

The Observation of Movement

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Abstract

This paper provides a starting point for observing the movement of musicians for observers without formal movement training. Drawing on the extensive history of movement observation in the field of dance, Laban-Bartenieff Movement Fundamentals will be used as a framework for the observation of movement. Discussion will include historical background, the Laban-Bartenieff system, specific attributes chosen for the observation of musicians, procedures for observation, and case study illustrations using videos of performances of the second movement of Igor Stravinsky's *Three Pieces* for clarinet alone.

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I. Introduction

Musicians train rigorously on their instruments in order to master the technical and artistic skills needed to play different styles from composers across the eras. Training in the academy is further accompanied by music history, theory, and ear training. Until recently, the means with which we play the instruments, that is, the movement that is used in order to produce the sound, has focused mainly on sound production. Specifically, if a player wants to create a particular sound, the focus is on how that sound is produced. For example, a clarinetist practicing staccato will work to attain greater precision and coordination between the air, embouchure and tongue. However, in playing one single short note, most players are likely to show movement throughout their bodies in some way.

While players spend hours practicing specific technical movements, what can be seen by observing the non-technical or expressive movements of musicians? In beginning observation of musicians, various commonalities can be seen between players. The stereotypical clarinetist is one who makes sweeping circles with their bell, “stirring the soup.” In observing this gesture, the eye is naturally drawn to the largest movement, the sweeping clarinet bell. However, the bell could be moved in exactly the same manner in space by many different means. The question is then not ‘where is the bell moving,’ but ‘where does this movement come from?’ Further, if two performers make this same gesture, is it necessarily the same movement? If it is, why would two different people do the same thing? If it isn’t the same movement, why might it be perceived as the same movement? Is it a learned behavior, or one that is linked to the mechanics and ergonomics of the instrument? Why do we see it as expressive?

In fields other than music, the observation of movement has a long and varied history. Dancers, who are by definition specialists in movement, have developed and continue to develop ways of observing and recording movement for reasons such as health, education and preservation of complex choreographies for future dancers. These means of observing movement translates to fields other than dance because most of what we accomplish each day is through some form of movement, whether it is to dance, play an instrument, wash dishes or type on a computer. Even though each of these activities is different, the means of accomplishing it is the same: use of the human body. Because of this, any movement of the human body can be examined using a system originally developed for dance.

Rooted in dance, Laban-Bartenieff Movement Fundamentals is a framework for describing, recording and developing movement. Although intense training is needed to completely understand the system, a basic understanding of Laban-Bartenieff Movement Fundamentals can be learned and used to facilitate the observation of movement. The purpose of this paper is to provide a starting point for observing movement for observers without formal training in movement.

II. Historical background

A. Rudolph Laban

Laban Movement Analysis was first developed by Rudolph Laban (1879-1958), who is considered the father of modern dance in Europe and the leading dance theorist of the twentieth century. The overarching theme of Laban's life work was the observation of people in movement and behavior.

In 1912, Laban established the first of many dance schools. Established in Munich, this school was based on experimentation with *Tanz-Ton-Wort* (Dance-Sound-Word). While in Munich, Laban began his work to have dance recognized as an autonomous art form. He did this by rejecting the fashionable return to ancient Greek ideals and the emphasis on music that was seen in other dancers such as Isadora Duncan, Ruth St. Denis and Emile Jacques Dalcroze. Instead, Laban researched movement as a medium complete in itself. Laban saw movement as the common denominator of every human activity, incorporating rhythm, pulse, tension and relaxation, and stability and mobility. He saw no such thing as position and stillness; rather, every body is in a constant state of flux and change. Springing out of this, he spent much of his career developing a system to define the principles of the organization of movement.

Around 1914, Laban began working with two former students of Dalcroze, Suzanne Perrottet and Marie Wiegmann (later Mary Wigman) when the school in Munich relocated to Zurich, Switzerland. While working together at this school, Laban and Wigman developed a theory and practice of movement syntax that could be notated. This fledgling notation later developed into Labanotation, a precise means of recording movement and choreography. Labanotation is used to describe

- motives (a movement idea that recurs),
- structure (use of the body, type of movement and timing), and
- Effort-Shape (use of energy flow, inner states and drives and shaping of the movement).

The notation itself is like an alphabet in which movement patterns are spelled out according to

- what is moved (the body),
- where (space),
- when (time), and
- how (manner of movement).

Now in standard use in the dance community, the notation was presented for the first time in its full form in 1928 in *Kinetographie Laban*, published by Universal Edition in Vienna.

In 1919, Laban moved back to Germany where his stated aim was to offer diversity and meaning in every piece he created. With this goal in mind, Laban began developing dance theatre, dance education, community dance, dance literacy, dance theory, the beginnings of dance therapy and in 1921 created his first theatre piece. He also began his work with movement choirs, a mode of dancing for large groups of amateurs. Regardless of the means of expression, Laban's work incorporated improvisation, collaborative decision making, and often little to no music.

By 1926, there were 21 Laban schools open across Germany, Italy, France, Hungary, Yugoslavia, Holland, and Czechoslovakia. These schools offered professional dance training in which the body was developed through a system of movement exercises based on use of space and dynamic/rhythmic studies involving both choreographed and improvised movement.

At the height of his career in 1936, Laban created a movement choir *Vom Tauwind und der Neuen Freude* (Of Warm Breeze and New Joy) as part of the celebrations for "Hitler's Olympics." The piece was personally censored by Dr. Josef Goebbels. This censorship later expanded and the Laban schools, movement choirs, notation system, and books were declared anti-German. Laban's work and career was effectively erased. It has only been since the 1980's that his work has been recognized in Germany for its contribution to dance.

With his life's work demolished, Laban entered France on a visa in 1937 where he lived for several years in destitution. He later moved to England and gradually began his career again, eventually establishing The Art of Movement Studio in 1946 and the Laban Centre in 1954. Although Laban's work was censored in Germany, it established strong roots in the United States in the 1930's. Still operational today, the Dance Notation Bureau was founded in 1940 by his students Ann Hutchinson, Helen Priest Rogers and Irmgard Bartenieff. Another stronghold of Laban's work, the Laban Institute of Movement Studies was founded in New York in the late 1970's.

Laban died in 1958 having been the source of a new era in dance. While not an outstanding dancer or choreographer, he is recognized for his innovative and continually developing processes of choreography that are evident in much of modern dance today.

B. Irmgard Bartenieff

Irmgard Bartenieff (1900-1981), studied with Laban throughout the course of her career. Her unique contribution to Laban's framework came from her work as a dancer and physical therapist for polio patients and children.

As a physical therapist, Bartenieff specifically contributed to Laban's work by incorporating movement explorations based on early patterns of neurological development, some of which include

- early reflexes,
- righting reflexes, and
- equilibrium responses.

She further developed principles of movement and movement explorations through her knowledge of anatomy and kinesiology based on

- breath,
- internal body connectivity, and
- movement patterns, including
 - spinal,
 - homologous,
 - homo-lateral, and
 - contra-lateral movement.

As a dancer, Bartenieff emphasized full body use and the relationship of self to self, self to others, and self to world. In her own words, Bartenieff said

The main object of all this material is to suggest additional modes of perceiving yourself and the world around you, using your live body totally - body/mind/feeling - as a key to that perception. The heart of that 'liveness' is movement and, therefore, it is the movement itself that we have studied. How your body functions in movement - Body/Effort/Shape - and what that means to your perceptions and expression (Hackney, 2002).

Bartenieff first studied with Laban in Germany in 1925, where she also studied biology and art at university. She later formed and toured with her dance company, Romantisches Tanztheatre Bartenieff. In 1933, due to increased danger to her husband, who was Jewish, Bartenieff moved to the United States.

Once in the States, Bartenieff began to work as a physical therapist, eventually as Chief Physical Therapist for Polio Services at Willard Park hospital in New York. Her modus operandi came from her first physical therapy teacher, Dr. George Deaver: "Activate and motivate the patient." She believed that there must be motivation for every movement, whether for a dancer or a polio patient. There must be "the desire to jump like two year old children – really jump with joy! Animate people more to move and out of that comes the desire to jump." (Hackney, 2002).

In the mid 1950's, Bartenieff studied with Laban in England where she became interested in dance training once again. While offering classes for professional dancers at the Turtle Bay Music School in New York, she developed "Correctives," a movement approach based in physical therapy meant to correct the condition of dancers who were either injured or not fully functioning. Correctives became the foundation for Bartenieff Fundamentals.

Throughout the rest of her life, Bartenieff continued to work as a physical therapist and dance trainer, initiating the Effort/Shape training program at the Dance Notation Bureau in 1965 as well as the first certification program in Laban Movement Analysis in 1973. After her death in 1981, the Laban Institute for Movement Studies was renamed the Laban-Bartenieff Institute for Movement Studies in recognition of her contribution to the field. Of Bartenieff's unique contribution to Laban's work, Marcia B. Seigal says:

Irmgard thought in global terms, holistic terms. She thought mind, body and action are one, that the individual is one with the culture, and function with expression, space with energy, art with work with environment with religion. When you spent a lot of time are her you could get pretty confused and have to go sort things out by yourself, but you could never again see the universe as a collection of isolated particles.
(<http://imsmove.addr.com/bartenieff.htm>, 2005)

Bartenieff remained a staunch supporter of Laban's work to the end of her career. As she said in 1980, "Fifty years in the field has only strengthened my conviction that Laban's multifaceted approach to the study of human behavior has a unique contribution to make to the understanding of our world."
(<http://imsmove.addr.com/bartenieff.htm>, 2005).

III. Movement observation

When studying human behavior using a method such as Laban-Bartenieff Movement Analysis, it is important to recognize that the observer is being studied as much as the person and task being observed. Although Laban-Bartenieff Movement Fundamentals is an objective form of analysis, observers bring in their own set of biases based on their own experience and expertise. Because of this, it is essential to form a complete profile of who is observing, who is being observed, and what is being observed.

1. Who is the observer?
 - What is their area of expertise?
 - What is their training, and how extensive is it?
 - What experience, formal or informal, does the observer have in movement?
2. Who is being observed?
 - all of the above questions apply to the performer being observed
 - how is movement conceived of by the performer?
 - How much training, formal or informal, does the performer have in movement?
3. What is being observed?
 - what is the task being performed?
 - how is movement related to the task being performed?
 - In the case of observation of a musician, what is the context of the observation? i.e. performance, rehearsal, lesson, practice session, etc.
 - Is the observation live or recorded?
 - In the case of recorded observation, how does the quality of the audio and video affect observation?

The answers to all of these questions form a combined profile of the observer, the performer, the task being performed, and the means of observation, all of which has a direct impact on the observations being made. If any one of these factors changes, the resulting observations may change as well. For example, observations made by a certified Laban-Bartenieff movement practitioner would be different than those made by someone with a different area of expertise such as music or engineering. The observations of each are equally valid, provided the expertise of each is taken into account.

In my case, my area of expertise is as a musician. I am a classically trained clarinetist currently pursuing a PhD in Music, researching the effects of movement training on musicians. I have extensive but sporadic movement training encompassing yoga, physical theatre, Skinner Releasing Technique, Pilates and Bartenieff Movement Fundamentals.

The videos used to illustrate this essay are of clarinetists ranging from second year university students to professional freelance musicians, none of whom have received formal movement training. The videos shown are informal performances arranged for the purpose of videotaping for research.¹ Performers were informed that the purpose of the research is to study to movement of musicians. Using the second movement of Igor Stravinsky's Three Pieces for clarinet alone, each performer was asked to give several performances in three different manners, including deadpan, standard, and exaggerated. The videos seen in this essay are of the standard performances.

¹ Videos developed for research by Marcelo M. Wanderley, Bradley Vines, Neil Middleton, Cory McKay, and Wesley Hatch. "The Musical Significance of Clarinetists' Ancillary Gestures: An Exploration of the Field." To appear in *Journal of New Music Research*, vol. 34, number 1, 2005.

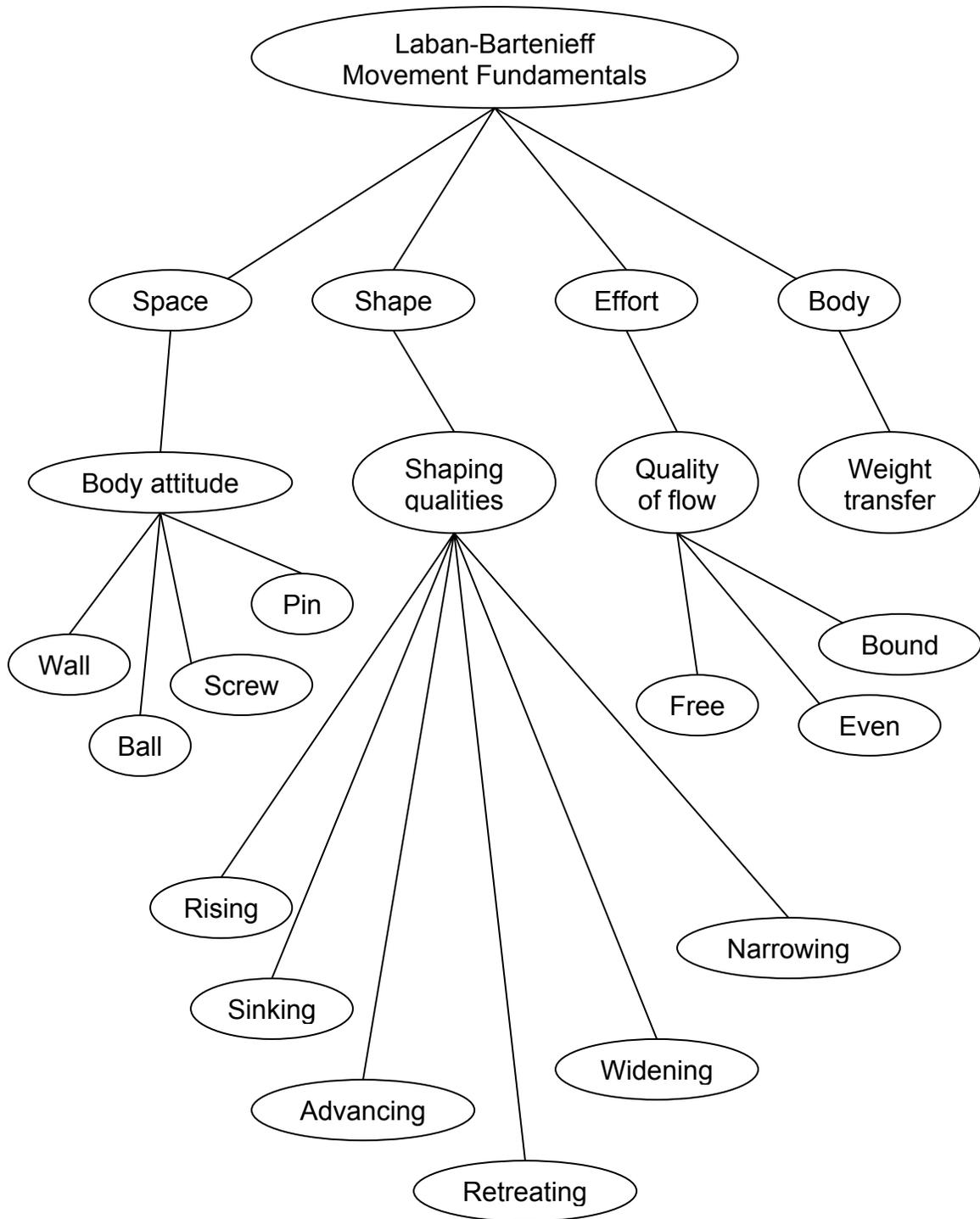
IV. Laban-Bartenieff Movement Fundamentals

Laban-Bartenieff Movement Fundamentals describes movement on many levels in order to come close to a rich and accurate description of not only where the movement takes place in the body and in space, but how the movement occurs. In order to do this there are three key assumptions:

1. the whole body is connected,
2. all parts are in relation to one and other,
3. a change in one part affects the whole.

All three of these assumptions are linked through the idea that any movement in one part of the body will affect the whole body. As such, all parts of the Laban-Bartenieff system are inter-connected (Hackney, 2002). Just as a person's toe is still there, even if they are not visibly moving it, all parts of the Laban-Bartenieff system are potential in the mover at the same time. By observing one movement in several different ways, we can begin to observe the relationship between parts of the body and use of the body. The combination of the different observations will give a means of finding a complete description of a single movement.

Laban-Bartenieff Movement Fundamentals describes movement through the four inter-related categories of Space, Effort, Shape and Body. Within these categories, there are various attributes. The method of observation presented here is not the complete system as this is beyond the scope of this project. Full training in Laban-Bartenieff movement observation requires dedication and time to complete. However, a basic understanding of fundamental concepts can be learned and used to facilitate observation by people without formal movement training. For the purposes of simplification for non-movement-trained observers, specific attributes were chosen by certified Laban-Bartenieff practitioner Valerie Dean in order to address the most essential aspects of observation as it applies to musicians.



1. Figure 1. The Laban Bartenieff System and attributes derived for observing the movement of musicians.

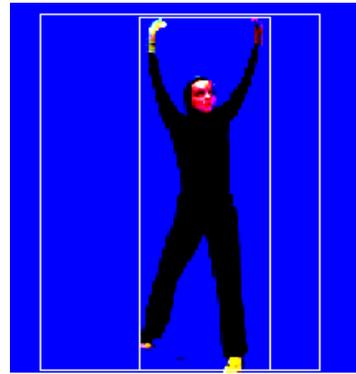
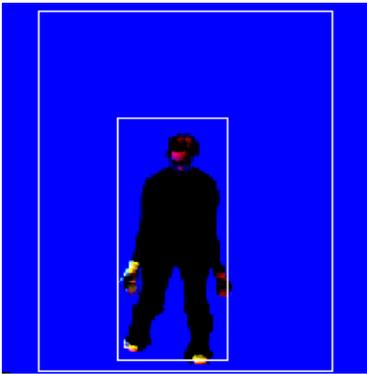
2. Table 1. Overview of the basic framework of Laban Bartenieff Movement Fundamentals

Laban Bartenieff Movement Fundamentals			
Space	Effort	Shape	Body
The psychological and physical use of the body in the surrounding space	A description of the energy invested in a movement or series of movements	A description of the constantly changing shape of the body	The connectivity and organization of the whole body

B. Space

Space is the person’s use of their body in the surrounding space. This includes whole body use, interaction with the environment, and personal space. Space includes a person’s kinesphere, the area in which a person operates physically and psychologically. Physically, the kinesphere is defined by the area which a person can reach without taking a step. Each person’s use of the kinesphere is unique. While some may keep the kinesphere small, intimate, and well inside their possible range of movement, others may extend their kinesphere to the limits of their range of motion. Psychologically, the kinesphere is defined by the space that falls under a person’s sense of influence and ownership. For example, a performer’s psychological kinesphere may radically change from instrumental warm-up to the time that they walk on stage. While the warm-up will generally be more personal with a smaller kinesphere, the transformation into a performer can often mean an expansion of the kinesphere to encompass the whole ensemble, stage and even performance hall.

The following images demonstrate the range of a person’s physical kinesphere. The white boxes surrounding the person represent the physical kinesphere. In reality, a kinesphere is the changing area that can be reached with every part of a person’s body, clearly not the shape of a box. However, this image can aid in seeing how the kinesphere changes size with the changing configuration of the body. The largest box in both images shows the area that can be reached by the person’s full extension of their limbs. However, the actual physical kinesphere depends on the use of the body, changing from crouching to full extension upward.



1. Figure 2. Use of space in the kinesphere.²

Within this changing kinesphere, there are many ways of using space. Each person will have a characteristic way of using space that is shown through their “body attitude in space.” The body attitude is the overall use of the body. The body attitude can be linked to the person’s personality, as it is the dominant way a person chooses to use their body and present them self to the outer world. (Hackney, 2002)

The four body attitudes in space are wall, ball, pin, screw. Each of the names are used for the specific image that it evokes, in that the person’s body may look and function in some way that is like the name. Each is defined by specific use of space according to the vertical (up/down), horizontal (left/right), and sagittal (up/down and forward/back) planes. The pin body attitude is characterized by use of the vertical plane. A typical person who uses a pin body attitude may be tall and thin, moving often up and down in the vertical and taking up little surrounding space. The wall body attitude is characterized by use of both the vertical and the horizontal plane. A typical person who uses the wall body attitude may move up and down in the vertical plane, but also side to side, taking up more personal space. The ball body attitude is characterized by use of the sagittal plane by rounding inward. A typical person who uses a ball body attitude may be tall and thin with a habit of slumping or someone who frequently uses their hands in front of them to operate a tool such as a computer or musical instrument. The screw body attitude is characterized by use of all the planes, with a general body twist with a general body twist in all directions. Some activities encourage a certain type of body use, such as playing the violin which instantly puts the body into a spiraling position, encouraging a screw body attitude.

² Images developed by Alexander Jensenius.

2. Table 2. The planes used in body attitude in space.

Space				
Body attitude	Pin	Wall	Ball	Screw
Plane	Vertical	vertical, horizontal	sagittal	vertical, horizontal, sagittal

a) Practical tip

To observe body attitude, view a movement sequence that is about one minute long. As the baseline will be considered the dominant body attitude being demonstrated, a longer sequence is necessary to see the person's body use over an extended period of time. While all people can use any of the body attitudes at a given time, most people will show a preference for a specific type of body use. If there are aspects of more than one type of body use, take a consensus of the three observers as some of the confusion may be due to observer bias. If there are still differing opinions, the person may show a preference for more than one body attitude, possibly as a fluctuation between two or more body attitudes or as simultaneous body attitudes that manifest in different parts of the body. For each of the following videos, view the video several times to determine the body attitude before reading the following sections.

3. Case study No. 1. Observation of the baseline in body attitude.

The video below³ shows a performer who makes use of screw, ball and pin body attitudes in the space of only a few seconds. In order to determine what his baseline is, a longer sequence should be viewed. This performer can be seen to use a screw before he starts playing. While he is playing, he frequently sinks in and out of a ball. Sometimes when he is playing a longer phrase, he moves into a screw again. However, this performer constantly returns to pin, often recovering out of the ball by springing up into the vertical. Since this performer always returns to a pin, this is his baseline body attitude.

Once the baseline body attitude has been determined, it is possible to observe minor fluctuations in body attitude. Particularly in a case like the first performer where there is a lot of fluctuation, detail work on the body attitude can be very useful in observing body attitude and possible sequences that emerge in relation to habitual patterns or musical phrasing.

³ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 7.mov

a) Practical tip

Some people use a combination of body attitudes as their baseline. To determine if this is the case, hold a piece of paper in front of the image being viewed so that only part of the body is being viewed at a time.

4. Case study No. 2. Observation of a combination of body attitudes as baseline.

The video below⁴ shows a performer who makes use of wall and ball body attitudes at the same time. In order to differentiate more clearly, hold a piece of paper so that it covers his lower body from the hips down. View the video again, this time with the paper covering his upper body from the hips up. In this manner, it is possible to see that the performer uses his upper and lower body in different ways, with the upper body swinging in and out of a ball body attitude and the lower body locked in a wall body attitude. The combined effect of the two body attitudes results in large sweeping gestures of the upper body that cantilever directly from the hips.

C. Effort

Effort is the changing quality of the movement, or the manner with which a person uses their body. Effort is not located specifically to a particular body part or point in space, but rather as description of the energy invested in a movement or series of movements.

Effort baseline is determined by quality of flow. Quality of flow is a description of the continuity of the movement that results from muscle tension, coordination and personal expressivity. As expressivity changes, effort as described by quality of flow may change as well.

Quality of flow is described on a continuum from free through even to bound effort. On one end of the continuum, free quality of flow is a type of movement that is loose and easy with low muscle tension. Free quality of flow is often associated with expressivity that is open, released, and abandoned. Carried to the extreme, free quality of flow is careless and uncontrolled. On the other end of the continuum, bound quality of flow is a type of movement that is held and highly controlled with high muscle tension. Bound quality of flow is often associated with expressivity that is controlled, careful, contained, and restrained. At the extreme, expressivity is restricted and tight. In the middle of the

⁴ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 3.mov

continuum, even quality of flow is a type of movement that is smooth and maintained with even muscle tension. Even quality of flow is a balance between control and release both in the physical work and in the expression. Even though the words “free” and “bound” can cause preliminary judgments on which quality of flow is preferable, various points on the continuum are appropriate for different tasks.

1. Table 3. Descriptive words associated with quality of flow.

Effort			
Quality of flow	Free	Even	Bound
Adjectives	Loose, easy, unrestricted, release, outpouring, light	Fluid, gradated, constant, , continuous, smooth	Controlled, restricted, careful, contained, restrained

a) Practical tip

When observing quality of flow, it can be helpful to imitate the movement of the performer. Since it is possible to do some movements with varying levels of free to bound effort, imitate how the performer is moving rather than mimicking the exact movement itself. It can also be helpful to use an adjective to describe how the person is moving, since the expressivity and quality of flow are closely linked. Bound quality of flow can sometimes also be seen in muscle strain or, in the case of wind players, a red face and bulging neck.

2. Case study no. 3. Observation of free quality of flow.

The following video⁵ is of a performer who uses primarily free quality of flow. He uses a light quality of motion throughout that can be seen in the loose, easy rebounds up and down as well as fluidity in his upper arms.

⁵ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 7.mov

3. Case study no. 4. Observation of bound quality of flow.

The following video⁶ is of a performer who uses almost entirely bound quality of flow. Looking at the upper body alone, the performer holds his head, neck and arms immobile in relation to his torso. The swinging movement of the upper body is large, but with the movement locked in the hips. The movement does not spread to the lower body. The only way to imitate this movement effectively is to use bound effort of flow especially in the hips and torso.

D. Shape

Shape as a general category is the form a person's body makes in space. On the large scale, this is clearly very closely associated to Space and body attitude in space. However, instead of being the overall body use in space, Shape can pinpoint detailed body use by describing the constantly changing shape of the body. Shaping qualities pinpoint not only specific body use, but also inner intent of the person, and can be extremely useful for observation of musicians as a performer's musical intent appears frequently to be expressed simultaneously in sound and shaping qualities.

The shaping qualities are fundamentally linked to breath. The two basic movements of the breath are inhale and exhale. An inhale is caused by an expansion of the inner volume of the lungs through expansion of the ribcage and depression of the diaphragm, causing air to rush in to fill the vacuum that has been created. This is a basic opening action. The opposite action, in which the inner volume of the lungs is compressed through compression of the ribcage and elevation of the diaphragm, in turn causing air to rush out of the lungs. This is a basic closing action.

Just as breath can only occur in movement, the shaping qualities are only possible in constant motion. The shaping qualities are extensions or reflections of the movement of the breath. As in breath, the shaping qualities are divided into opening and closing actions. Each half of the pair is the opposite and complimentary action of the other half. The opening-closing shaping qualities are rising-sinking, advancing-retreating, and widening-narrowing.

Opening and closing actions can be more specifically described by showing the direction and plane through which the body shape is moving or changing. Each

⁶ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 10.mov

shaping quality has a unique direction, while each of the opening-closing pairs shares the same plane.

1. Table 4. The direction and planes of the six shaping qualities.

Shape						
Shaping Quality	Rising	Sinking	Advancing	Retreating	Widening	Narrowing
Direction	Upward	Downward	Forward	Backward	Outward	Inward
Plane	Vertical	Vertical	Sagittal	Sagittal	Horizontal	Horizontal

a) Practical tip

With shaping qualities, it is not the arrival point that is important – it is the process of getting there that is observed. For example, imagine that a person reaches out to shake someone’s hand. The arrival point is the contact with the other person’s hand. To observe shaping qualities, we look at the whole body of the person as they reach out to shake the other person’s hand. The difference between a warm, welcoming hand shake and a cold brush off may be expressed by the shaping qualities shown.

2. Case study no. 5. Observation of one of the opening-closing pairs of shaping qualities.

Very generally, when one shaping quality occurs, it is preceded or followed by its complementary pair. If someone rises, at a certain point there is no choice but to sink. The following video⁷ shows a performer who uses a continuous flow of rising and sinking.

3. Case study no. 6. Observation of a blend of shaping qualities resulting in one gesture.

None of the shaping qualities happen in isolation. In fact, there are frequently both simultaneous and sequential shaping qualities. For example, the following video⁸ shows a performer who uses a large variety of shaping qualities and weight transfer (see following section on Body) that result in the large repetitive

⁷ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 9.mov

⁸ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 10.mov

scooping gesture. This regular sequence is advancing while rising and widening, ending with a retreat and sink. As he is rising and widening, he will often shift his weight dramatically to one side, returning to centre on the retreat and sink. The overall result of the shaping qualities and weight transfer is a large sweeping gesture.

4. Case study no. 7. Observation of different shaping qualities occurring simultaneously in different locations in the body.

It is also possible that different shaping qualities may occur at the same time in different areas of the body. The following video⁹ shows a performer who repeats a rocking gesture throughout the entire performance. The large gesture towards the end of the A section is a more extreme version of the repetitive rocking gesture. This large gesture shows the performer advancing in his torso while retreating with his pelvis.

E. Body

Body is the connectivity and organization of the whole body. Connectivity is maintaining support and moving from the core of the body, so that movement of the distal ends of the body is initiated and supported from the core.

“Disconnection” is weak core support that can result in over-worked external muscles, over-reliance on muscle strength rather than coordination in order to move, and muscle imbalances throughout the body. Observation of the Body category can include moving and stable body parts, movement initiation and movement sequencing.

Since the basic means of organization of the Body is through the core, one basic way of observing the Body is to observe shifts in the core, or weight transfer. In order to transfer the weight of the core, the whole body must act together, in that each limb must compensate and react in order to initiate, shift, and support the new configuration of the body. However, the transfer of weight comes from the core first.

a) Practical tip

In observing weight transfer, look for shifts in the pelvis, as this is heaviest mass in the body and is close to the centre of gravity. Although the movement of the feet is not the most relevant observation, a full shift of

⁹ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 6.mov

weight only happens when the core moves far enough that a step must be taken in order to support the moving core. In the case of the following images, the performer is transfers her weight from just right of centre, through centre, fully to the left. The yellow dot, which represents the core of the performer's body, highlights the shift in the core as the initiation of the weight transfer.



2. Figure. 3. Initiation of weight transfer from the core.¹⁰

3. Case study no. 8. Observation of a complete transfer of weight.

The following video¹¹ shows a performer who constantly shifts his weight forward and back. While his rocking is constant, the weight transfer happens at a slower rhythm than the rocking. That is, he often sways forward and back without fully transferring his weight, often supporting his weight mostly on one leg, leaning forward onto the other leg and springing back onto the same weight-bearing leg. He only transfers his weight when he steps fully forward or back so that the weight shifts completely from one leg to the other.

4. Table 5. Possible directions of weight transfer.

Body	Left	Right	Forward	Backward
Weight transfer				

¹⁰ Images developed by Alexander Jensenius.

¹¹ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 6.mov

V. Procedure for Movement Observation

A. Preparation for Observation

Preparation for observing is of utmost importance. In order to observe movement, it is crucial that the observer be keenly aware of their own self in order to empathize with the performer being observed. If a particular movement by the performer is confusing to the observer, it can be resolved if the observer can imitate and feel this same movement. Short of jumping out of their chair to imitate everything the performer is doing, strong body awareness will aid in understanding the movement as potential in the body of the observer.

To establish and maintain body awareness, the observer begins with a warm up. Any stretching or breathing exercises that the observer is already familiar with will be useful in focusing attention and developing the body awareness necessary to observe. The following warm-ups are suggested to familiarize the observer with the Laban-Bartenieff attributes to be observed. Possible warm-ups include:

- Body attitude: Walk around the room in each of the four body attitudes. How is it different to walk as a pin compared to as a screw? Wall compared to ball?
- Shaping qualities: Try each of the shaping qualities as a full body gesture. Then experiment with locating the shaping qualities in different areas of the body. Play with the shaping qualities by isolating opening-closing pairs as well as combining various shaping qualities. What is it like to rise and widen at the same time? What is it like to rise and narrow at the same time? What happens when you rise and sink? What happens if you rise and advance and then sink and retreat?
- Quality of flow: Make one gesture. Do this same gesture with as free quality of flow as possible. Repeat the gesture with as bound quality of flow as possible. What happens to the movement and the compensation in your body when you vary the quality of flow?
- Weight transfer: In a standing position, take a single breath. On the out-breath let the weight of your body fall through your skeletal system into the floor. Shift your weight to the left until all of your weight is resting on your left leg. Slowly shift your weight to the right, observing the changes in your body as you transfer your weight through centre and to the right. Try shifting your weight forward and back. At what point do you transfer your weight far enough to need to take a step?

B. Preliminary observations

1. Viewing no. 1: Subjective comments

As discussed previously, although Laban-Bartenieff Movement Analysis is an objective form of observation, observers bring in their own set of biases based on their own experience and expertise. In order to see more objectively, the observer first acknowledges the subjective bias.

On the first viewing of a performance, the observer observes *as subjectively as possible*. This is the initial reaction to the performance, which can mean pure opinion taking in the expertise and bias of the observer. Recognizing the subjective bias allows the observer to observe as objectively as possible for the next viewings.

2. Viewing no. 2: Comments based on the observer's expertise

The second viewing of a performance draws on the expertise of the observer. As a musician, I do a small adjudication of the performance, commenting on the clarinetist's facility on the instrument and interpretation of the piece.

C. Movement description

1. Viewing no. 3: Description of movement

The third viewing of a performance is a basic description of how the person moves and plays. This may be a generalization or a recurrent mannerism.

D. Movement Analysis

1. Unlimited viewings:

After the initial three viewings of a performance, the observer can take as many viewings as necessary in order to observe each of the Laban-Bartenieff categories. There are two ways of proceeding:

1. View one performance at a time, observing the same video several times from the viewpoint of Space, Effort, Shape, and Body.
2. View many performances looking at each performance from the viewpoint of one of the Laban-Bartenieff categories. That is, observe all of the videos looking at Space. Then observe all of the videos looking at Effort, etc.

a) Practical tip

At this point, I have found it useful to turn the sound off. Because I am a musician, I instantly focus on the sound, which can make it difficult to focus on the movement. Occasionally, I will turn the sound back on in order to reorient myself within the piece and to reconnect with the musical style of the performer, but generally it is simpler to observe movement when only the movement is seen.

E. Movement Profile

After having completed the observations of each performance according to all of the Laban-Bartenieff categories, the observer will have the following information on each performance:

- Subjective comments
- Comments based on the observer's expertise
- A basic description of the movement
- Movement analysis encompassing:
 - Space: body attitude
 - Effort: quality of flow
 - Shape: shaping qualities
 - Body: weight transfer

1. Final viewing

a) Practical tip

At this point, I find it useful to view the video again with the sound on. This is crucial in order to bring the profile together. For musicians, our primary means of expression is through sound. How this is accomplished is through movement. In order to fully understand the movement, it is necessary to return to the reason for the movement, the music itself.

The next step is to compile this information into a movement profile for each performer. At this point, links can be made between all of the information, particularly between the categories in the movement analysis as well as between the movement analysis and the comments and basic description of the movement. The following questions may be useful when compiling a profile:

- What way of playing makes this person unique?
- What way of moving makes this person unique?
- Which movement attributes are the most predominant?
- Which movement attributes are missing?
- How are the Laban-Bartenieff categories linked?

- Are there movement phrases (patterns) that are repeated? If so, how and when is the phrase repeated? How is it varied? In the case of observing clarinetist, how is it linked to the music? To the breath?
- How does the movement analysis reflect on/demonstrate/contradict the:
 - subjective comments?
 - basic description of the movement?
 - comments based on the observer's expertise?
 - music and the musical comments?

F. Comparison of observations

Once the profiles are completed, comparisons can be made between the performers. Similarities and differences can be observed between all the same questions used to compile the movement profiles.

VI. Samples of Laban-Bartenieff Movement Analysis

Following is a demonstration of the complete Laban-Bartenieff movement analysis system and observational procedures. The movement annotations pictures are made using Anvil, a video annotation software.¹²

A. Case Study no. 9

1. Movement Profile

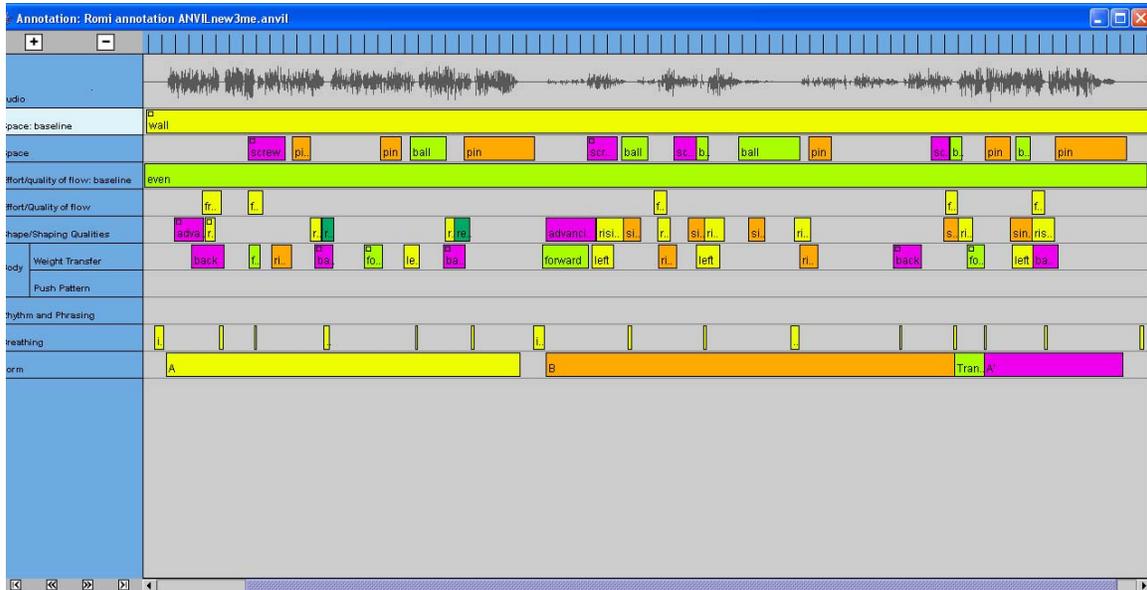
The following performance¹³ is a unified, stylistic and fluent performance that shows distinct changes in character and a sense of telling a story. This performer shows easy facility on the instrument so that she is able to express what she pleases. Her use of body is unrestricted and unique to her style in a way that is complimentary to the music.

On a body level, this performer's body attitude is a wall with many fluctuations into ball, pin and screw, depending on musical context. She does not have a specific pattern of movement that is linked to breath. Her quality of flow is even throughout with some free spots usually seen prior to an inhale. Her use of space is very three-dimensional, as she very frequently makes weight transfers in all directions, often in conjunction with varied shaping qualities. This performer's musical intention is very strong, as is easily heard in the sound as well as seen in her body. This is shown in the change in character between sections A and B.

¹² Anvil, available at <http://www.dfki.de/~kipp/anvil/>, was developed by Michael Kipp in 2000-2004. This software synchronizes movement notation with video. To read the annotation, time progresses from left to right. Seen on the left, tracks notate specific Laban-Bartenieff categories. Within each track, attributes are notated with precise start and end points. Vertically, the notation shows simultaneous and overlapping events.

¹³ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 4.mov

2. Movement Annotation using ANVIL software



B. Case Study no. 10

1. Movement Profile

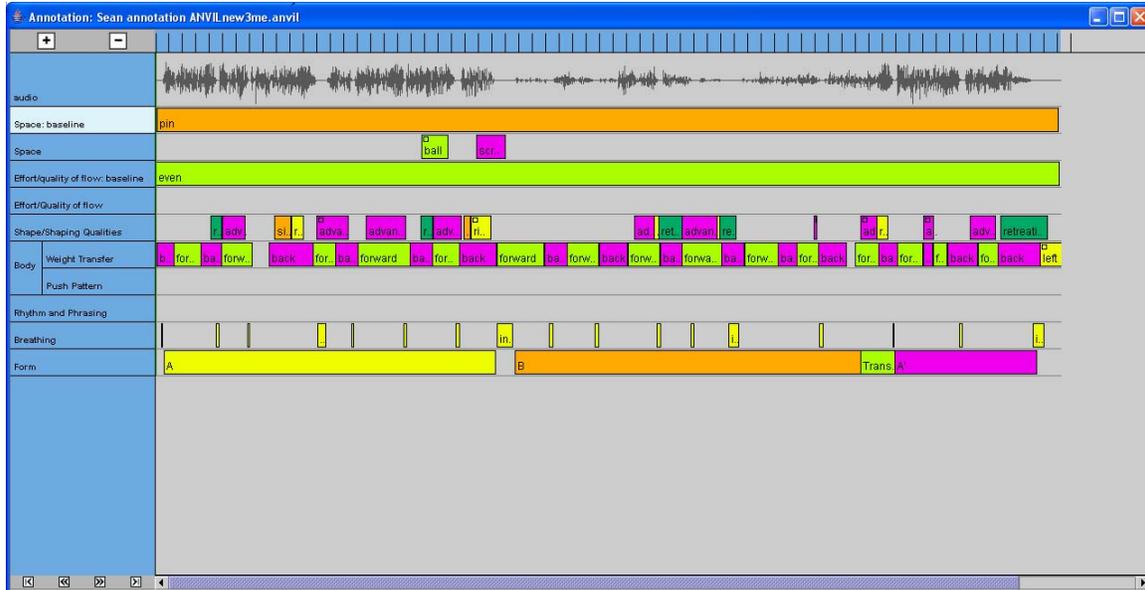
The following performance¹⁴ is a straight forward interpretation that adheres to the style of Stravinsky but does not have a personal stamp. There is little differentiation in character throughout the piece. The performer appears to be nervous or worried about technical difficulties, a quality that is heard in his sound and seen in his movement. This performer's body attitude is a pin with very little variation. His effort of flow is even, again with little variation.

The most striking physical characteristic of this performer is his constant rocking forward and back in a way that is not directly linked with the music. This is a combination of weight transfer and advancing and retreating shaping qualities. As an example, the big gesture towards the end of the A section shows the performer advancing in his torso while retreating in his pelvis, causing a weight transfer backward. This gesture is a large scale demonstration of a gesture that occurs throughout his performance on a smaller scale. Both the weight transfer and shaping qualities are occasionally accented with a quick sink and rise,

¹⁴ ¹⁴ C:\Documents and Settings\Clarinet\My Documents\Clarinet_Video_Analysis\Quicktime videos Performer #\Performer 6.mov

resulting in a spring forward or back. The constant weight transfer appears to be habitual and may occur all the time when he plays, regardless of the piece.

2. Movement annotation using ANVIL software



C. Comparison of case study no. 9 and case study no. 10

As can be seen from the videos, movement profiles and annotations, there are various similarities and differences between case study no. 9 and case study no. 10. The movement comparison is as follows:

1. Space: Case study no. 9 has a baseline body attitude that is a wall, whereas case study no. 10 is a pin. No. 9 uses significantly more variation in body attitude, as she frequently moves in and out of the three other body attitudes. In contrast, no. 10 almost exclusively uses the pin body attitude, with only one fluctuation each into ball and screw.
2. Effort: Both case studies show even quality of flow. Again, case study no. 9 shows more variety than case study no. 10. No. 9 shows some free quality of flow, whereas no. 10 is even throughout.
3. Shape: Both case studies show a variety of shaping qualities with case study no. 10 showing a preference for advancing and retreating.
4. Body: These two case studies are extremely different in their use of weight transfer. Whereas case study no. 9 transfers in all directions, often beginning or ending her phrases with a breath and new transfer of weight, case study no. 10 continually transfers his weight exclusively forward and back.

The musical impression of each case study is also reflected in their movement. The performance by case study no. 10 is neutral, in that it is a standard interpretation but with little of the personality of the performer showing through. Physically, case study no. 10 is neutral as well, showing little fluctuation or variation in most of the categories. The strongest physical characteristic of case study no. 10 is the constant weight transfer forward and back. This movement but may show slight variations in time and amplitude depending on musical content. The weight transfer is more or less rhythmical with variations in the rocking rhythm depending on when he wants to emphasize something musically like a certain note or phrase. There is a slight alteration in the rhythm of the weight transfer at the musical emphasis, after which he continues the constant weight transfer.

In contrast to this, case study no. 9 showed great musical flexibility, paralleled by a wide variety of movement choices. Musically, her performance gives the impression that she is telling a story with different characters. This is demonstrated physically as well as she often transfers her weight between musical phrases. The observers' perception of this is that she is creating a dialogue between characters. For example, she will play one phrase with her weight shifted to the left, take a quick step to the right and answer with the next phrase. Case study no. 9 clearly uses movement as an illustration of the music.

As can be seen through these observations, case study no. 9 and 10 are very different in both their musicality and physicality. In the case of both performers, their musical intent is clearly reflected in their bodies.

VII. Conclusion

In the observation of movement in musicians, benefits can be found particularly in the field in which movement is its domain: dance. Laban-Bartenieff Movement Fundamentals shows both the rigor and flexibility to be applied to any area of human movement, as can be seen by the ease of application to the movement of musicians. Through providing a framework for observation, the uniqueness of each performer is maintained, while giving the observer a means of describing the performer's movement systematically. Rather than relying simply on movement as points in space, using a system that can describe what is moved, where, when and especially how allows us to gain insight into the unique musical and movement personality of each performer.

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