to draw upon and their mental imagery tends to be simpler but very vivid. In all but extraordinary cases their technical musical skills are equally simple. Adults have many experiences to draw upon so their mental imagery tends to be more subtle and multi-layered. If in some bizarre circumstance a conductor were to create a metaphorical context that involved a monster for example, he must be prepared to influence the ensemble on their terms (kid or adult). If kids comprise the ensemble, the images evoked by the metaphorical gestures will be of the vivid variety and the conductor must be equipped to redraw those pictures rather than his own (e.g. Gorgonzola the Monster is a scary, huge, green, slimy, bumpy dinosaur-like creature with fangs... wearing a tiny, pink hat). If adults comprise the ensemble, the images evoked will be of the more complex variety, even if the players are not technically skillful. In this case, the conductor's own imagery may be closer to that of the players and there is an opportunity for more subtle and specific shading and shaping of the sound

⁷² Vernon Burnsed. "Differences in Preference for Subtle Dynamic Nuance between Conductors, Middle School Music Students, and Elementary School Students." Journal of Research in Music Education. Volume 49/Number 1. Spring 2001. p. 49-56

(Gorgonzola the Monster is a composite: part King Kong, part Godzilla, part of the giant squid from “20,000 Leagues Under The Sea” with the voice of Roseanne... and a yen for saghanaki). The challenge for the conductor of less musically skillful adults is to help them learn how to control the sound. The better their control is, the more able they will be to respond to the subtlety of their mature mental imagery.

Given the differences in imagery between adults and children, many music educators have come to believe that a conductor’s physical technique must be different when working with children than adults. As a result, many directors of less experienced ensembles discount the importance of developing their non-verbal skills. This attitude is detrimental for both the conductors and their ensembles. We learn most effectively through observation and imitation. A conductor’s musicianship is expressed non-verbally. If musicianship is not apparent in the conductor’s actions, the ensemble will tacitly learn that the conductor is not a musician, or that the demonstration of musicianship is not of value. More importantly, if musicianship is not apparent, it cannot be imitated.

If Richard Stoltzman were to visit a school music classroom and play for the students, we would not expect him to simplify or alter his technique in any way. Exemplary clarinet playing is exemplary regardless of the setting. However, we would expect his choice of repertoire to be engaging and his method of interacting with the students to be age-appropriate. In other words, we would expect him to demonstrate his technical prowess and artistry within a context that is tailored to suit the people he is working with – no matter who those people might be.

The development of technique cannot be taken for granted. Returning to the concepts introduced by Bowman: education presupposes the internalization of various skills and

techniques. Without them, our ability to express our artistry and engage other artists (including beginners!) in meaningful collaboration will be limited.

IV

Performance

Myths and Realities

The first three chapters have deconstructed a significant portion of traditionally held beliefs, practices and pedagogical methods – in essence they have cleared away most of the debris that has been blocking the path – and suggested alternative definitions and concepts to serve as a newly paved road upon which 21st century conductors might travel. There remains one basic concept to explore in order to provide a clean, level surface upon which to build the practical method that supports the theory. It is simply this:

To conduct is to perform.

This assertion stems from the fact that the act of conducting is inextricably linked to the performance of an ensemble. As we have established, conducting can only occur in the presence of an ensemble that is producing, or is about to produce, sound.

Warren Benson: "There are no rehearsals, only performances."

The instant a musician produces sound he is performing - from the first note of his warm up to the last note of a concert, and at every moment of playing or singing in between. Music exists in the flow of time. It cannot be stored or held back until it is ready; it is either happening or it is not. As musicians, conductors are bound by this fact as surely as any vocalist or instrumentalist. Furthermore, following Benson's logic, to deny the

opportunity for performance in a rehearsal setting is to cause the rehearsal to be devoid of inspiration and expressive content (to be devoid of the process of complex transfer).

Since conductors are performing musicians, it would stand to reason that a conductor's preparation or practice would be analogous to that of any other performer – with one exception. Researchers estimate that by the age of twenty-one, the best student performers have accumulated around ten thousand hours of practice.⁷³ At the same age, most conductors have virtually none. There are two reasons for this: most musicians don't begin to conduct until they are in college, and there are several commonly held beliefs that tend to discourage or mislead the act of practicing as it relates to even experienced conductor's performance.

Myth: If you practice conducting it becomes “choreography,” therefore score study is the only preparation a conductor needs.

Practice is as essential for the conductor as for any performing musician. Imagine a trumpeter only studying his part and never trying to play it. As ridiculous as this model may seem, there are numerous conductors to whom the analogy applies. However, the concern regarding choreography is valid. No ensemble will produce exactly the same sounds every time they perform. If the conductor pre-plans gestures according to his ideal aural image (established through score study), he is useless if these choreographed gestures fail to elicit the desired sound from the players, or he becomes redundant once they do.

Choreography is akin to physical or visual composing. A conductor is a performer, not a composer, hence there is the essential need for a conductor to operate within an

improvisatory context. Contrary to the notion held by many non-musicians, improvisation is not simply making things up as you go. It is a complex process of choosing, organizing and developing ideas spontaneously. To be effective, a conductor must improvise gestures according to the needs of the moment, which are dictated by the sound of the ensemble.

Myth: If a conductor improvises, he is unprepared.

When Ella Fitzgerald sang “Little Jazz” was she unprepared? Clearly not. Through extensive and continuous preparation she had amassed a huge "vocabulary" of musical gestures, sound concepts, and techniques that were at her disposal at any given moment. Such preparation is requisite for spontaneity in any arena. Each of us prepares by finding as many "tools" as we can and loading up our kit. Then, when we get on the job and realize we need a hacksaw, rather than a screwdriver, we have one right there.

Merely amassing tools is not enough. Practice is essential. It will not matter how many "tools" each of us has in our kit if we do not know how to use them. As we acquire each new one we need to practice with it (would you trust a carpenter who had never swung a hammer before he showed up to remodel your kitchen?). Also, sometimes tools break or do not work as planned. This is where a thorough knowledge of the tool kit and the ability to use anything at any moment comes into play.

Myth: Improvising and conducting are things you "just do."

Among conductors, this belief might stem from the common practice of teacher training in which each newly minted educator is thrust on the job after only four to eight months

⁷³ Woody, Robert. “The Motivations of Exceptional Musicians.” Music Educators Journal. Volume

of class work in conducting, typically with little or no practice in front of an actual ensemble. Further exacerbating this particular myth is the fact that great conducting is a natural and seemingly effortless activity, like walking. In truth, though it is natural, the act of conducting is incredibly complex (like walking). Unlike walking however, the effortless nature of conducting is typically ascribed to talent. Although talent may make the difference between merely functional and truly great conducting, all human beings are equipped with the essential skills to influence sound. Even in the utter absence of talent these skills can be improved through conscientious practice.

Myth: Conductors "practice" in rehearsal.

As was noted in chapter three, observational learning may be a person's primary method of learning ideas and habits. Therefore, it is inevitable that an ensemble will learn by the conductor's example. If all an ensemble sees is a conductor who is unprepared, they will soon learn that a lack of preparation is acceptable and/or they will learn to ignore the conductor altogether.

If the conductor is musically unprepared, he has not established a clear aural image of the piece in his mind. Without a target in sight, any chance of success is greatly diminished (like shooting arrows in the dark; the odds are not in your favor). Also, without a concept of the structure of the piece the conductor has no basis for navigation. Without knowing where you are going it is unlikely that you will get anywhere you care to be – and reading the map while driving is a bad idea. If the conductor is physically unprepared, his ability to effectively influence the sound of the ensemble in any direction is greatly diminished.

Myth: A musician's work in performance is different than his work in rehearsal.

There is nothing magical about a concert that enables players to suddenly respond to a conductor they have never had to respond to before, or that enables a conductor to influence the sound of an ensemble if he has never done it before. The performance mode must be a constant in rehearsals and concerts alike.

The myths that haunt conducting practice and pedagogy are far less daunting than this simple reality:

Before his professional life as a music educator begins, the typical instrumental music director has had ten to fourteen years of experience playing an instrument, and only four to eight months of experience in conducting classes. This means he is starting his conducting career with comparatively less technique when working with an ensemble than a typical 6th grade band member has playing his or her instrument.

The Fundamentals of Practice

As a performer, a conductor is in essence an instrumentalist. Like a horn player who uses an instrument to focus and amplify the musical impulses inspired by his mind and conveyed by his body, a conductor also interacts with sound through an intermediary (an ensemble). As a result, the practice of conducting is remarkably similar to the practice of any instrument.

The object of any practice session is to reinforce positive behavior through thoughtful repetition, diagnose and correct negative or inefficient behavior, build and maintain

endurance, flexibility and overall technique, and (most importantly) exercise musicianship. To achieve these goals one typically employs resources such as warm up routines, callisthenic exercises, technical studies and etudes, excerpts from ensemble literature, and solo repertoire. A savvy practicer cultivates the ability to select the appropriate resources to achieve constantly evolving musical goals. This ability is manifested in a spiraling pattern. For example, issues may arise when performing excerpts that inspire the practicer to loop back to an element of the warm up routine that might serve as corrective therapy. Once the issues are resolved, the practicer jumps back into the excerpts to apply the recently repaired or acquired skill, or moves to another zone where new issues will inspire the next loop back.

Bud Herseth : “You have to start with a very precise sense of how something should sound. Then, instinctively, you modify your lip and your breathing and the pressure of the horn to obtain that sound. A lot of potentially good horn players have been screwed up by teachers who insist that the only way to play is the way they play. That’s a crock. Each person has to do it his or her way. There’s no secret about how you learn to make a good sound. You work your butt off.”

There are three basic zones of activity that are defined largely by their function within the overall practice routine and the nature of the resources employed within them.

1. Warm ups and calisthenics

The purpose of the warm up is threefold: to increase blood flow to muscles (to literally “warm them up” in order to avoid injury), to focus the mind and body on the foundational elements of playing (especially tone), and to serve as a “check up” to make sure everything is in working order (diagnostic). A well-designed warm up routine can highlight areas to be worked on in technical studies and etudes. A good warm up will also

establish the aural template the player will use to evaluate his sound throughout the entire practice session.

There are several characteristics that distinguish warm up activities from other modes of work. Warm ups tend to focus on a micro level – individual elements, typically out of any context (long tones, scales, arpeggios, articulations, etc.). To address the literal function of warming up the body, exercises work from a center point and gradually progress to the extremes of range, volume, speed, coordination, etc. as blood flow increases. Warm ups are flexible and changeable according to the needs of the moment, including changes in repertoire, medium, venue, and one's mental or physical state.

2. Technical studies and etudes

Technical studies and etudes are by their very nature functional. They are designed to improve specific aspects of technique, typically through isolation, repetition, and variation. Such exercises are often designed to build endurance and facility, to test or display a player's technical mastery of the instrument, or to introduce and reinforce fundamental musical values. Etudes are used to acquire and perfect the techniques needed to perform the standard repertoire. They serve as an anthology of stylistic elements and performance practices.

The characteristics of technical studies and etudes are fairly broad. They tend to isolate or focus on one or two specific aspects of playing or elements of music at a time (articulation, range, dynamics, agility, etc.).

Many lack a significant degree of aesthetic depth simply because their purpose is functional. The most effective are designed for specific instruments – they are idiomatic (e.g. Maxime-Alphonse for horn, Rose for clarinet, Rochut for trombone, Andersen for flute, etc.). Well-crafted studies promote creative problem solving.

3. *Standard repertoire*

The standard repertoire for any instrument includes solo and chamber literature as well as excerpts from large ensemble works. Aside from the shortsighted goal of simply achieving technical mastery, the function of addressing this material in a practice session (or at any time) is to exercise musicianship.

Although the process of evaluation is continual in all three zones, activity in zone three is particularly well suited to expose issues of consistency because of the variety and complexity of the literature. If zones one and two are the fitness circuit and weight room, zone three is the playing field where it is all put to the test. Can success be recreated at will (especially in public)? Can obstacles be predicted and avoided? Can adjustments be made “on the fly” as conditions warrant?

Zone three is also the test-track for artistry. It is where technique is called upon to serve a higher purpose. It is where a player exercises possibilities by sensing and responding to the needs of the moment; where the multiple techniques and strategies acquired in zone two are spontaneously called upon to address the intentions of the composer.

Assessment and Diagnosis

“Physician, heal thyself.” (Luke 4:23)

To practice effectively, a musician must be able to self-diagnose as objectively as possible. This can be a challenge because the problem and the diagnosis must occur almost simultaneously; in essence, the brain has to be operating in two distinct modes at once. Therefore, all practice must be thoughtful. Most musicians have been taught that the brain retains information through repetition. While practice can make permanent, as the saying goes, researchers are shedding new light on the retentive capabilities of the brain.

Robert Duke, Marlene and Morton Meyerson Centennial Professor of Music and Human Learning at the University of Texas-Austin, states:

“The mind doesn’t work like a tape recorder... All memory is re-encoded when it’s stored in long term memory.”⁷⁴

The process of re-encoding, or creating an internal representation of new information, is known as consolidation. Following any activity, memory takes the independent parts of the skill just practiced and consolidates them into a single action (similar to the concept of chunking). The brain then uses these encoded entities as fodder for transfer, as described by Sousa.

⁷⁴ Duke, Robert. “How Brains Learn.” Lecture, *The University of Nebraska-Lincoln*. Lincoln, Nebraska. November 20, 2003.

The process of consolidation takes time, and researchers are beginning to understand how the brain avails itself of its time spent sleeping to learn through consolidation. This is one of the key reasons “cramming” for a test has been proven to be fruitless. The brain needs time to consolidate each new skill before moving on to another. Whatever you study last in a given session will actually interfere with whatever you worked on before it. Therefore, Duke contends the most effective sequence for practicing is:

- 1. Warm up*
- 2. Review*
- 3. Rest*
- 4. New material*
- 5. Sleep*

Duke later cited a 1994 study designed to discover the most effective strategy for practicing a given skill. The researchers used a basic pattern consistent with previous findings related to consolidation: practice skill (3 sessions), delay for consolidation, test for retention and transfer of skill. Intriguingly, the highest rate of error in the testing phase occurred among those who had practiced the skill exactly the same way in each practice session. The lowest error rate was among those who had employed different practice strategies each time. It would seem that rote repetition actually interferes with the process of consolidation. In order to optimize learning, one must employ a variety of practice strategies, although the specific nature of a practice session will depend largely on the complexity of the task and the sophistication of the learner.

The brain learns largely by observing composites. Consider the act of pointing at someone: how many muscle groups are involved? Through the process of consolidation, our brains compress the complex operation of numerous individual muscles and joints into one composite gesture we call “pointing.” Therefore, when practicing it is often advisable to work all layers of an activity (the composite) right from the start. This operation mimics how the brain and body naturally communicate with one another. Overwhelming as this may seem, it works well if you start on the vivid or exaggerated

end of the spectrum and work toward the subtle. Anyone who has ever tried to learn to play golf knows you start with a very simple concept: just hit the ball. If you worry about posture, hand position and the angle of the club face in the early stages of the game you will go insane while playing some very bad golf. Once the basic pattern of “hit the ball” is set down, then the process of refinement can begin.

Because the brain is equipped to imitate, it is absolutely necessary for us to have something “healthy” or correct with which to compare our own efforts when practicing. The body will do whatever the brain tells it to do. What we see is often literally what we “get,” so the need for continual positive visualization is great. Imitation is a powerful tool for the practicing conductor, but certain caveats are pertinent. First, the conductor should imitate the composite image of the model. For those who do not regularly engage in this style of practice, their impersonations tend to be approximate, focusing on one or two prominent characteristics much as a caricature artist would. The practitioner must become an expert observer and learn to translate from the model to himself using all available senses. Then the process of assessment will reveal those component features that do not come naturally to the imitator. These can be targeted for improvement using etudes and technical studies. Once internalized, images of many different models can be combined to form new composite images that are unique. The purpose of imitation is not to produce clones, but to provide opportunities for development into new areas through complex transfer.

The need for balanced assessment is also great. Ironically, we either tend to be too hard on ourselves, or completely oblivious to our own shortcomings. In practice one should take positive inventory as well as negative: what worked, what did not. Also, while immediate feedback is valuable, sometimes we can see more from a distance. Rather

than ripping something to shreds in the heat of the moment, it can be more productive to set it aside and come back to it later.

All assessment must stem from a clearly defined aural concept. Without a sense of how something should sound we have no way of determining success or failure. Continual mindful listening is vital. Many less experienced conductors compromise aural acuity in favor of physical coordination. Not only are both necessary, but it is ultimately the ears that will build physical technique. If a clarinetist hears a squeak it is a signal of a physical issue that needs to be addressed. No one questions his perception of the squeak as an undesirable sound because we all have a mental image of what a clarinet should sound like. The conductor with a clear mental image of what the score should sound like will constantly be receiving signals of issues that need to be addressed within the ensemble. These issues will, in turn, prompt the conductor to amend his technique to be able to influence the group toward the desired sound.

Alan Alda: “Listening is being able to be changed by the other person [ensemble].”

A conductor must cultivate the ability to hear the reality of the ensemble’s performance as well as his imagined ideal. He will then navigate the ensemble’s sound toward the ideal, always prepared to change his mind if reality is better than he imagined it could be.

“Like any successful conductor, Solti knew the music and had strong ideas about how it should be presented. What set him apart from many of his peers was his willingness to compromise with musicians who had their own ideas.”⁷⁵

Kathy Bates: “You really get your work from another actor... you’ve got to trust them to give it to you.”

An ensemble is constantly “giving” information to the conductor through their playing, their body language, their attitudes, and their responses. If they believe no one is listening, they will tend to allow their performance to drop to the lowest acceptable level of quality. Conductors must think in terms of sound, and need to practice to be mentally, physically, and musically free to acknowledge and respond to what they hear from the players. True listening reinforces the need for spontaneity. This mode of operation can only be achieved by whom Bowman, Abbs, et al. would describe as an educated person.

“Education, then, does not just equip people to execute specific tasks. It empowers them to transform tasks where necessary, to judge when or whether such interventions are appropriate, and even to question or reject things deemed incontrovertible in previous instruction. Clearly, we are talking now not so much about what a person knows or can do as the kind of person one has become as a result of those knowings and doings, the attitudes and dispositions that orient and motivate an individual.”⁷⁶

Common Obstacles

There are numerous books devoted to the psychological aspects of performance and leadership (The Inner Game series, the Zen in the Art of... series, Flow, A Soprano on Her Head, The Musician’s Soul, etc.). All offer very useful and insightful perspectives, but for the purpose of brevity we can distill here the three concepts that tend to serve as obstacles for conductors in particular.

1. *There is no getting around fight or flight.*

Tension breeds tension. The anticipation of a mistake will cause the mistake to happen because the body responds to the perceived impending disaster by

⁷⁵ Doherty, Jim. Smithsonian, Vol. 5, No. 6, September 1994.

⁷⁶ Bowman, Wayne. “Educating Musically.” In The New Handbook of Research on Music Teaching and Learning. Edited by Colwell, Richard and Carol Richardson. Oxford: Oxford University Press, 2002. p. 66.

preparing to fight or flee (both actions inspire tension). Therefore, conductors must cultivate the habit of fearlessness, and operate within a context free of inhibition.

Arnold Jacobs: “Start with bad sounds [*gestures*] and make them into good ones. Silence cannot improve.”

2. *Conducting is a public spectacle.*

“Preoccupation with the self consumes psychic energy because in everyday life we often feel threatened. Whenever we are threatened we need to bring the image we have of ourselves back into awareness, so we can find out whether or not the threat is serious, and how we should meet it... So loss of self-consciousness does not involve a loss of self, and certainly not a loss of consciousness, but rather, only a loss of consciousness of the self. What slips below the threshold of awareness is the concept of self, the information we use to represent to ourselves who we are. And being able to forget temporarily who we are seems to be very enjoyable. When not preoccupied with our selves, we actually have a chance to expand the concept of who we are. Loss of self-consciousness can lead to self-transcendence, to a feeling that the boundaries of our being have been pushed forward.”⁷⁷

3. *Use it or lose it.*

Because music exists in the flow of time, a conductor cannot save an idea, or reserve a gesture, testing it secretly and then revealing it only when ready. A conductor has to work in the moment.

Kathy Bates: “You have to just give it [*talent*] away. You can’t keep it for yourself or save it up. You make the decision to give up the next two hours to the character [*performance*].”

⁷⁷ Csikszentmihalyi, Mihaly. *Flow*. New York: Harper & Row, 1990. pp. 63-64.

“Nonetheless, the belief persists among some artists (and lots of ex-artists) that doing art means doing things flawlessly – ignoring the fact that this prerequisite would disqualify most existing works of art.”⁷⁸

These three mental stumbling blocks, when combined with pedagogical practices that isolate actions by focusing on so-called “emblematic” gestures, can be debilitating even to talented individuals. For example, consider the implications of teaching the traditional metric patterns to beginning conducting students. Rather than comprising the foundation of conducting training as they do now, they should be introduced only after there is an understanding of what causes any gesture to be influential. If patterns are introduced first, any subsequent mental transfer will be shut down. The patterns will simply be memorized and catalogued by the brain as discreet objects (like a list of terms) rather than being entered into the conductor’s active vocabulary of gestures. Thus isolated, the patterns will not be available as fodder for improvisation.

Mike Meyers: "Improvisation is the process of not getting in your own way."

If transfer is the “So what?” phase of learning, conducting teachers need to have an answer to that question before they begin to present any concepts or skills. For example, knowing that the landmark beats in metric patterns are designed to take advantage of particular physiological characteristics (how our joints and muscles work together with greatest strength and range of motion) will help connect the patterns to the huge store of intuition and experience we have all accumulated in life. Once linked in this way, the patterns become transferable – i.e. useful in many different contexts and in many different combinations with other skills and concepts. Once transferable, they can be practiced in an almost endless variety of ways.

⁷⁸ Bayles, David and Ted Orland. *Art and Fear: Observations on the Perils (and Rewards) of Artmaking*. Santa Barbara: Capra Press, 1993. p. 30.

Without a sense of why something functions as it does, conductors are particularly vulnerable to tension, uncertainty, and self-consciousness. If there is a correct way to execute a metric pattern, for example, there must be an incorrect way. The possibility of failure is built into the process from the beginning, and the resulting self-criticism can be devastating. It causes conductors to get in their own way as they focus on being “correct” rather than on influencing the sound.

On the other hand, if there is a natural way to convey meter, the conductor’s mind can operate on the podium as it does unconsciously in every other phase of daily living. To assess and modify what is unnatural actually positively reinforces our sense of self. To restate a quotation presented earlier:

“The self-image is the root system from which our overt communication behavior grows. Our overt communication behavior is an extension of the accumulated experiences that have made up our understanding of self. In short, what you are, or think you are, organizes what you say and do.”⁷⁹

If we are sure of who we are, it becomes easier to develop the essential filtering mechanism upon which much of a conductor’s self-diagnosis is based. Because he works with an instrument that is sentient, the conductor needs to be able to differentiate between what he caused to happen (the scope of his influence) and what others have caused. Is the conductor’s technique at fault, or the ensemble’s? If it is the latter, then the conductor must have a means of adjusting his instrument to correct it. If it is the former, then judicious practice is in order. Most conductors do not have the benefit of an instructor to identify issues and prescribe solutions. The goal of any musician must be to develop a practice regimen that is self-driven.

⁷⁹ Knapp and Hall, p. 113.

Fundamental Principles

In practice, there are certain concepts that serve as the foundation for virtually all activity, no matter in what zone the practitioner is operating. The first is the broadest:

The fundamental principles of physics and physiology are immutable.

Our bodies are designed to function in specific ways and conductors must be on the alert for symptoms that signal inefficient or improper operation. Muscle tension and pain are two of the most obvious, and repetitive stress injuries can result if they are ignored. Conducting should not hurt – ever. There are numerous methods designed to promote an awareness of how the body is naturally designed to move. Yoga, Tai Chi, Alexander Technique, Pilates, and numerous other forms of dance and martial arts can be an ideal vehicle to help conductors build strength, flexibility and endurance while establishing a healthy foundation for subsequent self-diagnosis of physical issues on the podium.

Aside from their debilitating effects to the conductor personally, symptoms of physiological misuse are also readily apparent to the ensemble. Tension breeds tension not only in the conductor, but between the conductor and the players often on a non-conscious level. As discussed earlier, the ensemble will tend to imitate what they see. This brings us to the second fundamental concept:

Virtually the only way for a conductor to influence the sound produced by an ensemble is for him to influence the flow of air.

Airflow effects tone, timing, pitch, color, blend, articulation, phrasing... virtually every aspect of musical performance and thinking. The conductor should be continually tuned

to the breathing of the players and to his own breathing. His gestures must reflect the way the air stream needs to move in order to produce the sound he imagines.

Isaac Stern: "The natural laws of music are synonymous with the way we breathe and live."

Excess tension in the conductor will inspire excess tension in the players, which will ultimately inhibit flow. Airflow requires a body that is flexible. Tension is a reduction of range and ease of motion and a straining of the muscles. Tension should not be confused with resistance. This leads us to the third fundamental concept:

Gravity is a conductor's best friend.

To distinguish between tension and resistance a conductor must be continually aware of how his body is influenced by gravity. If his gestures are working against it - even something as simple as raising an arm - then a feeling of resistance is the inevitable result as his muscles pull against the force of gravity. Resistance is flexible; tension is "locked."

The degree of resistance in an action might be negligible, but awareness of it is essential. If you raise your arm once your brain will not register resistance, but raise it twenty or thirty times and the pull of gravity will become apparent. If you raise your arm while holding a ten-pound weight the feeling of resistance will be unmistakable. The object is for the conductor to recognize and recreate the degree of resistance associated with certain contexts (e.g. raising just an arm v. raising a ten-pound weight). He must cultivate the ability to adjust the degree of resistance he is employing at any given moment using the principal of isometrics.

The muscles of the human body are designed to balance one another: as one contracts another stretches. This combined effort is what allows us to move. Isometric exercise exploits this physiological feature. Muscles are toned by leveraging them against one another rather than against gravity (as in weight lifting, mentioned above). Within the context of conducting, isometrics are used to cause the muscles to display varying degrees of resistance. This returns our discussion to the concept of kinesthetic metaphor. The ability to influence airflow by purposefully adjusting the degree of resistance in gestures is the foundation upon which kinesthetic metaphors are built.

To hone this ability, a conductor should engage in activities that will allow him to experience varying degrees of resistance (swimming, weight training, archery, gymnastics, dancing, skiing, raking leaves, walking on the beach...). Then, once these experiences are "loaded" into working memory, the conductor should practice recreating them in a neutral context with specific attention on the resistance, range and rate of motion demonstrated by the appropriate muscle groups. In the mode of direct translation just described, the conductor is working much as a mime would but without exaggeration. Once a composite action (e.g. raking leaves) can be successfully re-enacted in a different setting (e.g. the living room) the elements of that action (e.g. the torso twist) can be isolated and employed in many different contexts according to the needs of the moment.

This leads to the fourth fundamental concept of this section:

To acquire the ability to create and work within metaphorical contexts, it is essential to grant yourself complete creative license.

Many aspiring conductors would be very reluctant to actually do what was described in the previous paragraph. Their hesitation stems from a very common fear: the fear of looking silly. It is a rare person whose ego is not closely tied to how others perceive him. We go to great lengths to avoid the risk of appearing foolish. Consider the act of walking down the sidewalk and tripping on a slightly uneven seam. Consider the incredible array of thoughts and feelings that flash through your mind: I wonder if anyone saw me? Maybe I should pretend it didn't happen... maybe I should turn around and study the bump to show everybody there was a reason I tripped so they don't think I'm a klutz... maybe I should make a big deal of recovering to show I have a sense of humor.... maybe I should give someone a piece of my mind about sidewalk maintenance... and on and on. There are very few of us who could just keep walking without dealing, at least momentarily, with all this mental and emotional baggage.

In any artistic pursuit, risk is unavoidable. In the pursuit of excellence of any kind, failure is inevitable. Fortunately there are ways for us to come to terms with our fears. The first step is recognizing what your mind is doing. Cultivate the ability to intentionally put yourself at risk (artistically speaking) just to see how your mind and body react. Seek out uneven sidewalks to walk down and monitor yourself, without passing judgement. This process alone will cause most of the anxiety to dissipate because you are controlling the situation. Awkwardness is the result of tension and hesitation (fear). Ironically, if you are afraid to look awkward you will look awkward.

Faith Ringgold: "The great enemy of creativity is fear. When we're fearful, we freeze up - like a nine-year-old who won't draw pictures, for fear everybody will laugh. Creativity has a lot to do with a willingness to take risks."

Kathy Bates: "Don't waste time 'angsting', and don't be afraid to make a fool of yourself."

Often, fear is associated with the unknown. When you begin to recognize the symptoms of anxiety, they become familiar. Once familiar, they actually become allies - like a lighthouse beacon that signals your approach to shore. Celebrate success, and use failure to progress. There is something to be learned from everything, even if it is what not to do. Most importantly: know that you are not alone. The fundamental concepts addressed thus far apply to everyone.

Individuality

The next set of concepts relates to the individuality of each conductor. There are certain "tools" each of us has that are unique. The first is your own body. Although we are all anatomically similar (a human is a human), we each embody an unique combination of physical variables. Just as the shape and size of a wine glass profoundly effect the taste of the wine it contains, so too will the conductor's shape and size effect the sounds produced by an ensemble. The wine tastes different in various glasses because each glass orients the drinker's senses toward the wine in subtly different ways. The sound of an ensemble will be effected by the conductor's shape and size because these physical dimensions orient the players to the information in the score in subtly different ways.

A particularly petite person will address the first movement of Mahler's fifth symphony in a completely different manner than a very large person simply for reasons of leverage. The massive sounds call for kinesthetic metaphors of titanic proportions. In the simplest physical terms, a large person can handle large things differently than a small person can. In a metaphorical context such as this, one's actual ability to deal with massive objects is not the issue (such is the joy and freedom of working with metaphors). What is the issue is finding the strategy that is most consistent with one's natural attributes. An

appropriate strategy is one that enhances and/or focuses the metaphor, whereas a strategy that is inconsistent with one's body type will detract or distract from it.

Within the set of characteristics that make up each of us, certain features are fixed (e.g. height, or gender) and certain are adaptable (e.g. hairstyle, or level of fitness). The unchangeable characteristics provide a base-line context within which the changeable ones can be adjusted for optimal results. Entire industries and branches of science are devoted to this concept. Suffice to say that the ideal of a healthy mind in a healthy body will provide the greatest potential for fruitful artistic endeavor.

Regardless of one's achievement of any particular mental or physical state, it remains essential to cultivate an awareness of all the elements that make you who you are. In this light, one cannot discount the powerful influence of personality. As with our physical makeup, we are naturally endowed with certain features but many others are changeable as events warrant. Knowing your natural tendencies is helpful as a starting point. Bear in mind there is no need to change who you are, only to recognize what causes you to be who you are. For those who enjoy quizzes there are a number of Myers/Briggs type personality profiles available in print and on-line that can furnish a baseline.⁸⁰

Cultivating a keen awareness of your natural tendencies is vital. For example, it does not matter if a violinist is an introvert or an extrovert because the act of playing the violin is not effected by it. It does matter if a conductor has a certain psychological profile because it will strongly effect how he influences an ensemble. Rest assured, it does not matter what specific profile you have – any will do. The awareness is what counts because it determines strategy. It gives you insight into how you effect those around you, either intentionally or just by being you.

As you begin to identify the features of your personality, there are a number of exercises in which you might engage to increase your range of interpersonal options. The first is to exercise opposites. If your natural tendency is to keep to yourself, intentionally put yourself in situations where you will interact with groups of people. Notice how you feel and how you tend to change your behavior to adapt. Transfer this new knowledge to a different situation – “try on” your social self in a situation where you typically would not be this way (e.g. one-on-one). Next, exercise awareness. Notice how people react to you in various settings. Practice deliberately influencing how people respond to you. For example, if you are abrupt to a store clerk or waiter, how does this effect service? If you are very chatty with a stranger at a bus stop, what happens? Practice adjusting your tone of voice and body language and monitor the result. The object is to create a catalogue of sorts: if I do this, this tends to be the reaction. All of the information you gather in these situations will add to the body of knowledge and technique that will support improvisation on the podium and enable the greatest range of metaphorical possibilities.

Another mode of self-awareness is to determine what is distinctive about you – your trademarks as it were. Some are optional (e.g. hairstyle or preferred mode of dress); some are inevitable (e.g. the way you laugh). Strive to keep these features in check, and use them or refer to them judiciously. These “trademark” features run the risk of becoming mannerisms that in turn become distractions to an ensemble. While imitation is a valuable learning mechanism for musicians, those facets of a conductor’s performance that are easily imitated are the first to become meaningless and redundant.

⁸⁰ <http://www.personalitypage.com/home.html> or <http://haleonline.com/psychtest/> or <http://www.typefocus.com> or <http://www.keirsey.com/> are some typical examples.

One of the best tools to diagnose mannerisms is a video camera.⁸¹ Most of us are unaware of the majority of quirks and habitual gestures that we have accumulated. As a result, most of us are profoundly uncomfortable watching a tape of ourselves because the camera forces us to see ourselves as others see us.

This leads us to what is arguably the most important personal feature of all: ethics.

Kathy Bates: “If we’re going to be the kind of artists we hope to be, first we have to be the kind of human beings we need to be.”

James Jordan: “The task of an artist, whether you be a conductor, a recital singer, or a choir member at church, is to understand that your music is what you are, or who you know yourself to be... If you believe that music is self-expression, then you must have some self to express.”

Bud Herseth: “Some musicians of great stature become, in effect, the artistic consciences of their orchestras.”

Anne Mischakoff Heiles describing Isaac Stern: “...the artist’s responsibility to continue the search for beauty and humanity.”

Given statements such as these, a firm ethical grounding is clearly essential for any artist. However, this requirement must be redoubled when a performer's "instrument" is a group of human beings. To refer to an ensemble as the conductor's instrument is more than a poetic turn of phrase. Just as acoustic instruments focus and amplify the sound of human-induced vibrations (a membrane being struck, a pair of lips buzzing...), so an ensemble amplifies and reflects the work of the conductor. In either case, if the quality of the vibration is good, the sound is good; if the quality of the vibration is poor, the sound is poor. A well-built instrument can enhance a good sound, but it cannot make up for a poor vibration. However, unlike a drum or a horn, an ensemble is an opinionated amplifier with numerous autonomous personalities exuding a myriad of thoughts and

⁸¹ A particularly useful variation of this exercise is to watch yourself on tape, fast-forward with the sound

attitudes at any given moment. An ensemble can amplify the musical impulses of the conductor but it also has the ability to decide not to, or to change the "vibration" and deviate from the conductor's impulse according to the player's designs, or to exaggerate or minimize the vibration if provoked or inept.

The Instrument

Does the "instrument" make or break the conductor? Are great conductors simply the benefactors of great ensembles? Certainly not. Imagine a 5th grader playing Twinkle, Twinkle Little Star on a Stradivarius. Now imagine Jascha Heifetz playing the Tchaikovsky's Concerto Opus 35 on a Bundy. If the quality of the vibration is poor, even a Stradivarius will not sound good but if the vibration is superb, it will be apparent even in less than optimal conditions.

With this understanding, it would be profitable at this juncture to illustrate the qualities that are common among ensembles of any degree of quality. In an address given at the Midwest Clinic in 2000, Stephen Pratt skillfully summarized the groups of musicians that tend to comprise most conducting "instruments." He described four types of people, categorized by their outlook or attitude toward the group experience.

1. *Vacationers: those who are there to enjoy themselves, to get away from other more stressful or "serious" activities. This is often a large proportion of non-professional ensembles.*

2. *Prisoners: those who are there because they have to be (e.g. to fulfill a requirement, to satisfy their parents, or to pay the rent), or because they are linked to someone else (e.g. their girlfriend is in the band). This can be a sizeable proportion of the ensemble depending on the setting.*

3. *Experts (self-proclaimed): Often, this contingent delights in finding fault with others and challenging authority, openly or otherwise, to seem smarter, more skillful, or more in control. This is typically a small proportion of the ensemble.*

4. *Learners: those who are there and who are willing to invest in the process because of a connection to the endeavor itself. In the best of circumstances, this category represents a majority (typically silent).*

Each category includes various sub-categories, but the general profile fits virtually any group of people who are engaged in a common task (a team, a committee, a class, an orchestra, etc.). However, for our purposes the nature of a group is less important than the simple fact that this nature can be influenced and adjusted by a skillful leader. This concept will be explored in much greater detail in chapter five, but there is an exercise in awareness that is appropriate to the current section.

Rehearsal observation is an extremely valuable tool for any conductor. The opportunity to watch a colleague in action provides fodder for our own practice and improvisation. As conductors, most of us would naturally focus our attention on the conductor. But a period of time spent observing the players will prove equally instructive. The object is to spot the four “types” at work (see i-iv above). As you watch, try to get a sense of the ensemble’s state of mind and how it evolves throughout the rehearsal. Look for

resonance of the conductor's behavior in the demeanor of the ensemble. Is the conductor attentive to the shifting attitudes and energy of the players? Is the conductor influencing the sound, and if so is he influencing it positively or negatively? Intentionally or inadvertently? Are the players responsive to the conductor's efforts? Try to predict what the conductor will do next according to what you see and hear in the ensemble.

As your sense of the relationship between the conductor and the ensemble becomes more acute through such observations, the next step is to transfer this awareness to your own work. Initially, the awareness will be passive – simply an internal cataloguing of your actions and attitudes, and how the ensemble is responding to you. Gradually, through thoughtful practice, your ability to influence the ensemble – to “play” your instrument – will develop. In that light, chapter five will investigate the most important feature of any instrumentalist's technique: the embouchure, or where the player and the instrument connect.

V

The Connection

Opposing Forces

Following the analogy of the conductor as an instrumentalist, the physical aspects of a conductor's "embouchure" are manifested in the meeting of the conductor's body with the ensemble's sound. And, as was mentioned earlier, the essential factor is airflow. The interpersonal aspects are far more varied and subtle, and often harder to assess. The key to establishing a strong connection between conductor and ensemble is the realization that the physical and the interpersonal are inseparable in human interaction. To reprise a part of chapter two: The study of conducting is not the study of gestures; it is the study of human interaction. A conducting gesture is effective not because of what it represents, but because of what it does – how it influences the players as they produce sound.

Under normal circumstances, a conductor will never come into physical contact with a member of the ensemble. It is tempting to assert that the conductor and the ensemble are, therefore, not connected at all. Yet the conductor has the responsibility of influencing, non-verbally, how each person is engaged to the sound through the physical technique of playing an instrument. The astute reader will no doubt wonder how this is possible. The answer lies in the meeting of opposing forces, as with a pair of magnets. We know that opposite polarities attract (e.g. north to south), bringing the two magnets into physical contact with one another. We also know that matching polarities repel (e.g. north to north), causing the magnets to literally move away from one another. The force of each magnet physically influences the other magnet even though they never come into contact.

Given magnets of similar strength, if you were to strive to touch a matching pair together you would feel the repelling forces increase in strength as they came closer together. The “cushion” that develops between the magnets before they are forced to touch is exactly analogous to the invisible yet palpable connection between a conductor and an ensemble.

Here is where the principal distinction can be made between the player/instrument relationship and the conductor/ensemble relationship. In the former, the player controls the instrument. In the best of circumstances, the two would come together like the north to south magnetic pair, becoming one musical entity in a close physical bond. In the latter, a physical bond is impossible and because both sides of the equation are capable of independent thought and action, the two will work against one another. This relationship is not adversarial; it is symbiotic. One side cannot function without the cooperation of the other, just as a single magnet can do nothing in isolation. It is the relationship of chamber musicians to one another. Every performer has the ability and responsibility to influence and be influenced by the others.

It should be noted that a cushion should exist regardless of the maturity or skill of the musicians involved. The Jefferson Middle School Sixth Grade Band has a force of its own, just as the United States Marine Band does. What distinguishes the two is the strength of the force each transmits. Obviously, professional musicians will exude more firmly established, focused and artistic impulses than beginners. More mature players have also learned to link musically with the rest of the ensemble. In this case, the ensemble magnet isn't a single entity, but a combination of many individual magnets each representing a single player. As the individuals link together (imagine a north to south connection), their collective force becomes more intense. Professionals represent, therefore, a stronger magnet and for optimal performance they must be met by an equally strong “magnetic” field exuded by the conductor.

The stronger and more equal the pair, the more dense the intervening cushion will be, and the more subtle and richly textured the exchange of influence will be. If the pair is uneven (e.g. Georg Solti conducting a sixth grade band), the distance between the magnets is very great by default and the cushion is tenuous. In such a relationship, there is a good chance that the stronger magnet will push the weaker so far away that the lesser force can no longer be felt by the greater. Professional ensembles such as the Chicago Symphony Orchestra encounter such mismatches with guest conductors all too often. These expert players can recount numerous instances where the force of the ensemble completely overwhelmed and repelled the unfortunately lesser force emanating from the podium.

Both the conductor and the ensemble must be aware that a “cushion” of opposing forces should exist between and among them. We have already discovered that this awareness is rare. To reiterate: in musical terms, the typical ensemble member (elementary through college) is never called upon to engage in elaborative mental processing, nor are they taught how to do it. Rather, they are taught to be receivers of orders ("that should be louder... shorter... higher... " etc.) and they are conditioned to engage solely in rote mental processing. When asked to present an independently drawn point of view in an ensemble setting, most non-professional or pre-professional musicians literally do not know what to do.

To put this problem into the terms of our magnet metaphor, players who are taught to be receivers of orders expect to be lead. They act in a manner analogous to the north to south polarity where one magnet draws the other into contact. In such a partnership, one entity controls the other by determining the location and nature of the meeting. The quality of the bond is determined by the specific characteristics of the magnets. As

mentioned earlier in this section, this type of linkage is entirely appropriate between a player and his instrument (e.g. a clarinet, or a horn). However, since contact - and therefore control - can never actually occur between an ensemble and a conductor, an opposing polarity relationship is doomed. No matter how many orders are given and received, a musical connection can never occur in performance.

Contrarily, if the players are taught to shoulder the creative responsibility of elaborative processing, they would be conditioned to draw musical conclusions and present their part to the ensemble as a carefully considered aesthetic object, rather than a sterile decoding of notation. The players' ability to contribute musical content that has been gathered independently of the conductor constitutes the opposing force characteristic of a north to north (or south to south) magnetic pair. And as a result, a healthy, creatively charged connection between the artist on the podium and the artists in the ensemble is achievable.

Instrument Building

The challenge of cultivating the awareness described in the preceding paragraphs can be met if one adopts a particular, though uncommon philosophical stance throughout the rehearsal process. Consider the following scenario: you are a saxophonist and a pad has just fallen off of your instrument. Will you fix it? Will you glare at it or berate it until it fixes itself? Will you send it to the principal's office to be repaired? Will you play around the missing pad, skipping certain unplayable notes so as not to harm the saxophone's self esteem? Will you rely on peer pressure from the other instruments in your locker to correct the problem? Or are you even aware that the pad is missing?

As ridiculous as that litany may seem, the vast majority of conductors are represented somewhere on that list of options when it comes to interacting with their "instrument." The more skillful among them are likely to choose the first option: to simply fix the instrument and move on. After all, every professional instrumentalist spends a great deal of time, effort and money to be certain he is working with the best equipment possible and maintaining his instrument in optimal playing condition. But the maintenance of an ensemble is far more complicated.

The ensemble as an instrument needs component parts that are focused, motivated, inspired, personally and artistically unique yet compatible. It needs component parts that are technically and musically flexible, stylistically fluent, philosophically sympathetic, team players who are prepared to function in a variety of roles. The ensemble as an instrument needs parts that are themselves equipped with good and properly maintained equipment, music that is legible and available to practice, a working environment that is conducive to focused, quality work, and clear guidelines within which to operate (expectations and consequences).

Since few conductors are in a position to "shop" for a new instrument, and if the instrument they work with is not already endowed with the necessary features to accomplish the musical task at hand, it falls to the conductor to "build" or adapt an instrument that can get the job done. Unfortunately, many conductors tend to be short sighted and employ the quickest fix possible. Gradually, the ensemble learns to wait to be fixed, and the polarity of the connection between the conductor and the instrument shifts.

Many conductors, particularly those who work with school ensembles, actually cultivate a north to south connection, unaware of the inevitable stagnation that will result. The

ensemble's performances become exactly alike, year in and year out, regardless of personnel changes, variation in repertoire, or the personal evolution of the conductor. This stagnation results from the conductor employing exactly the same methods on the podium year in and year out, and it often falls into one of two categories (the labels are non-political):

- *Type I: adopts a conservative outlook that intentionally eliminates any possibility of spontaneity and inspiration and seeks to minimize risk at all costs. Also known as “drilled into the ground,” Type I ensembles are frequently rewarded because they can produce a consistent, clean, well-organized sound product to which most listeners can relate and by which many adjudicators are relieved and reassured. Type I conductors prefer an unchanging ensemble profile and when a new or unexpected element is introduced it is quickly assimilated (I know that your great great grandfather was Adolphe Sax, but you’ll play bassoon instead). Type I conductors are often considered disciplined and rigorous teachers by parents and administrators.*
- *Type II: adopts a liberal outlook that abandons any hope of cohesion in favor of enjoyment, individual expression, self esteem, and ease of administration. Also known as “loosely organized chaos,” Type II ensembles often consider a lack of trophies to be a badge of artistic honor. Like their counterparts, Type II conductors would also prefer an unchanging ensemble profile, but view variations as an inevitable condition of a flawed system (you can’t fight city hall, or if Suzy wants to play the ocarina who am I to say no?). Type II conductors are often considered either fun and creative or quaintly inept.*

The following aspect of the Type I ensemble is fairly obvious in their regimentation. But Type II ensembles also follow – even if their leader is the Pied Piper rather than General Patton. Obviously, neither stereotype is flattering. Fortunately, the underlying cause is easily identified.

Consider the following: if a euphonium player repairs a water key spring with a rubber band, or welds it shut, or just lets it dribble, the instrument will not be fundamentally effected. But if a conductor takes a tuner to each player and tells each one how to adjust as he stares at the needle, or takes and tunes each instrument himself, or just ignores poor intonation as a matter of course, his instrument - the ensemble - will be fundamentally and adversely affected. In this instance, what the conductor believes he is repairing (pitch) he is in fact making worse in the long run because the players are learning to abdicate responsibility for intonation decisions.

"Give a man a fish and he will eat for a day; teach a man to fish and he will eat for a lifetime." (proverb)

Now imagine if the saxophonist in our earlier example had the option of building an instrument that knew how to fix itself. This is clearly the stuff of fantasy, but a conductor who has adopted the philosophy of building his own instrument can opt to help the broken or flawed component learn how to fix itself. For example: if intonation is a problem, the conductor can choose to work with the ensemble on aural skills through singing, emphasizing pitch matching and tonal blend. He can teach the players to recognize pitch discrepancies for themselves, starting with guided work, then gradually working to independent exercises until playing in tune becomes both automatic and constant.

Many experienced educators will recognize the hallmarks of good teaching in the preceding description. However, there is a particular sequence of thought behind the build your instrument philosophy that distinguishes it from most school music curricula. The sequence is driven by continually evolving artistic goals and extends well beyond issues of technique.

An example of an instrument building sequence might be:

Preparation: Identify personal artistic goals – immediate, intermediate, and long term. We'll say that the immediate goal is to achieve in performance a sense of rubato. The intermediate goal is to establish, through score study, a coherent metaphorical context for a work in which a sense of rubato would be appropriate, and to consistently operate within that context. The long term goal is to efficiently establish contexts in more emotionally complex compositions and to be able to operate within them in a flexible, improvisatory manner.

Step 1: Cultivate an awareness of the character of the ensemble and assess the condition of the "instrument." For the sake of argument, let's say that the ensemble has the appropriate characteristics and abilities to convincingly perform Erickson's Air for Band. Let us also say that this work represents the upper limit of the ensemble's musical ability at this time.

Step 2: Establish a clear goal that is worthwhile for the ensemble to pursue, and consistent with the goals you have set for yourself. For example, to perform Grainger's Colonial Song.

Step 3: Measure the distance between present reality and future goal.

Approximately how much effort and time will it take to move from the Erickson to the Grainger? Most school band directors abandon hope at this point because they view time in isolated 10-month increments (i.e. if it can't be done between September and June, it can't be done at all). This outlook is another cause of the stagnation mentioned earlier. Instrument building calls for a conductor to understand his instrument as an entity through which components (students) will pass. If the Chicago Symphony returned to the starting gate each time they hired a new player, they would be playing Air for Band too. Admittedly, the players entering the CSO are far better musicians than high school freshmen, but the basic idea is the same: the instrument exists even as it continually evolves. Rather than starting at bedrock each year and taking the job as far as possible before tearing it down and starting over again, every new set of components actually continues where the previous set left off. The handoff is an imperfect process, often one step back for every two steps forward, but it can be done.

Step 4: Diagnose what the instrument needs in order to achieve the goal: in essence, a list of new components to install or adjustments to be made. Once again, conductors are often too easily discouraged at this stage because the goals they set are unrealistic. If your long-term goal is for your ensemble to sound like the CSO, you're in for a letdown unless you have the means to hire and retain the best professional players in the world. If you're the director of the PS 109 6th grade accordion ensemble, your goals must be appropriate in that context. Please note: these will not be the only artistic goals you set for yourself. The musical life of every member of the CSO extends far beyond the limits of Orchestra Hall. If your entire musical existence is within the boundaries of one

classroom, or one ensemble, you will never advance artistically – even if your goals are appropriate for the setting in which you work.

Step 5: Gradually repair and adjust the instrument. Every conductor employs a variety of strategies and techniques to move the ensemble toward the established goal. These may include meeting intermediate repertoire goals (working on Grainger’s Australian Up Country Tune), technical exercises to enhance necessary skills (breathing, endurance, dynamic control), strategies to refine musicianship (pitch matching exercises, interval studies), and work on the connection between ensemble and conductor, and between the ensemble members themselves (rubato and psychological conducting games, altered seating arrangements, etc.).

Step 6: Review, reassess and adjust as necessary.

This sequencing is not commonly taught to aspiring educators, and might be easily confused with what are commonly referred to as “rehearsal techniques.” Rehearsal techniques are precisely that: techniques. If applied to the example shown above, a discussion of rehearsal techniques would address how the conductor would work with the ensemble to achieve a convincing performance of Air for Band. It would include suggestions of strategies to teach or improve important elements within the composition (melody, rhythm, intonation, balance, blend, articulation, etc.). Most notably, it would address the details of a particular composition within the context of rehearsal. The build your instrument concept is not a set of techniques to be employed in a particular context, but a philosophy that perpetually seeks to connect the present to the future.

Once again, the issues of ethics and education (in the Bowman/Abbs sense) arise. A teacher who is training students in music, using techniques to install skills and concepts through the rehearsal and performance process, needn't worry about the virtue of the outcome – merely the quality. Learning how to play a clarinet, or how to spell a dominant seventh chord, or who Beethoven was, carries no more moral weight than learning how to do long division. But a conductor who is building an instrument has the moral obligation to insure that the result is worthy.

“If and when education succeeds, it does so by changing who we are: no change, no educational outcome.”⁸²

If education changes who a person is, rather than what they know or can do, the person who intends to educate others must consider the virtue of the outcome. A conductor who is adjusting his instrument to meet his own artistic goals must consider if those goals are worthy for the entire ensemble. For if the conductor achieves his goals, both he and the members of the ensemble will have changed in the process.

“Writer Henry James once proposed three questions you could productively put to an artist's work. The first two were disarmingly straightforward: What was the artist trying to achieve? Did he/she succeed? The third's a zinger: Was it worth doing?”⁸³

Before we find ourselves mired in semantics back in the swamp of the conductor as teacher v. conductor as performer debate, there is one simple truth that clearly distinguishes the build your instrument philosophy from any other. For a teacher, the purpose of educating students is to educate them – to change who they are and how they exist in the world. For a conductor, the purpose of educating (building) an ensemble is to enable the conductor to engage in the highest possible order of artistic endeavor. In other words, a music educator educates students through and with music, whereas a

⁸² Bowman, p. 67.

conductor performs music through and with an educated ensemble. The distinction is a matter of intent, and if placed in the same situation the intentions of each will lead to different conclusions. For the music educator in a rehearsal setting, building an instrument that knows how to fix itself is the goal. The component parts of such an instrument can go off into the world and continue to learn and grow in positive ways. For the conductor in a rehearsal setting, building an instrument that knows how to fix itself is a prerequisite to achieve his goal: to perform with the instrument. One builds because building the instrument is worthy, the other builds because playing the instrument is worthy. And since no one is in the business of building instruments for conductors to play, they have to do it themselves.

Although most conductors are well instructed in how to play at least one instrument, how to teach others to play instruments, and at least the broad outlines of how to rehearse, very few are ever taught how to build or adapt their ensemble over time to meet the artistic goals they set for themselves. Worse still, many conductors do not realize that it is both appropriate and necessary that they set and achieve such goals. As a result, a healthy musical connection or “embouchure” never forms, and the conductor never truly succeeds in performing on his instrument.

Common indications of this shortcoming include:

- *Conductors who find themselves doing the same activity, or employing the same technique, over and over (e.g. working down the line with an electronic tuner, or telling players how a passage “goes”).*

⁸³ Bayless and Orland, p. 93.

- *Conductors who blame the ensemble for a poor performance, or who berate or humiliate players in rehearsals.*
- *Conductors who claim that the ensemble does not respond to conducting gestures, and that if they would respond things would be so much better.*
- *Conductors who believe that their true talent would be revealed if only they had a more skillful and mature ensemble to work with. (These individuals are actually correct, but the outcome would not be what they imagine).*

The process of building an instrument/ensemble requires time, patience, musicianship, analytical skills, and a conductor who is willing take risks in front of the ensemble. Building your instrument is all about trial and error, and many conductors are not willing to be perceived as vulnerable in front of the ensemble. Perhaps most vexing for some is the fact that the process is never finished. There is always somewhere beyond where you and your ensemble currently are to which you can progress. The first step, however, is simply to become comfortable with the intimate and ineffable nature of the creative exchange that comprises the conductor's "embouchure."

Vulnerability and Reflection

Another prerequisite to establish a healthy and balanced connection between an ensemble and a conductor is practical rather than philosophical in nature. Most of us will recognize the instruction we heard the first time we picked up an instrument to play

it: bring the instrument to you, rather than moving your body to the instrument. This simple admonition applies to conductors also. An unfortunate habit of many conductors is to reach out, lunge toward, or loom over the ensemble. This common practice is a symptom of unease with the fundamental nature of the connection between the conductor and an ensemble (described above).

To eliminate the tendency to lean in, you might practice gestures and patterns with your heels, hips, shoulders and head touching a wall. Although this posture is not one you would wish to cultivate on the podium, it is an easy diagnostic tool that will clearly reveal when and how you tend to be drawn forward. Other diagnostic exercises include practicing conducting gestures and patterns while simultaneously carrying on a conversation or while walking. All too often, conductors are conditioned to believe that they have to “look like a conductor” when they step on the podium. The resulting stiffly artificial posture actually prohibits positive influence by preventing the conductor’s body from doing what it does naturally. The exercise of walking or talking while practicing gestures is a good way to “remind” the body that it can move as it normally would even while conducting. The mundane acts of walking and talking “reset” our natural posture very efficiently.

When in motion, all vertebrates tend to lead with the head, and the spine follows in a natural gathering and lengthening sequence (like a cheetah running).⁸⁴ Be aware of this tendency and use it as a tool for more natural communication. For example, if you lengthen or stretch to create a certain metaphor, be sure to return to a balanced, centered position once the gesture is finished. Remember: habits are easily ingrained and very difficult to eliminate.

Another important physical consideration relates to the torso. The torso is the only part of the body that cannot move independently. Wherever the torso goes, the entire body must follow. The center of the torso (the solar plexus) is a natural focal point and "telltale." Basketball players learn to watch this spot in order to stay in position when playing defense (rather than their opponent's head, arms or feet). As a result, any gesture involving the torso will be viewed as a "committed" gesture. That is to say, any observer will trust it and respond to it with assurance because you cannot change directions quickly or without detection.

"Most of us come into this world primed to be experts on people."⁸⁵

The relationship of anatomy to vulnerability is the foundation of so called "body language" and it is an important aspect of connecting with an ensemble and creating meaningful metaphors. Louis Sullivan's adage "Form ever follows function" is as appropriate for the structure of our bodies as for the structure of buildings. The locations of our most vital organs and arteries provide a measure of protection from injury. The heart, lungs, etc. are surrounded by the rib cage; major arteries are located on the inner side of limbs and joints. We all have an innate sense of where we are most vulnerable to injury and our bodies naturally and often unconsciously move to protect these areas. More importantly, we know that all human beings are built the same way. As a result, we recognize certain movements as defensive.

Consider the action of shrugging the shoulders. This gesture is usually understood to indicate uncertainty. This is not merely an arbitrary assignment of meaning, but the recognition of a gesture that moves the shoulders into a position that protects the arteries

⁸⁴ Jordan, James and Heather Buchanan. *Evoking Sound: Body Mapping Principles and Basic Conducting Technique*. Chicago: GIA Publications, 2002. Video (VHS-530).

⁸⁵ Fellman, Bruce. "Inside Autism," *Yale*. November 2002. p. 24.

in the neck. A shrug is a subtle defensive gesture, and as such it will not be construed by fellow human beings as a sign of assurance or welcome. On the contrary, a gesture that spreads the arms and hands thereby revealing their vulnerable inner side and exposing the torso is typically construed as a signal of love, sympathy, trust or surrender.

It is certainly possible to over-think the implications of gestures in relation to anatomy and vulnerability. Many of our mannerisms are utterly meaningless habits that we have accumulated over time, and to try to construe any subtext would be pointless and inaccurate. However, conductors can avail themselves of the enriching qualities that a basic understanding of physiology lends to human interaction. As noted earlier, a conductor's ability to influence the sound of an ensemble is rooted in the nature of the air stream and vibrations produced by the players. The conductor's motion between beats (icti) will determine how the air moves and the quality of the vibrations. This motion can exist with varying degrees of resistance, but a predictable flow is essential. Since time and airflow are inexorably linked, the ensemble must be able to use the conductor's gestures to set up their actions before the fact. The many combinations of pace and resistance within the flow of gestures produce an infinite spectrum of sound shading and shaping possibilities.

Still more variety can be achieved if the conductor uses vulnerable or defensive gestures as tools, intentionally bearing in mind the subconscious message generally associated with them. For example, dropping the chin and raising the shoulders implies fear or distrust as the body closes to protect the jugular vein. It is likely that an ensemble will sense this as an increase in both physical and emotional tension (uncertainty), and it will be reflected as such in the sound they produce (tight and/or tentative).

The principle of reflection is one of the most important elements of the connection between a conductor and an ensemble. Influence is the core of a conductor's role, and by its very nature it is constant. When a conductor is at work, he cannot choose to be influential one moment and not the next. Because performing musicians are bound by the element of time, and because the connection between a conductor and an ensemble is so complex, influence must always be at the forefront of a conductor's thought. If the conductor's influence is constant, it is not confined exclusively to the production of sound, and reflection of the conductor within the ensemble must also be constant.

For example, the ensemble's mood and energy level will mirror that of the conductor. With awareness the conductor can adjust his own mood and energy level to adjust that of the ensemble in the spirit of the build your instrument philosophy. If the ensemble is hyped up and needs to be more focused or serene, the conductor will need to drop into the behavioral zone where he needs the players to be. However, the conductor must move beyond the target mood or energy level because the ensemble will tend to be conservative in its adjustment and will settle short of where the conductor ends up. Furthermore, the conductor must not stay at the adjusted level as the ensemble's mood and energy will continue to be effected (the way food continues to cook even after it is taken out of the oven).

Trust

The principle of reflection also embraces one of the key elements of any interpersonal relationship, one that is magnified by the creative, public and therefore risky nature of artistic collaboration among performers: trust. To be trusted one must be not only trustworthy, but trusting. In the simplest terms, if you wish others to trust you, you have to trust others. The conductor has to make the first move and go out on a limb, leading

by example. If the conductor does not trust the integrity of the ensemble, a connection will be nearly impossible to establish. Conversely, if the ensemble does not trust the integrity of the conductor their work together will be shallow and of relatively little value.

No musician, of any age or skill level, wants to sound bad. In fact, they will go to great lengths to protect themselves from people who try to entice them to sound bad or who are influencing them in detrimental directions. They will ignore or flatly contradict a conductor that is interfering with the quality of their performance. This is why it is so common to hear an ensemble performing well under the direction of a poor conductor.

Unlike an inanimate instrument, an ensemble has to be either convinced or coerced to connect with a conductor. Convincing takes greater skill and typically more time than coercion. Coercion, a "quick fix" that is seemingly efficient, will ultimately break down the ability of the ensemble to function well as it places undue emotional strain on the component parts. There are any number of ways a conductor can convince an ensemble to connect, but no matter what manner the conductor chooses he remains ultimately responsible for maintaining the connection. To return briefly to the magnet metaphor: it falls to the conductor to insure that the two opposing magnets are continually brought together in a way that creates the optimal "cushion" of forces between them. Also, if the individual players are not directly invested in the process of connecting, the artistic potential of the ensemble will be limited.

Certain caveats arise when one combines the necessity of establishing trust with the manner in which a conductor chooses to convince an ensemble. First, sincerity is essential. If you do not believe what you are saying (verbally or gesturally) you will never convince the ensemble to establish a connection. Furthermore, if you do not

believe what you are saying, the ensemble will quickly learn not to trust you. This does not imply that a conductor must strive for a friendly or "warm fuzzy" relationship with the ensemble. The only requirement is respect; all other characteristics of the union are variable according to the nature of the parties involved.

The conductor can convey anything, no matter how critical, and maintain a healthy connection only if he shares the creative risk. We have already established that conducting is performing, and here this fact is highlighted. The conductor must be analogous to the quarterback out on the field rather than the coach on the sidelines. If the coach calls in a play that fails, the only bruising he risks is to his ego. The investment of the quarterback is considerably greater, and as a result his influence is ultimately greater.

Another caveat has to do with blame. If the play fails, the coach has the option of blaming the players for poor execution (the play was sound, if only they had run a little faster or turned sooner). On the other hand, the quarterback has no recourse. If the pass is intercepted or incomplete, the blame is his (I should have seen it coming, I should have thrown it farther). For a conductor, it is imperative that he look first to himself for the source of undesirable sounds or behavior. If the response from the ensemble is not what he expects or needs it to be, he needs to consider what the ensemble is reflecting. If the sound from the ensemble is not what he wishes to hear, he needs to check into his own gestures first to root out the cause.

Leverage

In this light, there is another physical consideration related to the conductor's "embouchure." Just as a brass player will strive for the optimal alignment of the mouthpiece and lead pipe with the air stream to evoke the best response and tone from his instrument, a conductor must strive for the most efficient "line" to deliver information and impulses. Depending on the specific qualities of the sound, the optimal line might be direct or oblique. Direct enables greater leverage, while oblique might be associated with greater subtlety. Often the larger the ensemble and/or the greater the volume of sound the more leverage is needed to influence it. The size of gestures has little to do with achieving leverage, but stance and posture are vital. Imagine lifting a heavy object. In order to engage the optimal muscle groups (the largest muscles in the body are located below the waist), you would naturally orient yourself to the object in a certain way. Even if you were to lift the object only a fraction of an inch, the greatest leverage would come from a low, broad stance. This concept relates directly to the nature of kinesthetic metaphors discussed in chapter three.

Physical leverage is a concept that is fairly easy to grasp. Psychological leverage is more obtuse, but equally important for conductors to develop. In an earlier chapter the issue of charisma was addressed in terms of one's physical appearance (stature, body type, etc.) in relation to social and cultural preferences. For the purposes of this thesis, charisma might be termed social leverage. For conductors, however, charisma can be problematic because it relies heavily on physical characteristics that are difficult, if not impossible, to change. More useful, because it is a skill that can be developed, is the ability to project.

In the simplest terms, to project is to extend beyond something. In this case, someone who is projecting is able to consciously adjust his physical attributes (posture, tone of voice, etc.) to convey a stature or character that is not actually true to life. For example, people with excellent posture are often perceived to be taller than they actually are, or a person with a forceful voice can seem more formidable.

The ability to project stems from an understanding of so-called “body language,” and an awareness of the resonance of motion (which is similar in concept to the resonance of sound). Motion without resonance, or “dead” gestures, will not project any more than sound would in a “dead” room. The ability to imagine the energy of a gesture extending beyond the limits of the body is the essence of projection, and a powerful tool for conductors. Suggested strategies for practicing projection are included in the appendices.

Another aspect of leverage is eye contact. Direct, eye-to-eye, person to person contact is almost always to be preferred for reasons associated with trust and human development. Infants, almost as soon as they open their eyes after birth, instinctively focus on the human face. As children grow, their gaze will increasingly be directed to the eyes of other people. As a result, a lack of eye contact carries profound implications.⁸⁶ Oblique or sidelong glances tend to imply distrust or disinterest. Diffuse “see the whole ensemble in one shot” glances tend to be “read” as aloof or unfocused.

Cues should typically be accompanied by eye contact, especially if a significant degree of leverage is required. If eye contact accompanies a gesture there is the potential for more layers of meaning and a stronger connection with the ensemble. Therefore, cues have to

⁸⁶ Fellman, p. 27-28.

be aimed specifically – “close” is far less effective than “on target” (see diffuse glances above).

It is also important to maintain eye contact before, through and after cues (especially at changes of tempo or mood). Beyond the practical reason of engendering trust at critical moments, eye contact can help the conductor keep habits in check. For example, if your gestures tend to be too big, conduct within the "frame" of each player's head or face to practice focus. If your habit is to drop your chin while conducting, practice direct eye contact with every cue to move the head up and out of its habitual station. If hearing the ensemble accurately is an issue, look directly at the person or section you would like to hear. The ears will seek whatever the eyes are focused on. If the eyes are not focused anywhere in particular, the ears will tend to hear where the eyes cannot see (that which is to the side and/or behind you).

As with any aspect of conducting, leverage can be strengthened through practice. Begin with a target in mind. Use a seating chart and mental images of real people (faces, names and personalities), and practice what Don Owens of Northwestern University refers to as “geographical conducting.” Actually move your eyes and body in practice as if addressing the actual ensemble as it will be oriented to you in performance. For the best result and closest connection, cultivate a detailed knowledge of the specific characteristics of your "instrument." The individual personalities of the players will effect your gestures to some degree. For example, a shy soloist might effect the conductor's gestures as a tight or sluggish third valve slide would effect the actions of a trumpeter. Either case requires finesse and anticipatory thought.

Recognition of the common tendencies of ensembles is also a valuable tool. Most players have been taught to be lead by a conductor. And, because the conductor is believed to be

the leader, the players' instinct is to abandon any linkage to his colleagues in order to "stay with" and presumably impress the maestro. They will also tend to wait for instructions or impulses from the podium, which interferes with the timing of the air stream, which causes poor sound, which embarrasses the player and ultimately drives him to further abandon his colleagues in order to prove to the conductor that he actually can play well.

There are several methods of counteracting the "maestro syndrome" described above. The most fundamental is to teach the players, in the spirit of the build your instrument philosophy, how to be the opposing force that a healthy conductor/ensemble connection requires. This can be achieved one-on-one or in small groups with musicians of even minimal skill. Four exercises designed to establish and strengthen the conductor/ensemble connection are included in Appendix A.

Chapter five has attempted to shed light on what is the most neglected yet vital subject in the training of conductors. The practical aspects of the connection between a conductor and an ensemble are based entirely on the philosophical aspects. Far from being the nebulous, mystical joining of souls that is so often described, the connection is both tangible and teachable. The challenge lies in its fragility. It can never be taken for granted and it requires constant adjustment and reinforcement.

VI

Work and Play

“Artists don’t get down to work until the pain of working is exceeded by the pain of
not working.”

Stephen DeStaebler

Rehearsing

“Making art depends upon noticing things – things about yourself, your methods, your subject matter. Sooner or later, for instance, every visual artist notices the relationship of the line to the picture’s edge. Before that moment the relationship does not exist; afterwards it’s impossible to imagine it not existing. And from that moment on every new line talks back and forth with the picture’s edge. People who have not yet made this small leap do not see the same picture as those who have – in fact, conceptually speaking, they do not even live in the same world.”⁸⁷

“...conceptual relationships increasingly define the shape and structure of the world you [*the artist*] see. In time, they are the world. Distinctions between you, your work and the world lessen, grow transparent, and finally disappear.”⁸⁸

For the conductor, a great deal of time in rehearsal is spent reconciling the way he and each member of the ensemble “see the world.” Following the line of reasoning above, each ensemble member sees a subtly different picture given the specifics of their role and location within the group. Their view will also be colored by the attitude they carry with them. This is the principal reason the conductor must understand the specific character of the ensemble, or instrument, with whom he will be performing.

⁸⁷ Bayless and Orland, p. 109.

Obviously, the concept of reconciliation presupposes a balanced connection between the conductor and the ensemble, one in which both sides have brought to the table artistic conclusions that have been independently drawn. Thus, the rehearsal process is far removed from the inherently unbalanced procedure of training an ensemble to decode notation accurately, and drilling the ensemble to consistently reproduce the resulting sonic product. Ideally, the distinction between rehearsal and performance will be minimal. To return to an earlier discussion: the instant a musician produces sound he is performing - from the first note of his warm up to the last note of a concert, and at every moment of playing or singing in between. To deny the opportunity for performance in a rehearsal setting is to cause the rehearsal to be devoid of inspiration and expressive content (to be devoid of the process of complex transfer).

Furthermore, there is nothing magical about a concert that enables players to suddenly respond to a conductor they have never had to respond to before, or that enables a conductor to influence the sound of an ensemble if he has never done it before. Therefore, the conductor's role in rehearsal is exactly the same as it is in performance: to influence the sound of the ensemble. A rehearsal setting simply affords the opportunity for experimentation (trial and error) that is not normally associated with a performance environment.

In short, artistry is a state of being rather than a goal. Rehearsal is not an arena for practicing techniques prior to a concerted demonstration of artistry. If that were the case, performances would be more like spelling bees: the application and recitation of accumulated knowledge. Unfortunately, many performances are precisely that – devoid of the spontaneity of inspired human interaction. But in order to interact artistically on stage in the presence of an audience, the musicians must continually interact as artists in

⁸⁸ Bayless and Orland, p. 109.

the rehearsal hall. The accumulation and refinement of the necessary techniques to support this interaction is achieved through the individual practice of players and conductor alike.

The particulars of the conductor's practice have already been addressed to a limited extent, with additional illustrations and exercises provided in the appendices. Technical issues have been, and will continue to be, discussed throughout the text. This dispersal of the discussion related to technique is intentional. Conducting isn't the exercise or demonstration of technique; it is the exercise of artistry made possible through the demonstration of musicianship that is gleaned through education and practice. This admonition is offered as a prelude to the following investigation of common rehearsal methods.

“What is a rehearsal? A series of no's. ‘No, you are too loud.’ ‘Too quick.’ ‘Not at that point.’ ‘No, no, no!’ We never say what it is. We never say ‘yes.’”⁸⁹

There are essentially three large-scale rehearsal strategies employed by conductors, and the most skillful conductors will typically blend together aspects of them all according to the needs of the moment. Unfortunately, the majority of conductors tend to cling to a single scheme, often to the detriment of the ensemble's development and the music itself. The three strategies might be summarized as follows:

- *Search and Destroy*

This method is far and away the most common of the three. Although meant to be facetious, the label it has been assigned here is apt. A conductor working in “search and destroy” mode simply listens to the sound produced by the ensemble, identifies the errors and deviations from

the score, and repairs or eliminates them. Although efficient, this approach forces the participants into an adversarial posture. The ensemble members are like ducks in a shooting gallery. Instead of participating in what ought to be a collaborative venture, the players quickly learn to avoid interaction with the conductor because it represents an error on their part. They become the quintessential “receivers of orders,” waiting to be told what to do and how to do it.

- *Additive*
This method is common among conductors of less experienced ensembles. One begins by teaching the students the notes and rhythms. Once the most basic elements are in place, the next step is to add elements in a layering process (articulations, dynamics, phrasing, etc.) until a complete realization of the score has been achieved. Usually time runs out before the goal is reached. Although less stressful for the players than the “Search and Destroy” method, the additive process also conditions the ensemble to follow the conductor’s instructions. The result is invariably a north to south connection in the terms of the magnet metaphor.

- *Archeological*
This method is rare and it is erroneously believed to be impractical or impossible among any but the professional ranks. Both ensemble and conductor begin with a complete form in mind. For the conductor, it is the detailed inner aural image of the complete work he has acquired through score study; for the players, it is a clear understanding of their part achieved through individual practice. When brought together in the

⁸⁹ Celibidache, Sergiu. Teaching session, Curtis Institute of Music, February, 1984. (Accessed 9 March

rehearsal setting, the process of reconciling the various forms takes place. As conflicts and inconsistencies are brought to light through performance, the conductor serves as an arbitrator, influencing the sound until a single, coherent musical form is achieved.

Of the three methods outlined above, only one requires a conductor to actually conduct, only one is consistent with the concept of performance as an improvisatory collaboration between the conductor and the ensemble, and only one exercises the musical, intellectual and ethical faculties of all the participants. This, the so-called “Archeological” method, is rare precisely because of these conditions.

The examination of rehearsal strategies leads directly to the question: what is the conductor’s role in performance? In the first two schemes, the conductor’s work is done by the time the curtain goes up. For many conductors of school ensembles this is exactly what they hope for in performance – an ensemble so well trained that they don’t need you any more. All manipulation or adjustment of the sound has been achieved in the rehearsal process, and the performance is like a photograph or CD (the same every time).

The differences in philosophy regarding the conductor’s role in performance beg a hypothetical question: what would the conductor do if he arrived at the first rehearsal to find that the ensemble could already decode the notation accurately? What if they could already play a “clean” rendition of the score? To “Search and Destroy” and “Additive” conductors, the idea of a “perfect” ensemble at the first rehearsal is a terrifying prospect because a) what are they going to do with the remaining 8 weeks of rehearsals? and b) the situation implies that the ensemble’s musicianship is at least equal to if not greater

than the conductor's, and when you're holding the stick you don't want to appear to be on the short end of it.

Conversely, the "Archeological" conductor expects to begin with a complete form and will take in the information the "perfect" ensemble is projecting and begin to transform it. The aural image created by the composer emerges from this give and take in real time – in rehearsals and in concert. Inevitably, each performance reveals a slightly different structure. To this conductor, the idea of a "perfect" ensemble at the first rehearsal is terrifying because a) the possibilities for the next eight weeks are infinite, and b) this type of work requires the conductor to be completely vulnerable – to show to the players exactly who he is (the good, the bad, the ugly, the boring, the goofy, the depressed, the frightened) - and convince each player to respond in kind.

"...we must bring those people out of the state of 'receivers of orders.' Everyone in the orchestra is a performer accompanied by all the possibilities of that task. If they are not free, the whole performance will be an imitation of something – either the idea of the conductor, or the idea of the score."⁹⁰

Michael Colgrass likened composing to tailoring a suit for the performers. The imitation to which Celibidache refers would be the equivalent of presenting the suit on a hanger for the audience's consideration, rather than wearing it. For the conductor and the ensemble, the process of putting on the suit begins long before the first rehearsal. And, once the suit is on, it will remain a part of who they are and what they do from that point forward.

⁹⁰ Celibidache.

Score Study

“The composer has an idea, it may only be a fragment, on which he builds... This does not have to be a Bruckner symphony. The principle is the same with the smallest piece of Mozart, or Chopin, or Webern. When a conductor sees a piece for the first time, he does not notice the details. He must re-compose with the whole work in mind and then search for the details. You could compare the conductor’s work with that of a car mechanic who can take a car to pieces and put it together again.”⁹¹

As with any worthwhile endeavor, the first step is to determine your goal. What you seek in a score, what you will try to discover through the process of study, is determined by what you wish to do with it.

If you wish to use the score as a vehicle to demonstrate the technical proficiency of the ensemble (to an audience, to an adjudicator, or to the members of a professional association e.g.), your study will most likely focus on the elements of music as they relate to issues such as intonation, balance, rhythmic precision, clarity and consistency of articulation, etc.

If you wish to use the score to develop in the ensemble a stronger understanding of the elements of music (to teach the elements to the ensemble, or to an audience e.g.), your study will most likely zero in on the variety of elements present in the score including meter, dynamics, articulations, rhythms, melody, etc.

If you wish to use the score to develop cultural awareness and/or interdisciplinary ties (in the ensemble, in an audience or larger community e.g.), your study might focus on the ethnicity of the composer, the origin of the music itself, the language of the text (if any), the program of the music (if any), or the folk qualities of the work (the vocal nature of the

⁹¹ Barenboim, Daniel. *A Life in Music*. New York: Charles Scribner’s Sons, 1991. pp. 85-86.

lines, the simplicity of the harmonic structure, characteristically national turns of phrase, etc.).

If you wish to perform the score with no ulterior motive than to engage the score for its own sake, your study will take on an entirely different character.

“Some of our greatest and deepest enjoyment as conductors can come not in performance, but the quiet and intense process of learning during which the simple but profound truths of the score reveal themselves...Our great subject is actually the search for those values which caused Bach’s (or Mozart’s or Stravinsky’s) work. Then... you’ll approach the score in an entirely different light.” (Julius Herford)

It all comes down to the simple matter of investment: risk and reward. The more time and intellectual effort you invest in the study process, the more you will have to work with in the conducting process. The more you risk by devoting your attention to study, and away from the myriad other demands of daily life, the greater reward you will reap on the podium. Short cuts in the study process will result in blind spots in the conductor’s ability to influence the sound. These blind spots will quickly erode the trust of the ensemble and therefore their connection to the conductor.

It is important to bear in mind that the difficulty or complexity of a score does not determine if one will study it, rather it determines how one will study it. With simpler scores the process is essentially the same as with more complex works, but the time it takes to navigate the process is shorter. All scores that are worth performing are worth studying. All scores that are worth studying are worth performing well and convincingly, and such a performance can only be achieved with adequate preparation.

The basic elements of the score study process are straightforward.

Score study is the process of asking and answering questions

(and then asking and answering more questions...).

Take notes at every stage, and work with a metronome to ingrain an accurate sense of pulse. At first you may simply be writing observations and questions to yourself; answers will come later as your analysis progresses. Try not to get bogged down too early in the process. Let yourself work through the score from beginning to end as many times as possible. As stated in earlier sections, repetition promotes retention. Work like a minesweeper: you will pick up a few more insights on each pass-through until you have worked through everything.

In the quotation at the beginning of this section, Daniel Barenboim alluded to the fact that score study is first a sifting process, then a layering process. Information is sent through progressively smaller "screens" as your questions become more refined and specific. This screening or filtering process helps to sort information and establish an orderly yet detailed understanding of the piece. Once sorted and examined, information and insights are then layered and interconnected to establish a multi-dimensional aural image of the score.

The first several passes through the score are devoted simply to cataloguing. As you "browse" (an intentionally casual term to emphasize the importance of flowing through, rather than drilling into, the score), observe the most prominent features:

- *Characteristics of the general layout: where everything is, the quality of print and type size. Are all the parts included on every page, or left out if not active?*

- *Large sections of the form: breaks between movements, double bars or repeats, significant texture changes, etc.*
- *Approximate length of the work, number of movements and/or relationship to other works or movements.*
- *Unusual notation, graphics, text, etc.*

At this stage of the game, it is wise to number every measure, particularly if the rehearsal marks are not related to specific measure numbers. Although tedious, numbering the measures serves several important functions. First, it ensures that you have actually seen every bar. It also provides easy reference points for rehearsal, discussion and study, and it enables you to quickly calculate the formal proportions of the work.

The next several sweeps narrow the search parameters a bit. For example, take time to focus on the title page. Notice the following features (if they are not included, seek them out in your research):

- *The complete title, including catalogue number (if there is one).*
- *The composer's name, and birth/death dates.*
- *The date the work was composed.*
- *To whom the work is dedicated and the occasion for which it was written.*
- *The publisher's information (Is the piece still in print? Are parts available for purchase, or rental only?).*
- *The language that is used (instrument names, dynamics, expression, etc.).*

Then, focus on the first several bars of the piece. Consider the following:

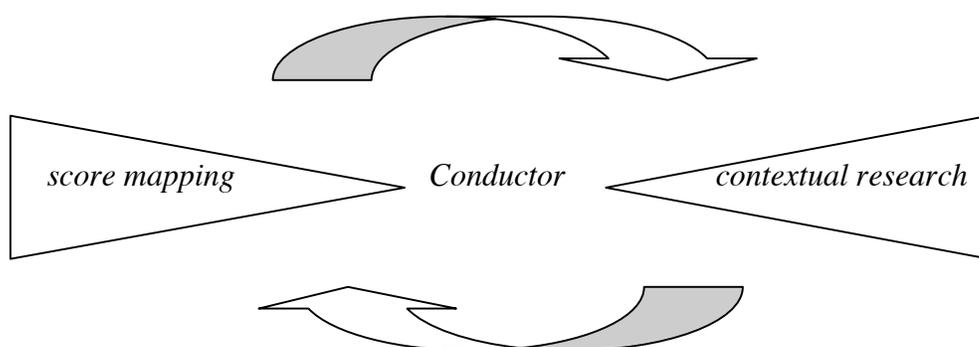
- *The instrumentation (what instruments in which keys, how many players per part, what order the parts appear in from top to bottom, etc.).*
- *Is there a key signature? Is the score in C, or is it transposed?*
- *Is there a meter? Is the meter consistent in all parts?*
- *Is there an initial tempo indication and/or metronome marking?*
- *Is there an initial dynamic indication? Does it appear that the composer is showing “ensemble” dynamics (i.e. the overall dynamic impression), or are there “adjusted” dynamics (i.e. taking into account the tendencies and projection capabilities of each type of instrument)?*

Once you are comfortable with the way the composer and publisher have chosen to present information, and once you have begun to grasp the general outline of the work, it is appropriate to begin to avail yourself of research materials beyond the score itself. The editor’s notes and program notes printed in the score (if there are any) will provide clues that can serve as keywords in your investigation. As in any research, primary sources are often the most valuable. Seek information directly from the composer, editor and/or arranger if these individuals are available. Search for program notes in printed programs, university databases, and reference books. Such notes are likely to include pertinent biographical, programmatic and technical information.

Research the history and historical context of the composition. Work from the obvious to the obscure, asking and answering questions in a tightening spiral. Seek information in non-musical sources (dictionaries, encyclopedias, texts, databases, etc.). “Mine” for additional sources in the bibliography of texts that are particularly fruitful in your research.

Learn about the composer's life and work, and how the score in question fits into this larger context. Begin with the larger general sources (dictionaries and encyclopedias). Consult more specific sources whenever possible (biographies/autobiographies, correspondence, sketch books, facsimiles, etc.). Above all, continually seek to illuminate that which influenced and inspired the composer's work.

Returning to the specific contents of the score, the process of mapping its structure runs on a parallel course to the research described above. However, research proceeds from the score outward in an effort to place it in a larger context; mapping takes you from the superficial aspects of the score into the core, or essential features. To put it another way, it is as if the conductor is at the center of a bow tie or hourglass:



Both categories of the conductor's effort should progress simultaneously, and the information and insights gleaned in one area should inform the conductor's work in the other.

As with research, the process of mapping progresses from large scale surface features to specific details. The initial step is to rough-out the form of the work. First, identify the principal themes, motives and/or structural elements. Sing them. Singing should be an integral part of the score study process. Conductors should devote considerable time in

their practice regimen to developing confidence and accuracy when vocalizing. A Metropolitan Opera-worthy tone is not essential; clarity and precision are.

When investigating form, consider even the most obvious qualities. For example, is it polyphonic or homophonic? Label the larger sections, either in the score itself or on a separate chart. If the form is fairly clear, use appropriate titles from the start (e.g. recapitulation, first strain, etc.). If the form is less apparent, use any convenient labeling system (A, B, etc.) until a traditional formal structure becomes apparent. Bear in mind that a traditional formal structure may never emerge. However, in the process of asking and answering questions, it is imperative to have a point of reference from which to foray into the unknown.

For example, if you are working with the first movement of a symphony, your point of departure would be the assumption that a traditional symphonic first movement form (sonata-allegro form) is in play. Therefore, the first question you might ask is: is this a traditional sonata-allegro form? If it is not, where and how does it differ from your expectations? Find the points of departure and ask “why is this here?” When working with other types of compositions, your first question might be: does the form resemble any standard model (rounded binary, rondo, theme and variations, etc.)? Once you have determined the elements of the form, determine what binds it all together across the entire work (harmony, motives, etc.).

Keep in mind the possibility of clues that might be staring you in the face. Do the rehearsal markings correspond with formal sections, or are they evenly dispersed (e.g. every 10 measures)? Certain composers have certain habits when creating a manuscript. These habits, or “signatures,” can be quite useful to your study if you are aware of them.

Therefore, it is always helpful to compare the work you are studying to other works by the same composer.

Once you have begun to get a grip on the form, rough-out the harmonic structure of the work. Is it tonal? Atonal? Serial? Polytonal? Are the harmonies functional or non-functional? What is the opening key, key area, or focal pitch? What is the closing key, key area, or focal pitch? What is happening at the principal cadence points? Sing the chords as arpeggios (i.e. sing “up” the score) and test chord progressions on the piano.

At this juncture it is important to mention the value of singing without the aid of the piano as often as possible. The piano is a useful tool for hearing multiple layers simultaneously, but it will actually inhibit audiation (inner hearing) if you play that which you are singing. The value of singing is to firmly and efficiently establish an inner aural image of the composition. If maintaining a pitch center is an issue for you as you sing, then use the piano to provide a single reference tone from which to work.

Continuing your study, ask yourself: does the harmonic structure support the form? If it does, move on. If it does not, go back and determine where the discrepancies lie. Perhaps your initial projection regarding form was incorrect. Perhaps your harmonic analysis is flawed. Pursue your investigation until one supports and confirms the other.

The process of formal analysis can be expedited by creating a chart or “map” of the score (hence the mention of “mapping” above). The object of mapping is to strive to graphically depict an entire movement or piece on one side of one piece of paper. Such a “snapshot” will enable you to more quickly absorb the work as a whole. It will give you a better sense of proportion, and will clearly reveal the convergence of seemingly

disparate elements (e.g. articulations and tempo). It will also aid in the establishment of an internal image of the work.

The nature of the chart will depend on the nature of the score. Arch maps work well for standard forms. Timelines work well for non-traditional forms [see Appendix A for examples]. The information included on the chart should be as concise as possible and it should highlight in some way any feature of the work that is atypical, unusual, or unexpected. An understanding of these features will figure prominently in the interpretive process.

The mapping process provides an ideal opportunity to consider issues such as orchestration, dynamic profile, and tempo relationships across the entire form. Prime considerations include:

- *Combinations of timbres.*
- *Tessitura and its effect on the timbre of a given line or harmony.*
- *Balance and thickness of texture.*
- *Chord spacing.*
- *Extended unison passages.*
- *Cross-cueing and doubling in relation to your own ensemble's instrumentation.*
- *Strata: bass, melody, harmony, rhythm...*

The mapping process also enhances your memory by engaging the information in the score in multiple ways (beyond merely reading it). The decisions that must be made to distill the score into a single page of information, accompanied by the process of writing or drawing, will fuse with the inner aural imagery acquired through singing to create a

self-contained, three-dimensional representation of the work. The purpose of mapping is not ultimately to conduct from the chart, in lieu of the score (although this is certainly possible). The value of charting is in the process of creating a “picture” of the piece. Just as the ability to paraphrase a passage of text signals mastery of the information therein, the ability to map a score is the equivalent of paraphrasing. It is a useful method of diagnosing the extent to which the information in the score has been absorbed.

*At this juncture, all of the information you have gathered and organized should begin to lead you to certain conclusions. It is now time to make firmer decisions regarding the spectra of tempo, dynamics and articulation. For example, exactly how fast is *allegro*? How loud is *forte* in the given context? What does *marcato* mean to this composer? There are few, if any, universal constants in music. As a result, the conductor must rely on information gathered from other works by the same composer, or from the same era, to provide a context that will enable intelligent decision making.*

Continually strive to connect the information gathered in one phase of study to other areas of inquiry. How does tempo relate to articulation? How does orchestration relate to dynamics? How does the historical context of the work relate to instrumentation? How can other works by the same composer provide clues to help focus your view of the work in question?

In addition to the accumulation of information about the score, and the analysis of the material that comprises the score itself, the conductor’s goal must be to firmly establish an internal aural image of the work. To achieve this end, sing throughout the score study process, beginning with small elements (frequently recurring intervals or rhythms, cadences, motives, etc.) and working up to complete themes and sections. Strive to sing all lines through, as close to the given octave as possible and at actual pitch and tempo,

with all expressive considerations in play. Through the performance of the score in this fashion you will gain valuable insight from the perspective of each individual player. Sing through the score following the main ideas or principal line (jumping from part to part as necessary). This is a complex endeavor that requires mental agility. Begin slowly, focusing on difficult shifts until a leap into a new transposition becomes comfortable. Eventually, strive to sing at actual pitch and tempo with all expressive characteristics. It is easy to inadvertently ignore articulations, dynamics and phrasing in an effort to cope with reading the score and maintaining accurate pitch. Always bear in mind that the ensemble will reflect you, and if you vocalize with poor style they will respond in kind. Take no detail for granted. Remember to sing and/or tap the percussion parts as well.

Once you have mastered individual lines, sing the principal themes while simultaneously playing one or more elements of the accompaniment at the piano. Even for those with rudimentary piano skills, this procedure will help instill a “feel” for the harmonies (tension and release), and will add an important dimension to your inner aural image of the score. Strive for independence among the activities of singing, hearing, and playing/moving; in other words, practice multi-tasking. As mentioned earlier, the piano can be a useful tool, but if used in lieu of or continually in unison with singing it will actually dull one's sense of inner hearing. The object is to train your brain to be comfortable dealing with three “streams” of information at one time.

Reference recordings can be useful if employed judiciously. However, listening to recordings as a means of establishing one's inner aural image of the piece is to be avoided at all costs. While expedient, this method will merely provide a concept of the work analogous to an empty container: it is without content, or substance. This quality will in turn become the hallmark of the conductor's work on the podium. On the other

hand, listening to a wide variety of interpretations very early in the study process can guide the preliminary stages of your work by establishing a general aural framework that you will gradually fill in with specific details gleaned from the score. Listening to a wide variety of interpretations in the latter stages of study, when one has already established one's own clear sense of the work and inner aural image, can be useful to confirm or call into question one's conclusions (thereby fueling further study). Listening to works that are similar in style or structure, by different composers, adds dimension and will aid in the identification of metaphorical contexts from which gestures will spring.

As one might gather from the preceding section, score study is an extraordinarily time consuming process. Ideally, the vast majority of the conductor's work will be done before he begins the first rehearsal of the work with an ensemble. In fact, score study is the foundation of rehearsal planning. Without an intimate knowledge of the details of the score, the conductor cannot know where to begin to work, how to address difficulties as they arise, or how long it will take to prepare the ensemble for performance.

Furthermore, without a firmly established inner aural image of the score the conductor cannot hope to connect with the ensemble as described in section eight.

Score study is the root from which all of the conductor's work will grow. Without it, the conductor's influence on the sound of the ensemble cannot be deliberate, nor positively sustained. And without an intimate understanding of the score as a document – a record of musical thinking – the conductor has no valid basis for making interpretive decisions.

Interpretation

*“You don't interpret; you think. Naturally your thoughts change and progress, you have more clarity, and hope for more insight, wisdom, and vision.”
(Isaac Stern)*

Before a conductor can engage in the interpretive process, it is essential that he understand that which distinguishes musical interpretation from the performer's whim. To begin, a brief investigation of the particulars of style, personal taste, and expression would be fruitful.

Any performing art is both enriched and complicated by the confluence of the performer's style and the creator's style (composer, choreographer, playwright). For example, an actor's natural tone of voice will inevitably influence how the audience perceives the script. Certain aspects of the actor's style of speech can be manipulated (pace, accent, range), but Katherine Hepburn's voice remains Katherine Hepburn's voice when all is said and done. If she and Meryl Streep were to speak the same lines, even endeavoring to speak them the same way, the result would still be two distinct styles of delivery. Style is inevitable and personal.

“Your style will develop through the decisions you make...These decisions will all be influenced by the qualities of your mind, by your selflessness or selfishness, by your curiosity or lethargy, by your dignity or vulgarity, by your honesty or insincerity...Never forget that the good critics can look right through the canvas into the eyes of the artist beyond.” (Robert Beverly Hale, from Drawing Lessons from the Great Masters).

In musical terms, a composer's style is where personality, musicology and music theory meet. It is the commingling of historical context and compositional craft, colored by the decisions to which Robert Hale refers in the preceding paragraph.

“Style is the particular way a composer organizes his conceptions and speaks the language of his craft. This musical language is the element common to the composers of a particular school or epoch. ...the attire that fashion prescribes for men of the same generation imposes upon its wearers a particular kind of gesture, a common carriage and bearing, that are conditioned by the cut of the clothes. In a like manner the musical apparel worn by an epoch leaves its stamp upon the language and, so to speak, upon the gestures of its music, as well as upon the composer's attitude towards tonal materials. These elements are the immediate

factors of the mass of particulars that help us to determine how musical language and style are formed.”⁹²

A musician’s style of performance is, for good or ill, regulated by the concept of performance practice. More than any other performing art, music requires its practitioners to eschew the expression of personal style in order to convey the style of the composer/creator. Classical musicians spend countless hours practicing to achieve a technical command that enables them to be, in essence, personally transparent when performing. This is one of the chief distinctions between the performance of art music and popular music, in which the personal style of the performer is vividly (and marketably) portrayed.

“As for the performer, he need not unduly worry about the period to which a work belongs. Styles of performance vary, not because a work was written at a certain date, but because works of certain periods have certain features in common. Not a preconceived style, but features of the melody, harmony and texture teach us the reasons why we must phrase Scarlatti differently from Debussy.”⁹³

“One of the interpreter’s chief tasks is to perform works of earlier times in ways that make them most meaningful to audiences of his own generation, without in any way distorting the intrinsic nature of the works or violating the intentions of the composer or playwright. This requires an ability to distinguish between the essential character of the work – its structure, tone, and meaning – and its time-bound externals.”⁹⁴

Within the realm of art music, personal taste is a bit player in the interpretive process.

As long as performance practice is oriented toward the composition rather than the performer (and it is), that which the performer prefers will be of little consequence within the essential context of the composer’s intentions.

⁹² Stravinsky, Igor. Poetics of Music: The Charles Eliot Norton Lectures, 1939-40. Cambridge: Harvard University Press, 1970. p. 91.

⁹³ Stein, p. 32.

⁹⁴ Leinsdorf, p. 51.

“The faculty of observation and of making something out of what is observed belongs only to the person who at least possesses, in his particular field of endeavor, an acquired culture and an innate taste...As for culture, it is a sort of upbringing which, in the social sphere, confers polish upon education, sustains and rounds out academic instruction. This upbringing is just as important in the sphere of taste and is essential to the creator who must ceaselessly refine his taste or run the risk of losing his perspicacity.”⁹⁵

“The more we know someone’s music the more we know how it should not go.”⁹⁶ (Ned Rorem)

Taste is a skill to be exercised judiciously rather than a whim to be excused under the aegis of personal expression. Too often performers attempt to mask their own technical shortcomings or poor decisions as a matter of taste; it is, they claim, their “interpretation.” As Stravinsky states, taste is a matter of education and acculturation. True interpretation is also a matter of education.

“The performer’s paramount concern is to realize the character of the music; it is the purpose for which the music was written. He should not begin with preconceived ideas about moods or emotions to be expressed, but seek the character in the music’s formal features. It is the structure of the music, resulting from its melodic, harmonic, rhythmical and dynamic components, that determines form and character at the same time. The character is given by the structure. In fully realizing the second he will convey the first, but by pulling the music about he will contort both. He must take account of the features of the structure and, in combining them, decide their precedence according to his sense of proportion and judgment of balance.”⁹⁷

“My intention is rather to demonstrate what is certainly obvious to all mature musicians: the expression, or *espressivo*, or expressivity, is in the music itself from the beginning and is not imposed from without. To perform a piece of music correctly, one plays not only the notes; one plays, in the first place, not so much notes as motifs, phrases, periods, sections, the rhythmic groups or the impulses of which the music is composed. One sets them in the relationship to each other which the composer has indicated. And I firmly believe that a certain type of instrumental instruction which teaches students first to learn notes and then, as it is quaintly put, to “put in the expression,” is not only musically but instrumentally false. But what is “*espressivo*,” if not the accentuating of contrasts, the throwing of contours into relief? ...in fact one may eventually say all the music of the tonal and the post-tonal period – the *espressivo* is in the music

⁹⁵ Stravinsky, p. 73.

⁹⁶ Fisk, Josiah, ed. *Composers on Music*. Boston: Northeastern University Press, 1997. p. 412.

⁹⁷ Stein, p. 20.

itself and nowhere else. It is in the structure of the music and, in the last analysis, is identical with this structure.”⁹⁸ (Roger Sessions)

An interpretation grows from the process of studying a score. It is the aggregate of the conductor's decisions, each of which must be informed by the sum total of objective information gleaned through research, and a faithful quest to illuminate the composer's intent. An interpretation is personal simply because two people can draw distinctly different conclusions based upon the same set of facts. As has been stated in earlier sections, who we are informs what we do. The key is to continually serve as an honest and selfless advocate for the composer. To paraphrase H. Robert Reynolds, you can choose to make the music you, but it is far more important to make yourself the music.

Because of the common confusion of interpretation with self expression and matters of taste, it is frequently relegated to the category of that which one does not (or cannot) teach. Nebulous though it may be, methods and principles of interpretation can, and the author would argue must, be taught to aspiring conductors. To this end, a sequence of activities that uses literature as a point of entry is included here. Unlike music, the written word can be fixed in time, reexamined at will both in and out of sequence, and does not require an intermediary performer – it travels directly from the author to the reader. As a result, works of literature can be examined more easily and systematically. The possibility of performance, as of a play, is a valuable intermediate step to investigate the cause and effect nature of the interpretive decision making process.

To begin, choose an object to be subjected to interpretation. In this case, we will examine Shakespeare's Hamlet. The first step of the interpretive process is to build your own understanding (internal image) of the source through direct study. To that end, choose a reliable addition (unabridged) and read the play. For the purposes of this

⁹⁸ Fisk, pp. 330-331.

exercise, focus on the sequence of events and character development. How and when are the characters introduced? How does your image of them change as events unfold? Consider how each character relates to Hamlet, both literally and as a result of the action or events of the plot.

Identify several layers of meaning built into the structure of the play, from the basic plot and historical or contextual information to moral, ethical and philosophical considerations. The object is not to identify all possible layers, but to choose several that will serve as the basis for later comparison. Consider how the structure of the play (the sequence of events and character development) determines or influences the layers of meaning you have identified. If this is an activity that is new to you, consult sources external to the play itself, including works of literary analysis and criticism. One of the chief reasons to choose for this exercise a play as famous as Hamlet and an author as celebrated as Shakespeare is the availability of a wealth of research materials.

Having established a clear and objective understanding of the structure and content of the play, compare and contrast the original material (the text of the play) with several popular adaptations. To make comparison easier for the purposes of this exercise, focus on Act I. Watch the following film versions – readily available through local video rental outlets – with a printed copy of the play available for reference:

- 1996, directed by Kenneth Branagh (Kenneth Branagh as Hamlet).
- 1990, directed by Franco Zeffirelli (Mel Gibson as Hamlet).
- 2000, directed by Michael Almereyda (Ethan Hawke as Hamlet).

As you watch, consider the following choices made by the filmmakers:

- *Time period, which effects setting and costuming.*
(19th century, 16th century, 20th century)
- *Editing, which effects the order of events and running times.*
(242 minutes, 135 minutes, 113 minutes)
- *Omissions (words, lines, entire scenes).*
- *Casting and quality of acting, which effects style.*
- *Musical score, which effects mood, impact and pacing.*

Consider how the interrelations of the characters are influenced by the above decisions. Consider how the emotional and/or dramatic impact is made simpler and more direct or subtler and more diffuse by each decision. Also consider the audience to which you believe each version is directed. Consider how the various layers of meaning are influenced and altered by the changes in structure, setting, skill of portrayal, etc.

Interpretation is the act of making decisions based upon established facts (the text, or score, or choreography) and artistic intuition, which is based upon a thorough education within the art form.

Interpretation is extrapolation using what is known and clearly notated to determine what is aesthetically consistent in matters that could not be, or were not, addressed by the author/composer/choreographer. Every artistic decision (interpretation) resonates throughout the entire structure of a work. Awareness of the impact of each decision is essential. Interpretive decisions must be balanced across the board or the unity and cohesion of the work of art will deteriorate. The immediate emotional impact of a single artistic decision should be of secondary concern to larger formal issues unless the item or event to which the decision attaches is unique or pivotal in the entire structure.

The sequence of inquiry applied to Hamlet can be directly applied to musical compositions as well. For example, take Tchaikovsky's Symphony No. 6 in b minor, Op. 74. As with the Shakespeare, it is important to choose a reliable scholarly edition. First, build your own understanding (internal image) of the score through direct study. The score study techniques described in the previous chapter are an ideal means of building a solid inner aural image.

Focus on the elements of the score and consider as many variables as possible (dynamic spectrum, balance, timbre, articulation spectrum, tempo, etc.). Consider how the variable elements interrelate (e.g. dynamics and balance, or articulation and rhythm). Strive to understand how a detail such as articulation combines with other variables to produce, over time, composite layers of character and style. Consider how the composite layers work within the structure of the piece to create a unified, internally consistent and coherent artistic entity.

[Carl Dahlhaus wrote:]“Then, since perception had the character of knowledge and the capacity of existing on its own, there would be in any perception achieving completeness, fulfilling its assigned possibilities, a multiplicity that coalesced, a variety of perceptions that shaped itself into a whole.” It was in achieving this completion and wholeness that the perception marked itself out as an aesthetic one. In this way the idea that to perceive something aesthetically is to perceive it as an integrated whole is axiomatic to the entire enterprise of aesthetics.⁹⁹

The concept of the aesthetic whole must be apparent in both the construction of the score and performances of it. Having established a clear and objective understanding of the structure and content of the work, compare and contrast the original material (the score) with several recordings. To provide more vivid contrast, select recordings of different conductors. To make comparison easier for the purposes of this exercise, focus on the

⁹⁹ Cook, Nicholas. Music Imagination and Culture. Oxford: Oxford University Press, 1990. p. 5.

first movement. Listen to recordings such as the following, with a printed copy of the score available for reference:

- 2001, Wiener Philharmoniker conducted by Herbert von Karajan.
- 1990, Bavarian Radio Symphony Orchestra conducted by Georg Solti.

Consider the choices each conductor has made with regard to the elements mentioned above. Consider how the emotional and/or dramatic impact is made simpler and more direct or subtler and more diffuse by each decision. Also consider the conductor's relationship to the listener.

Project the implications of the conductor's decisions in the first movement on the structure and balance of the whole form of the symphony, especially tempo and dynamic spectra. How will the decisions of the opening of the first movement ultimately effect those of the close of the fourth movement? (i.e. if the conductor starts here, where will he end up?). Based upon your own conclusions regarding the score, do you believe the recordings are equally representative of the composer's intent? To enhance the speculative process, read with a critical eye material such as Schuller's The Complete Conductor, pages 521-535, which deals specifically with Tchaikovsky's sixth symphony.

Musicianship

Reference to Schuller's book leads us to the specific issue of the conductor as an interpreter. Setting aside issues of cataloguing, mapping, and other processes in score study discussed above, a conductor will bring his accumulated knowledge and imagery to bear on any score. Whether accurate or inaccurate, this information will serve as the boundary for the conductor's ability to engage the score in performance. It is therefore

essential for every conductor to continually strive to increase his personal musical and intellectual sphere, including the following:

- *an understanding of musical structure (form, harmony, rhythm, orchestration).*
- *an understanding of context (history, musicology).*
- *an understanding of the object or plot of the program (in the case of programmatic music).*
- *an understanding of the conductor's own tendencies and sonic preferences as shaped by the context in which the conductor is living.*

The next stage of score study (even as the first stages continue) is for the conductor to find a way to “see” through the eyes of the composer in as much detail as possible. While perfect understanding may not be possible due to a lack of resources (especially primary resources), it remains essential to build as complete an image as possible.

The conductor's understanding of musical structure will be enhanced by the investigation of the work of the composer's teachers, role models, and critics. A firm grasp of the “state of the art” at the time the work was written will also prove valuable. The conductor's understanding of the context in which the composer was working will be supported by knowledge of what was known in the world, including the prevailing beliefs and attitudes, at the time the work was created. In the case of programmatic works, the conductor must strive to understand the composer's image of the program, as well as the intent of the person that created the program itself. Last, but certainly not least, is for the conductor to gain an intimate knowledge of the composer's tendencies and sonic preferences. To achieve this end, the conductor must study scores and recordings of the composer's wider body of works.

The object is for the conductor to develop an understanding of the mind that created the score and the educational, social, cultural, and historical contexts that shaped that mind, in order to understand how the composition came to be exactly as it is.

T.S. Elliot: “In fact, a part of the function of education is to help us escape – not from our own time, for we are bound by that – but from the intellectual and emotional limitations of our own time.”

Isaac Stern: “The goal is to fuse with the inner meaning of the music and to understand, as much as you can divine, how the composer came to write it.”

As an example of this process, let us consider Florent Schmitt’s Dionysiaques, Op. 62, No. 1. The first clue to a deeper understanding of the work lies in its title (never ignore the obvious). Dionysiaques refers to Dionysus, in Greek mythology the god of wine, agriculture, fertility of nature, and the patron god of theatre. The work was composed in Paris in 1913. In the case of Dionysiaques, the 90 years of intervening history have had a profound influence on how we view the ancient Greeks as well as the art of music. To us, Dionysiaques is an example of a style of composition that went out of fashion decades ago – an antique, especially in terms of instrumentation. To Schmitt, Dionysiaques was very contemporary and topical, specifically tailored to the premiere band of the day, including a joking allusion to their reputation as drunkards. To us, Dionysus is a vaguely remembered image from high school history and literature classes, and an obscure reference for most Americans. To cosmopolitan Europeans of the early 20th century, schooled in the traditions of the late romantics, Dionysus was a much more vivid character as well as an easily accessible point of reference. To us, Florent Schmitt is an obscure composer whose work had little or no impact on the development of art music in our time. To his contemporaries, including luminaries the likes of Igor Stravinsky, Schmitt’s work was worthy not only of admiration but emulation (consider the coincidence of Dionysiaques’ composition date with that of The Rite of Spring).

“As interpreters, our relationship to a composition resembles that of the composer to the cosmos. Before the composer has put it on paper, before it has been realized, the composition is dependent only on the composer’s brain. It is encompassed within his imagination. The moment it is on paper, it is dependent on the reader’s imagination, and the moment the piece is played, it becomes subject to the laws of the universe.”¹⁰⁰

“Bad interpreters should not make us forget the good ones. I agree – noting, however, that the bad ones are in the majority and that the virtuosos who serve music faithfully and loyally are much rarer than those who, in order to get settled in the comfortable berth of a career, make music serve them.”¹⁰¹

Many conductors never reach the stage of score study that engenders an understanding of the context in which a work was created. Also, many conductors do not have a clear sense of how they themselves are influenced by their own environment. In such a case, the resulting performance of a work may be technically proficient but will be aesthetically two-dimensional.

Some conductors are aware of the context in which a work was created but lack an awareness of the influence of their own context on their work. Such conductors are inclined to produce a skewed or aesthetically unbalanced performance. Ironically, such a performance is likely to be well-received as the audience shares the context of the conductor and typically some of the resulting preferences and expectations.

Some conductors are aware of the influences of their own context on their work but have not studied to understand the context in which the work was created. These conductors will be inclined to deliver a tasteful, entertaining and technically proficient performance, but it is likely to be devoid of aesthetic value. The performance will reflect only the present context, without insight into the musicianship of the composer or the significance of the work as a cultural artifact.

¹⁰⁰ Barenboim, p. 183.

Fortunately, some conductors are aware of their own context as well as that of the composer. These few are equipped to make thoughtful artistic decisions that will build an aesthetically three-dimensional performance with the potential of illuminating and commenting upon the richness of the human condition.

The Origin of Gestures

“The conductor’s influence on and communication with the orchestra must have a rational basis.”¹⁰²

The “rational basis” to which Barenboim refers is embedded in the score and unearthed through the study process described in the two preceding sections. The conductor’s influence is achieved through physical gestures, therefore the conductor’s gestures must also come from the score. Most conducting texts present gestures as discreet objects to be applied to specific musical contexts – an emblematic approach. When gestures are imposed from without, four approaches to conducting result:

1. The “paint by numbers” approach

Gestures are assigned to moments in the score according to notation. For example: “The downbeat is marked fortissimo, therefore I must use gesture X (typically a large pounding motion with both arms, employing most of the muscles of the head, neck and shoulders, preceded by an exaggerated, gasping inhalation). This approach, as with most paint by numbers kits, employs a severely limited palette (primary colors only, analogous to the gestures found in most conducting texts). Practitioners of this approach fail to realize that the gestures described in most

¹⁰¹ Stravinsky, pp. 165-167.

conducting texts are merely a starting point, or framework within which to employ more vivid and useful gestures. This approach is most often seen in beginning conductors, or conductors who are unprepared to engage the score they are attempting to perform. With this approach the conductor has virtually no hope of positively and intentionally influencing the sound of an ensemble.

2. *The “trapped within your body” approach*

Gestures are chosen from a pre-determined set (from within the conductor’s physical and emotional “comfort zone”). Gestures are assigned according to general categories that roughly correspond to what is called for in the score (“I have 3 pianissimo, marcato gestures – this one should do the trick”). Practitioners of this approach often feel satisfied while “conducting” because all gestures are safe (they do not make the conductor look silly or awkward) and they fit his or her physical type and level of coordination. This tends to be the most commonly seen approach to conducting bands and typically involves choreography. With this approach the conductor has a limited degree of positive influence on the sound of the ensemble. However, the influence is greatly diminished by the repetitive or “canned” nature of the gestures.

3. *The “cheerleading” approach*

Gestures are typically exaggerated and highly repetitive. This approach might also be referred to as: “If they don’t respond the first time then say it again louder.” Gestures are reactive rather than proactive, essentially communicating to the players that they have not done or are not doing

¹⁰² Barenboim, p. 85.

whatever it is they should be. As a result, choreography is not typically an issue. Practitioners of this approach are often exhausted and frustrated after rehearsals and performances since a great deal of energy is expended before little, if any, progress can be measured. This approach is very common in less experienced, though not beginning, conductors and among conductors of young and/or inexperienced ensembles. This approach feeds on itself. The more it is employed, the more it seems to be needed. This is caused by the stupefying effect it has on the ensemble (if someone shouted at you all day, you would quickly learn to tune them out in order to preserve your sanity).

4. *The “whimsical, self-promotional” approach*

A great variety of creative gestures are employed that reaches well beyond those described in most conducting texts. Gestures tend to correspond more closely to the actual requirements of the score but typically do not closely correspond to the sound actually produced by the ensemble. This “disconnect” results from timing issues (the conductor may be following or reacting to the sound), teamwork issues (the conductor is conducting his own personal aural image exclusively, without regard for the ensemble), and/or ego issues (the conductor does not care how the ensemble sounds as long as he looks good to the audience). This approach often employs a great deal of choreography and is frequently encouraged by positive feedback from the typical concert going public. With this approach there is the potential for positive influence by increasing the interest and enthusiasm of the players through greater energy and variety of gestures. However, the possibility of connection as

described in section eight is limited, and therefore musical substance is often lacking.

Obviously these four approaches represent less than the ideal. To avoid falling into any one of them, a conductor need only remember that all conducting impulses must spring from the conductor's understanding of the score (acquired through study as described above).

Therefore, the ideal approach is when the conductor's gestures are inspired by the construction of the score (drawn from within, rather than imposed from without).

To achieve this end, the conductor must let go of the inhibiting qualities of his own ego, and become a follower of the spark of inspiration that caused the work to come into being. To approach the concept from the opposite direction, it is simply not within the conductor's purview to enhance or "sell" the music. If the music needs to be "sold," it is probably not worth buying in the first place. This is why the "cheerleading" approach and the "whimsical, self promotional" approach erode musicality in performance.

"Vanity is indeed the archenemy of the interpreter, because it interferes with his ability to receive messages from other minds. Freischwebende Aufmerksamkeit (free-floating attention), a technique that is the sine qua non of dream analysis, is in my view the essential quality for a great interpreter. Unfortunately, the consensus has been that those performers who exhibit the oddest, most flamboyant, or most eccentric personalities have the greatest talent. This may seem true, as long as we do not know the composers they perform too intimately. If we do, the performer's idiosyncrasies and vanities rise to the surface like oil in water."¹⁰³

Furthermore, the act of "letting go" actually increases the potential for connection and influence necessary for true artistic collaboration. The object is to let the work of art take on a life of its own.

Isaac Stern: “Music is really complete in itself and the best thing you can do is to let it filter through you.”

Edgar Degas: “Only when he no longer knows what he is doing does the painter do good things.”

The conductor is free to respond spontaneously to the needs of the ensemble and the composition as if “composing” the work in sequence and in real time. Authors who have written works of fiction often refer to the experience of creating a character and then allowing the character to determine how the plot will unfold, rather than determining the details of the plot and imposing them on the inhabitants of the story. This process is analogous to a key element of artistry referred to by Elliott Eisner as “thinking within the medium”, or thinking within the capabilities of the material with which one is working. This is directly related to John Dewey’s concept of “flexible purposing,” or shifting one’s direction or focus as opportunities arise. Closely related to improvisation as described in earlier sections, flexible purposing is recognizing and exploiting the unanticipated, shifting diagnoses and following new leads as they unfold.¹⁰⁴

Pierre Boulez: “The score is absolutely absorbed when you can react naturally to what you see and don’t think about conducting; this is an ‘acquired spontaneity’.”

“I hope this doesn’t shock you too much, but in my view, much of what has been written about how to think about interpreting music is misconceived. We should think as little as possible. We should think as much as necessary but as little as possible because thought very often gets in the way of our artistic sense. This is not to say that you shouldn’t have a good idea of how an embellishment goes or how a mordent should be played. Each of us has to have thought through the forms and know where the peaks are and what direction to go in. An interpretation is never entirely spontaneous, but should be as close to that as possible. With a broad view of the form and the overall shape, at the moment of interpretation the small things are felt based upon your past experience. The

¹⁰³ Leinsdorf, p. 49.

¹⁰⁴ One can practice the skill of “flexible purposing” by playing games that combine chance and strategy. Games such as Tetris require the player to constantly adjust his strategy to compensate for the computer’s random selection of game pieces. The most successful players are able to maintain a free floating mental state, responding to the computer while purposefully manipulating the game board toward the ultimate goal.

larger interpretive issues of where the climaxes are should be set. We should try to play spontaneously on the small things and objectively on the large things.”¹⁰⁵

“We were discussing ch’i-yün, the first of the Six Principles set down by the art critic Hseih Ho in the fifth century A.D. in what is thought to be the earliest document stating the fundamental canons of Chinese painting. It was maintained that in order to become a master, the artist must prove himself in the following skills: vitality of brushstroke, accuracy in portrayal, versatility in colouring, care in arrangement of composition, transmission of tradition through copying the works of earlier masters. But the foremost task lay in the fulfillment of the First Principle, which has sometimes been defined as ‘breath-resonance life-motion’. For only by coming into harmony with the vital cosmic spirit or breath could the painter convey through the movement of his brush the mysterious vitality of life itself.”¹⁰⁶

Working in Context

The conductor’s relationship with the score is aptly described in the following quotation of painter Mark Rothko:

“A painting is not a picture of an experience; it is an experience.”

The score is not a picture of a musical composition just as a road map is not a picture of a trip. In either case, the element of time prevents “capturing” the experience. The score is a guide to lead the musicians as they follow (within the flow of time) the creative processes of the composer. To paraphrase Rothko in another sense: conducting is not a picture of the sound the musicians are producing or will produce. Music always and only exists within the flow of time; no element of it is static. A conductor cannot be a picture of a sound any more than a score can be a picture of a musical composition or a road map can be a picture of a trip. Therefore, the conductor must influence the sound as it moves through time rather than seeking to somehow capture it or pin it down. The conductor who tries to be a picture of the sound becomes a human slide show

¹⁰⁵ Ellis, Barry. “Rehearsals with a View To Preserving Spontaneity.” *The Instrumentalist*. December, 1999. p. 15.

representing moments or features of a piece of music to an ensemble, rather than a musician actually performing a piece of music with an ensemble.

Isaac Stern: “You don’t think about the music; you simply become part of it. As part of it, you are singing it, you are playing it, you are inside the phrase. You don’t think of anything else; you must immerse yourself.”

“What is there to be presented? That’s static. Something, with your help, my help, and the musicians’ help might come into being. I follow the recommendations of the composer and I could feel, more or less, what moved him to do so. So, if you (the audience) can do the same, it’s all right. But I do not do it for you.”¹⁰⁷

Artistic intuition of the sort alluded to by Stern, Celibidache and others is a byproduct of both study and experience. An unconscious response to the score can only be achieved after prolonged, intimate investigation. In other words, score study reveals to the conductor the features of the landscape within which he will travel in performance (aka the metaphorical context). And, contrary to the impression that musical notation might give, the performer need not travel through the world of the score as if on rails, unable to stray from a prescribed path. On the contrary, he is free to explore and connect with the music from any point within the parameters the composer has established. The decisions he makes during the score study process will inevitably move him to view the landscape from an individually distinct perspective. Another conductor’s decisions will result in a different view of the same material. This three-dimensional concept of the score enables the conductor to work from within the music as if he were in a building constructed by the composer. The more the conductor learns about the score, the greater his awareness of the structure, the more far-ranging his exploration will be, and the more coherent his understanding of the building as a whole will be. A conductor with little knowledge of the score cannot travel far – not because there is nowhere to go, but because he doesn’t know there are more rooms beyond the walls he sees.

¹⁰⁶ Blum, David. Casals and the Art of Interpretation. Berkeley: University of California Press, 1977. p. 1.

This brings us to one of the most abstract, but vitally important, concepts of this entire thesis.

The context of a piece of music exists, in its entirety, whether the conductor is aware of it or not.

Metaphorical context is not something a conductor creates for himself and imposes on the score. This is one of the most common misunderstandings in the practice of conducting. The conductor merely rents the house the composer owns. Once the lease is signed, he can't decide to rip out walls, or paint the trim electric blue, or build a deck off the kitchen. He has to find the best way to live in the house as it is. Too often conductors are working with a score as they wish it were, or as someone told them it should be, or as they assume it is. Conductors must cultivate the ability to see a score clearly, completely, and as objectively as possible in the study process. Contrary to popular belief, this will not lead to a sterile performance. It will actually free the conductor to work more flexibly and intuitively.

Score study not only reveals the parameters or boundaries of the context (the floor plan), but the features of the terrain as well (the décor). A Brahms symphony is a palatial structure, richly appointed. A conductor who has not studied the score will be confined to the foyer, if he even succeeds in finding the front door. He will be completely unprepared to grasp or inhabit the world the composer has created. And, if the conductor's preparation is insufficient, the conductor's options to physically influence the sound will be severely limited (like trying to change your clothes while standing in a broom closet).

¹⁰⁷ Celibidache.

Context is the link between a conductor's artistic and kinesthetic intuition.

Gestures (kinesthetic metaphors) happen within contexts, and the context (the floor plan and décor of the house) determines the most appropriate manner for a conductor to move through it given his own unique characteristics. A bull and a hummingbird moving through the same china shop will operate very differently even though their intent is the same. This is how two conductors can look vastly different while performing the same work.

This is also how a conductor or player might perform with proper style without a convincingly musical result. Context is not style. For example, if one were to write in the style of William Shakespeare and the context of Leo Tolstoy, the result would be neither Shakespeare nor Tolstoy, though it may be entertaining and artistic in its own right. Context is the frame upon which style is hung. The Shakespeare/Tolstoy combination would be akin to a literary Mr. Potato Head, whereas War and Peace or Hamlet are more like Michelangelo's sculpture of David.

To completely exhaust the "score as a house" metaphor, and to combine it with the concept of reconciliation discussed earlier, the vast majority of rehearsal time is spent getting all of the players into the same room of the same house at the same time. But if the players have been trained to view the house in two dimensions – as a blueprint or set of instructions to follow, rather than an actual three-dimensional structure to inhabit – they won't connect with the conductor. It would be as if the conductor were living in Stravinsky's house, while the ensemble is outside looking at Stravinsky's house (or Erickson's house, or Holst's house). Context is not merely a theoretical tool to help the conductor look better on the podium, nor is it present only in the most complex literature.

Every composition has a context, no matter how simple. Context is the element that embraces both parties in the connection (ensemble and conductor) and brings the opposing forces together to form the “cushion” that enables them to influence one another. Context is what keeps the conductor and the ensemble aligned.

VII

Artistry

Technique

Most conducting texts devote the majority (if not the entirety) of their contents to technical considerations. Several chapters of this thesis target physical issues, and most conducting classes and workshops focus on movement. The traditional centrality of the physical in conducting pedagogy is the result of several factors. First, physical technique is by far the easiest aspect of conducting to assess. It is also the easiest to describe and demonstrate. Indeed, for many people the physical technique of conducting is all that differentiates it from other related activities (e.g. teaching). Therefore, teaching conducting is often understood to mean teaching gestures.

To believe that the sum total of conducting is an accumulation of coordinated gestures is to put one's faith in what may be a beautiful but empty vessel.

Pablo Casals: "Technique, wonderful sound... all of this is something astonishing – but it is not enough."

Ultimately it is the content of the vessel, the musicianship of the conductor, that determines the value of his collaboration with an ensemble.

Guru Dev: "At some point in a musician's development his instrument becomes purely a tool, an extension of himself. This is when the theory and the technical problems of that instrument have been overcome and he no longer thinks about them. He is free just to play, to be an open channel, to let the creative force within express itself effortlessly through him and his instrument."

The role of technique is to facilitate the exercise of musicianship. It is possible, and not uncommon, for a conductor with strong musicianship but poor physical technique to successfully engage an ensemble; it is not possible for a conductor with poor musicianship to do so, even if his technique is stellar. However, the effort of overcoming technical deficiencies (the conductor's and/or the players') will impose a limit upon the collaborative potential between a conductor and an ensemble. The goal is for all to achieve mastery of the physical and intellectual aspects of music making to enable the free play of the spiritual or aesthetic.

Sherwood Anderson: "...Go to the Louvre often and spend a good deal of time before the Rembrandts, the Delacroix's. Learn to draw. Try to make your hand so unconsciously adept that it will put down what you feel without your having to think of your hands. Then you can think of the thing before you. Draw things that have meaning to you. An apple, what does it mean? The object drawn doesn't matter so much. It's what you feel about it, what it means to you. A masterpiece could be made of a dish of turnips. ...The object of art is not to make salable pictures. It is to save yourself. ...The fools who write articles about me think that one morning I suddenly decided to write and began to produce masterpieces. There is no special trick about writing or painting either. I wrote constantly for 15 years before I produced anything with any solidity to it."¹⁰⁸

Too often we inhibit ourselves. Our quest for technical prowess, a commodity that is comparatively concrete and therefore easy to assess, often overwhelms our attempts to demonstrate artistry, which is ineffable and often tenuous. Most of us were taught to achieve clear goals and to measure progress linearly. Therefore, when artistry eludes us we seek consolation in technical improvement (a more efficient grip or stance, greater variety or independence of gestures, more precisely defined patterns, etc.). Too often we move from goal to goal, achievement to achievement without recognizing or achieving the ultimate goal. In celestial terms, we orbit artistry rather than inhabit it.

¹⁰⁸ Carroll, Andrew, editor. Letters of a Nation. New York: Kodansha International, 1997. pp. 333-334.

The confusion of conducting with related activities, particularly teaching, is one of the chief contributing factors that reinforce a mere orbit of artistry. This is not to suggest that such pursuits are antithetical to artistry. On the contrary, artistry can be achieved through myriad means, not the least of which is the act of teaching. The key to breaking orbit and landing on the surface, however, lies in focus. And to focus, one must be engaged in a clearly defined task. The purpose of this thesis is to define conducting in a manner that will facilitate focus and ultimately artistry.

Optimal Experience

Psychologist Mihaly Csikszentmihalyi has devoted much of his career to the study of states of optimal experience (artistry or peak performance in artistic or athletic endeavors, although optimal experience is not limited to these spheres). He writes:

“The optimal state of inner experience is one in which there is order in consciousness. This happens when psychic energy – or attention – is invested in realistic goals, and when skills match the opportunities for action. The pursuit of a goal brings order in awareness because a person must concentrate attention on the task at hand and momentarily forget everything else. These periods of struggling to overcome challenges are what people find to be the most enjoyable times of their lives. A person who has achieved control over psychic energy and has invested it in consciously chosen goals cannot help but grow into a more complex being. By stretching skills, by reaching toward higher challenges, such a person becomes an increasingly extraordinary individual.”¹⁰⁹

Csikszentmihalyi refers to a person in this optimal state as being “in flow.” Flow is a state of profound un-self-awareness brought on by an unwavering focus of one’s attention on a chosen task that is challenging yet achievable.

“When a person invests all her psychic energy into an interaction – whether it is with another person, a boat, a mountain, or a piece of music – she in effect becomes part of a system of action greater than what the individual self had been

¹⁰⁹ Csikszentmihalyi, Mihaly. Flow. New York: Harper & Row, 1990. p. 6.

before. This system takes its form from the rules of the activity; its energy comes from the person's attention. But it is a real system – subjectively as real as being part of a family, a corporation, or a team – and the self that is part of it expands its boundaries and becomes more complex than what it had been.”¹¹⁰

For a conductor, the larger system of which he becomes a part is not only the score, but the ensemble that will bring it to life. Devotion to the score is not enough. The conductor must focus his attention on the realization of the score through the ensemble. The conductor's self becomes enmeshed in the collective self of the ensemble, and this composite system of action enables (or inhibits) flow. One thing is certain: a conductor cannot be “in flow” if the ensemble is not. Flow is interactive – it relies upon Eisner's concept of thinking within the medium. The conductor's medium is the composite of the score and the ensemble. If for no other reason, this is why the four conducting types described in chapter six are not successful. It is also the reason why the first three outcomes of score study described on page 74 will stand as obstacles to optimal conducting experience.

“The purpose of the flow is to keep on flowing, not looking for a peak or utopia but staying in the flow. It is not moving up but a continuous flowing; you move up to keep the flow going. There is no possible reason for [rock] climbing except the climbing itself; it is a self-communication.”¹¹¹

Chris Evert Lloyd: "I've had matches where everything has gone right. You play in the zone, over your head where everything is like a dream. When you play matches like that, you want to play more."

The purpose of conducting is to experience the connection, or network of connections, that can exist among musicians focused on the performance of a score, and to sustain this connection for the duration of the performance. The obstacles that stand in the way of achieving this flow are legion. A beginning conductor might hope to experience one

¹¹⁰ Csikszentmihalyi, p. 65.

¹¹¹ Csikszentmihalyi, p. 54.

fleeting instant of flow in a single note or breath whereas the most advanced professionals are able to maintain a state of flow through entire symphonies or operas.

Ironically, the conscious quest for achievement (in this case, trying to connect with an ensemble) is often the primary inhibitor of flow. The conductor knows that connection is essential, which in turn creates a state of anxiety that actually prohibits connection.

"Ahead lies a broad expanse of river, flowing rapidly. The oarsman, only recently learning his skill, nervously maneuvers to avoid the one and only rock breaking the surface downstream, dead center, smooth current to either side. You watch from the shore. The oarsman zigs left. Zigs right. And then crashes directly into the rock. When you act out of fear, your fears come true."¹¹²

T.S. Eliot once said, "Anxiety is the hand-maiden of creativity." Couple that with Henry Ford's assertion, "If you think you can, you're right... If you think you can't, you're still right," and we strike at the very heart of the matter.

"The pattern is predictable: as you see error in what you have done, you steer your work toward what you imagine you can do perfectly. You cling ever more tightly to what you already know you can do – away from risk and exploration, and possibly further from the work of your heart. You find reasons to procrastinate, since to not work is to not make mistakes. Believing that artwork should be perfect, you gradually become convinced that you cannot make such work. (You are correct.) Sooner or later, since you cannot do what you are trying to do, you quit. And in one of those perverse little ironies of life, only the pattern itself achieves perfection – a perfect death spiral: you misdirect your work; you stall; you quit."¹¹³

Within the context of conducting, this is a remarkably common occurrence. A conductor senses that connection is not happening and diagnoses (correctly) that the error must be in himself. Perhaps his gestures are not clear, or not vivid enough, or he is operating within the wrong metaphorical context. Perhaps the players have lost respect or interest in his work because they also sense the failure to connect. In order to regain his footing

¹¹² Bayles and Orland, p.23.

¹¹³ Bayles and Orland, p. 30.

– to prove that he knows what he is doing – the conductor retreats to the fundamental practices he learned in conducting class: basic patterns, “elevator” dynamics, formulaic cues and facial expressions (“emblems”). In order to preserve some semblance of self-esteem, the conductor also tries to exert control over the ensemble – in essence to force a connection – by employing increasingly autocratic rehearsal techniques. Unfortunately, this model of behavior may actually result in an improvement in the sound of the ensemble as the players experience the physiological boost of energy and focus inspired by fear of embarrassment or failure. The improved sound encourages the conductor to continue along the path he has chosen, erasing with each step any chance of truly connecting with the players on a musical level.

Fortunately, there is an alternative – a parallel universe. A conductor senses that connection is not happening and diagnoses (correctly) that the error must be in himself. Perhaps his gestures are not clear, or not vivid enough, or he is operating within the wrong metaphorical context. Perhaps the players have lost respect or interest in his work because they also sense the failure to connect. In order to regain his footing, he reminds himself that his task is not to demonstrate the technique of conducting (to prove that he knows what he is doing) but to influence the sound of the ensemble. He then begins the process of comparing the sound the ensemble is producing to a realistic appraisal of his own activity. He finds, inevitably, moments of positive correlation (success!). He also finds problems: gestures that fail to elicit the intended result, or inadvertent gestures that muddy the waters (challenge...). Most importantly, he keeps the focus of his attention on the target or goal: the sound of the ensemble. At this point, the foundation of flow (as defined by Csikszentmihalyi) has been established.

But what if the conductor finds no ready solutions to the challenges that present themselves? What if he simply does not know what to do to influence the ensemble?

Anxiety creeps in...

“In their discussion of social anxiety Beck and Emery (1985) state that the anxious person’s perception of a threat to him or her is the trigger for their anxiety response. This perception of a threatening event is created by:

1. Overestimating the probability of a feared event
2. Overestimating the severity of the feared event
3. Underestimating coping resources (what you can do about it)
4. Underestimating rescue factors (what other people can do to help you)¹¹⁴

The anxiety can be overwhelming in light of the conductor’s responsibility as a leader and musical focal point. If kept in check, anxiety is actually a benefit.

“The existing evidence suggests that... quality of performance is superior at moderate levels of anxiety (Leglar, 1979; Steptoe, 1983).”¹¹⁵

Laird Hamilton (professional surfer): “We use fear as energy.”

The key to using anxiety to its best advantage lies in the conductor’s ability to recognize all of the information that is available to any of us at given moment – to “plug in” to the circuit board of connections that link conducting to the human condition at large. To many artists, the most terrifying prospect is facing a blank page or canvas. A conductor’s canvas is never blank. Although challenges will inevitably be present, a

¹¹⁴ Wilson, G. D. and D. Roland. “Performance Anxiety.” In The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning. ed. R. Parncutt and G. McPherson. Oxford: University Press, 2002. p. 49.

¹¹⁵ Steptoe A. and Fidler, H. 1987. “Stage Fright in Orchestral Musicians: A Study of Cognitive and Behavioural Strategies in Performance Anxiety.” British Journal of Psychology. Volume 78/Issue 2. May 1987. p. 242.

conductor is continually surrounded by the means to address them. His anxiety then becomes a matter of choosing among many solutions, rather than fearing the lack of one.

“Plugging in” is simply a matter of awareness. Many conductors are preoccupied with attempting to control the ensemble, or prove their superiority, or hide their inadequacy, or advance any of the myriad agendas that plague the profession. Those who can set aside this baggage and focus unselfconsciously on the sound of their work, rather than the appearance or sociopolitical implications of it, will rapidly learn to influence the sounds of others.

Sensing Sound

The nature of conducting as a silent, kinesthetic endeavor calls upon a conductor to actually interact with sound, rather than simply hearing or reacting to it. Although the interaction itself is real, the means to achieving it are imaginary. Verbal metaphors rely on the imagination to suspend literal interpretations of objects or events. For example, Sandburg (quoted on page 21) is not suggesting that fog actually has feet. Similarly, kinesthetic metaphors rely on the imagination to endow sound with physical qualities it does not actually possess.

The first step a conductor must take toward interacting with sound is to translate abstractions (sound, energy) into concrete entities. Conductors are able to influence sound by moving as if sound had tangible properties such as mass (bulk, density), texture (tactile character, including temperature), and shape (dimensional character). An important aspect of practice for any conductor is to cultivate the ability to respond to these imaginary properties as if they were real, as a mime’s body might react to an imaginary gust of wind. Our brains are able to “ask” our muscles to work as they would

if the wind were actually blowing as long as we have access to a sense memory of what it actually feels like to be blown over.

Common experiences create common sense memories.

If a mime moves as if being blown over by a gust of wind, anyone who has ever been blown over by a gust of wind will intuitively understand what his gestures are meant to represent. But conducting is not mime. Conducting gestures are not meant to represent anything; they are meant to influence the musical actions of others. If an ensemble sees a conductor make a gesture as if he had just touched a hot stove, any player who has ever touched something hot, or simply moved in a similar way, will have a corresponding sense memory. He can therefore respond empathetically to the conductor by translating the energy of that remembered muscle response into musical terms (e.g. by sending a short burst of highly compressed air into his instrument).

Sense memory and everyday life are important sources of gestures for any conductor. Since imitation is an efficient means of training the body, it is one of the best modes of adding material to a conductor's working "vocabulary." A challenge inherent to imitation is to perceive the specific details of the model, rather than an approximate generalized image. When faced with the task of mimicking something, we tend to work in caricatures. Because they rely on shared sense memories, conductors must imitate reality without regard to what feels natural or looks good. Furthermore, the model doesn't have to be human. Mimicking the characteristics of an animal, or sculpture, or natural object, or virtually anything within the conductor's environment can prove extremely fruitful.

The benefits of such practice are twofold. First, imitation calls for the imitator to distill the essential qualities and characteristics of the model and transfer them into himself, in essence taking information gleaned through various senses (sight, touch, hearing) and transferring them to the kinesthetic or muscle sense. Second, the act of imitation calls upon the imitator to move differently than he normally would; it increases his gestural vocabulary.

The key to practicing movement through imitation is the follow up. Simple mimicry will be fruitless if the conductor fails to integrate the new material into his normal operations. In other words, once he has achieved a convincing impersonation he must then tailor the unfamiliar characteristics to suit his needs. In so doing, the new traits will be available to employ or combine with other traits at will. If the conductor fails to assimilate the new material, the exercise is pointless. Imitation should lead a conductor to move in new ways, but unless he can ultimately choose to move a certain way without actually imitating someone or something specific, his work will be unnatural and unconvincing.

The free transfer of information among the senses is a critical ability for conductors. The physical manifestation of a conductor's work is the result of channeling all of the senses through the kinesthetic sense. Normally, our brains deal with sound only as acoustic energy. But if we imagine that sound has mass, it then has momentum and obeys the laws of physics innately understood by humans. If sound has texture and temperature our bodies are already equipped to respond to it kinesthetically. If sound has shape it can be held and molded. The challenge is the "if" that represents unfettered and lightning-quick creative reflexes.

Albert Einstein: "Imagination is more important than knowledge."

To attain fluency in the translation of sound into substance, a conductor must develop an inclusive awareness of how our senses are naturally connected. For example, the human body is designed to use sound as a navigational device that conveys information regarding proximity and direction. As a result, our sense of hearing is a defensive characteristic. Sounds rushing at us will cause us to move out of the way, unexpected sounds behind us will cause us to jump or turn around. Sound is automatically translated into motion as our sense of hearing triggers certain physical reflexes. Effective conducting is closely related to this process.

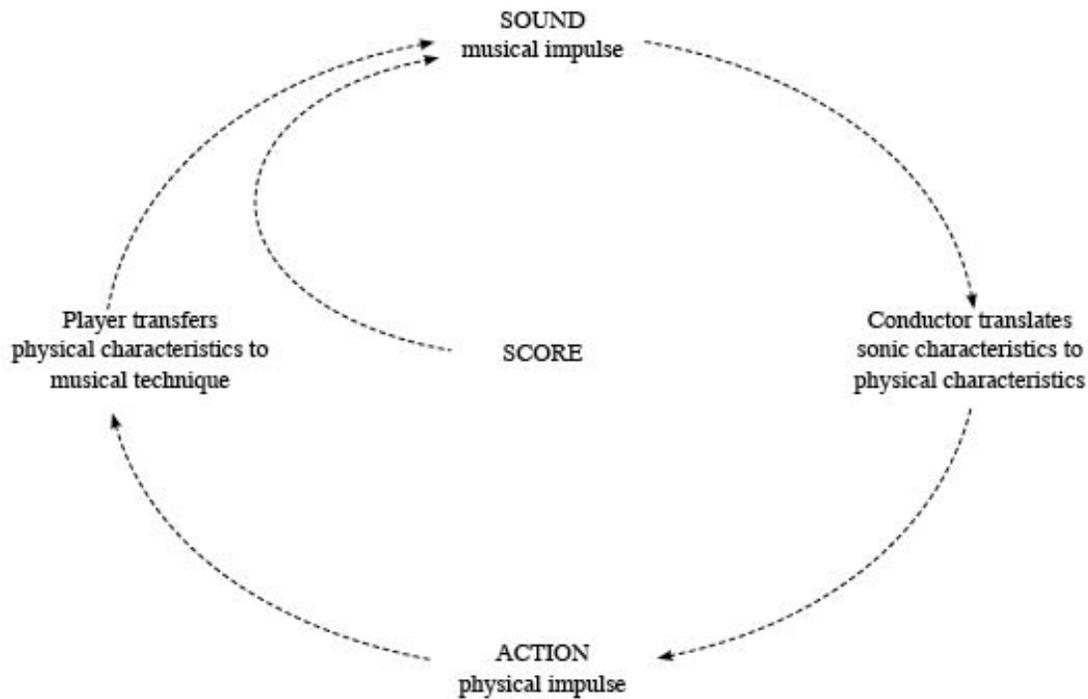
Over our lifetimes we accumulate sense-based information that we take for granted. For example, when we see something that is glowing and red/orange our bodies naturally respond to it as a potential danger (“hot”). We don’t need to imagine what hot feels like, nor do we need a term to label the sensation. The translation from sight-based information to touch-based reaction is automatic. For most conductors, a considerable amount of practice is required to establish such an efficient and ultimately unconscious link between musical sounds and physical actions.

A method of practicing that is somewhat cumbersome yet effective is to work from sound through mental imagery to physical action. Mental imagery (e.g. “this passage reminds me of something smooth and cool and blue”) is a non-musical, and therefore less desirable, method of training our bodies to respond to sound. It does, however, work well as long as it is used responsibly. The goal is to train the body to automatically respond to sound as a tangible entity without the need for intermediate, artificial mental imagery.

Consider the problem with the following example of the sound to image to action process: “I hear a loud sound approaching, I imagine it to be a large, black, steam

locomotive, I will move out of the way.” Accurate though the imagery may be, the time it takes to formulate the mental picture is impractical at best, potentially deadly at worst. However, as the habit of associating sound with action becomes firmly entrenched, the body will no longer need the image of a train to respond to the sound as it would to an actual train. It will just leap out of the way. The object is to train the body to respond to music as automatically as it does to natural environmental sounds.

A great deal of conducting practice is untying the social constraints that cause us to suppress our physical responses and reactions in daily life. From a fairly young age we begin to acquire the “poker face” that will accompany us through life. Conductors have to learn to remove that filter and reveal what they’re feeling and thinking, come what may. This is especially difficult because the musicians they face are able to maintain their accustomed, often inscrutable, public façade. By focusing on the sound of the score (inner aural image), and on the sound of the ensemble (rather than their appearance or his own), the conductor always has the material he needs to perform effectively.

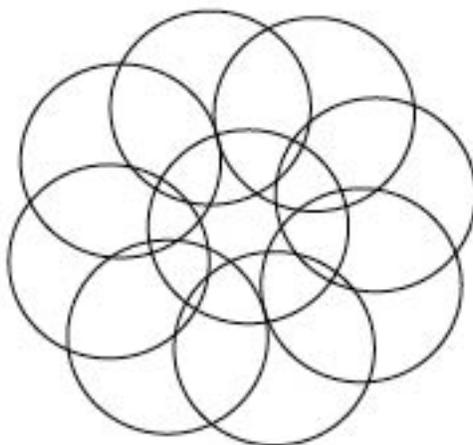


Responsibility

Once a conductor has discovered how to interact freely with sounds both real and imaginary, and how to use the natural anxiety induced by performance to his advantage, his ability to influence the sound of an ensemble will improve remarkably. At this stage of the game one has to ask: to what end? The ability to influence sound is the hallmark of a skillful conductor, but is it enough? To return to the questions posed by Henry James: what was the artist trying to achieve? Did he succeed? Was it worth it? Is influencing sound worth the effort and resources required to achieve it?

If a musician sets out to play a clarinet and succeeds in his effort, the worth of the endeavor lies completely within the compass of his own expectations. The clarinet is

irrelevant; it has neither expectations nor aspirations. But if a conductor sets out to positively and intentionally influence the sound of an ensemble, the worth of the endeavor touches upon everyone involved in the interaction. The illustration shown above represents a conductor and a single player. Imagine the complexity of the diagram as more players are added, each interacting with one another as well as the conductor.



Mind boggling as this model may be, the worth of any musical interaction – no matter how complex – lies in the music itself. Each interactive loop spins out from the score (the composer’s thought). If the score is worth it, in James’ terms, then the subsequent interactions will also be worthy. If the score is worthless, the interactions may be skillful but they are ultimately pointless. Ironically, the artistic effort expended by the performers in either case is exactly the same.

If effort is not the measure of artistry, what is? In The Best American Short Stories 2001, author and editor Barbara Kingsolver discusses how she chose the stories to include in the book. Substitute listening for reading; short fiction, literature or story for piece of

music or repertoire, and you have one of the best statements about artistic integrity that I've ever read.

“Editors, readers, all of us, have to work reading into our busy lives. The best of it can stand up to the challenge – and if anything can do it, it should be the genre of short fiction, with its economy of language and revving plot-driven engine. We catch our reading on the fly, and that is probably the whole point anyway. If we lived in silent white rooms with no emergencies beyond the wilting of the single red rose in the vase, we probably wouldn't need fiction to help us explain the inexplicable things, the storms at sea and deaths of too-young friends. If we lived in a room like that, we would probably just smile and take naps.”¹¹⁶

“With a pile of stories on my lap, I sat with this question early on and tried to divine why it is that I love a short story when I do, and the answer came to me quite clearly: I love it for what it tells me about life. If it tells me something I didn't already know, or that I maybe suspected but never framed quite that way, or that never before socked me divinely in the solar plexus, then the story is worth the read.”¹¹⁷

“We are nothing if we can't respect our readers. It's audacious enough to send a piece of writing out into the world (which already contains Middlemarch), asking readers to sit down, shut up, ignore kids or work or whatever important things they have going, and listen to me. Not just for a minute, but for hours, days. It had better be important... A good short story cannot simply be Lit Lite; it is the successful execution of large truths delivered in tight spaces. If all short fiction did it perfectly, more readers would surely sign up.”¹¹⁸

Kingsolver refers to the best stories as “pieces of truth that moved me to a new understanding of the world.”¹¹⁹ The artistic worth of a conductor's effort relies upon scores that can do the same. Contrary to popular belief, they needn't be long, or complicated, or difficult to perform. Large truths can be delivered in tight spaces if the proper care is taken. The composer's job is to put them there; the conductor's job is to find them, wherever they may be.

¹¹⁶ Kingsolver, Barbara and Katrina Kennison, editors. The Best American Short Stories 2001. Boston: Houghton Mifflin, 2001. p. xv.

¹¹⁷ Kingsolver and Kennison, pp. xv-xvi.

¹¹⁸ Kingsolver and Kennison, pp. xvii-xviii.

Programming

The truths in a composition reside in its intrinsic qualities – its context. The value of the work lies in how these qualities resonate within the broader context of contemporary society. But the resonance of a composition is profoundly effected by its setting. Another important aspect of a performer’s responsibility is to create programs that allow each piece to resonate to its best advantage.

Composer Michael Torke refers to performance as a “healthy using of music.” The idea of using music, rather than simply displaying or reciting it, ties directly to the concept of resonance. Pieces can be used in different ways to achieve various results. The commonly understood method of using works in a program relates to function. Certain types of pieces tend to be used as openers, closers, changes-of-pace, or focal points. The idea of resonance moves several steps beyond this way of thinking.

In his 1991 dissertation, Stephen Peterson investigated the programming practices of 28 college and university wind band conductors in the United States. The survey tool he developed included 19 programming factors linked to intrinsic (style, tempo, key center, etc.) and extrinsic (educational needs of the students, rotation of repertoire, audience influence, etc.) qualities of musical compositions.

“The conductors agree that variety is probably the most important ingredient in the success of any concert. Many of the conductors offered an analogy comparing a successful concert to a good meal. The menus for both require a proper balance of variety and continuity. Another popular analogy is that of the classical symphony. The sense of variety, timing, and change of mood found in a

¹¹⁹ Kingsolver and Kennison, pp. xix.

symphony is similar to the variety the conductors attempt to create through the course of a concert.”¹²⁰

The conductors referred to programming as an art unto itself, similar to the art of composition. Unfortunately, the time and effort required to demonstrate artistry in programming is often eschewed in favor of an expedient formula. The formulaic approach is favored as audience-friendly, enabling the conductor to intersperse less “accessible” works with those that are more familiar. The end result, however, is to desensitize and disconnect the audience from the aesthetic experience. The concert becomes something to be observed rather than something in which to participate. The audience abdicates the responsibility of processing, intellectually and emotionally, the content of the compositions that are performed.

“I cannot think for them. I am one consciousness only. If they want to do the same as I do, they can. I cannot control what brings an individual to a concert. But, if I judge from the short span of my life, they try to find something which I already know. Many of them do. Like the Queen of Hanover who said ‘Maestro, it is so.’ If she made that perception, then she was as free as I was. So, I cannot animate myself by the desire to give them something. Through my concentration (or whatever it is) something comes into being.”¹²¹

Unfortunately, the formula is easy to teach, easy to market, and therefore ubiquitous. Even the proponents of the menu approach to programming invariably put the appetizer before the entrée, the entrée before dessert. But if you’ve never experienced a non-formulaic meal, where do you begin? The conductors in Peterson’s study refer to “artistic intuition,” but if you don’t have it how do you develop it?

Traditional conducting pedagogy fails to link score study to programming. Artistic intuition, for a chef or for a conductor, consists in knowing the ingredients with which

¹²⁰ Peterson, Stephen. “A Survey of Concert Programming Techniques Employed by Selected College and University Wind Conductors in the United States.” D.M. diss., Northwestern University, 1991. pp. 129-130.

¹²¹ Celibidache.

you have to work. In order to juxtapose flavors and textures, you have to know what they are and what becomes of them when they interact. For example: toothpaste and orange juice. Each flavor is distinctive and pleasant left to itself. But if you're going to put them next to one another, the order of events is crucial.

The same is true for music. The elements of one work will effect the listener's perception of the works around it. Artistry is experienced through the interplay and resonance of elements throughout the concert. It therefore falls to the conductor to understand how each piece will influence or be influenced by the others. The process begins with the choice of a focal point. Within this piece will be a variety of elements, any number of which can be selected to resonate throughout the entire program. Fewer resonating elements in a program will result in a more direct, powerful experience. Many elements will cause the experience to dissipate and have less impact. A lack of resonance will result in an experience that may be confusing or irritating (like randomly turning a radio dial, or eating a handful of "every-flavor" jelly beans).

To illustrate the concept of resonance in programming, consider the following:

Strauss, Wiener Philharmoniker Fanfare

Mahler, Um Mitternacht

(piece to be determined)

- intermission -

Maslanka, Symphony No. 5

Veteran programmers will note the almost inevitable formulaic undertone: the fanfare is first, the largest work is last, the piece that calls for a soloist is before intermission.

Fortunately, this grouping already has a degree of resonance, but it needs at least one

more piece to tie it all together. One could easily argue that with composers such as these, the quality of their work will speak for itself and the issue of resonance is superfluous. It is true that works of a certain artistic stature gain what might be termed “diplomatic immunity” in programming. However, one cannot deny that to change the order of these pieces would effect how they are perceived (the toothpaste and orange juice conundrum). The challenge is to find the order that casts each in its best light.

The process is very similar to the work of museum curators in choosing the placement of paintings in an exhibit. Imagine if Leonardo’s Mona Lisa were hung next to Picasso’s Guernica. Both are masterpieces, both could be said to have acquired artistic “diplomatic immunity” (i.e. put them anywhere and they’re still masterpieces), but beautiful as she is, Mona will virtually disappear next to Picasso’s colossal canvas. It’s not that Picasso and Da Vinci can’t work in the same space – there simply has to be resonance to link one work to the next. Put Mona Lisa next to Les Demoiselles d’Avignon and links start to appear. Add Whistler’s Arrangement in Grey and Black and Botticelli’s The Birth of Venus and you have a stunningly diverse commentary on the treatment of the female form on canvas.

Or...you might choose to focus on the nature of Mona Lisa as an incomplete (unfinished) work of art. Certain of Michelangelo’s sculptures would work well to highlight this aspect. Or...you might choose the color of Mona’s dress to link to other works, or the dimensions of the canvas, or the era in which it was painted. There are countless possibilities, and each choice will influence how the viewer experiences the work.

In the concert program given above, the conductor has decided the focal piece will be the Maslanka. Why? Because it’s his dissertation topic. The reasoning behind the choice needn’t be profound. Some potential resonating elements in the symphony might be: call

and response patterns, chorale writing, clear large-scale forms (sonata-allegro e.g.), rhythmic figures characteristic of Renaissance dance forms, extremes of range, tremendously variegated color palette, recurring functional fanfare-like figure, extended introspective solo line, etc. These elements are discovered through listening, study, and comparison with other works. A great deal of “artistic intuition” comes from attentive listening and deliberate association of characteristics from one piece to another.

If we were to add to the program a “pure” representation of a resonating element (e.g. a Bach chorale, or Terpsichore), then there is a chance that the focal point will shift from the original intent (Maslanka) to the “purer” work. The concert becomes a commentary on Bach chorales. To keep the symphony as the focal piece, the added work needs to be a composite or oblique representation of a resonating element (e.g. Daugherty, Bells for Stokowski or Grantham, J.S. Dances). But these works will tend to spin the Maslanka away from the Strauss and Mahler that open the program, breaking the continuity.

Programs function as a community of compositions. The performer’s responsibility is to define the nature or character of the community, and to enrich the overall context through the aesthetic interplay of compositions. One poor choice can cause property values to plummet. But a thoughtful choice can lead far beyond expectations.

Consider placing the Dahl Concerto for Alto Saxophone and Wind Orchestra after the Mahler in our sample program. The formulaic approach would eschew placing two solo works back to back, but the Dahl resonates brilliantly in this context. As a result, the program becomes an exploration of the concept of “voice” (solo and choral, vocal and instrumental), of the influence of the first two composers on the works of the second two, of Romanticism (overt and implied). The Dahl leavens the rich sonorities of its

surroundings without seeming trite, and balances the “form” of the concert in its specific use of percussion (a vital element in the Maslanka).

For those to whom this process is new, exercises are included in the appendices to help build artistic intuition through an inclusive awareness of the essential properties of art.

Form and Function

The preceding discussion has taken for granted the role of the conductor as a performer. As we have seen, due to the nature of the conductor’s instrument, his performance includes a significant ethical component. When conducting is embedded in different professional contexts, this component takes on a new dimension to account for characteristics appropriate to each setting. However, the placement of conducting into different contexts does not change its fundamental nature. What changes is the musical material with which the conductor chooses to work. In other words, the repertoire must suit the setting in which the conductor finds himself.

Architects have long known that form follows function. This adage applies equally well to the conductor’s work when programming concerts. At the moment, there are three functions that are most commonly paired with conducting: teaching, entertaining, and scholarship.

If a conductor has been hired to teach, his responsibility as an artist must revolve around meeting the educational needs of his students. As a result, the aesthetic value of the compositions he programs must be above reproach. These works will serve as the touchstone for the future aesthetic experiences of his students. Ideally, this sphere of

endeavor will rely on the knowledge studied and generated in the third sphere (below) to build curricula and establish standards.

If a conductor is primarily an entertainer, his responsibility as a performer is to adapt to the expectations and established tastes of his constituency. In programming, the musical “nutritional value” of compositions remains a factor ethically related to the well-being of his instrument. Typically those in this sphere will rely heavily on established modes of operation (formulae). Although trend setting is possible and desirable in the entertainment business, it is very difficult to achieve given the fickle nature of public opinion and the inherent professional risks.

If a conductor is foremost a scholar or researcher, his responsibility as an artist focuses on the generation of new knowledge as well as the study and preservation of established knowledge. The ability to discern musical value in uncharted territory is critical, regardless of the whims of public opinion or the immediate educational needs of students. Freedom of inquiry (the ability to operate outside of the boundaries of either of the above two spheres) is essential. Scholarship is a testing ground for programming, absorbing failures and fueling the other two spheres with successful material.

All too often well-meaning conductors try to adapt their form to function in all three spheres simultaneously. Given the specific requirements of each, this poses an ethical paradox that seriously compromises the ability of the conductor to function as an artist rather than as a technician. Anyone who tries to be all things to all people will end up achieving little of value. Therefore, conductors must understand the context in which they find themselves, and adapt their choice of repertoire to suit its function. For those who find themselves in contexts that demand multiple functions (for example, higher

education calls upon conducting faculty teach, perform, and engage in research), they must determine the most appropriate order of priority.

This is not news to most people. What may be enlightening however, is the realization that no matter what the setting, the conductor's role remains the same: to positively and intentionally influence the sound of the ensemble with which he is working. Furthermore, no matter what the specific nature of his instrument may be, the conductor's responsibility remains the same: to make sure the artistic interaction is worthwhile. No matter how many functions must be embraced, the wise conductor will heed St. Paul's advice:

*Whatsoever things are true,
whosoever things are honest,
whosoever things are just,
whosoever things are pure,
whosoever things are lovely,
whosoever things are of good report,
if there be any virtue, and
if there be any praise,
think on these things.¹²²*

¹²² Philippians 4:8

Epilogue

“We do not long remember those artists who followed the rules more diligently than anyone else. We remember those who made the art from which the “rules” inevitably follow.”¹²³

This thesis is not meant to be a new set of rules. As we have seen, one of the great problems with traditional conducting pedagogy and practice is an adherence to artificial and often arbitrary rules that turn what should be a freely creative process into a paint-by-numbers kit. If this text is to prove worthwhile, it will simply serve as a point of entry for further investigation, and a catalyst for debate. If the examples, suggestions and exercises are helpful to conductors developing their craft, so much the better.

To return to the parachute analogy of the prologue: it should now be clear that conducting is not what it is assumed to be. Conductors, believing they are attached to a parachute, have accepted as normal the feeling of crashing into the ground. But they’ve been jumping without a parachute all along. It’s a classic case of using the wrong tool for the job, like using a screwdriver in lieu of a chisel, and wondering why your sculpture isn’t more refined.

As I pursued my research, following the cords of connection as far as they would take me, I discovered a pattern that is web-like. Each activity, or line of inquiry, or interdisciplinary link led to another series. I also discovered that the web is spherical. The ends, rather than extending outwards two-dimensionally ad infinitum, curve back around and connect again somewhere other than where they began. A conductor’s world is unified in this way. Everything relates to everything else.

The sooner a conductor realizes he is endowed at birth with most of the tools he needs as well as the knowledge to use them effectively, the sooner he'll let go of the imagined parachute and begin to explore the web. Without the traditional baggage weighing him down, he's likely to discover that he can fly.

¹²³ Bayless and Orland, p. 95.

Appendices

Appendix A:

Four exercises to promote healthy connection

The connection described in chapter five is one of the most challenging elements of the conductor's art because it requires an opposing force – the conductor is only half of the equation. Therefore, the most basic exercise toward establishing a connection must be to establish that which the conductor will ultimately work with and against.

Exercise #1

- 1. In a one-on-one situation, choose a simple melodic line with which to work (a tune, or a phrase from an etude or method book, or even a scale). This material should be well within the technical grasp of the player. If you are working with raw beginners, it could even be a single note as long as they can produce it with assurance.*
- 2. Ask the player to choose one note of the melody to highlight in some way. They might vary the dynamic, or articulation, or tone quality, or duration, but they should not reveal their plan to you. If the player is working with a single note, he should reiterate the note, choosing one of the series to highlight.*

Depending on the player, a brief demonstration (sung or played) may be in order to illustrate what is meant by highlighting.

- 3. The player's task is then to play and project his decision to you, the listener, vividly enough so that you can identify the location and nature of the player's choice. In most cases, the player will either exaggerate the highlighted moment to such a degree that it is almost not recognizable, or will strive to be so subtle that he actually projects nothing at all. Therefore, after the initial attempt it is wise to continue the exercise, continually refining the degree of control exercised by the player.*

- 4. As the player's control improves, the exercise can be expanded to include more complex variables such as dynamic contour, or rhythm, or pitch. The ultimate goal would be for the player to be able to project a musically unified series of choices over the course of a complete melody.*

The most valuable outcome of this exercise is the awareness of the player that his sound can connect directly with a listener. He learns what it means to play to someone, and to consider the impact his actions have on someone else. He also learns the rudiments of musical decision-making, which ultimately leads to truly expressive playing.

The next exercise in the sequence that leads to a healthy connection between the conductor and the ensemble involves small groups of players.

Exercise #2

1. *The basic idea is the same as for the first exercise described above. The easiest material to begin with is either a repetition of a single note or a scale. Whatever you choose, it must be something the players do not have to read, and that requires only the smallest amount of mental and technical effort to perform.*

2. *Situate the players so that they can see one another. Designate one player who will be the leader. Instruct the leader to choose one note to emphasize. As before, the leader should not reveal to anyone, including his fellow players, which note he has chosen.*

3. *Then, as all the players are performing the same scale simultaneously, the leader's task is to project his decision to the group in such a way that the entire group emphasizes the chosen note. Remember, this is done without the players conferring before the fact. In other words, the leader must influence his fellow players through body language (including eye contact) and the technique of playing his instrument. Young players are amazed that they possess this ability (and they do); more mature players simply enjoy the "play" aspect of the exercise.*

4. *As the players catch on, the next step simply multiplies the influences. Each player chooses a note to emphasize, and each player strives to project his decision to the others even as he is attempting to respond to the influence of his colleagues. This is an advanced skill and an exercise that often ends in peels of laughter from the players. As a result, the conductor is essentially a referee.*

5. *As in the first exercise, once the players have mastered steps one through four the process of refinement begins. More variables are introduced (dynamic contour, style of articulation, tone color); more complicated musical material is used. The ultimate goal is to cultivate a small ensemble or section of players that work together as skillful chamber musicians.*

The value of this exercise is the extension of the concepts of the first exercise laterally. Whereas the first promotes connection to a single listener (straight ahead, as it were), the second promotes connection in multiple directions. The latter exercise also raises the stakes by requiring the players to project and respond simultaneously.

Once the players have begun to understand how to make and project musical decisions, they begin to exude the opposing force the conductor needs to work against in a larger ensemble setting. In other words, the first exercise “magnetizes” one player; the second exercise combines several individual “magnets” into a stronger, united force. It now falls to the conductor to forge a connection with the instrument he has built.

The first step is to listen and react to the players in performance as if they were speaking to you – and to each other. Just as we speak differently when we know someone is listening intently, players will perform better if they are playing to someone. The first step is to play to the conductor – a dialogue. The next step is to play to each other according to structure of the score (as a string quartet would). The final step is for the conductor to join the exchange of influence with the entire group. Here is a conducting exercise that can be implemented with any ensemble, regardless of maturity or technical prowess:

Exercise #3

- 1. As with any of the exercises described thus far, begin with musical material that the ensemble can perform easily. Scales often function as a convenient point of entry because the progression is predictable. In the early stages, it is important to work with material that the players do not have to read.*
- 2. At first, the players individually project points of emphasis to the conductor, who is simply listening. The players are not attempting to influence one another at this point, only to elicit a reaction (an acknowledgement) from the conductor. Thus, as the conductor perceives each emphasis, he simply makes eye contact with the player from whom it originated. For the conductor, this exercise is a bit like “follow the bouncing ball.”*

3. *The next step is the same as the previous, but the conductor now has the opportunity to respond to the players with gestures. The conductor's role shifts from simple acknowledgement to an attempt to provide feedback (too loud, nice job, what was that? etc.). The conductor must be free to react as he would in a conversation.*

[Unfortunately, most Americans are acculturated to maintain a "poker face" in most situations – we learn to reserve our capacity to react vividly for certain approved situations (e.g. sporting events). As a result, some preparation might be in order before a conductor attempts Exercise #3. To practice reacting, use recordings - especially of less skilled ensembles, or your own ensemble if the recording is old enough that you no longer remember the details of the performance. As you listen, allow your face and body to project your opinions and emotions. At first, simply react. As reacting becomes more comfortable, begin to respond to the recording as if you could actually influence it. The object is for the sequence of hear – react – respond to become habitual.]

4. *The most advanced step of Exercise #3 allows the conductor to join in the decision making process. Now the conductor not only responds to the players' emphases, but also seeks to influence them with his own.*

Although the preceding exercise is designed to help the conductor, it also benefits the players – especially younger players. They learn to be aware of the conductor at all times, and to expect to interact with him. This exercise can be refined to address more artistic concerns in the following way:

Exercise #4

- 1. Choose a simple composition of moderate tempo that is well within the technical grasp of the ensemble (I find that Frank Erickson's Air for Band works particularly well for this exercise). Narrow the focus of your work to perhaps one 16-bar passage in which the entire ensemble is involved.*
- 2. Instruct the players to verbally consult with the other members of their section and come to a consensus concerning what they will highlight as a group. Within the context of an actual composition, the players have a wide variety of options. If the ensemble is less experienced, it is wise to discuss at this juncture some examples of musically appropriate choices. A discussion of dynamics in relation to melodic contour might ensue, or of articulation as it relates to tempo and/or rhythm, or of a composer's style as it relates to historical eras. Of course the players have the option of choosing a stylistically or musically inappropriate means of emphasis, but it is important that they be aware of the reason it is inappropriate. I have found that it is wise to give them a 1-minute time limit for discussion – the more mature an*

ensemble is, the longer they will argue before declaring a conclusion. Once each section has determined their strategy, they should not tell anyone else what they have decided.

[As the ensemble matures, the decision making process will become less verbal and more intuitive. Furthermore, as the players master the ability to influence one another as in Exercise #2, there will be a constant flow of thoughtful musical impulses between and among the musicians – and ultimately the conductor].

- 3. When implementing this exercise for the first time, an intermediate step is advised at this point. The conductor should choose one or two exemplary sections to demonstrate their decision through performance. Then, having listened to the clarinets for example, the conductor should ask the other members of the ensemble to identify or describe what musical choice the clarinets made. Often, the demonstration group's sense of how clearly projected their point of view must be falls far short. A friendly competition can then be encouraged to see which section can perform the most convincingly, based on ensemble feedback.*

[If step three has been implemented, ask the sections to make a new decision as to what they will highlight. This request may be perplexing at first – “You mean there's more than one way?” Some edification in the area of interpretation may be useful at this point].

4. *The next step is for the ensemble to perform the selected passage with all sections projecting their decisions simultaneously. The conductor's role at this stage is simply to react to what he hears. Because the musical excerpt is simple, there should be no need for the conductor to "conduct" at all. Remember: once the conductor is engaged in the performance as a conductor, he should be striving to influence the players. Here he is simply listening and responding as he would to a room full of people all "talking" to him at once.*

[If the conductor is unsure of his ability to respond, he can add a step here: instead of listening and responding, try to listen and keep a mental catalogue of what you hear. Then after the ensemble is finished playing, describe to them what you think were their decisions. This is similar to step 3 above. As you get more comfortable hearing the players in this way, move on to step 4 as shown].

5. *The next step is the same as #4, but the conductor now has the opportunity to join in the decision making process. Even as the sections are projecting their decisions, the conductor is responding to them and projecting a decision of his own.¹ At first, the decision should be obvious and rudimentary (e.g. the insertion of a fermata or ritard, or the placement of a strong accent). Once the ensemble begins to respond without losing its own ability to project, then the conductor can become more subtle.*

¹ *Note: neither the players' nor the conductor's decision has to correspond with anything that is actually notated in the score. In fact, in the early stages it is better if it is not indicated in the score, thereby forcing all to infer from what they are hearing, rather than decode what they are reading.*

6. *Finally, the conductor not only responds to the sections' decisions, but seeks to influence the entire ensemble in a way that will blend their decisions and his into a unified artistic whole. In this final stage the conductor and the ensemble are operating as a community of performers, each reliant upon the others. The conductor's unique responsibility is to reconcile the myriad decisions with the score through the act of performing.*

Appendix B:

Strategies to assist with the "Archeological" model of rehearsal

Of the various modes of rehearsal discussed in chapter six, the most musically profitable and fulfilling is unquestionably the "archeological" model that calls upon the entire ensemble (including the conductor) to draw upon personal musical decisions and imagery. If this mode is new to the ensemble or the conductor, several strategies can facilitate the shift to a different way of rehearsing.

#1: Symptom v. cause

In any rehearsal, the key to efficiency is the ability to identify the root cause of problems that arise. In most cases, technical problems are merely a symptom of an underlying conflict, or lack, of musical imagery. In other words, technique is driven by expectations. Good tone is the result of a well-established aural concept; accurate pitch is the result of a clear sense of harmonic function; reliable rhythm springs from a steady inner pulse. If a player expects to achieve a

certain tone, the body will adapt to produce it. If a player expects a particular chord to sound a certain way, his embouchure will adjust to achieve it. If a player expects an event to happen at a certain moment, he will automatically calibrate his actions to coincide. In some cases, the adjustment is instantaneous; in others, it takes time to build strength and coordination. No matter what, if the demonstration of musicianship is the goal, mental aural imagery must precede execution. The body can only do what the brain tells it to do. Therefore, the object in rehearsal is to keep the focus on the goal, rather than on failure to meet the goal.

For example, if pitch becomes an issue the conductor may be tempted to simply declare, “you’re sharp.” If the sharpness is simply the result of inattention, this solution is expedient. However, it is more likely that something drew the player to that conclusion. Perhaps it is a misunderstanding of harmonic function, or an inappropriate concept of tone that is constricting the air stream. To state the obvious (“you’re sharp”) may correct the symptom momentarily, but until the cause of the intonation problem is addressed, accuracy will be left to chance. Mentally, the player’s response to “you’re sharp” will be “don’t be sharp.” Which of the many options in the “not sharp” category is the player to choose? And how is “sharp” measured in this instance? In other words, what does “in tune” sound like? If the player knew, he wouldn’t have been sharp in the first place.

So-called “archeological” rehearsing calls upon the conductor to provide the positive image that will guide the player’s technique. In this example, “you’re sharp” may become “strive for a darker tone – blend with the euphonium” or “listen for the root in the bass clarinet; you’re acting as the third here.” Seeking and addressing the root cause is a habit consistent with the idea of building an instrument (see chapter five).

#2: Listening goals

The organization and pace of any rehearsal is determined by the manner in which the conductor chooses to listen to the ensemble. It is also determined by the efficacy of the players’ listening to one another. Options for the conductor might include addressing each issue as it arises, or taking in the entire project and subsequently choosing issues to address, or following a pre-conceived agenda (“at this point I will address the following...”). There are merits to these and other modes of operation if the conductor is aware of the choice he has made. The key is for the conductor to cultivate the ability to free his ears and mind to listen and process in different ways, without interference from the more physical aspects of his job (see Appendix I for practice strategies).

From the point of view of the players, there are two closely related concepts that are essential for the musical wellbeing of any ensemble. First, most musicians are not conditioned to play to a specific target. They simply send their sound out into space, or at best they transmit to the conductor. Ideally, the players should

be sending sound to one another, much as people will speak to other people rather than into thin air. Ironically, to achieve the most musical result, ensemble players will not play to the audience (just as tennis players will not serve to the gallery, but to the opposing players). Similarly, ensemble players tend to listen generally. They are conditioned to accept and work with whatever sound presents itself to their ears, rather than seeking and locking on to specific sounds within a general texture. That is to say, players in ensembles tend to listen to the group (as much of it as they can hear) rather than to each other. In keeping with the tennis analogy, the players in an ensemble should be volleying with one another, not just lobbing balls into the opposite court. Without specific links between and among individual players, an ensemble cannot function.

#3: Preparation and sequencing

Effective rehearsing relies on an atmosphere that must be deliberately engineered to promote the often tenuous connections among performers. It falls to the conductor to consider every aspect of the ensemble's environment, from climate and lighting to ambient sounds and the location of potential distractions (typically clocks and windows). Mundane considerations such as the seating arrangement cannot be overlooked. If players can't see the conductor and each other, connection is nearly impossible.

If every rehearsal is viewed as an opportunity for performance, then each rehearsal must be "programmed" as deliberately as any concert. The sequence

and pace of activities must be carefully considered in light of the specific musical goals that have been set. In the spirit of instrument building (discussed in chapter five), the conductor should tailor technical considerations – particularly warm ups and tuning procedures – to address the changing needs of the ensemble. Simple adjustments can have powerful resonance. For example, if you ask an ensemble to tune to a single flutist rather than an oboe or tuba, the ensemble will automatically drop to a softer dynamic as their ears search for the lighter timbre. Take the reference pitch from a euphonium and the tone of the ensemble will become warmer in sympathy.

Appendix C:

Exercises for projection

In chapter five, the concept of projection was introduced as a component of leverage. To reiterate: the ability to imagine the energy of a gesture extending beyond the limits of the body is the essence of projection. Because projection is an element of the connection between a conductor and an ensemble, it is preferable to practice in the presence of other people in order to gage the effect of your work.

Exercise #1

- 1. Stand in the middle of a room.*

2. *Imagine that there is an incredibly bright light in the center of your torso – so bright that light is shining out from you in every direction. Imagine the light extending to every corner and surface of the room. It can be helpful to close your eyes, particularly if you find it challenging to visualize yourself three-dimensionally (e.g. from above, or behind, or below).*
3. *Once you're comfortable, imagine turning the light off. What happens to your sense of self? You may feel smaller, even though you haven't moved or changed at all.*
4. *Imagine turning the light back on. Feel your sense of self expand as you extend your energy to the walls, floor and ceiling.*
5. *Open your eyes. Now imagine that the light is all focused out from your torso through one fingertip, like a laser pointer. From where you're standing, "touch" various places in the room with the beam – imagine an actual, visible connection between your fingertip and the target. Be sure to focus your eyes on the target as well.*
6. *Change targets. Imagine "striking" the target harder or more gently, faster or slower. Choose targets that are closer to you, or farther away. Be specific, be precise.*
7. *As you "hit" each target, you are projecting (congratulations). The energy from your movements will tend to draw the attention of others toward the target.*

Exercise #2

1. *Stand in the middle of a room.*
2. *Imagine that the room is filled with something the consistency of shaving foam, or stiff whipped cream (but you can still see and breathe).*
3. *Move your arms and begin to “carve” shapes in the foam. Imagine that every motion clears a path that remains even after your arm has passed through.*
4. *Continue sculpting shapes in the foam as you engage more of your body. Walk across the room, imagining the shape of the path you’re creating behind yourself.*
5. *Now imagine the room as it normally is – without foam. Move your arms through the air. Are you aware of the lack of resonance in your gestures?*
6. *When you are “carving” the imaginary foam, you are projecting. Your motions take on an added degree of energy due to the resonance or residual effects of the action.*

Exercise #3

1. *(Exercise #3 requires at least three people). Stand facing your partner as someone else observes the two of you.*
2. *Move freely around one another until the observer calls “freeze.” Both partners should freeze in whatever position they find themselves. At this*

point, the observer should choose one partner to set free while the other remains “frozen.”

3. *The non-frozen partner should then observe the frozen partner as he would a sculpture in a gallery, feeling free to move around to view all sides. As this is happening, the observer should pay close attention to the frozen and non-frozen partners. Which seems to be in the stronger position interpersonally? Why?*
4. *Repeat the procedure to enable the partners to switch roles.*
5. *Typically, the “frozen” partner will automatically project. His posture takes on greater importance as a sculpture, drawing the attention of the non-frozen partner to formerly insignificant details. Textures and angles take on new meaning, and the mobile partner begins to seem less significant in comparison.*

Appendix D:

Examples of score charts

Introduced in chapter six, score charts enable the conductor to view the music in a holistic, non-linear way. The process of charting requires the conductor to evaluate and interpret the specific data of the score, rather than making assumptions or generalizations. Charts also allow the conductor to compare and contrast non-contiguous sections of the form, and to consider matters of proportion. The specific nature of each chart is determined by the characteristics of the score and the questions

generated by the conductor during the study process. There is no single “right way” to distill the information of the score onto a chart. Each chart reflects the needs of the moment and the conductor’s learning style. In keeping with my habits and preferences as a visual learner, each of the following charts represents a complete work or movement on a single page – literally a “snapshot.”

Chart #1: Percy Grainger, “Lincolnshire Posy” (mvt. 2) – form

This chart has a fairly straightforward layout that is designed to facilitate the comparison of the four “verses” of the tune. Although this is strictly an instrumental piece, a suggestion of where the text of the original folk song might be placed is included to highlight the tension and release in the harmonic progressions. The arches above the timeline clearly illustrate the large- and small-scale elision of phrases that are the hallmark of Grainger’s lyrical style.

Chart #2: Percy Grainger, “Lincolnshire Posy” (mvt. 2) – orchestration

This chart was created after Chart #1 in an attempt to untangle the threads of instrumental color that run through the orchestration. It “reads” from left to right, as all my charts tend to do. Grainger composed this movement in what is essentially a four-part vocal style, but the traveling of various colors (particularly horn) from soprano to alto to tenor and back again creates an incredibly rich, blended sound.

Chart #3: Reynaldo Hahn, “Le Bal de Beatrice d’Este” (mvt. 2)

This chart is the most complete of the six examples. Every bar is accounted for, every dynamic change, every orchestrational shift, and most of the harmonic content. Continuity is a challenge with this movement, and the chart was designed to highlight patterns in various elements, the coincidence of which promotes musical flow. The notes at the bottom of the page are merely an attempt to sort out the myriad articulations that are sprinkled throughout the score, seemingly haphazardly.

Chart #4: Vaclav Nelhybel, “Symphonic Movement” (measures 1-17)

This chart is simply my way of understanding what’s happening in the first seventeen measures of this piece. I needed a way to better understand the order of entry of the various pitches, and their relationship to one another (which serves as the foundation for the rest of the work). The timeline on top deals with pitch, the lower timeline depicts the large-scale rhythm.

Chart #5: Igor Stravinsky, “Symphonies of Wind Instruments”

This is the chart of which I am the most proud, simply because the piece is incredibly complex and I actually succeeded in getting it onto a single page. The colors are critical – you can actually see how Stravinsky shifts the palette at rehearsal mark 42. You can also see how he subtly links the first half to the second, literally weaving ideas into the overall fabric of the piece. As with so

many others, this chart is an effort to understand the continuity or flow of the composition.

Chart #6: Virgil Thompson, "A Solemn Music"

This chart was truly revelatory for me. Looking at the score, it was clear that Thompson was working in eight-bar phrases, but it was unclear how he succeeded in building tension and maintaining interest across the form. The chart helped me to discover and peel apart the five separate layers of melody and to pinpoint the apex (the only instance of melody five). I know of no other piece that's built quite this way. As a result, it is difficult to rehearse and perform convincingly unless the ensemble understands the layering process.

[See Score Charts file posted separately]

Appendix E:

Exercises related to metaphorical contexts

Chapter three introduced the concept of metaphorical contexts or the environment in which various kinesthetic metaphors will be employed, all governed by an overarching atmosphere. In his research at the University of Nebraska-Lincoln, conductor Christopher Werner is continuing to refine this concept, drawing upon analogous concepts in the research of the Stanford University Sleep Research Center, the lucid dreaming studies of Stephen LaBerge, and the writings of Carl Jung. His dissertation (currently in progress; the projected date of completion is May, 2005) should prove to be a useful supplement for those wishing to investigate metaphorical contexts in greater depth.

For those to whom the concept is unfamiliar, working within such a context is similar to the idea of an actor working from within a character. In this mode, the actor needn't adhere to a fixed script. He is free to improvise actions, reactions and dialogue that are governed by the specific traits that define the character he is portraying. To this end, conductors should begin by amassing an anthology of styles from which they can draw.

#1: Anthology of style

This stage of practicing will be fairly effortless. All that is necessary is for the conductor to notice the great examples of character portrayal that surround him

everyday. Watching great actors and comedians will provide rich fodder, particularly if you can find examples of the same person portraying a broad range of characters. Some particularly skillful individuals include Lawrence Olivier, Spencer Tracy, Katherine Hepburn, Kathy Bates, Kevin Kline, Kenneth Brannagh, Ben Kingsley, Derek Jacobi, Emma Thompson, Judi Dench, Robin Williams, Jerry Lewis, Whoopi Goldberg, Danny Kaye and Steve Martin. Another source of musical character portrayal would be performances, broadcasts and video recordings of the great opera companies at work. The Metropolitan Opera's Centennial Gala DVD (Pioneer Classics PC-94-046-D) is a prime example, as is Unitel/Deutsche Grammophon's DVD West Side Story: The Making of the Recording (073-017-9). Another excellent source of material is everyday life. Make note of the traits that distinguish the characters around you – your mom, the mailman, your spouse...

#2: Trying characters on for size

Since conductors aren't actors, the next step of the process will take some of the characteristics you noticed in #1 and put them into a musical context. It is important to note that this step is merely an exercise or etude – it is not a desirable means of artistic interpretation. To begin, choose a piece of music with which you are well acquainted (i.e. Holst's Suite in E flat, first movement). As you listen to a recording, move to the music as you normally would if you were conducting. With that as a baseline, call to mind a particularly vivid character from your anthology (i.e. Abraham Lincoln, or Winston Churchill, or Pauly

Shore). Adopt the most characteristic traits of the model you've chosen and move accordingly. You will find that certain characters work well within the context of Holst, whereas others are difficult to reconcile. Consider why that is the case. Compare the "feel" of your natural movements to those of the various characters. Note any similarities.

When you've become comfortable with the practice of moving in the style of various characters within the overarching context of Holst, choose another work that is farther along the scale toward absolute music (i.e. the first 16 chords of the second movement of Tchaikovsky's *Symphony No. 5*). The object is to move away from concrete characters toward abstractions. As you listen to a recording, move to the music using bits and pieces of characters that seem to suit the chords as they progress. You should have no single person in mind – not even yourself. Focus your attention on the nature of various gestures and ways of moving as they relate to the character of the music. Once again, this is only an exercise. You are not conducting; you are simply experimenting with the relationship between sound and motion.

#3: Connecting score study to gesture (bypassing choreography)

Chapter seven introduced the concept of sensing sound. This exercise will draw upon it as a means to building kinesthetic metaphors. The sensing sound process moved from the abstract (sound, energy) to the concrete (imagined physical entities with which the body can interact). To practice, choose a passage from a

score that is well known to you (i.e. the rapid scales transition before the return of the main theme in Grainger's Children's March). Let your imagination identify as many character traits in the sound as possible, from the musical (it is strikingly similar to an analogous transition in Berlioz's Roman Carnival Overture), to the abstract (the energy of the passage is swirling, free-form, breezy), to the concrete (it sounds like dry leaves blowing around on a windy day). Now translate the concrete imagery into gestural characteristics (i.e. no hard edges or clear beat points, no straight lines, very little resistance which implies fast air stream / fluid fingers, higher focal plane, larger surface area – not confined).

Notice that the translation stage did not determine the exact gestures that would be used. Rather, it resulted in the decision that appropriate gestures would come from somewhere in a more general category, depending on what the ensemble needs. It is important to recognize the difference between demonstrating characteristics and portraying a character (being leaf-like v. trying to be a leaf). This isn't acting class. Choosing among characteristics enables variety, change, and spontaneity – the sound of the ensemble will vary from day to day, and you'll need different tactics and tools to influence the sound. Characteristics can be combined in a tremendous variety of ways, or adapted as needs warrant, or abandoned when they are no longer useful. The object is to accumulate a huge reference collection of aural imagery, and to practice accessing it. This can be done easily just by listening to a variety of pieces and imagining how the sound would translate to physical motion. Most importantly: if you come up with a

single specific gesture for a particular sound and it fails to be influential when you're working with an ensemble, you're up a creek. And, if you keep using the gesture, you're no longer conducting - you're dancing. Dancers respond to sound – they don't seek to influence its source. Determining the distinguishing characteristics of various sounds rather than specific analogous gestures will aide in the avoidance of choreography.

Appendix F:

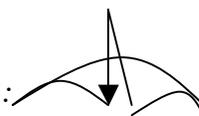
Strategies toward developing a vocabulary of gestures

To be able to improvise freely within various contexts, a conductor must have at his disposal the widest possible spectrum of gestures. Building a comprehensive “vocabulary” of motion is a constant part of every effective conductor’s routine. There are many strategies one might employ, not the least of which is the observation and imitation of people in both musical and non-musical situations. The following brief examples are intended to serve as a point of departure for more wide-ranging experimentation. As with any and every exercise related to conducting practice, it is vitally important for the conductor to constantly associate sound with motion. Every move the conductor makes should connect directly to an internal aural image. Even when working alone, the conductor must imagine he is interacting with actual sounds.

#1: Working within a frame

The frame in this exercise could be any set of parameters the conductor wishes to impose. A frame that commonly lures conductors into repetitive motion is meter. The traditional patterns tend to become a kinesthetic mantra, cramping the artistic flexibility of conductor and ensemble alike. While beat patterns can be useful, it is wise to practice alternative strategies to deal with meter. Another problematic frame might be dynamics, particularly if volume is inextricably linked to gesture size. To begin, establish a frame – for example, quadruple meter. Taking the standard “textbook” pattern as given, think of as many variations of “4” as possible without venturing beyond meter. Varying the size of a 4/4 pattern isn’t an alternative means of conveying the idea of “4,” although it may be an alternative means of conveying volume. Work only one frame at a time. At first you may be stumped; the patterns are powerful inhibitors of imagination. Here are some ideas that might set the wheels in motion.

If this represents the conducting textbook picture of “4”:

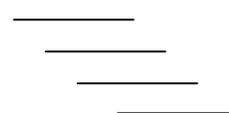


Then alternatives might be:



or: • • • •

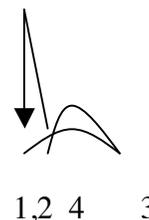
or:



The importance of this exercise is to free the imagination and explore alternatives to common practice. Once you get the hang of it, move to related frames. For example, take the 4/4 pattern as your baseline (rather than simply the idea of “4”). Vary the shape of beats, size of gestures, style of gestures, speed of motion, position in space, and emphasis. Elizabeth Green refers to this mode of practice as “varying the seven points.”²

#2: Melding

The simplest form of melding is to combine or merge beats within an established pattern. For example, conducting triple meter with one gesture per bar “melds” the second and third beats into the downbeat. The easiest way to practice melding is to set a metronome at a moderate pulse and begin a repetitive series of a standard metric pattern (e.g. 4/4). Without altering the pulse, combine the first two beats of the pattern into a single motion comprising two clicks of the metronome. You’ll end up with a lopsided basic triple pattern:



² Green, Elizabeth. The Modern Conductor. 6th edition. Upper Saddle River, NJ: Prentice Hall, 1997. p. 152.

When comfortable, move the meld point within the pattern (i.e. merge beats two and three, then beats three and four, and so on). A more advanced exercise involving melding is related to Green's concept of psychological conducting. Choose a single-line etude or excerpt and portray the rhythm through gestures. Note: do not conduct the meter. In fact, it is best to avoid traditional patterns altogether. This is an exercise that is particularly effective if you have a partner who will sing or play the rhythms you are showing. Do not reveal the accurate rhythm until you have succeeded in eliciting it through his performance.

#3: Composite gestures

A composite gesture is a combination of motions that addresses more than one aspect of the sound of the ensemble at a time. Such gestures frequently involve multiple body parts, and the ability to move your arms independently of one another is essential. The most rudimentary exercises for practicing composite gestures are:

- *Maintaining a steady pulse and beat pattern in one hand, raise and lower the opposite hand to indicate fluctuations in dynamics. Ideally the size of the pattern should reflect the same dynamic contour.*
- *Within the melding exercises outlined above, add Green's concept of "varying the seven elements."*
- *Maintaining a steady pulse and beat pattern in one hand, practice cuing with the opposite hand at different points within each bar.*

Once this stage is comfortable, practice varying the shape of the cuing hand, the speed and trajectory of the cue, and its location in relation to the metric hand.

Once again, it is important to remember that these are merely exercises, not actual conducting. Conductors should use these and other activities as an instrumentalist would use scales and arpeggios: to refine technique so that it can be employed unconsciously when performing. Mallory Thompson aptly summarized the danger of viewing technical studies as an end in themselves:

“Conductors are concerned about catching everything, and many do. Maybe we should catch less and make more music. With a thick score, you could be cuing something on practically every subdivision of every beat, and then you’d be doing nothing.”³

#4: Thinking outside of the box

As mentioned above, one of the most fruitful sources of “vocabulary” is the observation and imitation of people in both musical and non-musical situations. In the conducting studio at the university we have great fun playing with the effect of motion on sound, and we have an ever-expanding collection of stock or cliché gestures that are used as training aides. Among them are: “Johnny Carson,” “Minority Report,” “Wallace,” “Communion,” “Train Whistle,” and the infamous “Enriqué.” Each is a composite gesture that requires the practitioner to operate as far removed from textbook patterns as possible. Ridiculous as many

³ Thompson, Mallory. “Mallory Thompson – Conducting Clinician, Part One.” BD Guide. September/October 1994. p. 18.

of them are, they can be deconstructed and combined in an endlessly changing array to promote flexibility. Every conductor can experiment with his own collection that may include a “John Wayne,” or a “Marilyn Monroe,” or the perennial favorite “Richard Nixon.” But remember: this is not conducting, this is merely practicing movement. To toss an unadulterated “Richard Nixon” into a performance could easily destroy connection and flow, drawing attention to the antics of the conductor rather than the sound of the ensemble. However, certain elements of the same gesture may be extremely influential given an appropriate context (like choosing a particularly vivid word or phrase from a famous quotation to color one’s speech).

A more musical application of composite gestures is to consider the possibility of single motions or gestures on a grand scale. An exercise that is particularly useful if your tendency is to engage in many smaller, possibly repetitive motions while conducting is to choose a long musical phrase with a clear trajectory as your focus (e.g. measures 97-114 of the first movement of Holst’s Suite in E flat). This famous crescendo, building over snare drum roll and B flat pedal culminating in a triumphant cymbal crash, represents a single musical thought. When practicing, conductors can experiment with correspondingly single-minded motion. Traditional conducting pedagogy would call for 17 bars of a standard triple pattern for a total of 51 motions. But Holst didn’t compose 51 events; he composed just one. The challenge of this exercise is to find a way to move your

body in a manner that suggests growing or building, and take all 51 beats to achieve it. Remember: patience is a virtue.

Similar opportunities for large-scale thinking and moving abound. To find them, one needs only to consider phrases rather than pulses. For example, measures 216-227 of Joan Tower's Fascinating Ribbons that became, in practice sessions, the origin of the "Johnny Carson" mentioned above. Most ensembles will eventually find pulse, but very few will project phrases (particularly long phrases) without the influence of a conductor. Unfortunately, most conductors are comfortable showing pulse, but very few are adept at portraying the trajectory of long lines. This exercise will help conductors shift to the more useful footing.

"A good conductor will do away with beating every bar or beat, and the orchestra and the audience should be made to forget that there are beats and bars at all."

Daniel Barenboim

Appendix G:

Exercises related to programming

Chapter seven dealt with the challenges of artistry in programming. To become more adept at crafting creative, musically coherent programs, conductors should practice to acquire an awareness of resonating elements in non-musical contexts. Such elements in music can be elusive because of the abstract, ephemeral nature of the art form. But

elements of literature and the visual arts are fixed in space and time and can be studied more easily.

#1: Literature

Works to be considered: Lincoln, Gettysburg Address; McCrae, In Flanders Fields; Sandburg, Grass; Frost, Mending Wall; Whitman, O Captain! My Captain! (Or any collection of three or more pieces).

- *Read each of the poems/prose works.*
- *Put the works in an order, as if arranging a program for performance.*
- *Consider the rationale behind your choices.*

Your decisions, no matter how mundane or philosophical, were based on focal elements (common themes, chronology of composition, alphabetical order of titles, formal structure or rhyme scheme, etc.). The ultimate order of the works will reinforce the focal elements that influenced your decision, and create a context within which the reader (audience) will draw his or her own conclusions regarding interconnections. The context created by your decisions will inevitably (if subtly and/or subconsciously) effect the conclusions drawn by each reader.

- *Choose a different focal element and create a different order for the works; consider how the reader's context is changed.*

#2: Visual art

Visit an art gallery or museum (if a museum, choose a particular gallery within which to focus your work). Attempt to discern the curator's thought process in placing the works of art in the gallery.

- *Identify common or contrasting elements (form, size, color, subject, medium, etc.).*
- *Identify characteristics of visual flow (how elements in various works lead the eye from one to another, or arrest attention to establish a focal point).*
- *Consider how the various works "play off of" one another, causing each viewer's personal impressions of the art to blend into a common, more public experience influenced / determined by the curator's decisions.*

Programming and the concept of instrument building presented in chapter five go hand in hand. Any work in this area presupposes a comprehensive knowledge of the literature. Commonly, conductors choose and limit their study to works that are technically accessible to their ensemble without considering the next step. Ideally, a conductor's programming philosophy would manifest itself in a sequence of thought somewhat like the following example. Note: the sequence shown in #3 is within a single general style

(lyrical, tonal) that should be balanced with concurrent work in contrasting styles. In other words, the following is only one thread of activity among several.

#3: Programming to build the instrument

- a. At the moment, the ensemble can demonstrate the appropriate technique and musicianship to convincingly perform Pierre La Plante's Prospect (grade 2, duration 3:45, general key areas include F major and A flat major, composed in 1983; subtitled "Hymn for Band", is a setting of the folk song "Prospect" which is also known as "The Seaman's Hymn," taken from The Southern Harmony, published in 1835).*

- b. The conductor believes it would be artistically worthwhile for the ensemble to eventually be able to perform Percy Grainger's Colonial Song (grade 5, duration 6:00, general key area is E flat major, composed in 1911, reworked 1918; Colonial Song demonstrates the composer's "free music" concept through numerous meter changes and indications of rubato). While the conductor realizes that there is a good chance that many of the members of the ensemble will graduate and move on before the goal is reached, he also knows that the project will resonate with the players wherever they go. Therefore, he sets the following musical agenda with numerous intermediate goals.*

c. *The ensemble explores Frank Erickson's Air for Band (grade 2.5, duration 3:29, general key areas include C major and minor, composed in 1956). The quality of the composition is confirmed by its status as a "classic." Its sustained lines and harmonies will help the ensemble gain control over tone and intonation within a context of clearly defined melodic motion. Technically more challenging, the Erickson is still in the same neighborhood as the La Plante. This intermediate goal is fairly easily met, which will enable the ensemble to gain momentum as they move toward the ultimate goal.*

d. *Having gained a small measure of assurance, the ensemble is ready to extend their technique with a longer, more intellectually and emotionally challenging form. The next goal is Barbara Buehlman's arrangement of Johannes Brahms' Blessed Are They (grade 3, duration 5:45, general key areas include F major and C major, composed in 1867 and arranged in 1970). Still tuneful, and still in familiar keys, the duration of the work and the longer length of its phrases will help build the ensembles mental and physical endurance.*

e. *Now on a solid foundation, the ensemble is ready to move more deliberately toward the target with Glenn Cliffe Bainum's arrangement of Percy Grainger's Australian Up-Country Tune (grade 3, duration 2:00, general key area F major, composed in 1905 and arranged in 1957). Conveniently, this is a tiny setting of exactly the same tune used in Colonial Song, without the endurance, pacing and intonation issues of the larger work. More importantly,*

both works were composed with the same “free music” style. The ensemble now has an opportunity to become fluent with changing meters and irregular flow.

f. At this juncture, more options are available to serve as the next stepping-stone. Staying within the realm of Grainger’s music, the ensemble might work with Irish Tune from County Derry (grade 4, duration 4:00, general key area F major, set in 1918). The benefits of moving to this work include an enriched understanding of Grainger’s harmonic language and phrasing, but the ensemble may experience a sense of stagnation remaining with the same compositional language for an extended period of time. An alternative might be Davis’ transcription of Richard Strauss’ Allerseelen (grade 4, duration 6:39, general key areas include E flat major, G major, C minor, B flat minor, D major and B flat major, composed in 1885 and transcribed in 1950). This work presents many of the same technical and expressive issues as Irish Tune, but with the unmistakable musical characteristics of Strauss.

g. With all that the aforementioned compositions have cultivated in the ensemble, the next step is Colonial Song. As an added bonus, the ensemble may also explore Grainger’s The Gum-Suckers March (grade 4, duration 3:46, general key area E flat major, composed in 1914 and reworked in 1942). Although vastly different in style, the march uses the same tune as the more lyrical Colonial Song and Australian Up-Country Tune.

The musicianship, creative energy and foresight represented by the preceding sequence is a far cry from a conductor choosing to program works simply because his band has the technical ability to perform them. If that is the case, the conductor and the ensemble will stand still, in terms of both technique and artistry. The key is to continually look beyond the present circumstances in order to position yourself and the ensemble for more creative and complex future endeavors.

Appendix H:

Warm up ideas

Chapter four outlined the three basic zones of effective practice sessions. To reiterate, the purpose of the warm up is threefold: to increase blood flow to muscles (to literally “warm them up” in order to avoid injury), to focus the mind and body on the foundational elements of playing (especially tone), and to serve as a “check up” to make sure everything is in working order (diagnostic). A well-designed warm up routine can highlight areas to be worked on in technical studies and etudes. A good warm up will also establish the aural template the player will use to evaluate his sound throughout the entire practice session.

There are several characteristics that distinguish warm up activities from other modes of work. Warm ups tend to focus on a micro level – individual elements, typically out of any context (long tones, scales, arpeggios, articulations, etc.). To address the literal function of warming up the body, exercises work from a center point and gradually progress to the

extremes of range, volume, speed, coordination, etc. as blood flow increases. Warm ups are flexible and changeable according to the needs of the moment, including changes in repertoire, medium, venue, and one's mental or physical state.

Conducting is an athletic endeavor that involves the entire body. Physical conditioning, including flexibility and endurance are fundamental attributes when it comes to achieving and sustaining metaphors within varying contexts.

Stretching

Begin with simple stretching activities that will explore your full range of motion. Move slowly, and remember that a stretch must be sustained without bouncing or pulsing in order to be effective. While the shoulders, arms and neck are the most active areas of the conductor's body, be sure to spend some time on torso and legs. Cultivate an awareness of the feeling of resistance in each muscle group as you stretch. The ability to recreate this feeling is an essential element of influencing airflow from the podium. The core (torso, especially abs) works in conjunction with the legs to promote balance and stability. As you stretch, be continually aware of your center of gravity. If balance is an issue, practice slow motion activities that will gradually increase your confidence and control by strengthening the muscle groups that act as counter-balances when your body is out of alignment. Activities and philosophies related to Yoga, Tai Chi, Pilates, Alexander Technique, and various forms of dance are excellent sources of warm-up exercises. Another ideal source of information and inspiration are athletic trainers and

physical therapists. Remember: conducting (including all aspects of the warm up) should never hurt. If you have any concerns or if you experience cramping or pain in your work, consult a physician immediately.

Coordination

Although technically not a warm-up, athletic activity is an ideal means of promoting body awareness, increasing endurance, improving balance, strength, flexibility, coordination and timing, and building a vocabulary of gestures. The activity needn't be the same each time, but it should be an exercise that raises your heart rate (though not necessarily aerobic), requires significant eye-hand and/or total body coordination, and uses many muscle groups. Also, bear in mind that your efforts in this arena needn't be of an Olympian standard. In fact, the process of learning an unfamiliar sport may prove more beneficial because you will be more aware of your body as a beginner. Suggestions include: basketball, volleyball, badminton, racquetball, squash, handball, cardio kick-boxing, dancing, tae kwon do, fencing, softball, baseball, swimming, and table tennis. As with any physical exercise, if you are unaccustomed this amount and/or type of activity, work in gradually increasing increments of exertion and consult a physician before engaging in any new regimen. Also, remember to warm-up and stretch before you begin.

If independence (ambidexterity) or kinesthetic creativity is an issue, Michael Gelb's How to Think like Leonardo da Vinci provides interesting and fruitful exercises designed to develop da Vinci's seven essential elements of genius.

Breathing

Another important aspect of a conductor's physical warm-up is breathing. Breath support and control are at the very heart of all sound production. Several excellent methods for the development of breathing capacity and control are available, including Patrick Sheridan and Sam Pilafian's The Breathing Gym: Breathing Exercises for Band, Chorus and Orchestral Winds, and the WindMaster tool developed by The Dallas Brass (<http://www.dallasbrass.com/>).

Technical facility

If stretching and breathing exercises are the conductor's equivalent of long tones and interval studies, then the following exercises in coordination are the equivalent of scales and arpeggios. As a framework, they draw upon the standard beat patterns illustrated in texts such as Rudolf's The Grammar of Conducting, and Green's The Modern Conductor. However, conductors must always bear in mind: the textbook patterns are like fingering charts – useful information, but only a tool. One can master the patterns and still not be able to conduct, just as memorizing fingerings does not equate to playing an instrument. The traditional beat patterns were developed to promote clarity, but if they are emphasized beyond a mere mode of organization they tend to inhibit expression and creativity.

“The most communicative, meaningful musical gestures happen outside the beat pattern.”

H. Robert Reynolds

The basic patterns discussed below are meant to be stylistically neutral – a sort of short hand – so that they may serve as the skeleton or framework upon which specific musical qualities will be “hung.” In other words, the patterns indicate where events occur rather than how. In practice, emphasis should be placed on efficiency (physiologically), clarity (readability) and consistency (reliability). To promote independence and coordination, patterns may be practiced on both the left and right side, though in actuality patterns typically appear on the conductor’s right side. Right side placement meets the traditional expectation of the players – they will naturally look to certain sides or zones for certain information and can be confused or irritated if it appears elsewhere.

When working with patterns, there are several common tendencies to avoid.

- *Avoid mirroring. The redundancy promotes ignorance as the ensemble learns to look elsewhere for information or simply “checks out” mentally.*
- *Avoid “back beat.” Backbeat occurs when the rebound or upward movement away from the ictus exactly matches the speed of the downbeat motion toward the ictus. This creates an unintended emphasis on the “and” of a beat – in essence, a secondary ictus at the top of the pattern. Back beat chops up airflow and results in “woofy” sound.*

- *Avoid twisting the wrist or elbow joint within patterns. Keep your palm down (toward the floor) for greatest clarity and control. Excessive or extraneous motion inhibits clarity.*

Recognition of the common features among the traditional beat patterns can promote flexibility by enabling conductors to choose specific gestures from within a pattern rather than having to employ the entire pattern. For example, all initial gestures in a bar are downbeats. Why? This motion is physiologically strong, clearly defined, and executed on the vertical line so it is easy to “read” from a distance. Furthermore, it imitates a tap or touch gesture which is very familiar and fairly neutral in human terms. All ultimate gestures in a bar move upward from the right side toward the center. This “gathering” or lifting gesture promotes healthy breathing and preparation for next downbeat. The motion works with the design of the body in one of its strongest muscle combinations, which results in a positive, natural appearance. All beats between the initial and the ultimate, no matter what the meter, work in a sequence following the initial downbeat that sets up or enables the ultimate beat to be up and from the right side. As generations of conductors have embraced these common features in their work, ensemble musicians have developed strong expectations. These traditional features have become “rules of thumb” that promote efficiency and trust. Conductors can choose to alter or work against them, but should do so with the full understanding of the impact (almost like declaring $2 + 2 = 5$; you can do it, and can establish a mathematical system that

supports it, but your credibility will be suspect and it will take a long time to ingrain the new system in players' minds).

When working with beat patterns, it is advisable to practice in both the focal point and focal plane styles. For clarity in basic, neutral patterns all icti (i.e. the location of each beat) occur on a single horizontal focal plane in front of the conductor's torso. All icti, whether the focal plane or focal point method is used, follow the drop and release concept discussed below. This dropping and rebounding action defines the plane or working area and enables players to predict where any given ictus will occur, thereby establishing trust and the healthy timing of the breathing apparatus.

- *Focal point style: all icti occur at the same single point on the focal plane. Rebounds in this style must be in the opposite direction from the approach to the subsequent beat (e.g. in 4/4, the rebound of the beat 2 ictus travels away to the left in order to prepare the approach to beat 3). Focal point style is typically employed when clarity and precision are paramount. In this style, the presentation of icti to players is most efficient, clean and controlled. However, legato or broadly sustained music does not tend to be presented well in focal point style.*
- *Focal plane style: each ictus occurs at a distinct point on the focal plane, and the distance between points is determined largely by the breadth of texture and amplitude of the music. Rebounds in this style are typically*

more vertical than in focal point style. Focal plane style is often employed in instances where rubato and espressivo issues are in play. This style also lends itself to gestures that require greater resistance. However, crisply articulated or particularly rapid music does not tend to be presented well in focal plane style (the effect is frantic and appears to lack control).

Just as the location of focal points can be adjusted to evoke certain styles, conductors also use the elements of space and time as tools to influence the sound of an ensemble. Human beings are “wired” to understand the relationship between space and time (e.g. to travel a certain distance takes a certain amount of time at a given speed; alter any element of the equation and the other elements must be adjusted to compensate). If a conductor manipulates the relationship between space and time in unnatural or unpredictable ways, the ensemble’s trust will falter and the sound will suffer. Therefore, conductors must practice adjusting the elements of drop (approach to an ictus) and release (rebound from an ictus) gestures. Within patterns, subdivisions occur in groups of 1, 2 and/or 3. As the number of subdivisions in a group increases so does the quality of “float” in the rebound of the gesture (i.e. a beat with three subdivisions within it is longer in duration therefore it must take up more space than a beat with two subdivisions).

Exercise #1

To begin, find a flat surface that is at approximately the level of the conductor's natural focal plane and set a metronome to produce a steady pulse. First, tap the surface with every tick keeping the rebound short or close to the surface, then tap the surface once for every two ticks approximately doubling the height of the rebound, then tap the surface once for every three ticks approximately tripling the height of the initial rebound. Once the basic concept is mastered, progress to a mixed series of 1, 2 and 3 subdivided beats at varying tempos. Next, work the drills using an egg-type shaker without touching the surface to determine quality of the icti. The shaker will provide instant sonic feedback concerning the presence of "back beat," and any other extraneous motion of the hand, wrist and arm. Ideally, the sound produced by the shaker should cleanly match the tick of the metronome. Finally, work the drills without the aide of the shaker or surface impact.

After a few minutes of reinforcing the relationship of pulse, distance and velocity with the first exercise, the next step is to employ the same tactics with asymmetrical meters.

An asymmetrical meter is any meter that is neither simple nor compound (as in 5/8, 7/8 or 11/16). Asymmetrical meters follow the same grouping principal as compound meters: determine the number of groups of subdivisions and use the corresponding simple pattern. For example: 5/8 grouped as 2 eighth notes plus 3 eighth notes = 2 groups, therefore the simple duple pattern is used as the framework within which the subdivisions will occur. Asymmetrical meters are asymmetrical because the groupings

do not include equal numbers of subdivisions (e.g. 3/4 is symmetrical – 1 quarter note, plus 1 quarter note, plus 1 quarter note; 7/8 is asymmetrical because it is typically broken into groups of 2 and 3 eighth notes). Although there are no hard and fast rules governing the treatment of subdivisions within various meters, there are common practices. For exercises designed to promote the quick recognition of subdivision groupings, consult Green's The Modern Conductor (6th edition, p. 120). The following exercise is intended to build confidence and facility in the navigation of mixed meter passages.

Exercise #2

Begin by moving through a repeating, sequential series of the four basic neutral beat patterns without subdivision or groupings (e.g. 1/4, 2/4, 3/4, 4/4 and repeat; or 1/4, 2/4, 3/4, 4/4, 3/4, 2/4, 1/4). Use a metronome to establish and reinforce a steady pulse. Work slowly until the patterns are automatic, and then gradually increase the tempo. Work both the left and right side individually to build independence. Once the patterns can be cleanly executed on an unconscious level (e.g. while speaking, or while singing a tune in an unrelated meter), move to advanced variations such as the alternation of sides of the body – one bar on the right, one bar on the left, without pause. If the integrity of the focal plane is an issue, use the surface and egg shaker methods described in the tap and float rebound exercise described above.

Once you are able to mix or scramble the series of four basic patterns without qualms, introduce compound and asymmetrical meters to create a more comprehensive, sequential series of patterns (e.g. 1/4, 2/4, 6/8, 3/4, 9/8, 4/4, 12/8 or 1/8, 2/8, 3/8, 4/8, 5/8, 6/8 etc.). Work all versions of meters (e.g. 6/8 as 3 groups of 2 eighths each, followed by 6/8 as 2 groups of 3 eighths each). Once comfortable, mix or scramble the series using any and all available meters and patterns until your physical response is automatic. Be sure to double check property of “float” regularly. Have a partner tap or vocalize in response to your gestures to test accuracy and clarity (like charades or Green’s “psychological conducting:” your partner has no notation, no indication of what you are trying to convey).

The work related to patterns is included in this section on warm-ups because they are merely tools. Throughout your warm-up routine, the basic patterns should be stylistically neutral so that they may serve as the skeleton or framework upon which specific musical qualities will be “hung.” In practice, emphasis should be placed on efficiency, clarity, and consistency. A few minutes each day should be all that is required to insure that the patterns become automatic, receding into the background to support far more important actions.

“The goal is to have technique that is so perfect it ceases to exist.”

Sir Laurence Olivier

Musical conditioning

A common complaint among less experienced conductors is what might be termed “podium deafness.” In such a state, conductors are preoccupied with physical issues and overwhelmed by the sound of the ensemble, resulting in sometimes startlingly diminished aural acuity and retention. One method of counteracting this phenomenon is to devote some time in the warm-up process to aural skills. This preliminary work conditions the ears, voice, and mind to process sound efficiently.

Exercise #1

Any practice involving singing should involve proper breathing techniques and posture to support production of full, clear, focused tone, and the healthy, relaxed employment of vocal mechanism. If you are unfamiliar with the fundamentals of vocal technique, consult a singer. Texts such as James Jordan’s Evoking Sound are also helpful references.

Begin with a tuner that has a tone generator (calibrate to A 440). Listen to pitches in your most comfortable vocal register to establish a focal point or target for your ear. Practice matching the pitches with your voice, producing clear, in-tune tones without scooping, sliding or humming.

Next, use a piano in conjunction with the tuner to practice accuracy of intonation. Hear a pitch played on the piano, sing to match it, confirm your effort with the tuner. Unlike the tuner’s tone generator, the rapid decay of the piano tone will force your ear to retain the pitch mentally and use this internal image as your

target for singing.

Exercise #2

When you are more confident matching pitches, move to harmonies: play one tone, simultaneously sing another. Experiment with pitch matching outside of your natural vocal range: hear a tone in an extreme register, sing the same pitch transposed at the octave into your register.

Performance preparation

The warm-up for rehearsals and performances should include two elements that might not be a part of a normal daily routine. The first involves mental visualization, a method most commonly associated with athletes preparing for competition. Much like the technique professional ski racers use before a run, the conductor's version involves hearing the score internally, in real time, while allowing your body to respond naturally to the sounds in your head. For this exercise to be effective, you'll need to be alone in a quiet place, with enough time to accommodate the duration of the score comfortably. Begin by relaxing and clearing your mind completely. Then, "run" the score as if you were performing, absorbing or avoiding any errors or trouble spots that might crop up. Most importantly, invest yourself completely in the task. Your physical responses needn't be full-blown, neither should you be still. The object is simply for your brain to establish links to the muscles it is likely to call upon during the actual performance. Numerous resources are available for further investigation related to visualization, including Steven Ungerleider's Mental Training for Peak Performance, and Gary Mack's Mind Gym.

The second element is particularly useful when preparing for rehearsals. It can best be described as “up-loading” aural and visual styles and textures into your brain, priming the canvas for the work ahead. The process is simple: for aural imagery, choose and listen to excerpts from CDs of works similar to those you will be rehearsing. These works will create positive expectations and points for comparison. Avoid listening to recordings of the repertoire you will be rehearsing. This can interfere with your own convictions and cloud your perception of the ensemble’s sound. If you or the ensemble have acquired habits that need to be eliminated, you might choose works that deliberately contrast. For example, if a particular piece inevitably loses tempo, you may warm-up by listening to something brisk. You will find that you carry the energy of the quicker tempo with you into the rehearsal, and it will counterbalance the unwanted habit. The point is to be deliberate in your choice of listening material because it will color how you hear and interact with the ensemble. “Up-loading” visual imagery must be equally deliberate because it will create the template your body will follow in the short term. Choose and watch excerpts from videos or DVDs of performers you wish to emulate to some degree. Images of conductors are an obvious choice, and footage of professional conductors in rehearsal is particularly useful if pace and precision are concerns for you. However, footage of actors, dancers, and comedians can be equally influential if you tend to be unduly inhibited, or repetitious, or if you need to work with a style that is not a part of your natural physical repertoire. Watching a few minutes of someone else’s work will provide a mental target for your body to work towards – not as an imitation, but as an inspiration.

Appendix I:

Suggested technical studies and etudes

Beyond developing technical facility, etudes engender a manner of thinking about the craft of performance and its relation to artistry. Etudes, if thoughtfully practiced, instill discipline that will serve as the foundation for musical growth. Ideally, studies should be chosen to address specific issues as they arise. There is not a prescribed sequence or method to the suggestions in this appendix. As with the suggestions for warm-ups, it is hoped that readers will pick and choose among what they find here to suit their own needs.

Note: it is recommended that all conducting exercises be practiced while standing to build accurate sense memory (activities will transfer to podium directly). Also, it is essential that the practitioner of these exercises strive to constantly maintain vivid mental sound images to which his physical activity corresponds. Start with a sound in mind and the gesture(s) will follow. Without the mental sound image, the gesture(s) are meaningless and ultimately ineffective.

Concepts related to tone

As with the performance of any instrument, tone for a conductor begins before the instrument is engaged and sound is produced. Therefore, conductors must cultivate the ability to establish a quality vibration (metaphorically) through an embouchure that can

be set up independently from the instrument. In physical terms, this skill is the result of muscle tone and coordination, coupled with flexibility and range of motion. Conductors must have the ability to automatically engage healthy and efficient air flow. This skill must be habitual; routine is important to build trust and eliminate tension. Finally, balance is vital – inner ear balance, physiological balance (of opposing muscle groups), and psychological balance (mental focus). All of these features of a conductor's embouchure manifest themselves in his grip on the baton, his posture, and his stance.

Check point #1: Grip

Since this text is geared primarily toward conductors of instrumental ensembles, the use of a baton is not only appropriate for logistical reasons, but it is also expected. It serves as the focal point for the ensemble, and conductors should practice to convincingly portray all styles of music through the use of a baton. When conducting, the baton should be in the right hand regardless of whether the conductor is right- or left-handed (just as one would hold a clarinet with the left hand above the right – it can be played the other way, but you'd be fighting years of design refinements and tradition for no appreciable gain).

The most basic, utilitarian baton grip puts the shaft of the stick between the thumb and first knuckle of the index finger, with the remaining fingers closed gently around the bulb or handle. When resting on the focal plane, the palm of the hand should be directed toward the floor. In this position, the conductor has the

greatest potential control of motion, given the number and position of the muscles and bones in the wrist.

Check point #2: Posture

Proper posture can be described as the position in which all of the parts of the body fall into natural alignment. According to James Jordan and Heather Buchanan in Evoking Sound: Body Mapping Principles and Basic Conducting Technique, it is essential for conductors to cultivate an accurate “body map” (how the brain perceives the body). Their text and the accompanying video include helpful exercises to promote awareness and test alignment. Apropos to conducting, the most basic description of how the components of our body align is:

There are four joints that allow our arms to move as they do, beginning in the center where the collarbones meet, then shoulders, then elbows, then wrists. Eight bones comprise the wrist joint covering a fairly large area; this provides more potential for flexibility. The spine is central in the body, like an apple core – not a ridge running along the back. Our bodies have six balance points: the A/O joint where the head balances on spine, the thoracic cavity balancing on the lumbar (lowest) vertebrae, the lumbar vertebrae balancing on the pelvic rockers (“sit” bones), the knees (remaining flexible to balance in cooperation with joints above and below), the arches of the feet balancing the entire vertical structure above, and the arms that influence the balance of the central vertical structure.

Alexander Technique is one of the most well known methods of promoting healthy body mapping and efficient functioning. We are all born with a natural awareness of ourselves that changes as we grow. The key to achieving physiological balance is an accurate image of your body as it is, rather than as you'd like it to be, or pretend it is.

Check point #3: Stance

A conductor's basic neutral stance is one that is common to many athletic activities. The feet are approximately shoulder width apart and the weight is balanced, poised (easily moved and consciously controlled). The knees and hip joints are flexible but firm to avoid unintentional bounce. Note: shoulder width is not as wide as most of us visualize; keep your feet under you and maintain the line created by the 6 points of balance (see above). Conductors who are prone to body sway might take off their shoes and stand on them while practicing conducting. This will inspire an awareness of unintended activity in the hips, knees and ankles and promote stability.

Checkpoint #4: Breathing

Alexander Technique deals extensively with breathing in addition to alignment (the two go hand-in-hand). The physiological basics of our natural, top-down breathing sequence are: the ribs swing up and out, the diaphragm moves from a high domed position to less domed, the abdominal wall moves out horizontally

(omni-directional), and the pelvic floor drops, moving the viscera lower. Also, the spine contracts slightly with the inhale and lengthens slightly on the release of air, causing the head to come slightly up and over. For conductors, an awareness of this process is essential to display and promote good tone. To find effective examples of healthy, natural breathing: watch babies as they sleep, or drape yourself over a large exercise ball to feel the process in action, or lie on the floor on your back with your head supported on a small stack of paperback books, keeping your hands resting gently on your abdomen; consciously “release” the tension in all muscles while focusing on the breathing sequence.

The conductor’s breathing and gesturing combine to influence the sound of an ensemble. If the ictus refers to the setting in motion of the air column through the instruments of the players, then the approach to the ictus is analogous to the inhalation of the players in preparation for this action. Typically the arms and hands of the conductor will follow the same top to bottom sequence as the natural breathing sequence described above. The visual image inspired by the top to bottom preparatory motion is one of the air “falling” into the players bodies: effortless and inevitable.

Remember: the conductor’s first priority (and the players’) is tone. Tempo will follow naturally since musical time begins with the inhalation of breath, before any sound occurs. The timing of the conductor’s preparatory gesture links directly to the speed of the airflow (inhalation), and relates to the tempo of the piece (the exact tempo or a multiple or subdivision thereof).

Volume of air equals quality of tone – not necessarily volume of sound (dynamic). While the size or amplitude of the conductor's preparatory gesture reflects the volume of sound or dynamic of the piece, it must always account for tone. But if more air equals better tone, how does the conductor deal with softer dynamics (typically represented by smaller gestures)? By changing the degree of resistance in the gesture. Resistance in a conductor's gestures is analogous to the control the players will exercise over the air stream as they play. Greater control is required at softer dynamics, lighter control at louder dynamics.

Exercises in aural skills and score reading

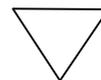
*These exercises pick up where the pitch matching warm-ups leave off. In every instance, the key is to picture the notation of each pitch in your head as you audiate and sing. Eventually, the image of the notation and the aural image will become interchangeable, thereby enriching your score reading. In other words, see what you hear and hear what you see. Two excellent sources for score reading, rhythm, and aural skills exercises are Froseth and Grunow's *MLR Instrumental Score Reading Program* (published by GIA), and Paul Hindemith's classic *Elementary Training for Musicians*. Another useful exercise related to inner hearing can be found in Green's *The Modern Conductor*, page seven (6th edition).*

For those who are self-conscious about their singing voice, remember that two of the worst singers (in terms of tone and range) were Leonard Bernstein and Georg Solti. Nevertheless, both men sang frequently and robustly in rehearsals to great effect. Above all, believe in the sound you are producing; conviction is vital in any leadership role.

Tip: if you or the ensemble are tense, resulting in a tight tone, sing (and ask the players to sing) using the syllable “mawh,” placing your hands on your cheeks to relax the face and drop the jaw. Illustrate and emphasize the difference between the relaxed, full tone produced by the “mawh” shape:



in contrast to the more common but tight and thin “meh” shape:



Exercise #1

John P. Paynter devised this exercise for his conducting classes, and it works well as either a warm-up or an etude depending on the singer’s level of comfort.

Remember: picture the notation of every pitch in your mind’s eye as you sing.

Begin by hearing a reference pitch (A 440, preferably from a tuning fork). Sing the reference pitch, using the syllable “nah” for every pitch throughout the exercise. As always, avoid scooping or humming; strive to hit the center of the pitch directly. Breathe, and then re-articulate the reference pitch, followed by the pitch one half step above. Return to the reference pitch, followed by the pitch one half step below. Return to the reference pitch. Using the same pattern around a

center reference pitch, increase the interval size to one whole step in either direction, then a minor third, a major third, etc. up to perfect octaves. If your singing range is less than two octaves, you should transpose the larger intervals at the octave as necessary to bring them into your range (e.g. an ascending major seventh becomes a descending minor second). Similarly, you may wish to experiment with different reference or center pitches.

This exercise is intentionally designed using parallel intervals to avoid establishing any sense of functional tonality. In the early stages, it is likely that you will inadvertently sing inverted major and minor triads. Be vigilant. You may wish to use a piano as a reference until you break the habits of tonality, but sing independently of it at all times (i.e. do not sing along as you play the exercise). Once this exercise is comfortable, you will find that you recognize intervals more quickly and are better able to hear them accurately in both tonal and non-tonal contexts.

Exercise #2

This second exercise was also devised by John P. Paynter, and it serves as an effective follow-up to the first. From a given reference pitch, which will function as the tonic, sing the four ascending triads (major, minor, diminished, augmented). Next, using the same reference pitch but changing its function to the dominant, sing the four ascending second inversion triads in the new key. Finally, using the same reference pitch but changing its function to the mediant,

sing the four ascending first inversion triads in yet another new key. Be sure to visualize the notation of each pitch as you sing. As above, the syllable “nah” works well to focus your vocalization. Once you have mastered the exercise from one reference pitch, choose another. Eventually, you may wish to change reference pitches as you change inversions.

Exercise #3

At the piano, play a series of non-arpeggiated triads (major, minor, diminished, augmented, any inversion). Upon hearing each, sing the middle note. Once you have mastered the standard chord structures, move to three-note clusters.

Exercise #4

Using an electronic tuner with a tone generator, choose a pitch that will serve as a pedal tone. With the tonic pitch constantly sounding, sing major, minor and chromatic scale patterns from the given note. Focus on intonation and concentrate on the difference in “feel” between consonant and dissonant intervals. Using the same technique, sing melodies over a constantly sounding pedal tone.

Exercise #5

At the piano, play a melodic line and at any given moment stop playing, but continue to hear the melody progressing in your mind’s ear. After a period of inner listening, begin to sing the melody from the point your internal hearing left

off (i.e. from the time you begin to play the melody, time continues even though the sound is temporarily internalized). Check your accuracy with the piano at the final cadence. When your ability to maintain a given pitch level improves, sing to begin the exercise (in lieu of playing the piano). A useful variation of this drill can be done with a radio or CD player. Begin to listen to a piece, turn the volume down to zero and continue to “hear” the music as it progresses, begin to sing, turn the volume back up to determine if you’ve stayed in sync. This is also an excellent test of inner pulse.

Another important and often overlooked aspect of score reading relates to tempo. Conductors should practice the ability to hear, sing, and move to scores in real time (i.e. at the proper tempo). Therefore, conductors must cultivate a reliable sense of tempo – an “inner metronome” of sorts. Notice that your sense of tempo can be profoundly affected by your mental and physical state.

Exercise #1

Without looking at the display, randomly set a metronome. Listen to the pulse, and guess the tempo you hear. Try to associate the pulse with a familiar tune or style. This practice is similar to undergraduate music majors learning to recognize intervals using the theme to Star Trek, or West Side Story.

Exercise #2

Without moving, call to mind a specific tempo (e.g. 120 beats per minute).

Verbalize or tap the pulse you hear. Check your accuracy with a metronome.

Exercises in rhythm and pulse

One of the conductor's most vital skills is the ability to feel time (both pulse and elapsed time). This skill is so important that many people believe that to conduct means to keep or beat time. Although this belief is false, a conductor must be able to maintain pulse in his body while monitoring elapsed time in order to influence the flow of a performance.

If finding and maintaining pulse is an issue, I would recommend the following preliminary exercise inspired by Libby Larsen and Edwin Gordon:

Feeling time

Find a recording of Lynyrd Skynyrd's Sweet Home Alabama, or any similar tune with a heavy-handed, moderate tempo groove. While listening, find the beat. The critical concept here is to find, rather than follow, the pulse. If you try to follow the pulse, you will discover (in the case of the original version of Sweet Home Alabama) that it drifts as much as ten beats per minute. If you simply find the pulse, your body will respond to it intuitively as if it were rock-steady. Musicians tend to spend far too much time trying to follow the pulse (e.g. following a conductor who is beating time), rather than discovering and responding to the

pulse naturally. Once you have found the pulse, begin to clap along with it.

When clapping is comfortable, sit so that you can tap one layer of pulse with your heels (macro beats) while simultaneously patting another layer on your knees with your hands (micro beats). When multiple layers of pulse are comfortable, find an ordinary playground ball. First, bounce the ball on the layer of pulse that allows you to best control the ball. As you gain confidence, practice moving to various layers of pulse – both faster (micro) and slower (macro). Note how the ball must have a shorter rebound at the more rapid layers of pulse, and considerably more “hang time” at the slower layers.

Unlike clapping or tapping, the work with the ball will help train your body to carry and respond to pulse in a manner closely related to normal conducting activity. Once you are comfortable feeling pulse and can move fluidly from one layer to another, the next exercises will enhance your ability to work with pulse in more complex ways. Note: in every exercise involving movement, the conductor must continually strive to “hear” each gesture or action in a manner analogous to a singer hearing a pitch before it is sung. Mental imagery must precede action if the action is to be positively and deliberately influential. Ultimately, each conductor should work toward conveying pulse through the fewest possible gestures. Ideally, the conductor should be able to exude pulse without the need for the traditional patterns, or “beating time.”

Exercise #1

Exercises one and two are synchronous timing drills. Use a metronome set to a moderate, non-accented, non-subdivided pulse. Using a drumstick and practice pad, or your hand and a table, tap the surface in sync with each pulse of the metronome. Focus on the sound of each gesture. Both the feeling and the sound of the impact provide essential sensory feedback that will ultimately promote clarity and effect style. Next, while holding an egg-type shaker and avoiding contact with any surface, engage in a series of “downbeat” gestures in sync with the metronome. Focus on the sound of the shaker. Ideally, each ictus should produce a crisp sound and every upbeat should be silent. If the upbeats produce sound, beware the presence of “back beat.” Calibrate the speed at the apogee of each stroke to eliminate extraneous noise from the shaker. Finally, work the same series of non-impact downbeats without the shaker, reproducing in your mind the feeling and sound of each. Strive to eliminate tension and promote economy in motion.

Phase two follows the same sequence, but instead of working in sync with each pulse of the metronome, move to the off- or after-beats. This process begins to instill in the conductor the ability to hear one thing while doing another.

Exercise #2

This drill adds the elements of gravity and momentum that are essential when working with kinesthetic metaphors. As with the first exercise, set a metronome to

a moderate, non-accented, non-subdivided pulse. Focus on the sound and feeling of each gesture – not only the downbeat or ictus, but the rebound as well. Using the playground ball from the preliminary exercises, bounce the ball in sync with the pulse to establish a basis for comparison. Next, move the bounce to the off- or after-beats. Move back to bouncing on each pulse, and then quickly begin to meld or combine several beats into a single bounce focusing on the sense of floating or suspension in the rebound. Practice the entire sequence with balls of various sizes and weights, noting the different response of each and the corresponding difference in muscle involvement to control them. Ultimately, you will need to be able to reproduce the various degrees of muscle activity without the presence of a ball.

Exercise #3

Exercises three and four are layering and asynchronous timing drills. Once again, set the metronome to a moderate, non-accented, non-subdivided pulse representing quarter notes. With a drumstick and practice pad, or your hand and a table, tap asymmetrical eighth-note groupings (i.e. hear the quarter-note pulse while tapping a series of 5/8 bars). Calculate when the metronome pulse and your tap should align to double check accuracy. Following the sequence established above, work next with an egg-type shaker, and finally with a ball to enrich the activity with the elements of sound, gravity and momentum.

Exercise #4

Using the metronome's accent feature, establish a pulse in a consistent simple duple or triple meter. Begin with your hand with or without a baton (no impact), and move through a contrasting metric pattern (i.e. hear one meter, for example 3/4, while moving through a standard 2/4 pattern). Calculate when downbeats should align to double check accuracy. As you become comfortable working with contrasting simple meters, introduce compound and asymmetrical meters for an added challenge.

Exercises three and four can be applied to problematic scores with great effect. For example, the constantly shifting meters in Stravinsky's L'Histoire du Soldat are notoriously problematic. Conductors can gain confidence and clarity by first setting the metronome to a steady eighth-note pulse and working the metric groupings until they are reliable. The next step is to set the metronome to a steady quarter-note pulse, feeling the metric patterns phase in and out of sync with the audible pulse. The second phase will also highlight areas where the conductor may be dragging or rushing the underlying pulse.

The preceding exercises have worked with time in the sense that the conductor's actions happened in direct relation to an established pulse (with the beat, or in between beats). But for a conductor to influence the sound of an ensemble, his actions must precede the production of that sound. This can prove to be one of the most difficult skills to master, compounded by the fact that the duration of the sound "delay" varies with the

sophistication of players (professionals tend to wait longer than beginners). The delay in the player's response affords them the opportunity to see the complete gesture before committing to the task of beginning or changing the sound. It allows players time to coordinate their own physical requirements (especially breathing processes) to produce the appropriate sound. Typically, the delay is imperceptible to the audience as it is a fraction of a second in mid-phrase, slightly longer at moments of great impact. Most apparent, and most nerve-wracking for the conductor, is the initial gesture, delay, and sound of any score.

Anticipation / preparation / action

The concept of flow is essential to allow a healthy delay that will maintain good tone and trust among the musicians. Note: the delay is not something that can be calculated or practiced – it must be organic and unselfconscious or disaster will ensue. The conductor must establish and act upon a strong mental image of pulse regardless of where the ensemble chooses to put the sound. The result is a conductor who is in three “time zones” simultaneously: ahead of ensemble (instigating), with ensemble (evaluating), and after ensemble (responding). The whole process is circular. If the conductor balks or waits to hear the sound before proceeding (a common problem in beginning conductors), flow is destroyed, trust is eroded, and the tone of ensemble will suffer as tension in the breathing process of the players builds. The following exercises are designed to illustrate and engage the natural sequence of anticipation, preparation, action, and response.

Exercise #1

Use a recording or metronome to establish a steady pulse in a symmetrical meter (i.e. a meter with an equal number of subdivisions in each beat). With a partner or a wall as the target, toss a ball so that it hits the target on a beat. Obviously, the tossing action must anticipate the beat so the ball can be “placed” on target on time. Next, with the same steady pulse as a reference, choose a different layer of time to work with (e.g. move from tossing and hitting the target on the next beat to tossing and hitting the target two, three, or four beats later). With this variation in the timing, the concept of “float” is vividly illustrated as the time the ball is in the air is compounded. Focus on the adjustments your mind and body make to achieve the new objective. Notice the changes in the trajectory of the ball depending on the amount of “float” that is necessary.

Exercise #2

Follow the same procedure as exercise one, but establish the underlying pulse in an asymmetrical meter (i.e. a meter with unequal numbers of subdivisions in the beats). This will automatically intersperse “floated” tosses among standard tosses. Notice how the tosser influences the focus and body position of the catcher according to how and when the ball is thrown. This relationship is very similar to that of a conductor and a player in an ensemble.

Additional exercises in subdivision and sequencing can be found in Green's The Modern Conductor, pages 38, 122, and 129 (6th edition).

Exercises in coordination and independence

Large-scale balance and coordination issues benefit from regular experiences in activities that require you to address a fixed object or target. Golf, bowling, darts, shuffleboard, curling, gymnastics, croquet, or a simple game of catch will engender a better understanding of your body's proportions and tendencies. For those who are naturally well coordinated, consider engaging in any of the suggested activities using your non-dominant hand. The resulting loss of control is one of the most useful self-teaching tools if you can maintain your sense of humor and mental focus. Fixed-object practice will help the conductor gain control and assurance with initial gestures.

To improve your ability to react and respond spontaneously to an ensemble, engage in activities that require you to cope with irregular or strategic timing. Sports such as baseball, softball, tennis, squash, racquetball, soccer, field hockey, la crosse, volleyball, basketball, hockey, polo, badminton, table tennis, handball, and fencing all require the participants to operate within a flexible but logical timeframe. Furthermore, opponents influence one another constantly and deliberately through nonverbal means. Another excellent activity to practice influence and response is dancing with a partner.

Small scale, conducting-specific exercises related to coordination and independence typically follow this format:

Exercises

- *Keeping your upper arms relaxed, simultaneously rotate your right forearm counter-clockwise and your left forearm clockwise in front of your torso. Reverse direction.*
- *Describe the same circular motions with your left arm as you execute standard metric patterns with your right. Reverse (circles on the right, patterns on the left).*
- *Returning to simultaneous circles on both sides, let the right arm rotate in a smaller circle, twice as fast as the left. Reverse (big circle on right, small on left).*
- *Execute standard metric patterns with your right arm as your left arm smoothly rises and falls along a straight, vertical line. Reverse (patterns on the left side, vertical line on the right). [This is the proverbial “elevator” drill].*

- *Execute standard metric patterns with your right arm as your left arm smoothly travels away from and back to your body on a straight, horizontal line. Reverse (patterns on the left side, horizontal line on the right).*
- *Execute standard metric patterns with your right arm as your left arm executes “cues” on varying beats. Reverse (patterns on the left side, “cues” on the right).*

Once again, The Modern Conductor is a useful source of similar ideas.

At this juncture, it is wise to revisit several caveats stated earlier. First, practicing isolated gestures out of context is the equivalent of practicing scales. If the purpose is simply to be able to play scales (demonstrate gestures), success will be easy to assess but the activity will be pointless. If the purpose is to build skills to employ in the pursuit of a higher musical purpose, be sure that you keep the goal perpetually in sight. The activities and gestures described here do not constitute conducting. They are exercises designed to facilitate and hone the practice of conducting. Balance is of key importance. Whenever possible, work each side of the body independently, then alternate, then work both sides at once for the greatest range of possibilities.

Perpetual inner hearing is essential. Believe that gestures are audible, therefore all of your physical work must sound at least as good as it looks and feels. The ensemble's articulation is analogous to the impact of the conductor's gestures on the focal point or plane (ictus). The sustaining quality of the ensemble's tone following the articulation is analogous to the conductor's follow-through or rebound from the ictus. Props such as egg-type shakers and drum sticks/pads help conductors feel the quality of each ictus and hear the resonance of each motion (or lack thereof).

Focus

Many conductors have acquired the habit of employing gestures that are out of proportion in metaphorical terms (the equivalent of swatting a fly with a sledgehammer). To control the amplitude of gestures, isolate individual elements. To improve focus, use the materials you find.

Exercise #1

Using a repetitive series of a standard beat pattern as the basic activity, begin by executing one measure with just the tip of the baton (the wrist, forearm, elbow, upper arm, and shoulder should all remain still). Next, engage the wrist in addition to the baton for one measure. Then engage the forearm and elbow for a bar; then the upper arm and shoulder for a bar. Finally, engage the entire arm

complex – from the center of the torso where the collarbones meet all the way to the tip of the baton. Reverse the process, gradually disengaging joints as you progress from very large motions to very small.

Exercise #2

Stand facing the edge of an open door (opposite the hinges). Lean slightly forward and touch your forehead to the narrow edge of the door, with your arms to either side of it. While maintaining this posture, work patterns and other exercises using the door as an obstacle to prevent your hands and arms from crossing. This drill will also tend to reduce the size of your motions. Note: this exercise should be used sparingly, since the posture it requires is out of your body's natural alignment.

Working with gravity

Remembering that conducting is not a matter of control but of influence, the challenge for conductors working within metaphorical contexts is to work with gravity, rather than against it. Much of the conductor's work is a matter of redirecting the ensemble's momentum, much the same way a soccer player works with a ball. To this end, one of the conductor's most important skills is the ability to vary the degree of resistance in his gestures. Resistance acts like the braking mechanism in a car. If you stomp on it, or "ride" the brakes, both you and the car will be the worse for wear. Similarly, if a conductor strives for control rather than influence, thereby manhandling the air stream,

the sound of the ensemble will suffer. Cars, soccer balls, and ensembles must be able to coast if they are to move freely and efficiently.

To practice varying the degree of resistance, consider the most basic conducting motion: the approach, impact/ictus, and rebound. Compare a drop and release, bounce the ball gesture with a push and pull, erase the chalkboard gesture. The former works with momentum and involves “coasting,” while the latter involves constant, controlling contact (like riding the brakes). Note the degree of tension or relaxation in the muscles involved in each way of moving.

Practice the drop and release gesture while holding soup cans or small weights to add resistance. Note how your body compensates for the additional weight – not only the hands and arms, but the muscles involved with posture and balance too. Experiment with moving in a swimming pool to experience full-body resistance. Lift, push, and pull objects of varying weights (carefully). Finally, practice recreating the sense and appearance – and sound – of moving with resistance when actual weight or obstacles are not there.

Exercise #1

Using the standard beat patterns as a foundation, practice adding or removing resistance at selected moments. First, begin with motions that are as relaxed as possible and gradually increase (isometrically) the degree of resistance. When

the resistance becomes so great that movement is nearly impossible, gradually release the tension in the muscles to return to a relaxed state. Next, within the same basic patterns, add or subtract resistance from selected beats. Note: it is important to cultivate the ability to work with isolated muscle groups so that tension isn't shared with other parts of the body. Constantly monitor your alignment (posture and balance), and be sure to stretch and "shake out" the tension from your body between drills.

Exercise #2

Stand with your arms hanging loosely at your sides. Pivot or rotate your torso from left to right and allow your arms to swing freely. Stop the motion of your torso, but allow arms to continue to swing as long as momentum carries them. At first, the swing of your arms will probably stop quickly. As you acquire the ability to completely relax and disengage your arms, the residual swing will last longer.

Next, stand with your arms pressed tightly to your sides, from shoulder to wrist, with your palms facing behind you (maximum tension). Flap your hands back and forth as vigorously as possible, moving from the wrist only and keeping the arms still. Stop as soon as your arms begin to ache.

Next, sit with your forearm and the palm of your hand flat on the surface of a table. Swing your hand up at the wrist, keeping the forearm in contact with the table. Vary the speed and distance your hand travels and monitor the

corresponding tension in your shoulder. Note that rapid large motions promote tension while equally rapid small motions do not. Consider strategies for increasing the efficiency of your gestures on the podium, thereby releasing unnecessary or unintended tension.

These two brief drills will help to establish a clear distinction between tension and relaxation in the neural pathways of your brain.

Exercise #3

Using the format of a basic cue rotation drill (see Exercises in coordination and independence above), practice adding sudden bursts of resistance in lieu of cues. Thus, the exercise becomes an accent rotation drill.

Exercise #4

When experimenting with resistance, an unfortunate by-product can be a lack of control that manifests itself as a periodic hitch or bump in otherwise smooth gestures. To counteract this phenomenon, sit with your arm resting on the arm of a chair and let your hand hang loosely in front. At the slowest possible speed, lift your hand to the level of your arm, keeping the arm in constant contact with the armrest. Release, and repeat with varying degrees of isometric resistance, always striving for the smoothest possible motion.

**Important: working with resistance exhausts the muscles and can rapidly lead to injury and detrimental habits. Practice in short sessions, resting and stretching frequently. Stop immediately if pain occurs. Five minutes of this type of work is more than enough to show results.*

Fundamentals of style

Chapter six dealt with the issue of style in relation to interpretation during the score study process. The following exercises treat style as a concept that relates to objects and motions. In either case, the conductor must rely on his ability to distinguish style from content (substance).

Exercise #1

Two avenues lead to the ability to distinguish one style from another without being distracted by content. Seek opportunities to engage the following materials and describe, through any appropriate means, the characteristics that distinguish one from the next.

- *Direct comparisons using two works on the same subject (e.g. Tchaikovsky's Romeo and Juliet ballet v. Prokofiev's, or Shakespeare's play Romeo and Juliet v. the libretto to Bernstein's West Side Story).*

- *Abstract comparisons using two works in the same medium (e.g. short stories: Faulkner v. Hemingway, or novels: Melville v. Tolstoy, or paintings: Rembrandt v. Monet, or sculptures: Rodin v. Brancusi, or symphonies: Mozart v. Beethoven).*

Exercise #2

To cultivate the ability to extract the essential characteristics of a given style, practice deconstruction and description. For example, choose an object and describe it (its size, weight, color, texture, shape, etc.). Next, take it apart mentally and determine the materials and processes that created it. This process also applies to sound. Consider the characteristics of the sound itself (its amplitude, frequency, wave form, etc.) as well as its source.

Exercise #3

To practice the process of translating the characteristics of style into motion or gesture, work with various related objects (e.g. a Koosh ball, a cue ball, and a tennis ball). Interact with the objects to experience their physical and kinetic character (how they feel and move). Next, choose a particular object and imitate with your body how it moves (e.g. how a ball bounces, or how a balloon deflates, or how a mattress springs back after weight is taken off it). This exercise is particularly effective when done in “charades” fashion with a group.

A more abstract variation of this same exercise is to listen to a particular sound and imitate it through physical gestures (e.g. the gesture of flicking paper off the end of your baton to represent quickness of airspeed and crispness of articulation). This variation can also be done in “charades” fashion with a group. In this case, the group confers and produces and/or names the sound they think you are portraying (e.g. a steamboat horn, or the sound of popcorn popping).

If the third exercise is especially challenging, you may benefit from an exploration of the work of Rudolf Laban (1879-1958). Laban devoted his life and work to promoting an awareness and appreciation of the connection between the body and the mind that is manifested in movement. His studies determined that there are common elements in all movements. He then categorized these elements and developed a method of notating movement (Choreutics). Of greatest interest for the purposes of conducting practice are what Laban termed the “eight basic efforts.” These efforts are derived from the combination of “motion factors” and “effort elements.” In a nutshell: $A + B = C$ where

A represents the four motion factors:

- * Weight (strength or lightness)
- * Space (directness or flexibility)
- * Time (suddenness or sustainment)
- * Flow (bound or free)

Note: in Laban's terms, "effort" is one's attitude to these four components of movement (not the same as the common connotation of effort).

B represents the six effort elements:

- * Light, Sustained, Flexible, Direct, Sudden, Firm
- The first three indulge in Weight / Space / Time.
- The second three fight against Weight / Space / Time.

C represents the eight basic efforts:

- * Dabbing, Flicking, Floating, Gliding, Pressing, Punching, Slashing, Wringing⁴

Conductors can experiment with these elements individually or in combinations to build a vocabulary of gestures and gain valuable insight into the portrayal of style characteristics.

Studies in improvisation in a conducting context

Pablo Picasso: "What's the use of disguises and artificialities in a work of art? What counts is what is spontaneous, impulsive. That is the truthful truth. What we impose upon ourselves does not emanate from ourselves."

⁴ Laban, Rudolf and Lisa Ullmann. The Mastery of Movement. 4th edition. Plymouth: Macdonald and Evans, 1980.

The preceding exercises are examples of “imposing” upon our bodies new ways of moving and interacting with the world. The following exercises are designed to draw spontaneously from the body. The prerequisites are simple: a thorough knowledge of the score, solid technique, and discipline. The guidelines are as follows:

- *Start with the classics. Choose scores that have been “worked” by many others before you so that there are many models available. Choose pieces for which there are a plethora of resources, including various editions of the score, multiple recordings (both audio and video), and easily accessible background information.*
- *Limit the scope of the project. Choose a passage (e.g. the introduction) rather than an entire movement or piece. Also, choose a passage that’s easy to find on a recording, or take the time to dub an excerpt with which to work.*

To practice improvisation as a conductor, follow a basic four-step routine. This process will draw upon every aspect of conducting addressed thus far. Therefore, practicing improvisation can serve as both a summary of prior work and a diagnostic exercise to determine future needs.

Step #1: build your own aural image

Once you've chosen a score according to the guidelines shown above, follow the score study recommendations in chapter six to firmly establish the context in which you will be working. Without the parameters that the context provides and implies, any attempts to improvise will be pointless.

“The study of scores is the art of making the full printed page sound inside yourself.”

Fritz Reiner

Step #2: work from an audio model (CD, tape, LP)

The first challenge presented in this phase is to become able to recognize a conductor's “stamp” on a piece. Find at least two recordings of the score you have chosen, each featuring a different conductor (e.g. Beethoven Symphony No. 7: Klemperer v. Toscanini, or Reiner v. Kleiber). Listen to each several times, and compare the versions, noting the differences in each conductor's treatment of the essential elements (especially tempo, phrasing, balance, pace, style of articulation, and tone color). As you listen, be sure to maintain your own mental image, based on score study. Once you have identified certain characteristics associated with the other conductors, compare your own internal image to their performances. Bear in mind that your inner image is obviously unaffected by the conditions each of the model conductors experienced, including influences such as the collective personality of the ensemble, and the acoustics of the performance

venue. Setting aside these considerations, identify the most notable differences between your “stamp” and theirs.

With your inner aural image firmly in place, practice moving to it (conducting an imaginary ensemble) as you listen to one of the recordings. Remember: your actions should relate to your image of the score, not necessarily the image reflected by the recording. Recognize the feeling of being out of sync with the players on the recording. Note the affect this feeling has on your movements. Practice the courage of your convictions – stay with your internal image without tuning out the players (keep track of where and how their sound differs from yours).

Progress to delusions of grandeur: imagine that you are able to influence the sound of the recording (i.e. imagine that you are actually conducting the ensemble you’re hearing). Begin by moving to inspire your own aural image in the players. When you begin to feel the ensemble pulling away from you, adjust your gestures to respond (e.g. if they are falling behind in tempo, employ gestures that will influence them to speed up to meet your aural image; or if they are too loud, react to their playing with a gesture that will influence them to achieve a softer dynamic). Obviously the recording will not change no matter what you do. The value of this exercise is to become comfortable in two areas:

- *Spontaneously reacting with gestures to sounds you hear while simultaneously creating a flow of gestures intended to evoke your aural image.*
- *Dealing with the inevitable delay in the reaction of the players to your gestures.*

Step #3: work from a visual model (video, DVD)

Whatever medium you choose must be replayable (i.e. not a live performance); repetitive viewing is helpful. As with step two, the model would ideally be conducting the piece you have studied. The challenge in this phase is to recognize the characteristic elements of another conductor's physical style. Watch for recurring gestures. Watch for general tendencies (e.g. to conduct with a high focal plane, or to work mostly on the left side). Watch for mannerisms (e.g. closing the eyes, or sweeping the hair back). Note the elements of his or her "set up" (posture, stance, etc.).

Practice imitating isolated gestures out of context. In other words, try on a few of the model's "moves." Next, deliberately engage in a bit of choreography by using these gestures while moving to an audio recording. The audio recording doesn't have to be the same model conductor as the video you are imitating. The object here is to begin to test the model gestures with the element of time

(admittedly synchronous rather than leading, but simple coordination is the goal at this stage). Obviously this is not conducting - it's dancing. The purpose is to encourage your body to move in a way it might not if left to itself.

Returning to the visual model (video, DVD), choose another section of the same piece. Without watching the model conductor navigate this excerpt, listen (with the video screen blocked from view) and establish an internal picture of what the model is probably doing based on your observations in the previous section.

Without having seen the model's work, try to move to the recording of the excerpt to match your imagined picture. At this stage, you are imitating what you anticipate the model will look like. Now watch the model conductor navigate the new excerpt and note the similarities and differences to your imagined version.

The differences are the key: they are a glimpse of how your personal gestural imagination and aural sense are linked. Were the discrepancies only a matter of degree, or did you engage a totally different palette of gestures than the model? You may need a partner to offer an objective opinion.

By moving in the style of someone else, without directly copying his or her every gesture, you have begun to engage in an improvisatory thought process. Perhaps more importantly, you've done so while disengaging the normal constraints of your own self-image. In other words, by stepping into someone else's shoes you free yourself to discover new potential in your own body.

Step #4: working without a direct model

The psychological conducting or musical charades exercises described earlier are one of the best ways to get comfortable with improvisation. The object is to portray the complete quality of phrases rather than empty metrical patterns. Two variations on this type of drill are:

- *The conductor presents a single gesture (a motion representing a single sound), and the ensemble creates a sound to mimic gesture. If the sound of the ensemble is other than the conductor intended, the conductor then adapts the gesture to influence the ensemble toward the target.*
- *A single musician produces a sound, and the conductor must represent that sound with his body (i.e. create a gesture that mimics the sound).*

Another extraordinarily convenient way to practice physical improvisation is to deliberately try to influence the people around you in normal, everyday situations. For example, while sitting next to someone in a movie theater attempt to gain control of the common armrest after they have already placed their arm on it. Obviously, you need to operate nonverbally without making physical contact with

the other person. Try to cause your office mates to ask you a question based upon your body posture. Interrupt a conversation without saying a word.

When you've become adept at influencing others directly, begin to experiment with influence through your reactions to others. For example, stare blankly at a person who has just asked you a question, or lean in conspiratorially when you reply to the waiter who has asked if you'd like a wedge of lemon in your glass of water.

If you are not naturally extroverted, use the concept of modeling to begin this type of experimentation. Take on the characteristics of the people around you and see what happens. Often the idea of being yourself, only different, can be daunting while the idea of imitating someone else removes the inhibitions associated with the maintenance of a positive self-image. You can act differently because, after all, it's not you.

The final step is to put it all into play on the podium in front of an ensemble. Free your mind and your body to grab bits and pieces of all the activities and models according to the needs of the moment. Use the influence that won you the armrest in the movie theater, react as if you desperately want lemon in your water but don't want anyone to know it, and add a dash of Solti if that's what it takes to find the right sound.

Works Cited

- Adler, M.K. *Non-Vocal Language and Language Substitutes: A Sociolinguistic Study*.
Hamburg: Buske, 1979.
- Apel, Willi, ed. *Harvard Dictionary of Music*. 2nd edition. Cambridge, Massachusetts:
Harvard University Press, 1972.
- Axtell, Roger. *Gestures: The Do's and Taboos of Body Language Around the World*.
New York: John Wiley & Sons, 1991.
- Banister, Suzanne. "I Am a Band Director vs. I Am a Band Teacher." *National Band
Association Journal*. Volume 43/Number 3. May 2003. pp. 11-15.
- Barenboim, Daniel. *A Life in Music*. New York: Charles Scribner's Sons, 1991.
- Battisti, Frank. *The Winds of Change*. Galesville, Maryland: Meredith Music, 2002.
- Bayles, David and Ted Orland. *Art and Fear: Observations on the Perils (and Rewards)
of Artmaking*. Santa Barbara, California: Capra Press, 1993.
- Beadle, Muriel. *A Child's Mind*. Garden City, New York: Anchor Books, 1971.
- Blum, David. *Casals and the Art of Interpretation*. Berkeley: University of California
Press, 1977.

Blunt, Jerry. *The Composite Art of Acting*. New York: Macmillan, 1966.

Botstein, Leon. "On Conducting." *The Musical Quarterly*. Volume 81/Number 1.
Spring 1997. pp. 1-12.

Bowman, Wayne. "Educating Musically." In *The New Handbook of Research on Music Teaching and Learning*. Edited by Colwell, Richard and Carol Richardson.
Oxford: Oxford University Press, 2002. pp. 63-84.

Bräm, Thüring and Penny Boyes Braem. "A Pilot Study of the Expressive Gestures Used by Classical Orchestra Conductors." *Journal of the Conductors Guild*. Volume 22/Numbers 1 & 2. Winter/Spring – Summer/Fall 2001. pp. 14-29.

Burnsed, Vernon. "Differences in Preference for Subtle Dynamic Nuance between Conductors, Middle School Music Students, and Elementary School Students." *Journal of Research in Music Education*. Volume 49/Number 1. Spring 2001.
pp. 49-56

Byo, James. "Recognition of Intensity Contrasts in the Gestures of Beginning Conductors." *Journal of Research in Music Education*. Volume 38/Number 3.
Fall 1990. pp. 157-163.

Caldwell, Robert. *The Performer Prepares*. Dallas: Pst...Inc., 1990.

Carroll, Andrew, editor. *Letters of a Nation*. New York: Kodansha International, 1997.

Celibidache, Sergiu. Teaching session, Curtis Institute of Music. Philadelphia, Pennsylvania. February 1984. (Accessed 9 March 2004).
http://www.celibidache.org/ceci_lecture.html

Cofer, R. Shayne. "Effects of Conducting-Gesture Instruction on Seventh-Grade Band Students' Performance Response to Conducting Emblems." *Journal of Research in Music Education*. Volume 46/Number 3. Fall 1998. pp. 360-373.

Cook, Nicholas. *Music Imagination and Culture*. Oxford: Oxford University Press, 1990.

Crowe, Don. "Effects of Score Study Style on Beginning Conductor's Error-Detection Abilities." *Journal of Research in Music Education*. Volume 44/Number 2. Summer 1996. pp. 160-171.

Csikszentmihalyi, Mihaly. *Flow*. New York: Harper & Row, 1990.

Doherty, Jim. *Smithsonian*. Volume 5/Number 6. September 1994.

Downs, David. *The Actor's Eyes*. New York: Applause Theatre Books, 1995.

Duke, Robert. "How Brains Learn." Lecture, *The University of Nebraska-Lincoln*. Lincoln, Nebraska. November 20, 2003.

Edwards, Betty. *Drawing on the Right Side of the Brain*. Los Angeles: Jeremy P. Tarcher, 1989.

Ellis, Barry. "Rehearsals with a View To Preserving Spontaneity." *The Instrumentalist*.
December 1999. pp. 12-16, 87.

Exline, Ralph and B.J. Fehr. "Applications of Semiosis to the Study of Visual
Interaction." In *Nonverbal Behavior and Communication*. Edited by Siegman,
Aron and Stanley Felstein. Hillsdale, NJ: Lawrence Erlbaum Assoc., 1978. pp.
117-157.

Fellman, Bruce. "Inside Autism," *Yale*. November 2002. pp. 24-29.

Fisk, Josiah, ed. *Composers on Music*. Boston: Northeastern University Press, 1997.

Fredrickson, William, Christopher Johnson, and Charles Robinson. "The Effect of Pre-
Conducting and Conducting Behaviors on the Evaluation of Conductor
Competence." *Journal of Band Research*. Volume 33/Number 2. Spring 1998.
pp. 1-13.

Fried, Eric. "Using Body Language to Express the Music in Conducting." *American
String Teacher*. Volume 51/Number 3. August 2001. pp. 68-73.

Froseth, James and Richard Grunow. *MLR Instrumental Score Reading Program*.
Chicago: GIA Publications, 1979. (Workbook and CD set).

Fuchs, Peter. *The Psychology of Conducting*. New York: MCA Music, 1969.

Gardner, Howard. *Creating Minds: An Anatomy of Creativity Seen through the Lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham, and Gandhi*. New York: Basic Books, 1993.

Gelb, Michael. *How to Think like Leonardo da Vinci*. New York: Dell Publishing, 1998.

Grechesky, P.N. (1986). *An Analysis of Nonverbal and Verbal Conducting Behaviors and Their Relationship to Expressive Musical Performances*. (Doctoral dissertation, University of Wisconsin-Madison, 1985). *Dissertation Abstracts International*, 46, 2956-A.

Green, Elizabeth. *The Modern Conductor*. 6th edition. Upper Saddle River, New Jersey: Prentice Hall, 1997.

Green, Elizabeth and Mark Gibson. *The Modern Conductor*. 7th edition. Upper Saddle River, New Jersey: Prentice Hall, 2004.

Grimes, Tom, editor. *The Workshop: Seven Decades of the Iowa Writers' Workshop*. New York: Hyperion, 1999.

Groeling, Charles. "Toward Better Music Classes." *The Instrumentalist*. June 2004. pp. 56-57.

Hawkins, Ben. "Reconstructing Our Fragmented Profession: A Reflection." *National Band Association Journal*. Volume 44/Number 2. December 2003. pp. 13-14.

- Hayslett, Dennis. "The Effect of Movement-based Training upon the Aural Acuity of Conductors." *Contributions to Music Education*. Number 23. 1996. pp. 7-18.
- Henri, Robert. *The Art Spirit*. Boulder, Colorado: Westview Press, 1984. (reprint of Lippincott Co., 1923).
- Hindemith, Paul. *Elementary Training for Musicians*. London: Schott & Co., 1946.
- Jacobs, Arnold. Masterclass Lecture, 1973 *International Tuba and Euphonium Conference*. Bloomington, Indiana. Transcribed and edited by David Kutz.
- Jaques-Dalcroze, Emile. *Rhythm, Music and Education*. Translated by H.F. Rubenstein. Aylesbury, England: Dalcroze Society, 1973.
- Jordan, James and Heather Buchanan. *Evoking Sound: Body Mapping Principles and Basic Conducting Technique*. Chicago: GIA Publications, 2002. Video (VHS-530).
- Jordan, James. *The Musician's Soul*. Chicago: GIA Publications, 1999.
- Julian, Faye. "Nonverbal Communication: Its Application to Conducting," *Journal of Band Research*. Volume 24/Number 2. Spring 1989. pp.49-54.
- Jung, Carl et al. *Man and His Symbols*. Garden City, New York: Doubleday, 1964.
- Juslin, Patrik and Roland Persson. "Emotional Communication." In *The Science and Psychology of Music Performance: Creative Strategies for Teaching and*

Learning. Edited by Parncutt, R. and G. McPherson. Oxford: University Press, 2002. pp. 219-236.

Kelly, Steven. "Effects of Conducting Instruction on the Musical Performance of Beginning Band Students." *Journal of Research in Music Education*. Volume 45/Number 2. Summer 1997. pp. 295-305.

Kingsolver, Barbara and Katrina Kennison, editors. *The Best American Short Stories 2001*. Boston: Houghton Mifflin, 2001.

Knapp, Mark and Judith Hall. *Nonverbal Communication in Human Interaction*. 3rd edition. Fort Worth: Holt Rinehart and Winston, 1992.

Laban, Rudolf and Lisa Ullmann. *The Mastery of Movement*. 4th edition. Plymouth: Macdonald and Evans, 1980.

LaBerge, Stephen. *Lucid Dreaming*. New York: Ballantine, 1985.

Lakoff, George and Mark Johnson. *Metaphors We Live By*. Chicago: University of Chicago Press, 1980.

Leinsdorf, Erich. *The Composer's Advocate*. New Haven: Yale University Press, 1981.

Lloyd, Thomas. "Am I Being Followed?: Finding the Elusive Connection between Conductor and Ensemble." *Choral Journal*. Volume 36/Number 7. February 1996. pp. 23-26.

Mack, Gary. *Mind Gym*. New York: Contemporary Books, 2001.

Maiello, Anthony. *Conducting: A Hands-On Approach*. Belwin-Mills, 1996.

Mailman, Matthew. "The 'White Canvas' Approach to Beginning Conducting."
Teaching Music. Volume 7/Number 4. February 2000. pp. 60-62.

Markova, Dawna. *The Art of the Possible*. York Beach, Maine: Conari Press, 1991.

McClung, Alan. "The Relationship between Nonverbal Communication and Conducting:
An Interview with Rodney Eichenberger." *Choral Journal*. Volume 36/Number
10. May 1996. pp. 17-24.

McCoy, Claire. "Eurhythmics: Enhancing the Music-Body-Mind Connection in
Conductor Training." *Choral Journal*. Volume 35/Number 5. December 1994.
pp. 21-28.

McElheran, Brock. *Conducting Technique for Beginners and Professionals*. Oxford:
Oxford University Press, 1964. (revised 1989)

Menand, Louis. *The Metaphysical Club*. New York: Farrar, Straus and Giroux, 2001.

Ostling, Jr., Acton. "Research on Nonverbal Communication with Implications for
Conductors." *Journal of Band Research*. Volume 12/Number 2. Spring 1976.
pp. 29-43.

- Peterson, Stephen. "A Survey of Concert Programming Techniques Employed by Selected College and University Wind Conductors in the United States." D.M. diss., Northwestern University, 1991.
- Pilafian, Sam and Patrick Sheridan. *The Breathing Gym: Breathing Exercises for Band, Chorus and Orchestral Winds*. Fort Wayne, Indiana: Focus On Excellence, 2002. (book and DVD).
- Pratt, Stephen. "Conducting and Rehearsing 'Sensitive' Musicians." Lecture, *The Midwest Clinic*. Chicago, Illinois. December 22, 2000.
- Price, Harry and Suzanne Winter. "Effect of Strict and Expressive Conducting on Performances and Opinions of Eighth-Grade Band Students." *Journal of Band Research*. Volume 27/Number 1. Fall 1991. pp. 30-43.
- Roach, Donald. "Contemporary Music Education: A Comprehensive Outlook." *Music Educators Journal*. Volume 60/Number 1. September 1973. pp. 37-40.
- Rudolf, Max. *The Grammar of Conducting*. 3rd edition. New York: Schirmer Books, 1994.
- Scherchen, Hermann. *Handbook of Conducting*. Translated by M.D. Calvocoressi. New York: Oxford University Press, 1989 (first published 1933).
- Schuller, Gunther. *The Compleat Conductor*. New York: Oxford University Press, 1997.

- Skoog, William. "Use of Image and Metaphor in Developing Vocal Technique in Choirs." *Music Educators Journal*. Volume 90/Number 5. May 2004. pp. 43-48.
- Sousa, David. *How the Brain Learns*. 2nd edition. Thousand Oaks, California: Corwin Press, 2001.
- Stein, Erwin. *Form and Performance*. New York: Alfred A. Knopf, 1962.
- Steptoe A. and Fidler, H. 1987. "Stage Fright in Orchestral Musicians: A Study of Cognitive and Behavioural Strategies in Performance Anxiety." *British Journal of Psychology*. Volume 78/Issue 2. May 1987. pp. 241-9.
- Stravinsky, Igor. *Poetics of Music: The Charles Eliot Norton Lectures, 1939-40*. Cambridge, Massachusetts: Harvard University Press, 1970.
- Thompson, Mallory. "Mallory Thompson – Conducting Clinician, Part One." *BD Guide*. September/October 1994. pp. 14-18.
- Ungerleider, Steven. *Mental Training for Peak Performance*. New York: St. Martin's Press, 1996.
- Van Weelden, Kimberly. "Perceptions of Nonverbal Communication Implications for Beginning Conductor Training." *Choral Journal*. Volume 42/Number 9. April 2002. pp. 67-69.

- VanWeelden, Kimberly. "Relationships between Perceptions of Conducting Effectiveness and Ensemble Performance." *Journal of Research in Music Education*. Volume 50/Number 2. Summer 2002. pp. 165-176.
- Wagner, Richard. *On Conducting (Ueber das Dirigiren)*. Translated by Edward Dannreuther, Mineola, New York: Dover Publications, 1989 (first published in *the Neue Zeitschrift für Musik*, 1869).
- Wallace, Jake. *The Conductor Prepares: Anxiety in Conducting on the Podium and off and Strategies for its Management*. Unpublished manuscript, 2003.
- Walter, Bruno. *Of Music and Music Making*. New York: W.W. Norton, 1957.
- Wells, W, and B. Siegel, 1961. "Stereotyped Somatypes." *Psychological Reports* 8. pp. 77-78.
- Whitwell, David. *The Art of Musical Conducting*. Northridge, California: Winds, 1998.
- Wilson, G. D. and D. Roland. "Performance Anxiety." In *The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning*. Edited by Parncutt, R. and G. McPherson. Oxford: University Press, 2002. pp. 47-61.
- Wis, Ramona. "Physical Metaphor in the Choral Rehearsal: A Gesture-Based Approach to Developing Vocal Skill and Musical Understanding." *Choral Journal*. Volume 40/Number 3. October 1999. pp. 25-33.

Woody, Robert. "The Motivations of Exceptional Musicians." *Music Educators Journal*. Volume 90/Number 3. January 2004. pp. 17-21.

Yarbrough, Cornelia. "Effect of Magnitude of Conductor Behavior on Students in Selected Mixed Choruses." *Journal of Research in Music Education*. Volume 23/Number 2. Summer 1975. pp. 134-146.

Metropolitan Opera Centennial Gala. October 22, 1983. Pioneer Classics DVD: PC-94-046-D.

West Side Story: The Making of the Recording. 1985. Unitel / Deutsche Grammophon DVD: 073 017-9.

<http://www.dallasbrass.com/>

<http://www.pz.harvard.edu> (Project Zero)

<http://www.personalitypage.com/home.html>

<http://haleonline.com/psychtest/>

<http://www.keirsey.com/>

<http://www.typefocus.com>