# Part 3 Contents

# Part 3

## An Exposition of the Toscanini/Barzin Conducting Technique

### Preface

It is said that there are as many conducting styles as there are conductors. Given the complexity of the human brain, synapses and neuromuscular systems together with variations in personality, musicianship, performance practices, coordination, organization and communication skills, the unique nature of each conductor's podium style is readily understandable.

During the early 20th century, a period when formal conducting programs throughout the world were limited, most conductors developed their own technique through self-education, observation, imitation and instinct. In Europe, America and Southeast Asia conductors used multiple means to inform themselves of various baton patterns, physical practices and interpretations of their celebrated predecessors and contemporaries. This information was generally internalized, often using trial-and-error methods.[1]

Such practices were at their zenith in the decades between the two World Wars. As if heeding a "call to arms" for the profession, conductors attempted to raise the art and craft of conducting: their own and that of the profession.

### Contemporary Conducting Styles

Broadly speaking, there appears to be three primary conducting styles currently co-existing in the orchestra world: 1. endpoint; 2. inverted endpoint (often referred to as 'playing behind the beat'); and 3. centered (focal-point).[2]

#### 1. Endpoint conducting

Following a vertical-plane downbeat that begins each bar, subsequent beats of the measure occur in geographical locations to the left and/or right of the downbeat plane, generally along horizontal planes. End-point conducting, in all of its permutations, has been endemic to the conducting art for more than two centuries.

It was Max Rudolf who wrote the first *comprehensive* study of endpoint conducting published in the United States. His *Grammar of Conducting* (1950) has often been referred to as the "Bible of Conducting;" its third edition (1993) remains in print and circulates world-wide. The baton patterns of the *Grammar* embrace traditions of German and European conducting

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[1] Max Rudolf (1902-1995) told the author that as he began his conducting career in the opera pits of Germany, he would follow many rehearsals with an informal question-and-answer session between himself and the musicians, the purpose of which was to identify passages in which his conducting was unclear or could be improved. With this process he refined his own technique and established many of the principles that eventually would be set forth in his celebrated book, *The Grammar of Conducting*.

[2] The second and third terms cited here, i.e., "inverted endpoint" and "centered" conducting, are offered for consideration by the author. The term "inverted endpoint" seems to be a logical outgrowth of the term "endpoint conducting." "Centered conducting" is more than a century and a quarter old and is the main topic of this monograph.

styles used and taught by Wagner, Nikisch and others who became music directors of leading European, American and Asian orchestras in the 20th century.[3]

### 2. "Inverted" Endpoint Conducting

The style inverts the upbeat/downbeat formula of endpoint conducting. Beats occur along a horizontal plane positioned about eye level. The first beat is usually given an extra gesture, a "prep of the prep" as it were. It travels upward near the vertical plane and establishes the tempo and character of the selection. The subsequent rebound stroke moves downward, and the actual preparatory stroke move upward on, or to the left or right, of the vertical plane; the change of direction between the rebound and preparatory stokes occurs at the low point of the rebound along a variable-height horizontal plane in front of the body.[4]

In the opinion of Leon Barzin, the inverted end-point style may have gained favor with professional conductors, in part, because European orchestra musicians of his day, especially wind players, grew ever more reluctant to play chords at the ictus of a *downward directed beat*. To effect precision, they preferred to perform ensemble chords in a time space that followed a precisely placed gesture.

Use of the style also may have been given impetus by the conducting experiments of Wilhelm Furtwängler (*see Part 1, pp. 8, 9, 10*). Furtwängler embraced the visual smoothness and linear potential of upbeats and eschewed the angular sharpness of downbeats due to their potential for producing accents.

The inverted style is used currently by many major orchestra conductors. It is especially prevalent in the countries of Eastern Europe.

### 3. Centered (Focal-point) Conducting

In Chapter One of his monograph, *Vertical Plane Focal Point Conducting,* Leonard Atherton wrote:

> 1) Focal point conducting technique is based on a number of simple premises, the major of which are as follows: Each beat consists of three parts: a. a preparation; b. an ictus; and c. a rebound; 2) . . . To give rhythmic consistency and clarity to

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[3] When Rudolf was requested by the author to give a definition of conducting, he replied without hesitation, "Conducting is the relationship between gesture and response."

NB: Conductors who use the *Grammar* as a reference or teaching tool should be aware that Rudolf was a self-confessed and unabashed *wrist* conductor. Therefore, using some wrist movement to replicate the *Grammar's* diagrams may facilitate their production.

[4] Circa 1970, a score-study lesson between William Smith, then Associate Conductor of the Philadelphia Orchestra, and the author coincided with a recording session of the orchestra led by Eugene Ormandy. The lesson took place is a sound-proof room adjacent to the recording hall.

When the lesson concluded, the author moved to the window in the exit door to observe Maestro Ormandy, a well-known proponent of the "inverted endpoint" style. Returning to the lesson table, he asked Maestro Smith if the inverted style had any advantages over the traditional endpoint style. Smith chuckled before replying, "Well, when the Westminster Choir came last week to record Schubert's Mass in G, they were so confused by Ormandy's conducting that it took 20 minutes to record 8 measures. I use both styles as needed, an approach that may have solved the problem *in a more timely fashion*."

> the ensemble, a. the preparation stroke is the same length *to* the ictus as the rebound stroke is *from* the ictus [and] b. all beats pass through the same ictus position [or vertical plane]. Every physical event shares the features of a. tension [and] b. relaxation. (Atherton 3)

Surprisingly, and despite the monograph's title, Leonard Atherton later wrote in his "Afterword:"

> I have felt since 1983 that 'focal point' is an unfortunate name for this versatile technique. It seems to me that its real strength is in making it possible to control preparations and rebounds by strokes that are of equal length. The fact that the ictus is in the same place is almost a side effect. "Focal point technique" takes the focus away from what I see as the *raison d'être* of the entire system—and I think in some cases the name has caused people to dismiss the technique before they really know how well it works. (Atherton 42)

In 2008 a DVD produced by Denise Ham containing basics of the conducting style of George Hurst was published in Great Britain. The final paragraph of the DVDs jacket reads: "The conducting demonstrated on this DVD is . . . based on the principles of the Toscanini/Barzin technique and shows . . . [the aspiring conductor] how to convey their intention clearly and expressively through the baton." (Ham)[5]

There follows a quote by Leon Barzin: "Co-ordination means absolute control from the tip of the toe to the very end of the stick, so that *no motion of any part of the body* may confuse the musical content of the score." (Ham)[6] As with many centered techniques, that of Ham does not mention the term *"focal point."*

## Toscanini and the Centered Conducting Style

As stated in Part 2, "Regarding centered conducting, historical evidence suggests that the first major conductor to employ the style was Arturo Toscanini." Because of his celebrity, conductors in Europe and America were drawn to watch him closely in concerts. It is probable that several absorbed elements of his technique. What is certain is that later in his career, a small group of conductors came under his influence (Toscanini never taught conducting formally) and adopted elements of his style. These included Carlo Maria Giulini and Guido Cantelli. Recently, Yannick Nézet-Séguin, a protégé of Giulini, has shown elements of the Toscanini style.

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[5] The author first encountered the term "Toscanini/Barzin technique" while reading the Ham DVD jacket circa 2012.

[6] Barzin's primary teaching objective was the development of a disciplined coordination of body and baton that communicated clearly the musical elements within each score. Although many of his students passed through the "I-must-produce-perfect-conducting-patterns" learning stage, Barzin was quick to remind them that "a pattern is a pattern is a pattern." His goal was always the *integration of coordinated conducting with musical interpretation*. He summarized the process with the three-word aphorism: "Mirror the music."

Barzin taught and evolved the style over decades while mentoring three generations of conductors, both in Europe and America. To review and preserve for later generations essential elements of Toscanini's and Leon Barzin's centered style, the following is presented.

## Toscanini and the Barzins

In 1908, at age 41, Arturo Toscanini arrived in New York City to become music director of the Metropolitan Opera Company (Met). In 1911, Leon J. Barzin took a position in the viola section of the Met Orchestra; three seasons later he became the section's principal.

In 1933, an article appeared in *Time* magazine which read in part:

> Twenty years ago, when the Metropolitan Opera's orchestra was in its golden age under Arturo Toscanini, a dark slip of a boy with intense brown eyes and a rapt expression was usually concealed where he could watch and hear all that transpired, not on the stage, but in the orchestra pit, where his father played a viola. ("Young" 30)

The "slip of a boy" in question was Leon E. Barzin who, through such unique experiences, received his first exposure to Toscanini's conducting.[7]

## Toscanini and Leon E. Barzin

Barzin began his music career as a violinist/violist. In 1922 he joined the New York Philharmonic as a violinist and, in 1925, was awarded the principal viola chair after auditioning on both instruments for Willem Mengelberg and Wilhelm Furtwängler.

In 1926 Toscanini returned to NYC as co-music director of the Philharmonic. One year later an event occurred that gave considerable impetus to Barzin's decision to become a conductor.

> It was while Barzin was rehearsing with the New York Philharmonic, in the capacity of . . . [principal violist], that he had his first opportunity to conduct [a major symphony orchestra]. Toscanini wished to hear a certain passage from the rear of the hall and called for volunteers. None responded. After a pause, Toscanini extended the baton toward his young first viola player . . . Barzin directed the orchestra successfully through the required passage and when Toscanini returned to the podium he placed his hand on Barzin's shoulder. "Put away your viola, Leon," he said. "You are going to be a conductor." ("Toscanini Once")

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[7] Circa 1913, L. J. Barzin had gotten special permission from Toscanini—who often visited a friend living in the same apartment building as the Barzin family—to allow his son to help him walk from their apartment on 37th Street to the Met on 39th Street. Barzin had been diagnosed with the onset of *loco motor ataxia*, a paralytic muscle disease which, given the current availability of antibiotics, has been mostly eradicated in industrialized countries.

Although Barzin grew his craft through careful observation of *all* the conductors under whom he played at the New York Philharmonic, by his own admission, his greatest influence was Arturo Toscanini. Barzin explained:

> I had watched Toscanini . . . at the Metropolitan. My father had been there, and so I went to practically every [rehearsal and] performance. I watched him very closely with, well, shall we say, a young, naive admiration. [During that era] The Met did 35-38 operas a year in such a way that it was a revelation.
>
> Then came the second stage, when I was active at the Philharmonic. Those years brought to the Philharmonic the greatest conductors of the world.[8] I had an analytical mind that came from the training I had received from my father and other fine teachers . . . When I became first viola in 1925, my chair was practically underneath the conductors. As I watched, I began to listen more carefully to the sounds each conductor got and tried to discover the reasons [for those sounds]. (So many people feel that it all derives from the personality of the conductor, but that isn't true. The personality *comes through* during the actions of conducting.) I watched these motions and began to say to myself, 'Why not a conducting technique? If you play the viola or any orchestral instrument, you have to have a technique to produce the music the conductors wanted. Why is there no school of conducting producing a technique even further advanced than that of the players?' The final challenge came when I asked Toscanini, 'Is there a way to teach conducting?' And he said, 'No, a conductor is born.' I took up that challenge. I said, 'It can be done—if you can do it with an orchestra player, you can do it with a conductor.' (Barzin, personal interview, 1982)[9]

In a 1941 issue of *Musical Record*, Barzin reiterated the circumstances surrounding his adoption of elements in Toscanini's conducting style.

> [As] solo viola, [I] was again fortunate as I sat only three feet away from the great man, facing him, where I could watch his every move. I soon perceived a stick which spoke at every gesture, revealing the structure of the composition with its every movement. To him each composer called for a different stick approach, each [conducting] stroke telling the story of the work. Here was the man I could take as the basis for all musical approaches—the baton spoke at last, precisely as a voice sings a song, a violin its air, or a piano its intricate harmonies. (Barzin, "Picture," 2) [10] [11]

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[8] The conductors under whom Barzin played at the NY Philharmonic included: Enrique Fernández Arbós, Fritz Busch, Walter Damrosch, Wilhelm Furtwängler, Eugene Goosens, Otto Klemperer, Willem Mengelberg, Josef Stransky, Arturo Toscanini and Bruno Walter.

[9] In retrospect, both gentlemen were correct since each was addressing a different element of conducting. Toscanini spoke of a person's inborn musical talent and sensibilities. Barzin was referring to the physical craft of conducting.

[10] Notice that Barzin used the word "stroke" where many would have used "beat." For him, as with Toscanini, the baton sang *throughout* every conducting stroke, not just at the beat points.

When asked whether he assimilated Toscanini's centered beat, Barzin replied:

> Yes; the only difference was this: Toscanini was small, and he was a cellist. Therefore, he used a low center [and,] because of his size, a high podium . . . His circular motions came, I feel, from his early cello playing which also probably had some influence on his low beating . . .
>
> [However, his motions] were always natural movements based upon center. And out of that center, he not only received clarity but drew energy and tonal strength [from the orchestra]. (Barzin interview, 1982)[12]

In summary, the principles of Toscanini's conducting style were incorporated by Barzin into his own style, exceptions being Toscanini's unorthodox beat patterns—which Barzin adjusted to conform more closely to the patterns of the day—and Toscanini's penchant for arm and hand rotation.

## The National Orchestral Association (NOA) 1930-58

In the fall of 1928 Barzin joined the conducting class of the American Orchestral Association (AOS) and in 1929 he was named associate conductor. During the spring of 1930, the National Orchestral Association (NOA) was hastily created to fill the void caused by the demise of the AOS, a victim of the stock market crash and other internal factors. At the opening of the 1930-31 season, the training programs and concerts that had been offered by the AOS continued unabated at the nascent NOA. Leon Barzin was named its music director.

In the fall of 1930, the NOA mission statement, quite consistent with that of the AOS, appeared in a *New York Times* article. It read in part: "To furnish . . . American orchestral instrumentalist(s) with . . . practical opportunities in training and routine . . . (and) to give apprentice conductors necessary baton technique and directing routine." ("Notes On")

Between 1930 and 1958 Barzin trained NOA musicians for positions in major orchestras, conducted the orchestra in frequent Carnegie Hall concerts using a stellar array of international artists and taught conducting to apprentice conductors and private students.

## NOA Conducting Program (1970-1976)

Barzin returned to the US in 1969 after an absence of more than a decade. At the invitation of Gunther Schuller, he joined the conducting faculty of the New England Conservatory and, in the summer of 1970, the Tanglewood Music Festival.

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[11] Decades later and with a twinkle in his eye, Barzin would give a summary of his influences at the Philharmonic: "I learned rehearsal techniques from Mengelberg, interpretation from Furtwängler and conducting from Toscanini" (Barzin, private lesson 1974). As an influence, he also included Albert Einstein with whom he played string quartets in Einstein's NYC apartment in the late 1930s. The other members of the quartet were Jasha Heifetz, violin, and, possibly, Emanuel Feuerman, cello.

[12] Samuel Antek described what he had perceived as the results of Toscanini's centered focus when he wrote: "But when the orchestra did achieve [Toscanini's intended vision,] . . . . The music seemed to flow completely from the organic musical center and impulse of the orchestra itself" (Antek 52).

In the fall of 1970 he returned to New York City and the NOA. It was the era of the highly successful Exxon Young Conductors Program, a possible factor in Barzin's decision to return. From 1970 to 1976 he directed the NOA Conductor Training Program into which he accepted more than a score of young conductors; he provided them with a weekly conducting lesson, attendance at NOA rehearsals (three weekly) and podium time with the orchestra.[13] [14]

## Elements of Leon Barzin's Conducting Method

### Baton: The Conductor's Instrument

To improve the technique of conductors during the 1840s, a time when the baton conductor's *métier* was in its infancy, Hector Berlioz carefully described the physical properties of a baton just decades after it became the instrument of choice in Europe.

> The conductor generally uses a small, light baton, of about a half meter in length [19"-20"] and white rather than coloured because it can be seen better, which he holds in his right hand, so as to render easily appreciable his marking of the beginning, the internal division, and the end of the bar. The bow used by some violinist conductors is not so suitable as the baton . . . (Berlioz 10-11)

Two features of the baton that continue to elicit differences of opinion among conductors are: the shaft—length, weight, substance and color; and the handle—design, substance and weight. It is the relationship between these properties that affects the baton's balance point.

For Toscanini the baton's construction had vital importance. In the August 1941 issue of *Music Trades*, it was reported that his baton ". . . was 18 5/8 inches long, with a heavy shaft, a cork grip 4 1/2 inches long and about 5/16 inches in diameter." (Schonberg 260) Robert Marsh reported that in later years Toscanini's batons were made to his precise specifications by Dr. Hubert Howe. These were 20" long, four and three-quarter inches of its length being a cylindrical cork and plastic grip about 1/2 inches in diameter. (Marsh 73)

Barzin also chose batons with care. His baton features were: material, wood; color, white; length, 22"; handle, bi-level cork, 4 inches long (2" + 2"); balance point, near the top of the handle.[15] For students, Barzin recommended a baton length that allowed its tip to touch the imaginary center point in front of the body when his grip, as described below, was used.

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[13] It was during this period (1971-77) that the author studied privately with Barzin in NYC and France.

[14] According to reports, Barzin was approached in the 1970s by a New York publisher who offered to produce a manual of his conducting "method." Barzin recast the proposal by saying that his approach to the art of conducting was three-dimensional and could not be entirely captured on a two-dimensional page. If a video would be part of the publication, he would consider the proposal. Apparently, the publisher had not factored in the additional cost of a video and the proposal was withdrawn. Sadly, a video was never produced.

[15] In the early decades of the 20th century, the long baton was much in vogue. Included in this group were Toscanini, Barzin, Pierre Monteux, Paul Whiteman and others.

The tip of the baton held great musical importance for Barzin. His aphorism, "*The tip of the stick is the paintbrush of sound,*" represents a directive that the movement of the baton, torso *et. al.* should always portray the musical content and orchestral sound.

## The Grip

The grip, inspired by Bruno Walter in the 1920s, placed the butt of the handle against the palm of the hand (Figure 3.1); it was gripped by string fingers 2, 3 and 4 (Figure 3.2). As an exercise, Barzin challenged students to limit the grip to those three fingers and conduct without closing the thumb and index finger onto the handle or shaft (Figure 3.3). He felt that such a grip freed the thumb and index fingers for subtle interpretive manipulations, as needed.

Barzin termed the opening in the hand formed by the thumb and index finger as "the eye of the hand" (Figure 3.4). He urged students to maintain "the eye of the hand" in constant contact with "the eye of the head" (Figure 3.5). Such a practice, he believed, inhibited rotation of the forearm and baton, movements that could distract players, even for an instant.[16]

The position shown in Figure 3.6 was Barzin's basic conducting position. Emulating a horizontal pendulum, the unit comprised the baton, hand, wrist and forearm, with the elbow serving as the operating fulcrum.

## Gravity

Of the multiple components in Barzin's conducting method, the most pervasive is **gravity**. Gravity is defined as "the . . . attraction of the mass of the earth, moon or a planet for bodies at or near its surface;" it's influence is omnipresent, not only in conducting but in all life.

Gravity assists with **predictability**, a feature that allows one to anticipate the instant a falling object will strike the earth. Calculations of such an event are drawn from two visual sources: the speed of the falling object—controlled by its gravitational attraction to the earth—and the object's strike point on the earth. All ball sports depend on predictability for their very existence.

**Predictability** in conducting derives from three elements: the baton's travel speed that is steady but increases/decreases as it descends/ascends, respectively; an area for the ictus or **gravity point** centered in front of the body; and baton strokes that are of similar length when moving away from the *ictus* (rebound) or back to the *ictus* (preparation).

One definition of "synchronize" is: "to make (motion picture sound) exactly simultaneous with the action." When sound was added to film in the 1920s, the process of synchronizing it to the film's motion was a significant challenge for film-makers. Presently, the analogy to conducting remains valid; however, the *challenge* of unifying baton motion with orchestral sound has been passed to the conductor.

In conducting, the term "**synchronization**" represents the unification of the music's metric blueprint, the quality and quantity of ensemble sound and the baton strokes moving from beat to beat. To represent the process, the author created the term, "**temporal pathway**."

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[16] Barzin would point out that players had limited time to watch the conductor. Often their visual contact was fleeting. "Be aware of your conducting position and movements at all times," he would say, "so that even with just a glance, the players will know where you are and where you are going."

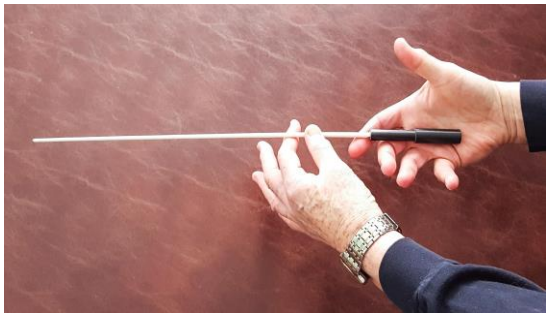

**Figure 3.1**

**Figure 3.2**

**Figure 3.3**

**Figure 3.4**

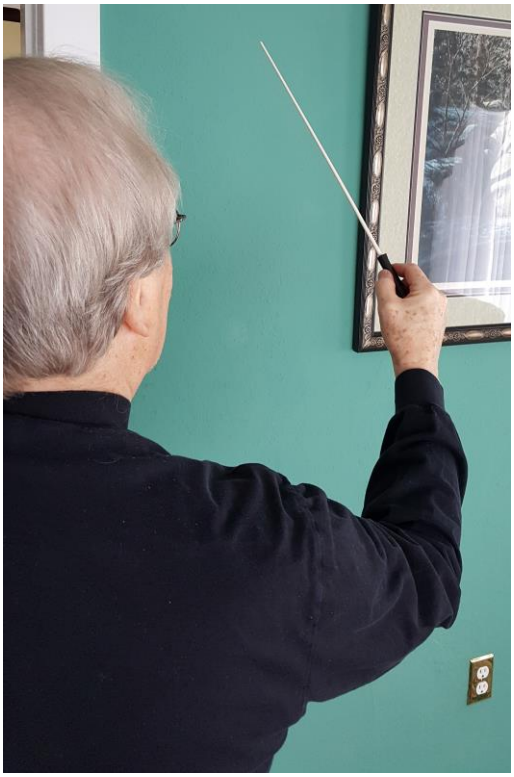

**Figure 3.5**

**Figure 3.6**

## Centrifugal Force and Pendulum

To demonstrate how to change tempos or dynamics by adjusting the size of the baton's field of beating, Barzin used the image of a **conducting lens**. The concept derives from the aperture and F-stops of a camera lens. When the lens is set at its widest apertures (F1.2 to F5.6), it represents a conductor's large field of beating normally used for slow tempos or loud dynamics; a medium aperture (F8 to F11) is used for moderate tempos and dynamics while small apertures (F16 to F22) allow for fast tempos or soft dynamics.

To provide enhanced visual examples of tempo changes represented by Barzin's *conducting lens* image, the author developed a process using a "rope and weight" centrifugal force unit.

**Centrifugal force** is the energy exerted on the body constraining it; it acts outwardly away from the center of rotation. (A stone whirled about on a string exerts centrifugal force on the string.) For conductors, the rope and weight centrifuge unit can portray the *approximate* size of the field of beating used for a given tempo at a moderate dynamic. Different tempos can be demonstrated by adjusting the length of the rope.[17]

To demonstrate other principles of the Toscanini/Barzin method, the **pendulum** is a valuable tool. "Pendulum" is defined as "a body suspended from a fixed point so as to swing freely to and fro under the action of gravity. It is commonly used to regulate movements (as of clockwork)." In scientific terms, the observable points of a pendulum swing are "perigee" and "apogee." The perigee is located at the bottom of the swing where the greatest gathered force occurs; the apogee occurs at the swing's top, an instant of near weightlessness.

In conducting terminology, the location of the perigee is variously called the beat, *ictus*, beat point, gravity point, focal-point, *etc*. In the Saito conducting method, the apogee is labeled the "secondary point" and given considerable importance. For other methods, it is the point of directional change where the rebound of one beat ends and the preparatory phase of the next beat begins.

Such arcs have significant application to the craft of conducting. For example, if friction exists at the fulcrum, such friction steadily reduces the size of the pendulum's swing. The decreasing arc sizes equate to the diminishing dynamics of baton strokes from *ff* to *pp within a given tempo*.

However, to apply the optics of a pendulum swing to actual conducting, the *shaft must be set horizontally*, placing the perigee (*ictus*, gravity point) in front of the body. Then the elbow functions as a fulcrum and baton strokes are limited to less than *half a pendulum swing*, moving from the apogee (secondary point) down to the perigee (*ictus*, gravity point) and back to the apogee. This produces down/up arcs with three-dimensional depth as seen in the Toscanini graphics of Part 2.[18]

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[17] When using such a unit, the stroke size of a tempo should approximate the ***radius*** of that circle's circumference. It should be underscored that the "centrifuge unit" is a creation of the author used to enhance visual clarity of the conducting lens concept. It was never employed by Barzin in his teaching.

[18] Movements of the baton *resembling* a full pendulum swing— left/right and right/left in front of the body—occur during the 2nd and 3rd beats of the 4/4 pattern and the 4th, 5th and 6th beats of the 6/4 pattern. See Examples 2 and 4 of Part 2.

## The Third Dimension

During his career, Barzin referred to his conducting method as **three-dimensional, center point conducting**. To introduce students to the concept, he used the image of two intersecting circles: the vertical circle that passed over the head, downward in front of the body, between the feet and upward opposite the spine; and the horizontal circle that passed around the body about waist high. They contained, respectively, the **vertical and horizontal planes** shown in Figure 3.7. The area where the circles meet was labeled "**the gravity point**."[19]

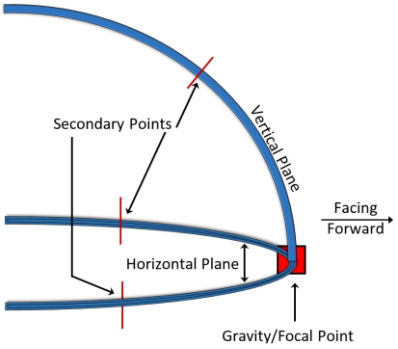


**Figure 3.7**

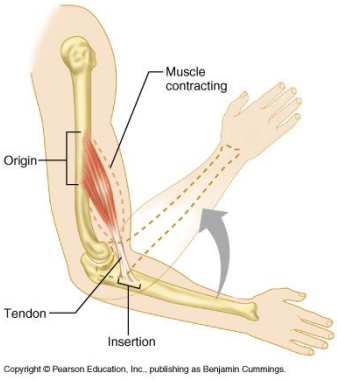


**Figure 3.8**

## The Biceps Muscle

To produce movements of the basic conducting unit (forearm, wrist, hand and baton) used in the Toscanini/Barzin technique, the *sine qua non* becomes a refinement of the actions of the biceps muscle and its large tendon which crosses the elbow (Figure 3.8). While maintaining some flexion, the biceps smoothly releases the forearm at the top of the preparatory stroke and guides it in a downward glide toward the *ictus*.[20] As the forearm approaches the ictus, the biceps gently but rapidly slows its descent and, at the *ictus*, reverses direction through muscle flexion which begins the ascending rebound.

## Muscle Action

Figure 3.9 provides a graphic representation of the extremes of muscle flexion/release and intensity/duration. The ideal operating range for conducting—and indeed all physical activity—rests near the center of both reference lines, areas where *significant release can be achieved while the desired muscular control is maintained.*

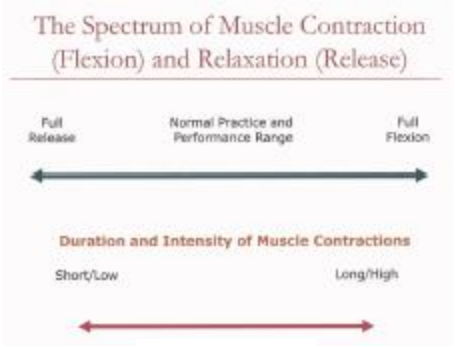


**Figure 3.9**

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[19] To become acclimated with the 3D style, the author recommended that students: 1) visualize the quarter sphere (shown above); 2) take a position facing forward into the *interior* of the sphere; 3) conduct arcs while maintaining the *tip of the baton in contact with the inner shell of the sphere,* using the elbow as the fulcrum for the arcs; 4) conduct metric patterns using the vertical and horizontal planes for reference and passing all beats through the gravity point or near the vertical plane; and 5) maintain a *depth of field* for all beats.

[20] Pushing the forearm downward with the triceps or "chopping" muscle is to be avoided at all costs. The added forearm speed could, over time, cause physical damage at the elbow joint.

## Advancement of the Centered Style

As mentioned earlier, throughout the 20th century conductors increasingly sought to develop techniques that were clear, disciplined and refined, all the while establishing a personal expression of the music's emotional content.

Due to Toscanini's renown, his conducting style drew much attention. His technique and the precise ensemble it engendered attracted many admirers. One was Leon Barzin, who subsequently taught scores of conductors on two continents.[21] Given the care and thoroughness with which he taught, it is, therefore, difficult to grasp why he left nothing in print and only sparse examples of his conducting on film.

Fortunately for the perpetuation of the centered style, between the two great wars several conductor/educators around the world were drawn to and adopted versions of the technique. Following World War II numerous authors preserved the principles in print, making it available for future generations. For all of this we are in their debt.

To capture the work of Barzin's peers—conductors, educators and authors who advanced centered conducting—Part 4 presents a chronology of these professionals and their contributions to the evolution of the style from *ca.* 1930 to the present.

[21] The centeredconducting.net website contains a list of conductors who either used and/or taught centered conducting, consciously or unconsciously. It includes the early pioneers of the style, their protégés and contemporary practitioners.

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