Trumpet Diatonics ©

a poetic training in coordination

Trumpet Diatonics © is a poetic training in the coordinations required to build skill. My method orders the ears to hear the choreography within the cadences of tonality. The practices prescribed in this volume are deliberately graded to protect the musician from mental fatigue and physical injury. Trumpet Diatonics © orders technical advancement, while maintaining a prodigious emphasis on developing a clear and consistent aural literacy.

Trumpet Diatonics © develops combined literacy and technique through the following "*Four Pillars*".

Four Pillars of Trumpet Diatonics ©

Pillar One: Ear-Air-Horn-Lips-Tongue-Fingers

1. Ear

You must hear what you intend to play before you play it. The song must exist in your mind's ear before you play it. Simply listen for the tune in your mind's ear and sing to assess your ability to hear the song. The ear incites, evokes, summons the aperture to posture, as it coordinates the entirety of the physical body.

2. Air

The air forms the aperture which in turn delivers the air into the horn. The air should enter and exit the body naturally and smoothly with the goal of creating compression through flow velocity. The breath should not be held.

The optimum inhale in musical performance is subconscious, natural, relaxed and timed intuitively. There is not an "acceptable" air capacity. The amount of air inhaled should reflect the demands of the musical conception of the ear. The optimum exhale contains no hesitation, where the movement of the air begins precisely at the conclusion of the inhale instantaneously producing a tone. The duration of the inhale and exhale must comprise a comfortable, consistent, and deliberate air flow.

3. Horn

The horn requires flow energy in the form of fast air in order to produce a balanced and resonant tone. The delivery of fast air flow builds up energy within the horn. The aerodynamic and acoustic properties of the mouthpiece and the trumpet stabilize this air flow velocity in creating a standing wave of equilibrium within the horn. This pressurized wave oscillates, reflecting the acoustically organized energy back to the aperture. This sets the aperture into motion vibrating sympathetically with the standing wave, thus producing a tone on the instrument.

4. Lips

The aperture is formed by the air flow. The aperture compresses the air flow energizing the release of the breath. The aperture vibrates sympathetically with the air flow energy inside of the horn. The aperture is supported by the engagement of the musculature that makes up the entire embouchure. Pitch and volume are determined by the manner in which the air flow is compressed and delivered by the aperture. The coordination of postures in both the aperture and the oral cavity determine pitch and volume. Thus, sound is sculpted in compressed air flow through and by the aperture. Playing the mouthpiece is an extended technique. It coordinates the mind's ear with the vibration of the lips and conditions the aperture to more readily engage with the energy of the standing wave inside of the horn, delivered by the aperture.

Lip Tone

In performing the lip-tone, the required posture for the outside (embouchure) and inside (oral cavity) of the mouth is established. Once coordinated, these two postures facilitate an engaged support for the balanced and efficient freedom of vibration, tone, and flexibility of the aperture. The execution of the lip-tone may be a challenge, as all acoustic energy in the form of resistance must be created by the player. It is for this reason the tessitura of the lip-tone is limited and varied, contingent upon the unique physical attributes of each individual player. The aperture will only acquire, develop, and retain the engaged strength and flexibility required to play, through conditioning countless, brief repetitions of daily lip-tones. In this way, the aperture is trained to produce a balanced and supported vibration as it deepens coordination with the commands of the singing ear.

Mouthpiece Playing

In contrast to the lip-tone and tone production on the trumpet, mouthpiece playing constitutes an entirely different set of acoustic variables. The mouthpiece is engineered to:

1. Facilitate the comfort and support of the aperture by the design of the size, shape, contour of the rim, and bite of the mouthpiece.
2. Receive and further compress the turbulence of the air delivered by the aperture in the form of velocity. The designs of the cup shape, throat size, and back-bore taper, all together contribute to this further compression, thus energizing the air as it enters the lead pipe for further acoustical organization.

The mouthpiece provides very little physical resistance compared to that of the trumpet. It is for this reason, extreme attention must be given to clarify the proper way to play the mouthpiece in order to establish and experience this practice's benefits consistently. Learning to play the mouthpiece in congruence with the subtle resistance it provides will teach the player detailed refinement of aperture function in response to the music within their singing ear. This efficiency is acquired through developing the essential relationships of:

1. Timing the lip's contact as well as proper mouthpiece placement and pressure, in coordination with the release of the aperture vibration and embouchure engagement.
2. Training the vibration of the aperture to respond to the singing ear in conjunction with the subtle physical and acoustical support the mouthpiece provides.

Many students needlessly suffer in playing the mouthpiece improperly because of poor instruction they have received in conjunction with being fitted inaccurately. This may result in lip discomfort, loss of aperture control and flexibility; and in extreme cases undetected bruising and perpetual injury. The main reasons for these detriments are over blowing and "over buzzing" the resistance of the mouthpiece in order to recreate a "big resonant trumpet sound" on the mouthpiece. This inevitably stifles consistent

healthy aperture development, thus negatively affecting all other techniques of playing the trumpet. It is for this reason that I consider mouthpiece playing to be an *essential advanced technique.*

5. Tongue

The tongue is responsible for the further compression and velocity of the air flow. It works congruently with the shape of the aperture to support and facilitate an easy and efficient change of pitch. The tongue is also responsible for articulating the energy within the horn, thus characterizing the tone. The tongue defines rhythm as well.

6. Fingers

The fingers follow everything.

The fingers must move the valves firmly with impeccable precision and timing. The perfect coordination of the fingers with the articulating tongue and changing pitches must be a reaction to the commands of the mind's ear. It is extremely important to develop the independent coordination of the fingers.

"Air, Horn. ; Lips, Tongue."

Pillar Two: "Huh" - "Who"

Preparing to begin a note on a wind instrument requires a musician to inhale and exhale with consistent accuracy and freedom; consistency in the posture of both the embouchure and oral cavity, and freedom in the movement of compressed air flow. This may be achieved by saying the words *"Huh"* and *"Who"*. The phonetics of these syllables shape the embouchure and the oral cavity to take on specific postures.

The postures of *"Huh"* and *"Who"* share a similar placement and shape of the tongue in the mouth. For example, the tongue is free and floating where the tip is gently touching the back of the lower teeth. The sides of the tongue also touch the upper back teeth, ***as is natural in speaking***. Finally the arch in the middle of the tongue maintains a natural and essential flexibility.

The inhale is to be drawn with *"Huh";* and the exhale is released with *"Who"*. The breath of "*Huh-Who"* begins at the fulcrum point of the diaphragm and cycles to a second fulcrum point at the tip of the lip, the aperture. Respiratory systems within the thoracic cavity are responsible for the inflation and deflation of the lungs; the bellowing movement of the breath at the central fulcrum point of the diaphragm, located just below the sternum. *(ie. The Trumpet Diatonics Conservation of Momentum Breath©)*

The lungs do not breath, the diaphragm does. The lungs have elasticity but do not contain musculature. The ***diaphragm*** is the ***contracting muscle of inhalation***. "Supporting" with the ***diaphragm*** while exhaling or "blowing" is ***anatomically impossible***. The ***function of the diaphragm*** is to ***relax on the exhalation***. ***Contracting intercostal muscles engage during the exhale***, ***supporting in the movement of air*** while the ***diaphragm relaxes upward*** toward the lungs. The ***intercostal muscles relax during the inhalation***, allowing for ***full elasticity in expansion and flexibility of the thoracic cavity***.

The notion that the body should exhibit no tension while breathing is a misinterpretation of biological physics. The mere act of inhaling, by its very nature, creates high pressure inside the body by way of the expanding lungs. This produces the build up of energy required in order to release air into the horn with

free momentum and efficient velocity.

Consider the following distinct attributes of the *"Huh"* and the *"Who"*. See how these postures work together to create effortless tone.

1. "Huh" on the Inhale

The posture in the oral cavity of *"Huh"*:

- creates the sensation of cool air in the back of the throat signaling a relaxed "open throat" for smooth movement of air. This enhances a natural expansion of air in the thorax.
- prepares a smooth release of the air as well as an efficient readiness within the oral cavity to begin the tone and initiate articulation.

2. *"Who" on the Exhale*

The posture in the oral cavity of *"Who"*:

- is fixed in order to form a supported aperture so as to maintain a consistent velocity of wind energy entering the horn.
- enforces the aperture to stay engaged for proper and consistent response enabling flexibility throughout the range of musical expression.
- promotes proper posture of the embouchure ie. cheeks against teeth.
- defines the natural distance between the teeth establishing a relaxed jaw posture.
- posture's the tongue for efficient articulation.
- posture's the aperture and tongue to whistle.

Pillar Three: Whistle

There are two flexibilities of the aperture; frequency and amplitude . Whistling coordinates consistent postures of the aperture and oral cavity. It also maintains the embouchure balance established by the *"Who"*. Whistling coordinates the ear with the minute tongue movements and aperture shapes required in order to efficiently change pitch.

Whistling also defines the fulcrum point at the aperture; compression of air at the tip of the lip.

The application of air velocity (frequency/range) and air volume (amplitude/dynamic) should constitute an intuitive response to the commands of the mind's musical ear.

"If you whistle, it will work."

Pillar Four: Dú

The attack occurs the instant the lips begin to vibrate. The most important detail of playing the trumpet is, the tongue does not begin the tone; the air in the horn creates the tone.

The addition of the tongue characterizes the tone. This is known as articulation, and the technique is properly executed in pronouncing the French word *'dú'* or *'tú'*.

In applying articulation, do not say 'tee', 'tah', 'dee', 'dah', 'tuh', 'duh', 'toe', or 'too', as these create inconsistencies in embouchure formation, aperture formation, and oral cavity shape. The application of these improper syllables, (especially related to range) perpetuate obtuse jaw movements, inconsistent mouthpiece pressure/placement, and chaotic/spastic air movement. All of these facilitate the destruction of the attack, thereby destroying consistency, stability, resonance, tone quality, intonation, endurance, range and flexibility.

The French pronunciation of *'dú'* or *'tú'* reflect the exact posture of the mouth to be applied for proper embouchure formation and precise articulation.

To ensure a true attack, simply apply mouthpiece pressure to the lips at the exact instant the breath is released on "Who" initiating the aperture to flow the air and vibrate. Coordinating the simultaneous engagement of the "*Who release",* the application of the mouthpiece, and the articulating tongue is an essential skill that requires significant daily attention.

Attitude

Learning a new skill requires an attitude of courage. Courage requires a persistent devotion to a defined goal, consistent discipline, inspired curiosity, knowledgable creativity, and unwavering faith in your abilities. Courage is exciting because it attests to a hope in an unknown. Courageous repetitions manifest exponential growth, realize deep understanding, and awaken lasting confidence.

Flexibility

Practicing trumpet technique necessitates acquiring and refining the skill of flexibility. Healthy flexibility is developed in three prominent ways; first by refining the beginning of a single tone, second by moving from high to low and vice versa, and third through proper execution of dynamically graded long-tones.

Practices that may further develop the coordination of engaged flexibility include who attacks, pooh attacks, note-bends, mouthpiece playing, harmonic series whistles, whisper-tones, pedal-tones, and lip tones.

Views to Mastery

Trumpet Diatonics © builds skill. Skill is coordination. Coordination is acquired through repetition. Without a thorough concept of the sounds to be performed, developing motor-skills will be disorganized and executed in uncertainty. Trumpet Diatonics © specifies "Views to Mastery" that stimulate the mind, command attention, focus the ears, and coordinate the body through deliberate repetition. These twelve different perspectives offer a thorough practice guide to musical cognition and physical response.

Tonality

There is a choreography to tonality in Western Music which may begin with Chromaticism; the Equal Tempered Twelve-Tone Octave. Two semi-tones make a whole-tone, as tonality is expressed with specific combinations of these intervals organized within the octave. Each and every person shares a common relationship to tonality. Musical communication could never be possible otherwise. It is our nature to hear within a diatonic tonal reference. All the repertoire contained within Trumpet Diatonics © has been composed to this specific end; to build technical skill, coordinating freedom through tonal aural literacy.

Motions for Practice

All exercises written for this method reflect the three Motions enumerated by Johann Joseph Fux in "Gradus Ad Parnassum". They are Direct Motion, Oblique Motion, and Contrary Motion. Through understanding these Motions, the musician will learn to communicate with an effective musical literacy.

Technique, Conceptualization, and Imitation

To create is to act on an inspiration and desire to imitate. Imitation inspires conceptualization. Imitation also facilitates the necessary skills required to develop your own unique concept. Performance is ordered to this integral end; to express *your* conceptualization, not a technique.

Practice

The goal of practice is to accept and learn through repetition; to unapologetically perform your unique conception with genuine abandonment, in pure honest expression; so that the music arrests your complete attention, captivating true devotion to your own talent, artistic inspirations, and developing abilities.

Rules

Play what you clearly hear.
Always play by ear.
Perform; do not practice.
Practice; do not perform.
Tonality is gravity; it forms all technique.
Have a goal; Make a plan.
Perform "practice cell" without stopping.
Express a meter; not a tempo.
Rest as much as you play.
Express music on every repetition.
To repeat is not to fail.
Play the way that works for you; Solve.
Develop through habits of ease.
Be consistent in your effort, persist.
Think for yourself.
Do not be afraid.
Love what you are doing.

Trumpet Diatonics© Book of Motions Lessons 1-28

These lessons were composed in an effort to accomplish two goals. To develop the proper techniques of: tone production, flexibility, articulation, and finger coordination, without strain; as well as to facilitate music literacy through cultivating fundamental musicianship skills defined within the Western European Classical Music tradition.

Motions for Practice

The following 28 Lessons make for their theme the three Motions detailed by Johann Joseph Fux in his treatise on counterpoint, "Gradus Ad Parnassum" published in 1725. The Motions consist of Direct Motion, Oblique Motion, and Contrary Motion. In understanding and performing these Motions, the musician will learn to communicate with an effective literacy.

Tonality

It is our very nature to hear within a diatonic tonal reference. These 28 Lessons have been composed in order to build technical skill directed by the pupil's powerful natural fluency of aural cognition; where the entire body is coordinated by the innate vividness of the musician's aural imagination. These Lessons address the Major, Natural Minor, Harmonic Minor, Melodic Minor, Chromatic and Whole Tone tonalities.

Practice

It is suggested that the pupil memorize Lessons 1-6, as they define the specific Tonalities and Motions for making music. These first six lessons lay the foundation for study of the remaining 22 lessons.

Adequate space has been given between the staves to pencil in instruction, notate variations, and express the different Views to Mastery defined in Trumpet Diatonics©. (ie. solfeggio)

These exercises have been purposefully composed without any specific meter, tempi, rhythm, articulation, or dynamics.

I suggest the pupil learn how to slur the entirety of each Tonality and Motion. After this is accomplished articulation may be added by tonguing each note. Finally, all variations of articulation and style should be applied at the inclination of the artist's curiosity, need, and creativity.

I suggest the pupil learn how to play these Tonalities and Motions at one dynamic level that is most useful, natural, and pleasing. Using consistent dynamics will ensure proper tone production and teach efficient formation and flexibility of the aperture. This is how freedom of sound through resonance is learned. Using consistent dynamics also develops wind control. It is suggested that the artist take special care not to get louder in ascending or descending. Dynamics may be varied once the artist has learned to properly coordinate a consistent sound throughout an entire Tonality and Motion.

The tempo must be defined by the pupil through a severely honest assessment of one's own ability. It is suggested that the pupil never play faster than their ability to hear two notes at a time. Tempi should be varied often.

It is suggested that meter, how the notes are grouped and emphasized, at first, is defined by how the pupil hears the relationship of the pitches in the moment. In the beginning, the meter should be determined by the natural inclinations of the pupil to hear and execute the different Tonalities and Motions. Once the coordination to perform these exercises consistently has been developed, the artist must vary the meter so as to challenge themselves in hearing new variations inspired by their own creativity.

Rhythm is to be applied and varied as liberally as the pupil is capable.

All 28 Lessons should be performed in every tonality.