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*Spirit in the Flesh:
Physical Engagement and the Creation of
Meaning*

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Introduction

The Tristan Project, directed by Peter Sellars, conducted by Esa-Pekka Salonen, and with video art by Bill Viola, is a multimedia adaptation of Richard Wagner's opera *Tristan Und Isolde* (1859) that premiered in 2005 at the Walt Disney Concert Hall. The production was edited and presented in New York's Avery Fisher Hall in the spring of 2007 (which I attended). *The Tristan Project* is an unstaged version of the traditional opera. Sellars uses sparse spatialization of various instrumental and vocal solos, spare props, subtle costumes, and limited movement to enhance the live performance while remaining in balance with the video elements. In the Avery Fisher Hall performance, video was projected onto two long panels hung side by side over the stage for the first act, replaced by a single larger panel for the second and third act. Super-titles were projected to the side of the video panels and the orchestra occupied the stage.

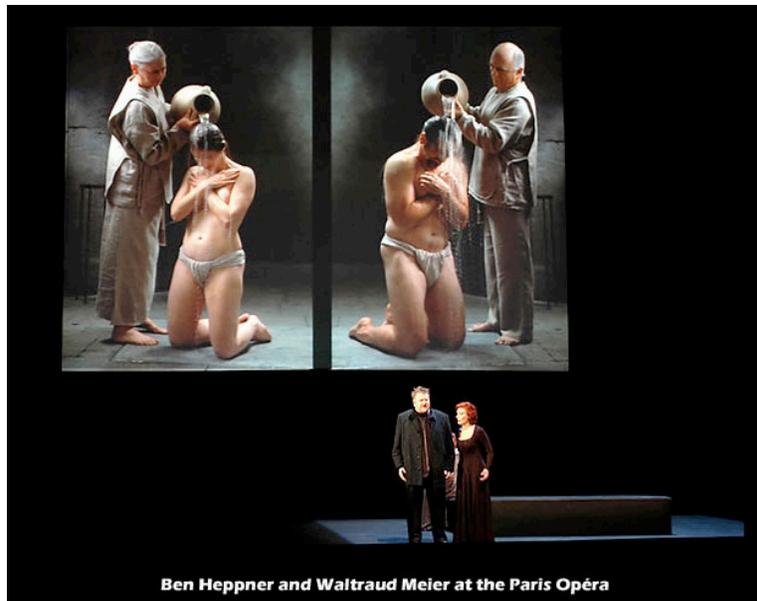


Photo of *The Tristan Project*: Act I staged at the Paris Opera¹

Critical response to *The Tristan Project* was mixed. Alan Riding, from *The New York Times* noted the main criticism surrounding the work; "the question already raised by some critics in Los Angeles last December and echoed by some spectators here Tuesday is whether the powerful images distract from the singing."² The reception of *The Tristan Project* was disappointing compared to the positive media attention the work received prior to its premier. Co-produced by the Los Angeles Philharmonic and the Paris Opéra, the work was a large budget undertaking premiering the efforts of classical music and new media heavy hitters. In 2007, *New York Times* reviewer Allan Kozinn described the Avery Fisher Hall production as "an innovative conception of a core work" and

¹ From <http://www.wagneroperas.com/indextristanproject.html> accessed 1/9/2013

² Riding, Alan, "In Pursuit of a Total Art, the Paris Opera Adds Video to 'Tristan und Isolde,'" *New York Times*, April 14th, 2005, online edition. <http://www.nytimes.com/2005/04/14/arts/music/14tris.html> accessed 11/26/2012

remarked positively on the performances of the orchestra and soloists.³ Similarly, reviewer Hunter Drohojowska-Philp writing for artnet.com in 2007, found that "the arias of that familiar opera, especially the climactic duets, are for me now indelibly illustrated by Viola's towering video of crashing waves, entwined nude bodies and giant flames."⁴ On the whole, response to this work has been limited to descriptive and critical reviews with no lengthy analysis of the complicated interaction of media elements.⁵ In the following analysis, I present a detailed discussion of the work using my own experience of physical engagement during the performance as a starting point. Considering new ideas proposed by embodied cognition philosophy and current scientific research on perception and meaning creation, I will explore how physical engagement is one of the ways that *The Tristan Project* and art in general, communicates and constructs meaning.

Part I: Role of the Body

Embodied cognition philosophy explores the relationship between body and mind as it pertains to meaning creation. This strain of philosophy emphasizes that interaction with the environment, mediated by the whole and unified experience of being in a human body, is the basis of what we know and what that knowing means.⁶ In Mark Johnson's

³ Kozinn, Allan, "In a New Space and Time, a Classic Story of Tragic Love," *New York Times*, May 4th, 2007, online edition. <http://www.nytimes.com/2007/05/04/arts/music/04trist.html> accessed 3/20/2009

⁴ Drohojowska-Philp, Hunter, "The Tristan Project," *Artnet.com*, December 15, 2004, online edition. <http://www.artnet.com/Magazine/features/drohojowska-philp/drohojowska-philp12-15-04.asp> accessed on 11/26/2012

⁵ This could partially be due to the fact that there is no easy way to access video documentation of the live performance.

⁶ Mark Johnson, *The Meaning of the Body: Aesthetics of Human Understanding* (Chicago: University of Chicago Press, 2007).

book on embodied cognition philosophy, *The Meaning of the Body: Aesthetics of Human Understanding* (2007), he illustrates the importance of the body.

Meaning grows from our visceral connections to life and the bodily conditions of life.... From the day we are brought kicking and screaming into the world, what and how anything is meaningful to us is shaped by our specific form of incarnation.⁷

At the core of embodied cognition philosophy is an understanding that meaning is constantly created, renewed, and adapted. Meaning is a fluid, ever-changing thing that is known through life's qualitative, unified, complex, and constantly evolving experience. As suggested by pragmatic philosopher William James, we know this complexity through our body's perceived interactions with the world or percept. From this, we abstract memories, patterns, and ideas, describing these abstractions as concepts.

How do concepts remain connected to the body? Mark Johnson, in *The Meaning of the Body*, and earlier writings published with George Lakoff, proposes that metaphor and image schemas provide a connection between embodied experience and abstract concept.⁸ Johnson defines "image schema" as "a dynamic, recurring pattern of organism-environment interactions. As such, it will reveal itself in the contours of our basic sensorimotor experience."⁹ These repeated behaviors are often based on fundamental aspects of the human body and its abilities or limits. Image schemas include relationships such as center-periphery, attraction, blockage of movement, verticality (up-down), balance, source-path-goal, scalarity, container, and rough-smooth.¹⁰ For example,

⁷ Johnson, *The Meaning of the Body*, ix.

⁸ In his second chapter, Mark Johnson outlines a number of primary ways that basic physical experience translates into abstract meaning. Johnson, *The Meaning of the Body*, 33-51.

⁹ *Ibid.*, 136.

¹⁰ *Ibid.*, 137.

"center-periphery" is an image schema based on the human physical capacity to visually focus on an object (center) and see the surrounding space with less clarity (periphery). This schema describes the relationship between two elements, one central and the other supportive or ambient. In this way, "center-periphery" communicates the relationship between, for example, a main motive and accompanying material in a musical work, or the relationship between a side and main plot in a novel so that image schemas prioritize relationship over an exactness of situation.¹¹ Although image schemas may be filled or saturated with one's unique individual experience and personal social and cultural meaning, they are structural systems of relationship derived from the universal abilities and limitations of the human body. This shared physical experience suggests a space of understanding that may be a starting point for shared meaning.

Leonard Talmy proposes a type of image schema concerning motion called "force dynamics."¹² As Johnson describes them,

Objects move at varying speeds, they move along trajectories, there is a rhythmic flow to their movement, they start and stop, etc. Based on these and other characteristics of moving objects, the internal structures of the image schemas for forced movement support and constrain the precise inferences we make about our experience.¹³

We describe people as being drawn to each other with "magnetic attraction" or we have a "mental block" when we can't think of something. These metaphors communicate because they call upon a physical experience of impeded movement (block) or the

¹¹ Johnson, *The Meaning of the Body*, 137.

¹² Leonard Talmy, "Force Dynamics in Thought and Language," *Chicago Linguistics Society 21 pt. 2 Possession in Causatives and Agentivity*, (1985), 293-337.

¹³ Johnson, *The Meaning of the Body*, 137.

interaction of objects following physical laws such as the pull between a magnet and a penny.

There is something natural about relating music and art to physical movement and natural laws. A musical phrase can be described as flying, limping, stiff, mechanical, or stagnant.¹⁴ These descriptions connote vitality (or lack of) and give music a body.

Perhaps we use metaphors of embodiment for music, speaking about music as if it were a living being, because these metaphors connect music as an abstract form to our physical experience. For example, metaphors such as "being carried away" or "moved by" music refer to music as a divine force. Johnson suggests that these metaphors stem from physical, pre-lingual human experience based on the fact that all infants and toddlers are carried, fed, and cleaned by others who are bigger and seemingly more "divine."

Although the particulars of this care are unique, these actions form the basis of "dynamic, recurring patterns of organism-environment interaction"¹⁵ or an image schema of divine movement. Embodied cognition philosophy proposes that this universal physical experience generates the seeds for shared meaning. The experience of physically being carried exists first. What this means as a continually evolving thing is defined and redefined by the many times we are carried, the way it feels, what it provides, who is carrying, the qualitative aspects of this action, how our culture defines this action, and how this continues to change over a lifetime.¹⁶

¹⁴ I am speaking specifically about music, but these metaphors may be applied to any artistic discipline. Johnson demonstrates this by using examples from different disciplines in *The Meaning of the Body*.

¹⁵ Johnson, *The Meaning of the Body*, 136.

¹⁶ I love imagining that when I have been deeply moved by music, I can also, in that feeling, unconsciously remember my parents — their hands, the character of their walk, or their smell.

Universal physical experience can also include our understanding of the surrounding natural world. The experience of gravity on our own bodies and on other objects is known through a continual exploration of gravity through the process of living. Elements such as water, air, and fire are known first through our physical experience of their natural properties or percept: weight, sound, smell, sight, movement, influence on our being, and interaction with other things. This physical experience and exploration of the natural world provides a foundation for shared knowledge, that is continually evolving and adapting, as I will show later through my analysis.

Contemporary studies of physical adaptation in cognitive neuroscience support the fundamental importance of perceptual experience. The symbiotic relationship between one's environment, perception, and development are referred to as organism-environment interaction. This term emphasizes the adaptive capacity of our biological makeup where the brain and body develop, grow, and change from infancy through adulthood.¹⁷ As Johnson proposes, we "grow into a meaningful world by learning how to 'take measure' of our ongoing, flowing, continuous experience. We grow into the ability to experience meaning, and we grow into shared, interpersonal meanings and experiences."¹⁸ Growth in one's mental capacities and perceptive abilities restructures our physical being. Contemporary research in brain plasticity (neuroplasticity) supports these ideas. "Neuroplasticity is the lifelong ability of the brain to reorganize neural

When I carry my daughter, I wonder what faint traces of these moments will be present when she feels "moved by" a piece of music. What happens when being carried is not a pleasant memory, but one filled with distrust, fear, and unfulfilled need? I wonder how this would color one's experience of divine movement and how one would relate to this metaphor.

¹⁷ Johnson, *The Meaning of the Body*, 121-134.

¹⁸ *Ibid.*, 35.

pathways based on new experiences."¹⁹ The formation of neural maps and the continued rewriting of these maps prove that a being's perception of the environment literally constructs how things are connected in the brain.²⁰ **What we perceive matters.** What we know and what things mean is continually adapting to reflect one's physical, perceptive experience. In a very direct way, biological connections in the brain confirm or redefine what we know. Performance, as a physical experience, is therefore part of the experience that helps to shape our neural mappings and thus create or redefine meaning.

Part II: Engagement and Participation

Contemporary scientific research radically alters traditional concepts of audience participation. New research suggests that participation and perception have a surprisingly intimate relationship. If, as suggested by embodied cognition philosophy, meaning is created from sensorimotor perception and living experience, then an investigation into exactly how we become physically engaged and how our perception is activated is useful to understanding how meaning is made and how works of art can support the creation and reinvigoration of meaning.

Research in neurobiology has found that, physiologically, "perception and action share common neuronal event codes."²¹ In other words, **acting and perceiving are biologically merged.** Research shows that when experiencing a work of art, we actively

¹⁹ From <http://faculty.washington.edu/chudler/plast.html> accessed on October 9th, 2012

²⁰ Johnson, *The Meaning of the Body*, 126-130.

²¹ Marc Leman, *Embodied Music Cognition and Mediation Technology*, (Cambridge, MA: The MIT Press, 2007) 87.

create an internal model of that work. As Marc Leman describes in his book *Embodied Music Cognition and Mediation Technology*, "perception can be seen as the creation of a motor image of the world that is based on sensory information. The world is seen from the viewpoint of intentional actions."²² This parallels philosopher and psychologist Eugene T. Gendlin's discussion of *felt sense*.

A felt sense is not a mental experience but a physical one. *Physical*. A bodily awareness of a situation or person or event. An internal aura that encompasses everything you feel and know about the given subject at a given time – encompasses it and communicates it to you all at once rather than by detail.²³

We can compare Gendlin's "internal aura" to an actor's understanding of a character's motivation. An actor must mimic the description of the character, but beneath this must be an understanding of the whole of the character, their past, future, desires and aversions. The idea that we do not know things by detail, but rather as intentional whole beings suggests that, for example, we do not relate to music as objective details of musical content such as pitch, tone, dynamic, etc., but rather, we experience a work more like a being with specific motivations. Forms of personification such as metaphors, image schemas, and force dynamics help us explore the broad and complex space of an artistic world. We come to understand the artistic character or world through our internal model, where we can audition what we imagine to be a piece's intended action or personality traits. Similar to the toddler's game of fitting shapes into their coordinating holes — a triangle into a triangle slot, a circle into a circle slot — one makes predictions about a

²² Leman, *Embodied Music Cognition and Mediation Technology*, 87.

²³ Eugene T. Gendlin, *Focusing* (New York: Bantam Books, 1978), 32.

musical work's intention. The success or failure of one's predictions comparing our internal model with the real art form reinforces or redesigns our inner model.²⁴

In constructing an internal model, we become participating, co-creators of the work, performing an "embodied resynthesis."²⁵ Chemical changes within the body provide concrete signs of active participation. For example, mirror neurons give "direct evidence for the existence of a common neural structure for action and perception."²⁶ In research with monkeys, Rizzolatti et al. (2002) found that mirror neurons "activate when the monkey observes another individual (the experimenter or another monkey) making a goal-directed action,"²⁷ these mirror neurons mimic similar neurons discharged during the monkey's own physical articulation of a similar goal-directed action. "Mirror neurons do not code a simple parameter of movement such as force or movement direction; rather, they encode the intended action of an agent toward an object."²⁸ Mirror neurons "encode the connections between intended trajectories of the inner space and associated intended trajectories of the outer space (Gallese and Goldman, 1998. Iacoboni et al., 2005)."²⁹ In other words, a particular action in our inner model and the same action in the external world interact with the brain in the same way.

²⁴ Perhaps this is why people like to experience an artwork over and over. Familiarity allows us to become experts at predicting what will happen and also allows one to become more attentive to detail.

²⁵ Leman, *Embodied Music Cognition and Mediation Technology*, 88.

²⁶ *Ibid.*, 90.

²⁷ *Ibid.*, 249.

²⁸ *Ibid.*, 90.

²⁹ *Ibid.*, 91.

Contemporary behavioral studies suggest that when we experience something, we immediately begin constructing our internal model.³⁰ Our ability to anticipate, or what Wilson and Knoblich (2005) call "predictive behavior,"³¹ signals an understanding, curiosity, and attention to a work's intended action. Here physical engagement, sensorimotor perception, predictive behavior, and embodied resynthesis or internal model construction are woven together, creating a symbiotic system of learning and engagement. This system illustrates how interaction with the environment provides perceptual physical experience that is fundamental to our continual re-evaluation of intention, meaning, and the creation of internal models that map our experience.

So, if perception and action are entwined and we create inner models based on our understanding of a work's intention, how we understand intention is crucial. To flip this, how a composer or artist communicates intention and the structural laws of a work is critical to the audience's engagement. I propose that one of the ways we understand intention is through the body. The physical experience of living provides the knowledge necessary to hypothesize about artistic intention; image schemas, metaphors, and natural physical laws help to communicate and understand this meaning.

³⁰ As another example, contemporary behavioral studies with infants finds there is "evidence that the coupling of observation and executed movements is innate. Newborn infants spontaneously imitate actions they have never seen before by overt behavior." A newborn can immediately imitate unknown actions, such as making the shape of an "ooo" with its mouth. Newborns are able to translate action from visually seeing another perform the task to physically performing the task them selves. This ability to imitate at birth suggests a link between perception and action that is inherent to being human. Leman, *Embodied Music Cognition and Mediation Technology*, 90.

³¹ *Ibid.*, 159.

Part III: Physical Engagement in *The Tristan Project*

The Music

Using Mark Johnson's proposal that image schemas can provide a link between perceived experience and the construction of meaning, I will explore how *The Tristan Project* compositionally supports the creation of meaning through physical engagement. In Isolde's final aria, themes of water and gravity are used to conjure physical memory. Through a textual and musical analysis of this aria, I will examine how these elements are carefully composed to promote physical engagement and speak directly to the body.

Isolde's Final Aria - Libretto

How softly and gently he smiles, how sweetly his eyes open - can you see, my friends, do you not see it? How he glows ever brighter, raising himself high amidst the stars? Do you not see it? How his heart swells with courage, gushing full and majestic in his breast? How in tender bliss sweet breath gently wafts from his lips - Friends! Look! Do you not feel and see it? Do I alone hear this melody so wondrously and gently sounding from within him, in bliss lamenting, all-expressing, gently reconciling, piercing me, soaring aloft, its sweet echoes resounding about me? Are they gentle aerial waves ringing out clearly, surging around me? Are they billows of blissful fragrance? As they seethe and roar about me, shall I breathe, shall I give ear? Shall I drink of them, plunge beneath them? Breathe my life away in sweet scents? In the heaving swell, in the resounding echoes, in the universal stream of the world-breath - to drown, to founder - unconscious - utmost rapture!³²

In this aria, the text explicitly awakens all of our senses. Isolde asks us to see, shouting, "Look!" She asks us to smell the "blissful fragrance" and "sweet scents." We

³² Richard Wagner, *Tristan Und Isolde* with Nina Stemme, Placido Domingo, and the Orchestra of the Royal House conducted by Antonio Pappano, EMI Classics 2005, CD and booklet.

are told to listen, to "give ear" and notice the "resounding echoes," "aerial waves resounding," and "his melody." The libretto engages our sense of taste with the word "drink" and asks us to "feel" the "sweet breath from his lips." In this way, the text initiates a full body experience, and through Isolde's invitation we are asked to empathize and physically share her perceptual experience.

Isolde's calls to her friends, "can you see, my friends, do you not see it...Friends! Look! Do you not feel and see it?" are inclusive. Wagner invites the audience into the realm of action. Isolde calls not only to Brangäne and King Marke who stand nearby, but also to us, the audience. In her moment of absolute loss, when she is completely broken and humble, she asks the audience to join her and invites us into her experience. "Do I alone hear this melody so wondrously and gently sounding from within him?" No. The audience hears it too. Like Isolde, we are "pierced" by Tristan's melody: with this word, the oboe that has been lightly doubling the voice descends a step and breaks through the texture with a crescendo. Simultaneously, the bubbling texture of the harp drops out and all strings but the first violins unify with half note chords. In this moment, the music is distilled and preparing for the first climax, as if contracting into a crouch. The text, woven with sexual undertones, suggests that there is a transgression through skin; we are being bodily invaded, and physically changed.³³

In Isolde's final aria, the music gives a sonic body to the two main metaphors presented in the text, water and gravity. Merging these themes, we can think of the

³³ I am interested in language like "piercing" that connotes breaking through the barrier of the body. I think there is a connection between this choice of language and Gendlin's research into the physical engagement necessary to recover from a dramatic event.

overall zeitgeist of the aria as a rising wave of water. The rising wave is literally presented in the text, visualized through the video (as I will discuss later), and animated through the music. The text works in tandem with the music and the video, helping the compositional details communicate a physical, comprehensible whole. Wagner's creation of musical water brings one's body into a physical relationship with the sound where the musical mimicking of water's density, movement, look, and power engages our physical, perceptive experience and knowledge of water's unique properties.

Tristan Und Isolde m. 1621-1624: Isolde's Final Aria

Isolde *pp* P4th m2nd
 M3rd
 How softly and gently he smiles how sweet-ly his eyes op - en.
 Mild und lei - se Wie er lä - chelt, wie das Au - ge hold er öff - net.

Clarinet *pp* Bass Clarinet Clarinet

Trombone closed to open

Figure 1³⁴

Water is presented visually through melodic contour. The aria's opening motive outlines the form of a double crested rising wave: the ascending perfect fourth descends a minor second resolving to the third. The second half of the phrase continues to descend another minor second only to climb again by two consecutive major seconds, where it either sustains, or descends heavily a perfect fourth (figure 1). Through this first melodic

³⁴ Score excerpts and measure numberings are derived from Richard Wagner, *Tristan Und Isolde*, ed. Isolde Vetter and Egon Voss (London: Edition Eulenberg, 2001).

The rising wave theme is reinforced structurally when the original motive is reiterated, transposed by rising minor thirds five times, with one final transposition up a perfect fourth, within the first seven measures of the aria. The repetition and transposition of this motive suggests that it is a recurring sign or archetype where each iteration of the motive is unique but the repeated shape suggests, like waves, that together, they are a kind of universal grouping. Looking at figure 2, one can see that the series of transpositions also creates a wave-like structure. This series of rising transpositions, combined with the shortening of time between new iterations, mimics the form of a wave. Then, falling in measure 1628, the pitch material dissolves through the descending fully diminished seventh chord, overlapping incomplete versions of the original motive, dissipating like a wave, with a comparatively quick descent. Although we may not mindfully attend to the structural depictions of a wave, these forms are part of the musical material and physically present, as sonic bodies, with the listener.³⁷

A wave is a forceful element. It not only rises and falls, but it envelops, pushes, and pulls across space. Water moves in all directions in a blurred and contagious way. There are eddies and swirls; motions overlap and intermingle; and changes in direction

³⁷ To differing degrees, we recognize rising and falling pitch; repetition of motives and melodies; dynamic crescendos or decrescendos; when things are together, in canon or homophonic relationship, or not together; and the shortening or lengthening of rhythmic periods through motive length or by interruption. The depth of a listener's ability to notice musical relationship, form, and change is dependent on training and attention. Still, studies have shown that even people with no musical training perceive the sonic attributes listed above. Roger Shepard, "Cognitive Psychology and Music" in *Music, Cognition, and Computerized Sound* (Cambridge: The MIT Press, 1999), 21-36.

are lumbering and confused.³⁸ The listener perceives this movement of water through the imperfect alignment of the motive sung by Isolde and the doubling of that line by the clarinet. In the first two measures, the vocal line is broken with a rest, and the transposed repetition of the motive is rhythmically displaced by an eighth note from the form iterated by the clarinet. In both phrases, Isolde falls from the highest note down a perfect fourth while the clarinet sustains (figure 1). These small moments of difference create a relationship between the vocal and instrumental lines that mimics the plurality of water. These musical details speak directly to the body's experience of immersion in water and a fundamental knowledge of the movement of a liquid.

Wagner not only compositionally creates the rising waves, but also, like a film director, creates moments of perspective where we experience Isolde's relationship to the waves through her eyes, as a first person perspective. If we think of the music as film, the aria begins with a distant shot of Isolde floating on the water. Between measures 1621-1664, the vocal line is at times iterating the main melody and at other times, supporting this melody through more static pedal tones. As we see in figure 1, although not perfectly synchronized, the lines move together, like a buoy rocking on the water or rather Isolde calmly floating in the musical waves. At measure 1664, the first mention of "aerial waves," the relationship between voice and instruments becomes more adverse. The orchestral waves are interrupted by the vocal waves, as if two oceans meet. Isolde is no longer just bobbing along, but is actively interjecting her own agency on the water. This creates the first climax, where the vocal interjections create an asymmetrical rhythmic

³⁸ Water implies a collective or mass. For example, an individual doesn't move like water, but a group of people may move like water.

gasp, as if she reaches her high notes only when her head is above water. In this moment, the camera gets closer, we see the details of the waves, feel the power of the water, and see up-close, Isolde's struggle to stay afloat (figure 3).

Tristan Und Isolde m. 1664-1666: Isolde's Final Aria

The musical score consists of five staves. The top staff is the vocal line for Isolde, with German lyrics: "Hel - ler schal - tend, mich um - wal - lend, sind es" and English lyrics: "Are - they gen - tile aer-i - al - waves - - - 3 - lend, ring - ing". The second staff is Violin, the third is Oboe 1, and the fourth and fifth are Harp. The Harp part is written in two staves (treble and bass clef). Dynamic markings *f* and *p* are used throughout. Accents and slurs are present in the vocal and instrumental lines.

Figure 3

* Denotes the climax notes of each individual line (notice that they are uncoordinated)

In measure 1667, the perspective shifts. The crashing waves are no longer illustrated. Instead, Wagner prioritizes communicating the *feel* of the water from Isolde's perspective within the swelling waves. Where previously, we saw the large arching waves depicted in the contour of instrumental lines, now the vocal and orchestral lines move by meandering steps, ever rising, and with a strong sense of pull and force. Here the text refers to the water as "surging." The vocal line retains its urgency in the leaps and falls that begin, end, and interrupt her phrases, accentuating the cadence of the text,

augmenting the wave-like character of the spoken word so that her voice ducks in and out of the orchestral texture. We feel Isolde's immersion in the water through the force and movement of the water surrounding her. Here, the text "seethe[s] and roar[s]" and Isolde asks, "shall I plunge beneath [the aerial waves]?" Starting in measure 1678, the voice and orchestra come together in a heterophonic alignment and at measure 1681, Isolde merges with and is submerged in the water. She becomes one with the water and suddenly everything slows: the waves that were swirling and rising, slow as if there has been a fundamental shift in our alignment to the moon.

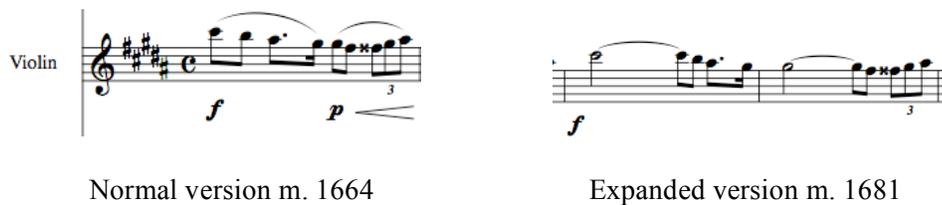


Figure 4

We recognize in the musical material, the familiar motive from the previous climax, now stretching two full beats longer, seeming to hang endlessly at the mention of the "universal stream of the world-breath" (figure 4). This augmentation of rhythmic content implies an expanse of time that is either truly happening or perceived. It is in this moment, that I wonder if one's body imagines the time augmentation as a byproduct of our own chemical and biological change — the music has not changed, instead our perception has shifted. Speaking the body's language, this shift in time perception can be understood as a neurological response to trauma. Perhaps the body is triggered into a sympathetic moment of trauma because it imagines the rhythmic augmentation as a

symptom of its own response to fear. Distortion of time and spatial perception as a response to trauma has been confirmed in research of those suffering from Post-Traumatic Stress Disorder. These findings suggest that in times of stress and fear the brain loses functionality in the cerebellum, causing unreliable perception of time and space.³⁹ The slowed, time-elased video that accompanies this aria has already suggested the presence of traumatic perception, and the music now confirms it. This convergence of sight, sound, and sympathetic feeling affect the audience at a deep sensory level: we breathe more slowly, we see details more clearly, we feel the lifting of time, the expanse of the universal, and the wide openness of death. It is glorious.

Specifically, I believe that this rhythmic expansion (figure 4) communicates directly to our body knowledge. The temporal stretching, as I suggest later with the video, communicates a moment of extreme danger and heightens the body's perception to detail. A rush of adrenaline creates a shift in time perception, as well as a physical readiness to listen (through all senses) and respond. We feel this as *our* moment of danger. Our empathetic response to the music, text, drama, and video provokes an experience of drowning and merges us with the "universal stream of the world-breath" in empathy with Isolde. It is not only our ability to feel empathy, but also the artistic work's ability to speak our body's language, and through physical means, help our body relate to the material as its own experience. Wagner has slowly and skillfully lured us into the water, so that, by measure 1681, we are seeing through Isolde's eyes, feeling her submersion and drowning as our own, as well as her release and renewal.

³⁹ Eric Vermetten, Martin Justin Dorahy, David Spiegel, M.D., *Traumatic Dissociation: Neurobiology and Treatment* (American Psychiatric Publications, 2007) 184-185.

Water and wave are powerful symbols to help frame our empathy. Water as an image schema has been meaningful to all of us from the first moment of conception. It returns us to our first imprint of physical knowledge: of swimming in utero. This physical memory is housed in our body and inspires our early brain topography. The experience of swimming in utero exists for all of us before any conscious meanings or concepts about water and establishes a common experiential foundation for the water image schema. One might argue that no one remembers this pre-birth experience, but there is scientific evidence that these early pre-lingual experiences are essential to our first connections within the brain topography. These neural maps are written over as our life experience demands different kinds of neural connections, but the early mappings influence later connections in subtle and indirect ways.⁴⁰ Colored by the particularities of our individual experience, physical acts such as bathing, baptism, swimming, and sailing reconnect us to our original, pre-lingual experience of water.

We also understand water and wave through our own internal biological processes. We are familiar with the properties of a wave through our own blood flow: feeling the cycles of the pulse, hearing the pumping blood, seeing the throbbing vein during a migraine, and feeling the waves of sexual orgasm.⁴¹ This sensory experience is part of what makes Wagner's musical ocean meaningful. Innate human experience of wave and water establishes a shared metaphoric relationship between ocean and life (blood flow/in utero/conception), ocean and love (orgasm), as well as ocean and death (in

⁴⁰ Johnson, *The Meaning of the Body*, 127-130.

⁴¹ Sound waves are also a primary way that we understand cycles and sound.

utero as pre-life experience as comparable to post-life experience). Drawing on the depth and complexity of our life long, embodied, integral, "felt sense" understanding of ocean, Wagner uses this archetypal content to complement and support the narrative and emotional meaning presented through the *Tristan Und Isolde* story.

Compositional detail is what weaves and connects our embodied memory to the abstract metaphors of water and rising wave. Wagner creates an immersive physical experience of ocean through the precision of his compositional choices. The music feels right, because it accurately conjures the natural, physical properties of water, something that we universally know through experience. These details help the listener connect with the music as something physically familiar and knowable. The fact that the music as water is doing what it is supposed to do supports our physical acceptance, connection, and immersion with the material.

Physical Engagement in Peter Sellars' Staging and Bill Viola's Video

In the following section, I will discuss how Bill Viola's video and Peter Sellars' staging support physical engagement in *The Tristan Project*. Specifically, I will analyze how video content and staging support audience engagement through present, remembered, imagined, empathetic, and traumatic physical experience. Through this discussion, I hope to model a way of composing for multimedia that encourages physical engagement and participation.

Why Video? Why Viola?

The collaboration between a contemporary video artist, director, conductor and their interpretation of an opera written in 1857 begs many questions, two of them being, why add video and why should that video be made by Bill Viola? Looking at the second question first, Viola's video complements Wagner's opera for a number of reasons. First, Viola and Wagner share an artistic aim to create transformative work. *Tristan Und Isolde* models transformation through the narrative and musical material, providing Viola with a message he can reinforce through video. Many of Viola's solo works explore life process, transformation, and transitional states of being (such as the space between life and death or waking and sleeping).⁴² Viola has developed a specific language to express and explore moments of change. His work with time-elased video, archetypal prop elements, video actors, and various effects of texture and color give him a vocabulary that complements and expands Wagner's exploration of transformation. The fact that Viola has presented the video from this collaboration independently from the opera, in pieces titled *Fire Woman* and *Tristan's Ascension*, suggests that he sees the video for *The Tristan Project* as an integral part of his artistic path and larger body of work.

The medium of video is also an important choice. Because the production is unstaged, at first glance, the video seems to take the place of sets, scenery, costumes, and the usual flourish of elephants and dancers that can fill an opera stage. The time based properties of video and the potential for time disruption, augmentation, diminution, as

⁴² Works such as *The Sleepers* (1992) and *An Ocean Without a Shore* (2007) clearly express his interest in transitional states.

well as the host of possible special affects and stunts offers a new counterpoint to the musical material. Viola's presentation of ritualized routines, enacting the archetypal themes of the opera, adds nuance to the opera narrative. For example, the video begins with a man and woman approaching and then disrobing. The video is slowed to 1/10th its original speed. The slow pace of familiar, everyday actions suggests that the video is a process, almost a dance, that is task oriented rather than narrative. The slowing of time suggests ritual and provides the audience with new informative detail for a familiar activity. We see the well-known form of face washing like we have never seen it before; only video can do this. Viola's choice to present essentialized aspects of the opera's themes of preparation, life, and death creates a complex and layered reinforcement of the opera's theme of transformation. The choice to utilize the video at times as a slowed motion abstraction of thematic content validates the need for video and Bill Viola.

Present Physical Experience

Present physical engagement is defined as any inclusion of the audience in the sensorial reality of the piece. During present physical experience, the audience participant is physically included in the dramatic world. This is often accomplished by dismantling the boundary between participant and performer so that the two share the same space and physical reality. For example, this occurs in works that use public space as dramatic space: street theater and sound walks include the participant in the space of action. Similarly, the use of environmental or surround sound, shared sensory input such as weather (humidity, rain, heat), and physical proximity to the action (perspiration of an

actor, smell of a gun shot) support present physical engagement. What is most important in present physical engagement is that the participant does not distinguish their reality from that of the performer's. The participant and performer share an experience of the present that is not sympathy or empathy, but real, direct, unmediated perception of living.

In *The Tristan Project*, spatialization of sound supports present physical engagement. Used sparingly, director Peter Sellars places specific vocal and instrumental solos in the far right, left, and back balconies. This expansive spatialization creates an inclusive performance space where the audience is physically within the dramatic sphere of action and brings the participant into a shared experience with the performer. Spatialized musical moments define the performance space, including the audience, as a living space where the whole auditorium is the location of action and the audience members are participants in the narrative: for example, we are part of the crew aboard the ship *Tristan* and *Isolde* first sail on, later, we are in the forest where *Tristan* and *Isolde* meet in secret, and at the end, we are the friends that *Isolde* calls to in her final aria. The use of spatialized elements successfully defines a shared experience between performers and audience simulating a space that mimics our real perception of the world.⁴³ The use of spatialized sound sources helps to convince our body that we are within the space of action and our body should be listening.⁴⁴

⁴³ This is compared with the usual performance situation with a two-dimensional designation of the performer who is in the drama and the audience who voyeuristically observes the drama.

⁴⁴ Musical pioneer Pauline Oliveros has explored, in her research, the intricacies of listening and meditative practice establishing "Deep Listening." In this practice, listening is not limited to the ears, but is a full body experience. Our senses join efforts to support attention and focus so that cues of sight, smell, and sensation support our listening and are entwined with our ability to perceive what is happening around us and within us physically, psychologically, and emotionally.

Surround sound inspires an instinctive state of active listening, or full body listening, recalling days when we were hunting or being hunted and our listening was essential to survival. This type of listening is marked by attention to detail, sensitivity to direction and proximity, as well as other attributes of sound that alert us to danger or procuring a meal. Yet, full body listening also includes a psychic, emotional, and cultural awareness. Composer and theorist Pauline Oliveros defines the distinction between listening and hearing: "to hear is the physical means that enables perception. To listen is to give attention to what is perceived both acoustically and psychologically... sound pressure patterns assist hearing but cultural history and experience influence listening."⁴⁵ We cannot listen to everything. Instead, the brain filters incoming sonic information according to our collective and personal experiences. Because of these filters, some of what we hear becomes what we listen to, in that it is imbued with a cultural, psychological, and experiential content. The more we are physically engaged by what we see, taste, touch, hear, smell, and how we move,⁴⁶ the more these senses guide what we listen to and influence the psychological and emotional context of our experience. Our body is listening and specifically, our body's experience and knowledge is filtering through what we sense and distilling the massive amount of input into what we "listen" to.

⁴⁵ Pauline Oliveros. *Deep Listening: A Composer's Sound Practice* (New York: iUniverse, Inc., 2005), p. xxii-xxiii.

⁴⁶ This author proposes that movement is a sixth sense. Alain Berthoz translated by Giselle Weiss, *The Brain's Sense of Movement* (Cambridge, MA: Harvard University Press, 2000) 25.

Spatialization is one way *The Tristan Project* inspires full body listening and, in a reciprocal relationship, our full body listening supports psychological and emotional engagement. The more we are physically engaged, the more we listen, the more we engage psychologically and emotionally, the more we listen and so on, so that, through the duration of *The Tristan Project* (4.5 hours), we become ever more involved in a whole way; physically, emotionally, mentally, psychologically, we become integrally immersed (figure 5).⁴⁷

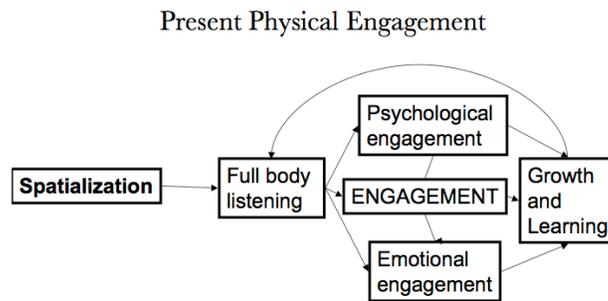


Figure 5

Physical Engagement Through Memory, Imagination, and Empathy

Immersion is also supported by engagement through memory and imagination. As research in mirror neurons and participation suggests, we are physically involved even

⁴⁷ The performer can model full body, inclusive listening, initiating a space where we are both listening and being listened to. As Oliveros describes, "My performances as an improvising composer are especially informed by my Deep Listening practice. I do practice what I preach. When I arrive on stage, I am listening and expanding to the whole of the space/time continuum of perceptible sound. I have no preconceived ideas. What I perceive as the continuum of sound and energy takes my attention and informs what I play." Pauline Oliveros, *Deep Listening* (New York: iUniverse, 2003) xix.

when witnessing or sensing another's actions. In the following section, I will examine how physical engagement through memory, imagination, and empathy support physical participation, a connection to one's body knowledge, and full, integral immersion.

Remembered Physical Engagement

Archetypal elements, presented in Bill Viola's video as well as the original narrative, inspire memory of physical sensation. Depictions of everyday rituals such as walking outside, washing one's face, lighting a candle, or taking care of another, convey common physical practices. The broadness of these scenes suggests a type of action that the audience can relate to through their own specific experience. For example, the actors disrobe and wash their faces, illustrating movements and expressions of archetypal activity. Viola's choice of male and female actors, their clothing, makeup, hair, and location in this opening section connotes the universal man and woman. Although both main actors are Caucasian, the loincloth they are wearing and the non-descript clothing of the attendants suggest another time and place that is not geographically defined or culturally specific.⁴⁸

⁴⁸ I am not sure if the use of Caucasian actors creates a feeling of exclusion or non-identity for participants of color. Western opera is already accused of being exclusive (ticket prices, accessibility of material, and geographic location) and reinforcing dominant cultural ideals, so that the discussion of "universal" is problematic. As a Caucasian female educated in elite institutions, living in New York City, I recognize that my experience is defined by the dominant culture as "universal" while excluding the experience of others. My hope is to reclaim universal or shared experience (be it a shared physical experience of a live performance, a shared human bodily function, or shared process such as sleeping or eating) as a structural element that remains inclusive because it may be filled with different personal associations, memories, emotional, psychological, and physical particularities.

Viola's choice to explicitly show face washing slowed to 1/10th its usual speed encourages the participant's physical engagement through memory. Similar to the way that spatialized sounds inspire full body listening, face washing triggers a complex, multimodal web of associations. The video depiction of face washing inspires one's personal memory of face washing as a repeated practice. This memory includes the feeling, sound, and look of water on one's face, the water dripping into a sink, the movement of one's hands, the bowing of the head, the memory of wetness, and the repetition of this act. Face washing is also laced with emotional content. Who does not remember an instance of face washing after an emotional moment? The video actor's body becomes a model or avatar for how we have felt, physically, emotionally, and psychologically, in our own body. We sympathetically participate through our memories in the actor's ritual of preparation — disrobing, washing, becoming naked — and step into the drama with them. Because our memories contain emotional, physical, and psychological aspects, our sympathy facilitates emotional and psychological engagement. We are preparing for transformation just like Isolde and Tristan through our embodied engagement.

The narrative also uses archetypal elements to support remembered physical engagement. As discussed in the musical analysis, water is a fundamental element throughout the work. The first act takes place on a boat and the opening melody alludes to a sea shanty. Water as a transformative and mercurial element complicates the video's depiction of water as cleansing and preparation. For example, the magical potion taken at sea is presented in the narrative simultaneously with the image of face washing in the

video. The magical potion marks a moment of change and serves as a metaphor for the unknowable question of why we fall in love. As we vicariously experience Viola's video, sympathetically feeling the water drip down our own face, we see with new eyes, just like we did when we first fell in love. Physical sympathy has led to emotional sympathy as we re-experience our own life journey through Tristan and Isolde's love story. The video facilitates the audience's ability to knit remembered physical experience with the opera narrative.

Imagined Physical Engagement

Perception of gravity is foregrounded in Viola's video during the second and third acts of the opera. We see the laws of gravity at work as the actor falls into a pool of water. Later, we see gravity questioned in the levitation of the actor's body amidst rising rain. Both of these actions are slowed to ten times their original speed, providing extreme detail. The slowed movement suggests our understanding of falling and levitation as it exists in our dreams or as we imagine it to be in space. Time elapsed rising and falling, as actions beyond our physical limitations, suggests mythic content. Simplistically, levitation implies the divine and our ability to rise above our limitations. Falling represents the essential struggle of mankind in our endless failure and imperfection. Yet, falling, as depicted in the video, is angelically graceful and a perfect release, while the levitation communicates a long tension and sustain. The inherent contest of meaning

depicted through the slow motion provides an opportunity for new meaning creation.⁴⁹ In these moments, we are asked to reinterpret our physical memory, negotiating our body knowledge with our imagined and dream definitions of gravity and the body. Perhaps this opens the door for our imagined and dream lives to become a part of the dialogue surrounding what was previously limited to physical, emotional, and psychological experience. Our imaginative and dream definitions of rising and falling are deeply influenced by our cultural definitions of these actions. There is a curious interplay between the real, imagined, and dreamed physical experience with the metaphoric meaning of these movements. Perhaps the imagined and dream-life enactments of rising and falling serve as a meeting point between reality and metaphor. If, as Mark Johnson proposes, metaphor must be continually reinvigorated through perceptual experience, the imaginary space provides a connection between the physical and metaphoric. The video is able to support this tenuous link, making possible what has previously been only imaginary. We physically empathize with the video actors, vicariously perceiving gravity through their experience (even if we are deceived in how "real" their experience is). In this way, new meaning created through the time elapsed presentation of the physical movements supports a moment of growth in our understanding of our imagined experience and the aligning metaphors.

⁴⁹ Nicholas Cook, *Analysing Musical Multimedia* (Oxford: Oxford University Press, 2004).

Physical Engagement through Traumatic Sympathy

Paralleling the musical use of rhythmic augmentation in Isolde's final aria, Viola uses time-slowed video to simulate an altered state similar to what some experience in traumatic moments. In the presentation of time stretched video, the viewer, through empathy, enters a state of heightened perception (i.e. trauma). The viewer is tricked into thinking and physically feeling that they are experiencing a traumatic moment. The body, in this heightened state is extremely sensitive and receptive. During the ultimate climax of Isolde's final aria (m. 1681), the visual and aural time stretching converge. At this moment where the video, music, and narrative combine to communicate trauma, the participant's body is testing the work, checking for consistent physical input, in hopes of creating a reliable inner model. With the time expansion of both sight and sound simultaneously, something that has not happened before, our body recognizes this moment as different, and perhaps, even, not the art, but our own traumatic perceptual shift. In this moment, when we are fully tricked, perhaps we are also flooded with memory (life flashing before one's eyes). We are not only present, we are absolutely open and in our most receptive state for transformation.

PART IV: Archetype Construction and Reinvigoration

Embodied cognition philosophy defines shared cultural concepts are meanings formed over time, through generations of shared embodied experience.⁵⁰ Johnson's image schemas are an example of this. Our collective understanding of being "carried away" by a beautiful musical line or "falling in love" are examples of shared cultural concepts. These ideas intertwine physical, imagined, emotional, and psychological aspects that are communally investigated and redefined through story, myth, language, theater, music, dance, and art. We test these concepts individually and collectively through our embodied experience, assessing and refiguring the exact meaning of these ideas.

Through art, the joining of archetypal performance content and our own personal experience transforms both bodies of knowledge; both are stretched by the presence of the other. The archetypal content in *The Tristan Project* finds a retelling through our own memories. These personal memories are inspired by the physical sympathy supported through the different media present in the performance. In this retelling, the material is vetted, compared with our real experience, and molded accordingly. The love of Tristan and Isolde becomes my first love as experience in 1994, and my second love in 2001, and my current love in 2012. All these experiences and memories swirl around each other, widening and complicating the passion displayed by the performers, the passion I have felt, and what I know love to be. Throughout the work, there is constant negotiation between my personal experience, manifested through my physical memory, and the story.

⁵⁰ Johnson, *The Meaning of the Body*, 147-52.

Not only am I creating a new understanding of my own experiences, but also these are placed within the context of a broader cultural spectrum. As Joseph Roach says in his introduction to *Cities of the Dead*, “the voices of the dead may speak freely now only through the bodies of the living.”⁵¹ Art rejuvenates cultural meaning so that our past stories, our myths, and our culture can continue to speak.

This rejuvenation or growth is transformation. As Bill Viola states so eloquently, “What is on the screen can become part of the life process, it can seep into your body and you can take these things and use them.”⁵² *The Tristan Project* facilitates the exploration of our shared experience of life and death on this earth; through physical engagement, *The Tristan Project* becomes a ritual of renewing shared archetypes. I left Avery Fisher Hall feeling that I had experienced the breadth of life, a tribute to the glorious and difficult path that is our time here. I had shared that glimpse of the fullness of life with everyone around me and listening deeply, could hear our stories all together.

⁵¹ Joseph Roach, *Cities of the Dead* (New York: Columbia University Press, 1996) xiii.

⁵² John Walsh ed. "Bill Viola: The Passions. J Paul Getty Trust 2003, Getty Publications, PMLA, J. Paul Getty Museum