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# Choreographic Space

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# CHOREOGRAPHIC SPACE

A thesis submitted in partial fulfillment of the requirements for the degree of  
Master of Fine Arts in Kinetic Imaging at Virginia Commonwealth University.

By

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## ABSTRACT

### CHOREOGRAPHIC SPACE

By Kelsey Sheaffer, MFA

A thesis submitted in partial fulfillment of the requirements for the degree of Masters of Fine Arts at Virginia Commonwealth University

Virginia Commonwealth University, 2016

Thesis Advisor: Stephen Vitiello, Professor, Graduate Program Director, Kinetic Imaging

This thesis, *Choreographic Space*, and accompanying exhibit is an arrangement of contemporary work being done in the cross-over between movement, drawing, sound and architecture. The thesis develops a lineage of choreographic thinking through a fissure in the classification of a dance as necessarily the body in motion. Through the link of the “choreographic object,” *Choreographic Space* asks how an interdisciplinary exploration of the principles of movement can reveal novel ways to think about the body in space.

## INTRODUCTION

American choreographer William Forsythe asks, “what else, besides the body, could physical thinking look like?” Within this question is a probe into the ontology of dance; a theoretical interrogation of creating with movement, without the necessity of a physical body occupying distinct space. This thesis will trace a history of the expanded definition of dance, which rests on the complex relationship between a body and its space, in a dance through time that connects the avant-garde art community of the 1960s, to Rudolf Laban’s system of dance notation, to performance drawings, to the resonance of the architectural body, to installation art of today. Ultimately, we will suggest that an art space can function as a choreographic space, in that a dance is formed in the relationship between space, object and viewer.

### I. PHYSICAL THINKING

In the 1953, while in residence at Black Mountain College, Merce Cunningham formed the Merce Cunningham Dance Company. Cunningham had been a soloist with Martha Graham’s company, but his personal work broke with the modernist master in a unique manner that “fused the flexible spine used in modern dance with the crisp footwork of classical ballet in technique that was precise and articulate”<sup>1</sup>. With his partner John Cage, Cunningham developed a remarkable symbiotic relationship between the experimental music and dance of the time, as well as with influential artists, including Robert Rauschenberg and Jasper Johns. For many Cage/Cunningham collaborative works, the dance and the music were created separately – sometimes only uniting for the first time on the night of the premiere performance. Cunningham

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<sup>1</sup> Banes, Sally. *Democracy’s Body: Judson Dance Theatre and its Legacy*. *Performing Arts Journal* 5.1 (1981), 102

and Cage both espoused the use of chance during the creation of their works, which for Cunningham “decentralized space and time and created unexpected, often witty combinations of body parts”<sup>2</sup>. Cunningham encouraged the philosophy that any and all movement was dance.

The next wave of avant-garde dance was manifested as the Judson Dance Theatre, which was a loosely organized collective that began in 1962 in New York City as a growth from American musician Robert Dunn’s choreography workshop. Dunn was an accompanist for Merce Cunningham Dance Company, and the participants in the workshop were dancers, visual artists, poets and musicians. Dunn’s class integrated multiple disciplines, ranging from philosophy to politics, into an experimental movement practice. The group presented their dances at Judson Memorial Church, a liberal Protestant congregation that had already played host to several Happenings, film screenings and gallery shows. Judson Dance Theatre only lasted from 1962 to 1964, and produced twenty dance concerts, sixteen of which were group presentations and four were individual works<sup>3</sup>. The first concert, presented on July 6, 1962, revealed a radical exploration of the form of dance through a trespassing of artistic boundaries. The choreographies in the first concert still depended on chance modes of creation that Cunningham had favored: the first live dance of the night was created by Ruth Emerson for five dancers, each of whom was given a score that “indicated walking patterns, focus, and tempo, and also cues for action based on other dancers’ actions.” The actions were not dramatic, but instead concerned the relationship between people, for example, directions to one dancer included “Take great care never to focus on [dancer] G or to direct your movement at her”<sup>4</sup>.

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<sup>2</sup> Banes, *Democracy’s Body*, 102

<sup>3</sup> Sally Banes, “The Birth of the Judson Dance Theatre: “A Concert of Dance” at Judson Church, July 6, 1962.” *Dance Chronicle* 5.2 (1982), 167

<sup>4</sup> *Ibid.*, 178

The artists who presented work at the Judson often worked collaboratively with each other and with musicians and designers as they questioned the basics of the ballet and modern dance traditions. The avant-garde of the 1950s, particularly Cunningham, had already begun the rupture, but the early post-modernists of the Judson Dance Theatre expanded the rift from previous dance styles with a thorough examination of each component of a “dance.” The artists, including Yvonne Rainer, Trisha Brown and Steve Paxton and affiliated choreographer Simone Forti, explored unconventional movements and simple sculptural constructions that were meant to be climbed, pushed, opened, rotated and otherwise activated during performances<sup>5</sup>. Many of the dancers embraced non-dancerly, or ‘pedestrian,’ movements in their choreographies and, following the teachings of Anna Halprin in San Francisco, developed a relationship with improvisation as an essential element of creation and performance.

The performances would often happen in the urban environment surrounding the Judson Church, including on the roofs and at street intersections, in an intense exploration of space and unconventional, non-proscenium settings. Perhaps the most fundamental idea that ran throughout the Judson artists was the idea that anything could be a dance if it was presented as a dance<sup>6</sup>. Many of the artists that were a part of Judson would continue to decenter traditional tenets of dance for decades after the collective had officially disbanded. Trisha Brown was one of the original Judson dancers who would go on to start her own dance company, which explored mark-making, gravity and pedestrian movements. One of Brown’s seminal works was first performed in 1970, *Man Walking Down the Side of a Building*, which had the performer descend the side of a building on climber's ropes, walking slowly at a 90 degree angle with the building, parallel to

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<sup>5</sup> Stephanie Rosenthal, *Move. Choreographing You: Art and Dance Since the 1960s*. (London: Hayward, 2011), 11.

<sup>6</sup> Banes, *Democracy’s Body*





Figure 1. *Trisha Brown. Man Walking Down the Side of a Building, 1970.* Photo ©Carol Goodden

the ground. This radical action decentered the performer and the space and continued the investigations of the Judson experiments - what exactly is a dance and where does it reside?

The expansion of the definition of a dance has been continued by contemporary choreographers/artists, most notably by William Forsythe, known for his work with Ballet Frankfurt in Germany (1984-2000) and the Forsythe Company (2005-2015). Forsythe breaks from the idea that choreography must “serve as the channel for the

desire to dance.” As he questions, “what else, besides the body, could physical thinking look like?” he is demanding a reevaluation of the assumption that dance or the body in motion is “relegated to the domain of raw sense: precognitive, illiterate”<sup>7</sup>. Forsythe developed the idea of a *choreographic object* as an “autonomous expression of [choreographic] principles, without the body,” or “a model of potential transition from one state to another in any space imaginable.” Forsythe gives the example of a musical score, which translates the ephemerality of sound into a graphic symbol. Read in reverse (from symbol to sound), the score prescribes an action. Inherent in this is a translation between action states, or between movement and stillness, but “a choreographic object is not a substitute for the body, but rather an alternative site for the understanding of potential investigation and organization of action to reside,” in other words, something that suggests or initiates a movement.

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<sup>7</sup> William Forsythe, “Choreographic Objects” <http://www.williamforsythe.de/essay.html>, par. 5



Figure 2. William Forsythe, *Nowhere and Everywhere at the Same Time, No. 3*, 2015

Forsythe has been exploring the idea of choreographic objects in his artistic practice for the past 20 years. In “Everywhere and Nowhere at the Same Time,” recreated in a variety of locations since 2013, an automated grid controls 400 (the first iteration included just 40) plumb bobs that hang from strings. The movement of the plumbs is programmed to create an unpredictable kinetic space. The visitors can move through the space but are instructed to avoid touching the plumb lines, which heightens their reflexes and induces an unconscious choreography. The idea of generating movement in spectators is a central component of Forsythe’s choreographic object ontology and is carried within other pieces, such as “The Fact of Matter,” in which visitors must climb through 200 gymnastic rings without touching the floor. Forsythe says that, “with choreography, the audience sits still and ideas are moved in front of them... In this case, the audience circulates among the ideas. The public must move or the work

doesn't speak"<sup>8</sup>. The core of the piece remains in the object as *choreographic*, and an understanding of how bodies are organized and propelled through space by their surrounding matter.

## II. CHOREO – GRAPHIC

It is notable that Forsythe uses the example of a musical score as a type of choreographic object, which allows for a dance beyond the “domain of the raw sense”<sup>9</sup>. The formation of a system of dance notation has been a point of ongoing scholarship, arguably beginning in the fifteenth century (though it is possible that it extends much further, for example, to the ancient Egyptians using hieroglyphs to record their dances)<sup>10</sup>. While music solidified its notation system in the eighteenth century, no singular system of dance notation has emerged – in no small part owing to the complexity of a body that moves in space as well as time and can sustain so many simultaneous actions. The importance of a notation system lies in its use as an archive. The recording of the ephemeral art form allows it to be described, discussed and disseminated. The need for notation has not diminished with the increasingly common use of video to record dances – notation serves the work itself, while video documents a particular performance.

While many systems of dance notation have been developed through the years, the primary method still in use to at least some extent today is Labanotation. Developed by choreographer Rudolf Laban in the 1920s, the system uses a vertical staff to represent the body and movement symbols that can be extended or elongated to indicate duration of the action they

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<sup>8</sup> Rosyln Sulcas. “William Forsythe, Keeping the Brain Engaged.” *New York Times* 16 Oct 2015, par. 8

<sup>9</sup> Forsythe, “Choreographic Objects,” par. 5

<sup>10</sup> Ann Hutchinson Guest, *Dance Notation: the process of recording movement on paper*, (New York: Dance Horizons, 1984), 1

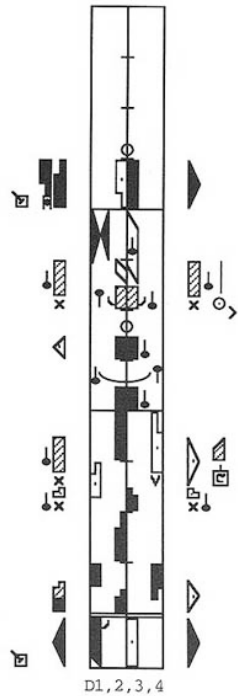


Figure 3. Example of Labanotation

represent. The most basic premise of Labanotation is the placement of symbols into columns that dictate which body part to move, while shape and shading of the symbol indicates direction (left/right/forward/back vs. high/low)<sup>11</sup>.

An eclectic range of experiences provided Laban with broad perspectives on spatial awareness. His interest in all types of movement – including non-dancerly or even non-human – resulted in a system that could be used for many types of movement, and indeed has been utilized in a range of settings from acting to factory efficiency. Perhaps the most striking element of Labanotation is its intense complexity. Movement is excessively difficult to describe in words, much less reproducible in discrete symbols.

Notators study for years to be able to translate movement into these notation systems, but it is not particularly fluid – the translation process is laborious and time-consuming.

Labanotation, as a combination of symbols that serve as a unique mode of communication, is a type of diagram. John Bender and Michael Marrinan, authors of *The Culture of Diagram*, see diagrams not as pictorial depictions but as abstract, analytical visual descriptions of a space, such that a diagram is a “proliferation of manifestly selective packets of dissimilar data correlated in an explicitly process-oriented array that has some of the attributes of a representation but is situated in the world like an object”<sup>12</sup>. Bender and Marrinan’s definition has remarkable similarities to Forsythe’s choreographic object, as an organization of the world that

<sup>11</sup> Hutchinson Guest, *Dance Notation*, 3

<sup>12</sup> John Bender and Michael Marrinan, *The Culture of the Diagram* (Stanford: Stanford UP, 2010), 7

removes the representation of the body. The choreographic object as diagram can be translated into other mediums, as well. Charles Olson's 1950 essay, *Projective Verse*, speaks of somatic poetry that diagrammatically reaches out, such that, "a poem is energy transferred from where the poet got it... by way of the poem itself to, all the way over to, the reader."<sup>13</sup> Olson, who was following Ezra Pound's challenge to poets to "compose in the sequence of the musical phrase," was interested in projective, active verse. Charles Olson's poems function as a diagram and also a choreographic object, by creating a lined, diagrammatic structure that is meant to compel a response or perception.

The choreographic diagram is also a helpful way of understanding the relationship between dance and drawing. For Benjamin Buchloh, author of the 2006 essay 'Hesse's Endgames: Faces the Diagram,' there is an opposition between drawing as desire and drawing as process. During the twentieth century, "one of the principle dialectical oppositions in the medium of drawing has been the authentic corporeal trace and the externally established matrix"<sup>14</sup>. For Buchloh, the diagrammatic drawing removes corporeality, and suggests "the disenchantment of the world and the total subjection of the body and its representation to legal and administrative control."<sup>15</sup> This language echoes Forsythe, who argues, "in the case that choreography and dance coincide, choreography often serves as a channel for the desire to dance."<sup>16</sup> In the same way that the choreographic object removes the body from the dance, the diagram removes the body from the drawing.

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<sup>13</sup> Charles Olson, *Projective Verse* (New York: Totem, 1959)

<sup>14</sup> Benjamin Buchloh, "Hesse's Endgame: Facing the Diagram," *Eva Hesse drawing* (New York: The Drawing Center, 2006), 117

<sup>15</sup> *Ibid.*, 118

<sup>16</sup> Forsythe, "Choreographic Objects," par. 4



Figure 4. Trisha Brown, *Untitled*, 1973



Figure 5. Trisha Brown, *Left hand drawn by right hand #1*, 1980

Dancers have long used diagrammatic drawings to attempt to understand the relationship between movement and document. A primary example exists in Trisha Brown’s drawings and choreography, which grew as concurrent practices. She began in 1973 to attempt to diagram words as gestures and gestures as words, trying to create a “corporeal vocabulary, an alphabet out of simple shapes and lines”<sup>17</sup>. On viewing the *Untitled* drawing from 1973 (fig. 4), one can imagine fluid limbs tracing in space the lines of Brown’s pencil. She said of her method that “Merce [Cunningham] worked with chance; I worked with structure,” which is an apt

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<sup>17</sup> Elee, Peter. “If You Couldn’t See Me: The Drawings of Trisha Brown.” In *On Performativity*, edited by Elizabeth Carpenter. Vol. 1 of *Living Collections Catalogue*. Minneapolis: Walker Art Center, 2014. <http://walkerart.org/collections/publications/performativity/drawings-of-trisha-brown>. Originally published in Peter Elee, ed., *Trisha Brown: So That the Audience Does Not Know Whether I Have Stopped Dancing* (Minneapolis: Walker Art Center, 2008), par. 4

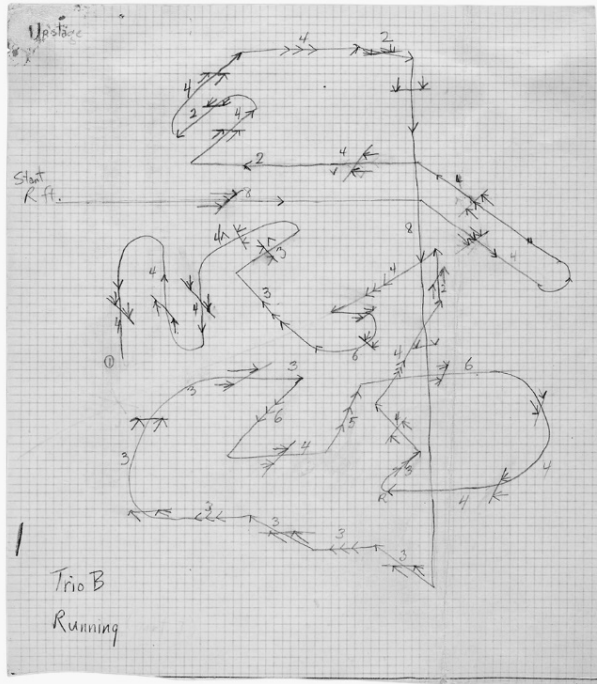


Figure 6. Yvonne Rainer, sketch for the first part of *Trio B*, c. 1968

explanation of the relationship between her drawings and dances.<sup>18</sup> Brown continued various experiments in performative drawing and scores – creating drawings that showed the furthest reaches of the body or that mapped paragraphs of text by their placement of letters, both of which created a type of diagrammatic code that perhaps was decipherable by movement – yet another choreographic object, but this time in the form of a drawing. Brown sought to understand her own body as an object of representation, as seen in *Left hand drawn by right hand #1* (fig. 5), in 1980, in which the body is both the drawing and the drawn. Other dancers created drawn scores for dances around the same time as Brown, including Yvonne Rainer as early as 1968. However, while Rainer drew the performance space of the dance in two-dimensional plane view (fig. 6), Brown often tried to draw in three-dimensions - speaking again to her attempts to decentralize and subvert our usual notions of space, within both dance and drawing. In these art works, Brown continues the Judson legacy of questioning what a dance can be.

<sup>18</sup> *Ibid.*, par. 4

### III. EMPTY SPACE

Dance notation is an important role in the medium of dance as a way of understanding the way a body moves through space. The complex relationship of a body and the space that it occupies has been a source of study for many artists, dancers, architects and philosophers. Rudolf Laban describes the space of the body as the *kinesphere*, which he defines “the sphere around the body whose periphery can be reached by easily extended limbs without stepping away from that place which is the point of support,”<sup>19</sup> which takes the



Figure 7. Rudolf Laban dancer inside a structure representing the kinesphere in the form of an icosahedron

shape of an icosahedron (a 20-sided Platonic solid) (fig. 7). For William Forsythe, who studied Labanotation, there is not a singular kinesphere, or a 1:1 relationship between the kinesphere and the body, but that each movement has its own kinesphere. For architect/philosopher partners Madeline Gins and Arakawa, the *architectural body* is a unit of measurement, meaning the body and its immediate surroundings – a concept that is revealed in other architectural theory, as in Le Corbusier’s *Modulor*, which was a scale of proportions based on the measurements of a six-foot-tall man and the Golden Ratio that was used to determine proportions in architecture.<sup>20</sup>

For dancer Jose Gil, the dancer and their space become one through an intimate breakdown of inside and outside space. Gil states that, “the *space of the body* is the skin

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<sup>19</sup> Rudolf von Laban, *The Language of Movement: A Guidebook to Choreutics*, (Boston: Plays, Inc. 1974), 10

<sup>20</sup> Michael Ostwald, “Le Corbusier (Charles Edouard Jeanneret), *The Modulor and Modulor 2* - 2 volumes. Basel: Birkhäuser, 2000.: Reviewed by Michael J. Ostwald,” *Nexus Network Journal*, 3.1(2001), 145



extending itself into space; it is skin becoming space – thus, the extreme proximity between things and the body”<sup>21</sup>. This is close to Merleau-Ponty’s claim that the body is not ‘in’ space but ‘of’ space<sup>22</sup>. An illustration of this phenomenon is within the medium of sound. Sound actively works upon our bodies, with conscious and unconscious descriptions of the space around us that physically enter the body through vibrational sound waves. Sound, then, is the space becoming skin.

The history of sound art is built upon an understanding of the way that every day sounds of our immediate space interact with our psyche, arguably beginning with *musique concrète*. Originated by Pierre Schaeffer in France in the 1940s, *musique concrète*, which was “recorded electronic music that could contain any and all sounds,” inherently included an investigation into the spatiality of sound<sup>23</sup>. By using abstract sounds from the real world as raw material for music, Schaeffer revealed the elasticity of sound beyond musical tones and questioned the ways that sound informs our incessant perception of time and space. However, in this progenitor of contemporary sound art, Schaeffer was not simply creating a montage but instead structuring the sounds rhythmically. Schaeffer organized and shaped the sounds of our environment in a way that revealed the overlapping disciplines of architecture, sound and movement. These mediums all have in common an interest in the organization of spaces and an ability to act upon our perceptual analysis of a space. John Cage called composers the organizers of sound, and William Forsythe, following Cage, termed choreographers the organizers of bodies, though I believe it could be argued that architects, sound artists and choreographers are all organizers of bodies.

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<sup>21</sup> Jose Gil, “Paradoxical Body,” *Planes of Composition*. Ed. Andre Lepecki and Jenn Joy. (New York: Seagull, 2009), 86

<sup>22</sup> Maurice Merleau-Ponty, *Phenomenology of Perception* (New York: Routledge, 1962)

<sup>23</sup> Thom Holmes, *Electronic and Experimental Music: Pioneers in Technology and Composition* (New York: Routledge, 2002), 86

Sound in particular has the advantage of being non-hierarchical but omnipresent, giving it, as a medium, the potential to form new, non-visual relationships between bodies and buildings in its organization of space. Cage, in *4'33"*, demonstrated the openness of sound to its environment, and the ways in which we 'see' the spaces within sound. At a lecture in 1957, Cage stated<sup>24</sup>:

For in this new music nothing takes place but sounds: those that are notated and those that are not. Those that are not notated appear in the written music as silence, opening the doors of the music to the sounds that happen to be in the environment. This openness exists in the fields of modern sculpture and architecture. The glass houses of Mies van der Rohe reflect their environment...and while looking at the constructions in wire of the sculptor Richard Lippold, it is inevitable that one will see other things, and people too, if they happen to be there at the same time, through the network of wires. There is no such thing as empty space or an empty time. There is always something to see, something to hear. In fact, try as we may to make silence, we cannot.

This provides a specific link between sound and architecture, in the organization of the open spaces of both disciplines. Dance also relies on the openness of space – the moving body creates space, it does not merely occupy it. The effect is explored in Fred Sandback's yarn drawings, which in some ways resemble Lippold's wire drawings. Sandback precisely anchored thin lines of yarn into angled shapes, creating a link between the material space and a sculptural object. He explained that the space between the lines was an essential component of the work, in that "my manipulated material is simply a small part of that, proportionally. There are big 'empty' spaces in



Figure 5. Fred Sandback, *Untitled (Sculptural Study, Two-Part Construction)*, 1974-2013

<sup>24</sup> Branden Joseph, "John Cage and the Architecture of Silence," *October* 81 (1997), 85-87

between the lines. They're no less real or material than the lines themselves."<sup>25</sup> The viewers experience an investigation into absence and presence, in the delineation of empty space that becomes a solid form.

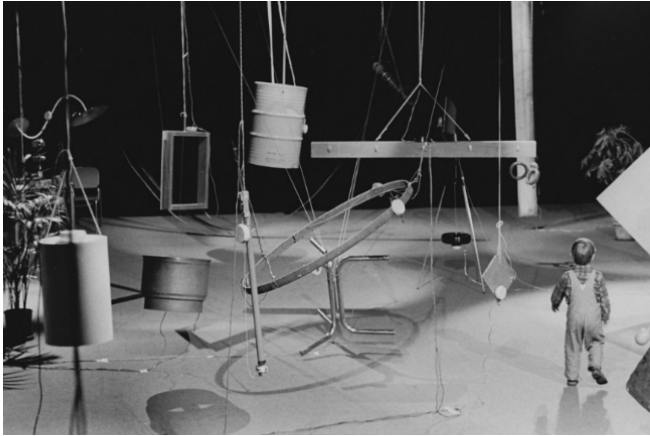


Figure 6. David Tudor, *Rainforest IV*, 1976

The phenomenon takes another form in the multiple iterations of David Tudor's *Rainforest* series, in which familiar objects become speakers via transducers or contact microphones, which amplify each object's inherent resonances. *Rainforest* was initially realized as a sound piece to accompany a Merce

Cunningham dance piece. The first version of

*Rainforest* amplified the sounds of small objects on a tabletop. Subsequent versions became much larger, and the audience/viewers move through the space as the performers juggle the sounds between the objects, creating an open, performative spatiality shaped by the physicality of object and sound. The later versions of *Rainforest* could also be considered a type of choreographic object, in which the audience meanders through the space, investigating and following the resonant sounds of the hanging objects, which are controlled by the performers. This type of choreographic object could also be called a choreographic space, in that an entire environment is created that is meant to provoke movement.

Essential to *Rainforest* is the inherent resonance of each structure, which the artists would identify and enhance during the performances. As David Tudor explained,<sup>26</sup>

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<sup>25</sup> Edward Vazquez, "Fred Sandback's Perspectives." *Artjournal*. 71.3 (2012): 99

The idea is that, if you send sound through materials, the resonant nodes of the materials are released... and those have a different kind of sound than the object does when you listen to it very close where it's hanging. It becomes like a reflection and it makes, I thought, quite a harmonious and beautiful atmosphere, because wherever you move in the room, you have reminiscences of something you have heard at some other point in the space.

Resonance is an important factor in determining the personality of a space and an object – as Tudor put it, it reveals a reflection of the space. Everything that composes a physical structure is constantly in motion – vibrating – and different structures will shake at different frequencies as a result of their physical dimensions and material properties. Each of these elements is subtly revealed sonically in a space's resonance.<sup>27</sup> As such, a perfectly quiet space is impossible. As American sound artist and writer Brandon LaBelle explains, “Sound dramatically participates in lending definition to spaces by adding acoustical contour, shaping the movement of voices, inflecting the boundaries of inside and out with audible presence...: *sound is a kind of scaffolding affording the modification of the built.*”<sup>28</sup>

Our bodies constantly respond to this resonance, or the specific sounds of a building, in an ever-evolving interaction with our environment. For Portuguese sound scholar Claudia Martinho, “sound's intervals, dynamics and temporalities open up possibilities to engage with relational space, through vibrational space, creating situation where the usual relation between building, the context and the bodies is changed in order to reengage new relationships.”<sup>29</sup> One example of this dynamic relationship is revealed with Alvin Lucier's *Vespers*, originally

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<sup>26</sup> “Rainforest. David Tudor. Composers Inside Electronics.” Broadway 1602 Gallery. Artist Brochure (2015): 8

<sup>27</sup> Michael Gendreau, “Concerted Structures,” in *Site of Sound: of Architecture and the Ear Vol 2.*, ed. Brandon LaBelle and Claudia Martinho (Berlin: Errant Bodies, 2011), 34

<sup>28</sup> Brandon LaBelle, “Room Tone,” in *Site of Sound: of Architecture and the Ear Vol 2.*, ed. Brandon LaBelle and Claudia Martinho (Berlin: Errant Bodies, 2011), 245

<sup>29</sup> Claudia Martinho, “Relational Architecture Through Listening,” in *Site of Sound: of Architecture and the Ear Vol 2.*, ed. Brandon LaBelle and Claudia Martinho (Berlin: Errant Bodies, 2011), xi

presented in 1969. Lucier has maintained an artistic practice centered on an investigation of sound and space, and *Vespers* was a seminal early work. *Vespers*, which is still performed intermittently today, is a piece for four blindfolded performers holding Sondols (*Sonar-dolphin* echolocation devices), which create a series of high-intensity clicks at a variable repetition rate. The piece, which was created after Lucier developed an interest in echolocation, asked the performers to navigate the space using the Sondols. According to Nicolas Collins, who performed the piece as an undergraduate at Wesleyan University in 1972, he found that as the piece progressed “the echoes coalesced into a richly detailed, ever changing, immersive cloud that hung in the air – a stippled sonic portrait of the architecture in which we stood.”<sup>30</sup>

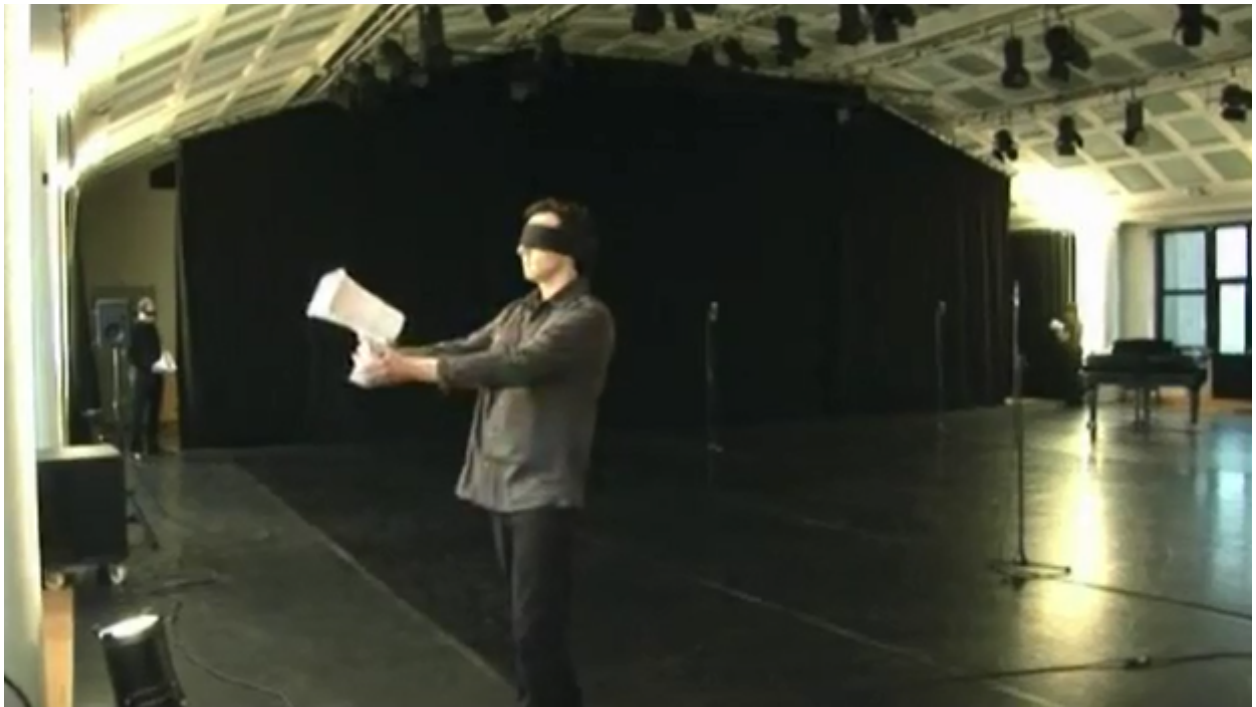


Figure 7. Alvin Lucier, *Vespers*, performed 2010

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<sup>30</sup> Nicolas Collins, “Epiphanies: Alvin Lucier’s *Vespers*,” *The Wire*, (February 2010)

*Vespers* served a breakthrough for Lucier in the presentation of sound in a space. In his notes for a recording of the work, composer Robert Ashley notes,<sup>31</sup>

In *Vespers*, the musical experience comes from the special “meaning” that the sounds give to the space in which they are performed. This “meaning” of space is something we have not been invited to appreciate before. Also in the equation, and equally important, the sound, as what we have come to the concert to hear, do not have any musical meaning apart from their relationship to the space. In *Vespers* the music is not heard even in imagination except in the performance.

*Vespers* serves as an illustration of Martinho’s appeal for sound to invigorate new relationships between the body and a space, via sound – and as another example of a choreographic object. This connection between the body, mind and surroundings is of significant importance to architects/philosopher partners Madeline Gins and Arakawa. Gins and Arakawa developed a theory and a practice of removing habituation from the body’s interaction with architecture. The “architectural body” derives from how “human beings are born into architecture and are from then on conditioned by it,” and that the space of the body (the body and its immediate architecture) is defined by its actions.<sup>32</sup> For Gins and Arakawa, “every bodily motion within an architectural surround elicits a particular constellation of configurations. Changing one or two aspects of an architectural surround – pitch of terrain or general orientation – has the effect of drastically altering a few of a constellation’s configurations while leaving the majority of them in place.”<sup>33</sup> This relates back to the dynamic interaction between body and space suggested by Martinho and Gendreau, but can be expanded within the overlapping fields of movement, sound and space. For Martinho, sound’s omnipresence allows its constant assault on the perception of the body, but Gins and Arakawa rely on altering space in ways that ask us to

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<sup>31</sup> Robert Ashley, “*Vespers and Other Early Works*,” Liner notes. *Alvin Lucier* (New World Records, 2002)

<sup>32</sup> Shusaku Arakawa, *Reversible Destiny: Arakawa/Gins*, (New York: Guggenheim Museum Publications, 1997), 169, 12

<sup>33</sup> *Ibid.*, 12

question our habituation. These de-habituation effects can be explored within an art practice to transform a viewer's experience in an art space.

Ultimately, the space of the body, whether it is architectural, auditory, or movement, is *active*. The moving body is constantly creating space, it does not passively occupy emptiness. The power of the choreographic object is in harnessing this activation. By drawing new connections between the body and its space, objects and sound can initiate a dance with the environment.

#### IV. VIEWING / DANCING

To expand on the idea of choreographic spaces, or the type of choreographic objects that utilizes an entire setting, we look to the field of installation art, particularly those that incorporate elements of both visual art and dance. Some artists create an environment that asks viewers to put aside their normal movements and adopt an embodied investigation of the space. The space that this works in has an infinite number of possible paths through it, and objects that interrupt the viewer's personal space. In walking, hesitating and playing in the space, the viewers become an essential element of the installation and the catalyst for the artwork.

Most, if not all, of the art spaces that invite dancerly participation fall under the umbrella of 'installation art.' The term *installation art*, as enumerated in Claire Bishop's *Installation Art: A Critical History* (2005), refers to a site-specific exhibition in which the viewer physically enters into an art space and the objective components are considered synchronically, such that the whole is more than the sum of its parts. Conversely, in a classic *installation of art*, the individual art works are considered separately from their outfit and the elements of the space are

secondary (Bishop 6).<sup>34</sup> Notably, installation arts speak directly to the experience of the viewer, empowering them as an essential element of the installation. According to Bishop, installation art relies on an embodied spectator, who is *activated* (through engagement with) and *decentered* (through a denial of a singular viewpoint) by the space.<sup>35</sup> Installation art of today has diverse origins, ranging from Marcel Duchamp's seminal 1942 installation Mile-of-String to performance art and Happenings in the 1950s to architecture and cinema, and most importantly for our examination, Minimalist sculpture of the 1960s.<sup>36</sup>

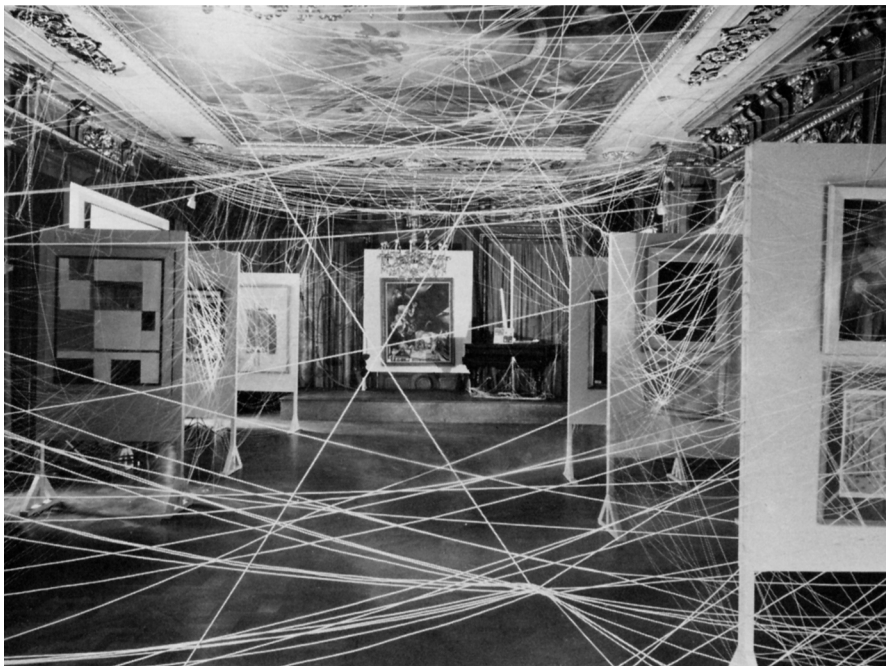


Figure 8. Marcel Duchamp, *Miles of String*, 1942

Significantly, Minimal sculptors, such as prominent artists Robert Morris and Richard Serra, were influenced by Maurice Merleau-Ponty's *Phenomenology of Perception*, which was first published in 1945 but not translated to English until 1962.<sup>37</sup> Phenomenology enabled the theorization of the artists as they sought to understand the viewer's heightened bodily experience

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<sup>34</sup> Claire Bishop, *Installation Art: A Critical History*, (New York: Routledge, 2005), 6

<sup>35</sup> *Ibid.*, 11

<sup>36</sup> *Ibid.*, 8

<sup>37</sup> *Ibid.*, 50



of their art. A central theme of Merleau-Ponty's phenomenology is a critique of Cartesian dualism, which separates mind and body, and he instead presents a nuanced vision that promotes the body as the essential site of perception.<sup>38</sup> As he puts it, "by thus remaking contact with the body and with the world, we shall also rediscover ourselves, since, perceiving as we do with our body, the body is a natural self and, as it were, the subject of perception."<sup>39</sup> The body is constantly responding to or communicating with the world, or as he says, "the things of the world are not simply neutral *objects* which stand before us for our contemplation. Each one of them symbolizes or recalls a particular way of behaving, provoking in us reactions which are either favourable or unfavourable" [emphasis in the original].<sup>40</sup> For the Minimalist sculptors, this new philosophy illuminated the novel aesthetic experience that they intended, as their work confronted the viewers' awareness and perception of the space.<sup>41</sup>

The Minimalist sculptors were also heavily influenced by the Judson Dance Theatre (see



Figure 10. Robert Morris, *Bodyspacemotionthings*, 1971

section I). Robert Morris, who was married to Simone Forti and created the wooden constructions for her choreographies, in his own practice crafted simple, inert geometric sculptures that are, in his own words, "more environmental than object-like" which necessitated "physically moving over, in, around, rather than detached viewing."<sup>42</sup> Morris created an installation for the Duveen Galleries (what is now Tate

<sup>38</sup> Dermot Moran, *Introduction to Phenomenology*, (London: Routledge, 2000), 404

<sup>39</sup> Merleau-Ponty, *Phenomenology of Perception*, 206

<sup>40</sup> *Ibid.*, 48

<sup>41</sup> Bishop, *Installation Art*, 53

<sup>42</sup> Rosenthal, *Move. Choreographing You*, 13

Britain) in London in 1971 that was composed of a variety of his simple structures that had to be traversed directly with the viewer's bodies, including ropes, tunnels and see-saws (fig. 10). This was an essential deviation and development from Forti's original constructions, which were intended for theatrical performances, and is one of the first examples of an artist leading the viewer into a dancerly engagement with the artwork.

According to Morris,<sup>43</sup>

From the body relating to the spaces of the Tate via my alterations of the architectural elements of passages and surfaces to the body relating to its own conditions [...] the progression is from the manipulation of objects, to constructions which adjust to the body's presence, to situations where people can become more aware of themselves and their own experience.

Thus, the visitors to Morris' environments (he resisted calling them installations at the time) were expected to do far more than spectate – they were expected to experience the world directly with their bodies. This tactility directly relates to childhood kinesthetic learning – children learn the capabilities and limits of their bodies through encountering new things to explore in movement.<sup>44</sup> For the adults that confronted Morris' foreign objects, this childhood kinesthetic learning was triggered as they suspended their normal movements and participated in the choreographed space. The key to the engagement lies specifically in the way that the viewer is asked to become an embodied *mover*, and to respond to the artwork in a way beyond their common interactions with objects.

To use the terminology of phenomenologist Edmund Husserl, the visitors to Morris' exhibition are called upon to 'bracket' their natural movements. Husserl, who had a profound influence on Merleau-Ponty, believed that conscious experiences were "deeply distorted by the

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<sup>43</sup> Ibid., 14

<sup>44</sup> Maxine Sheets-Johnstone, "Bodily Resonance," *Moving Imagination*. (Philadelphia: Johns Benjamins, 2013), 21

manner of our engagement with experience in ordinary life” and that it was impossible to purely examine experiences.<sup>45</sup> Husserl thought that someone could bypass this bias if they adopted a viewpoint that utilized a “*suspension or bracketing*”<sup>46</sup> by putting aside their “scientific, philosophical, cultural, and everyday assumptions.”<sup>47</sup> Thus, an art visitor that brackets their movements, effectively pausing their routine actions, is able to interact with the space as embodied movers who understand the space and the artwork in a heightened experience. This embodied experience is the same practice that dancers slip into when they dance.

By calling a viewer in Morris’ exhibition a dancer, we are seeking to reconstitute and expand the role of the viewer, which has implications for the artist and for the viewer, in the expectations of themselves. A dancer has a primal awareness of the space of their own body and is particularly engaged with their surroundings, which results in an active discourse between the body and the proximate things. All of this happens with the activation of an awareness of the body’s movements – a practice that is similar to the process of dance improvisation that is, spontaneously creating movement. Philosopher and dancer Maxine Sheets-Johnstone describes her experience of improvisation as such:<sup>48</sup>

To say that in improvising, I am in the process of creating the dance itself out of the possibilities which are mine at any moment of the dance, is to say that I am exploring the world in movement; that is, at the same time that I am moving, I am taking into account the world as it exists for me here and now. As one might wonder about the world in words, I am wondering the world directly, in movement; I am actively exploring its possibilities and what I perceive in the course of that wondering or exploration is enfolded in the very process of moving.

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<sup>45</sup> Moran, *Introduction to Phenomenology*, 11

<sup>46</sup> *Ibid.*, 2

<sup>47</sup> *Ibid.*, 11

<sup>48</sup> Sheets-Johnstone quoted in Erin Manning, “Wondering the World Directly – Or, How Movement Outruns the Subject,” *Body & Society* (2014), 165

For Sheets-Johnstone, the movement is actualizing the experience – in the same way that Morris’ dancers catalyze the space through the experience of moving. The process could also be considered in Martin Heidegger’s terms of *world*, which is the “paths of the simple and essential decisions in the destiny of a historical people” and *earth*, which is the natural realm that is “self-secluding” and “sheltering.”<sup>49</sup> For Heidegger, art balances the earth and world as it works in “setting up the world and setting forth the earth.” In an installation that invites dancerly interaction, the dancing-viewer, along with the artwork, creates the bridge between the realms of earth and world, as she links the disparate objects and organizes them through the key of movement. Thus, through *bracketing*, the viewer puts aside her everyday movements and enacts a heightened, embodied dance through the installation space, which catalyzes the artwork and the space.

The questions that remain then, if we have concluded that it is possible for a viewer to be transformed into a dancer, are which artworks provoke the viewer to become a dancer and how does it happen? There is a complex relationship between the artistic design of the space and the viewer’s engagement with it. The implication in the idea of *bracketing* is that the movement of the art space is different from the normal movement necessitated by walking down a street or climbing the stairs. In Morris’ Tate exhibition, the artist functioned as choreographer and invited the viewers’ participation in the space that he had composed. In this way, he proffers the ability to ‘bracket’ the viewer’s normal movements. The goal of the artist, then, if they wish to catalyze the viewer into a dancer, is to set up a situation in which the viewer brackets their natural movements and assumes the responsibility of the embodied dancer, in order to have a heightened bodily experience of the art space.

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<sup>49</sup> Martin Heidegger, “The Origin of the Work of Art,” in *The Bloomsbury Anthology of Aesthetics* ed. Joseph J Tanke and Colin McQuillan (New York: Bloomsbury, 2012), 388

While Robert Morris thought of the visitors to the Tate Gallery show as dancers, it is not necessary for the artist to be cognizant of the viewer's capacity to be transformed. Artists since Morris have used some of his techniques, as well as others, to initiate the dancerly transformation. Clearly not all installations rely on a dancing viewer, but those installations that do have unifying factors: 1) ability for the viewer to navigate their own path through the space (as opposed to a specific path dictated by the artist) and 2) proximity of the objects to the paths of the installation such that they impose on the viewer's personal space.

For the viewer to function as a dancer in the space, the most important (and obvious) component is their movement through the space. The suggestion to move is supported by an installation that removes any particular, designated viewing point for the installation. Exhibitions



Figure 11. Samara Golden, *A Fall of Corners*. Canada Gallery, 2015

that rely on stagnant viewing points, for example Samara Golden's 2015 installation, *A Fall of Corners*, at Canada Gallery in New York City (fig. 11), do not allow for the dancing-viewer to improvise in the space. Samara Golden transformed the gallery into a mesmerizing dream-space that writer Seph Rodney said was "a stage waiting to be animated by actors." The installation seemed to displace the laws of gravity through kaleidoscopic planes and mirror tricks as ballrooms and hotel lobby furniture climbed the walls and ceiling, but it "does not describe spaces meant to be inhabited." The viewer traveled through the space on a catwalk, which "places the viewer in a privileged vantage at the pivot point" but the view is of a domain "I almost, but not quite enter."<sup>50</sup> The installation, while fascinating, did not compel the embodied movement necessary in a dancerly installation - instead, the spectator was a voyeur into a kaleidoscopic world but never really integrated into the space, and their presence was not necessary to active it.

In contrast, installations that eliminate finite, specified viewpoints, the embodied viewer can become a dancing body and is compelled to move through the space in an improvised dance. In Sarah Sze's 2015 untitled installation at Tanya Bonakdar Gallery in New York City (fig. 12), the sculptural installation wrapped together "both minutely controlled and improvised arrangements of everyday things" into a complex landscape composed of mostly "materials and tools for hands-on creative endeavors from art-making to carpentry, to design, construction, and even home improvement and gardening."<sup>51</sup> Constructions seeped through the entire gallery space (including into hallways and storage space) as paint and pigment littered the floor plane, while

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<sup>50</sup> Seph Rodney, "The Eerie Abandoned Dreams of Samara Golden," *Hyperallergic*, 23 Oct. 2015, par. 4

<sup>51</sup> Arthur Ivan Bravo, "Sarah Sze," *this is tomorrow*, 4 Dec. 2015, pars. 1-2

threads and fabric crisscrossed through the air, compelling the viewer to step lightly through the space for worry of displacing a single thread that would send the entire construction to the floor.



Figure 12. Sarah Sze, *Untitled*. Tanya Bonakdar Gallery, 2015

A hesitation is necessitated by the negotiation of objects in space – especially art objects, which are considered particularly precious. The dance happens also in this hesitation, in the juggling of native movements and our rational desire for caution. Sze said during the installation process that “the pieces are telling me what to do” and the same is true of the viewer’s interaction with the installation.<sup>52</sup> Friedrich Schiller’s play impulse comes to the forefront in the light of this hesitation. For Schiller, there are two opposing forces in human nature: the sensuous impulse, which incorporates “the physical existence of Man” and the formal impulse, which is

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<sup>52</sup> Robin Pogrebin, “Sarah Sze Aims for Randomness in Installing Her Gallery Show,” *The New York Times*, 23 Aug. 2015, par. 5

Man's "rational nature" and that can "bring harmony" and also "gives laws."<sup>53</sup> The two forces are "not by nature mutually opposed" and thus the "play impulse," combines the sensuous nature and formal nature and "will set man free both physically and morally."<sup>54</sup> The artist invites the viewer's play drive in an embodied way in the navigation of the installation, as the rational force grapples with the sensuous materiality of the sculptural objects.



Figure 13. Bruce Nauman, *Green Light Corridor*. Guggenheim Museum Bilbao, 2000

The location of the objects in close proximity to the body's possible pathways is essential within the act of hesitation and navigation. Objects that impede on the sanctity of our kinesphere compel a change in movement quality and direction. Bruce Nauman's *Green Light Corridor*, from 1971 (fig. 13), is a "narrow, free-standing hallway bathed in a lime glow." The corridor was "passable, but not comfortable," as it sharply imposed on their kinesphere and limited the type of movements that were possible within it.<sup>55</sup> Nauman embraced the amount of control he employed as the artist, as he said: "someone else can be a

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<sup>53</sup> Friedrich Schiller, "On the Aesthetic Education of Man," in *The Bloomsbury Anthology of Aesthetics*, ed. Joseph J Tanke and Colin McQuillan. (New York: Bloomsbury, 2012), 292-93.

<sup>54</sup> *Ibid.*, 294-96

<sup>55</sup> Leah Ollman, "'Ellusive Signs: Bruce Nauman Works With Light' at Museum of Contemporary Art San Diego," *Los Angeles Times*. 10 June 2008. par. 11



performer, but he can only do what I want him to do. I mistrust audience participation.”<sup>56</sup>

Nauman provokes specific movement reactions to his constructions, in a similar manner to the way Sze controls her installation, which propel the viewer to bracket their normal movements and adopt a playful negotiation of space.



Figure 14. La Ribot, *Walk the Chair*. Hayward Gallery, 2010

Nauman and Sze suggest specific movements through their objective configuration, but another possibility is to transform a viewer into a dancer through explicit instruction to assume non-everyday actions. In La Ribot’s 2010 installation *Walk the Chair* at Hayward Gallery in London (fig. 14), “the title of the piece is an explicit instruction to the public,” as the artist instructed the viewers to physically walk and investigate 50 folding wooden chairs.<sup>57</sup> As they

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<sup>56</sup> Carter Ratcliffe et. All, *The Magic of Light*. (Yonkers, NY: Hudson River Museum, 2002), 7

<sup>57</sup> Rosenthal, *Move. Choreographing You*, 119

interpret the score and animate the chairs, La Ribot says that the audience “creates the piece” and that the piece “will be different from one day to the next, from one place to the next.”<sup>58</sup> Walking forms the basis for the interaction, as it does for Nauman’s *Corridor*, but the viewers are given much more freedom in their interpretation of the work’s instructions.

As we have examined the embodied viewer, and the elements of the installation that provoke their transition into a dancer (the navigation of a unique path through space and a close proximity to the objects of the installation) it seems finally important to understand the most basic action required in the navigation of the space - walking. While walking is a common, everyday action, in the investigation of an installation, the act is required to become more embodied and intentional. Walking was the foundation of the movement languages of many of the dancers in the Judson Dance Theatre and Nauman’s relationship to these studies can be seen in his studio films from the late 1960s, such as *Walking in an Exaggerated Manner around the Perimeter of a Square* (1967-8), and then thrust onto the viewer in *Green Light Corridor*. Steve Paxton in particular of the Judson dancers was fascinated with walking – he said that he worked on walking and standing from 1962 to 1967, that “it took those five years to be able to say something that simple.”<sup>59</sup> Notably, Paxton is the founder of Contact Improvisation, which is a widely used method of exploring multiple bodies in space through improvised dance. As walking was foundational for the dancers at Judson, it is similarly important as a method for building knowledge in installation art.

Similarly, walking as an experiential practice, rife with the possibility for novel discovery, is employed by a number of artists. Teresita Fernández, who creates large-scale sculptures, refers to her audience as “ambulatory viewers,” who perceive the work through their

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<sup>58</sup> Ibid., 119

<sup>59</sup> Gia Kourlas, “New Spaces for the Revolution,” *New York Times*. 21 Dec. 2012

moving bodies.<sup>60</sup> Lygia Clark, a Brazilian artist who created objects that were meant to be held and manipulated, says, “while walking, I lose authorship. I incorporate this act as a concept of existence. I dissolve into the collective. I lose my own image and my father. And everyone becomes the same.”<sup>61</sup> What she seems to be saying is that, in the act of walking, Heidegger’s concept of *world* (that web of human connections) melts into the *earth* (the natural realm). If, as Heidegger says, an artwork is capable of the act of “setting up a world and setting forth the earth,” then Clark is suggesting that the act of walking can propel the same instigation of strife between earth and world.<sup>62</sup> In an installation like Sarah Sze’s, the artist is making a world for the dancer’s body to know through walking. The body is not just an element in the space – their movement through the space is a catalyzing component for the art, and indeed an element of the art itself.

A peripatetic experience is essential to many sculptural installations, but the act of walking alone does not provoke the viewer into becoming a dancer. The artist composer of the space invites the viewer to bracket aside their natural movements and adopt charged movements of dancers. These embodied movements respond to objects that enter into their kinesphere – either through scores, that instruct particular actions, or through installations that ask the dancer to twist carefully and hesitantly through space. The pathways are necessarily undefined in a dancerly installation – the resulting free and improvised dance through the space provokes a particular sense of perception that allows the world of the installation to come to light. These movements – walking, responding, perceiving – are the catalyst for the transition of a viewer into a dancer in an art space.

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<sup>60</sup> Hilary Stunda, “New Ways of Seeing: A Conversation with Teresita Fernandez,” *Sculpture* 32.9 (2013)

<sup>61</sup> *O Mundo de Lygia Clark*. Dir. Eduardo Clark. 1972. Online film.

<sup>62</sup> Heidegger, “The Origin of the Work of Art,” 388

## CONCLUSION

For William Forsythe, choreography “elicits action upon action,” and a choreographic object “is not a substitute for the body, but rather an alternative site for the understanding of potential instigation and organization of action to reside.”<sup>63</sup> This thesis has developed a lineage of choreographic thinking through a fissure in the classification of a dance as necessarily the body in motion. A choreographic object is revealed in Alvin Lucier’s sound pieces, Fred Sandback’s yarn sculptures, Charles Olson’s somatic poetry and Sarah Sze’s installations. The choreographic object is not relegated to a single medium but allows movement to become an essential component of any art and design that employs choreographic thinking. A body is constantly responding to and communicating with the world and to be aware of the ways that objects and spaces propel that interaction is to be thinking with choreographic mindfulness.

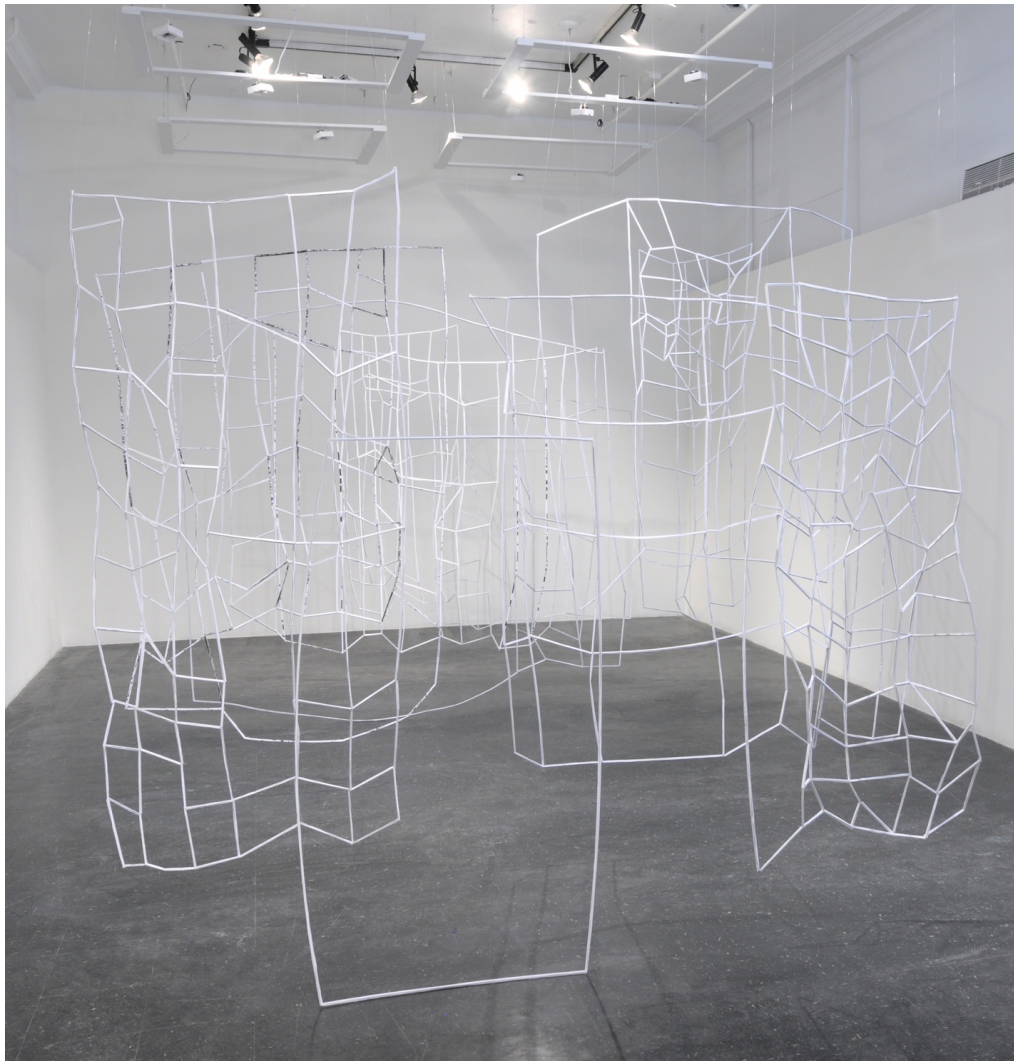
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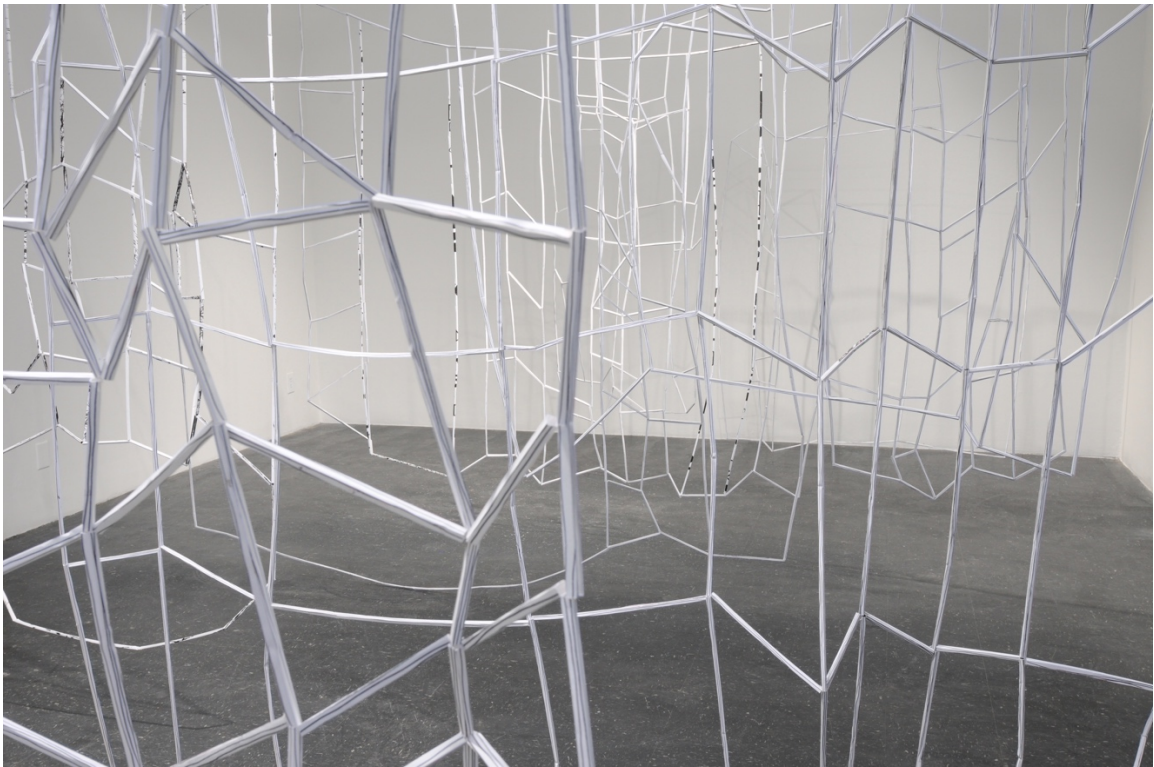
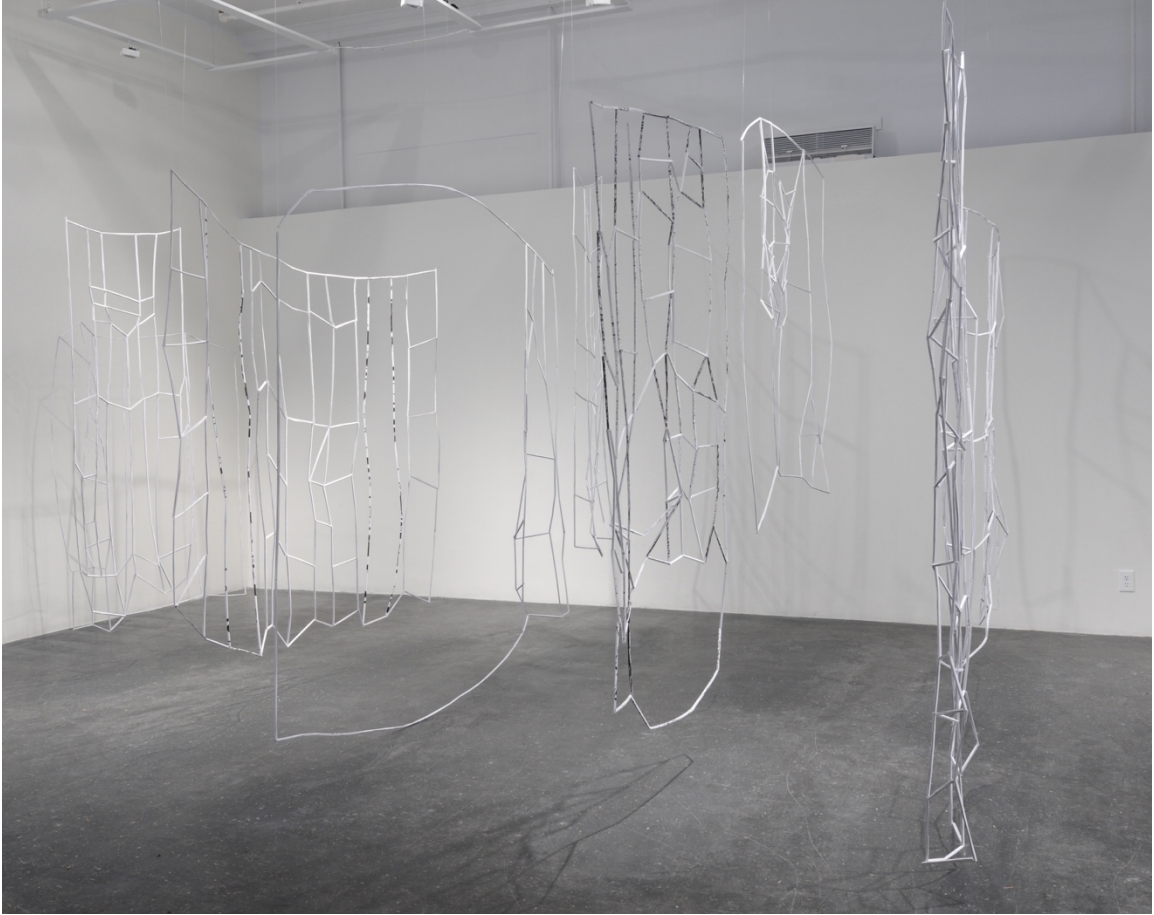
<sup>63</sup> Forsythe, “Choreographic Objects,” par. 3 / 10

## Appendix A: Documentation of Thesis Exhibition

Kelsey Sheaffer, *Choreographic Space*, Anderson Gallery, Richmond, VA

The thesis exhibition, on view April 29 through May 15, 2016 at the Anderson Gallery in Richmond, VA, is an iteration of an ongoing project that explores many of the themes revealed in this paper. This particular manifestation creates a choreographic space for the viewer that engages movement, drawing and sound. The space consists of drawings created from ink on folded paper – the traditional medium of written language and dance notation. The diagrammatic drawings are translations of corporal movements and architectural floorplans. The viewers can see through and walk through the drawings, which employ an openness that refers back to John Cage's remarks on silence and emptiness, and necessitate careful bodily negotiation of the space. Each of the 12 drawings was treated as a score and translated into 12 sound pieces, which provides a sonic translation of the visual space through a multi-channel speaker configuration.





## REFERENCES

Arakawa, Shusaku. *Reversible Destiny : Arakawa/Gins*. New York: Guggenheim Museum Publications, 1997.

Ashley, Robert. "Vespers and Other Early Works." Liner notes. *Alvin Lucier*. New World Records, 2002. [http://www.newworldrecords.org/liner\\_notes/80604.pdf](http://www.newworldrecords.org/liner_notes/80604.pdf)

Banes, Sally. *Democracy's Body: Judson Dance Theatre and its Legacy*. *Performing Arts Journal*, 1981, Vol 5(1) p98-107

Banes, Sally. "The Birth of the Judson Dance Theatre: "A Concert of Dance" at Judson Church, July 6, 1962." *Dance Chronicle*, 1982, Vol 5(2) p.167-212

Bender, John B., and Michael Marrinan. *The Culture of Diagram*. Stanford, CA: Stanford UP, 2010.

Bishop, Claire. *Installation Art: A Critical History*. New York: Routledge, 2005.

Bravo, Arthur Ivan. "Sarah Sze." *this is tomorrow*. 2 October 2015: n. pag. Web. 4 Dec. 2015.

Buchloh, Benjamin H.D. "Hesse's endgame: facing the diagram." *Eva Hesse drawing*. Ed. Catherine de Zegher. New York: The Drawing Center, 2006.

*O mundo de Lygia Clark*. Dir. Eduardo Clark. 1973. Online film.

Collins, Nicolas. "Epiphanies: Alvin Lucier's Vespers." *The Wire*, February 2010. <http://www.nicolascollins.com/texts/epiphanieswire.pdf>

Eleey, Peter. "If You Couldn't See Me: The Drawings of Trisha Brown." In *On Performativity*, edited by Elizabeth Carpenter. Vol. 1 of *Living Collections Catalogue*. Minneapolis: Walker Art Center, 2014. <http://walkerart.org/collections/publications/performativity/drawings-of-trisha-brown>. Originally published in Peter Eleey, ed., *Trisha Brown: So That the Audience Does Not Know Whether I Have Stopped Dancing* (Minneapolis: Walker Art Center, 2008).

Forsythe, William. "Choreographic Objects." <http://www.williamforsythe.de/essay.html>

Gendreau, Michael. "Concerted Structures." *Site of Sound: Of Architecture and the Ear*. Vol. 2. Berlin: Errant Bodies, 2011. 33-42.

Gil, Jose. "Paradoxical Body." *Planes of Composition*. Ed. André Lepecki and Jenn Joy. New York: Seagull, 2009.

Heidegger, Martin. "The Origin of the Work of Art." in *The Bloomsbury Anthology of Aesthetics*, ed. Joseph J Tanke and Colin McQuillan. New York: Bloomsbury, 2012.

- Holmes, Thom. *Electronic and Experimental Music: Pioneers in Technology and Composition*. New York: Routledge, 2002.
- Horne, Stephen. *Caught in the Act: The Viewer as Performer*. Ottawa: National Gallery of Canada, 2008.
- Hutchinson Guest, Ann. *Dance Notation: the process of recording movement on paper*. New York: Dance Horizons, 1984.
- Joy, Jenn. *The Choreographic*. Cambridge: MIT, 2014.
- Joseph, Branden W. "John Cage and the Architecture of Silence." *October* 81 (1997): 80-104. Web.
- Kourlas, Gia. "New Spaces for the Revolution." *New York Times* 21 Dec. 2012, Dance sec. Web. 4 Nov. 2015.
- Laban, Rudolf von. *The Language of Movement: A Guidebook to Choreutics*. Boston: Plays, Inc., 1974.
- LaBelle, Brandon. "Room Tone." *Site of Sound: Of Architecture and the Ear*. Vol. 2. Berlin: Errant Bodies, 2011. 245.
- Manning, E. "Wondering the World Directly - Or, How Movement Outruns the Subject." *Body & Society* (2014): 162-88.
- Manning, Erin. *Relationescapes: Movement, Art, Philosophy*. Cambridge, Mass.: MIT, 2009.
- Martinho, Claudia. "Relational architecture through listening." *Site of Sound: Of Architecture and the Ear*. Vol. 2. Berlin: Errant Bodies, 2011. xi-xiii.
- Mazur Joseph. *Enlightening symbols: a short history of mathematical notation and its hidden powers*. Princeton, New Jersey: Princeton University Press, 2014.
- Merleau-Ponty, Maurice. *Phenomenology of Perception*. London New York: Routledge, 1962.
- Merleau-Ponty, Maurice. *The World of Perception*. New York, NY: Routledge, 2004.
- Mondloch, Kate. *Screens: Viewing Media Installation Art*. Minneapolis: U of Minnesota, 2010.
- Moran, Dermot. *Introduction to Phenomenology*. London: Routledge, 2000.
- Noë, Alva. *Action in Perception*. Cambridge, Mass.: MIT, 2004.
- Ollman, Leah. "'Elusive Signs: Bruce Nauman Works With Light' at Museum of Contemporary Art San Diego." *Los Angeles Times* 10. June 2008.



Olson, Charles. *Projective Verse*. New York: Totem, 1959.

Ostwald, Michael. "Le Corbusier (Charles Edouard Jeanneret), The Modulor and Modulor 2 - 2 volumes. Basel: Birkhäuser, 2000.: Reviewed by Michael J. Ostwald," *Nexus Network Journal*, 3.1(2001), 145

Pogrebin, Robin. "Sarah Sze Aims for Randomness in Installing Her Gallery Show." *The New York Times*. 23 Aug. 2015: n. pag. Web. 4 Dec. 2015.

"Rainforest. David Tudor. Composers Inside Electronics." Broadway 1602 Gallery. Artist Brochure. 2015. <http://broadway1602.com/site2013/wp-content/uploads/2015/01/David-Tudor-Brochure-EMAIL.pdf>.

Ratcliffe, Carter and Arthur Zajonc, Stephen Antonakos. *The Magic of Light*. Yonkers, NY: Hudson River Museum, 2002.

Rodney, Seph. "The Eerie Abandoned Dreams of Samara Golden." *Hyperallergic*. 23 Oct. 2015: n. pag. Web. 4 Dec. 2015.

Rosenthal, Stephanie, ed. *Move. Choreographing You: Art and Dance Since the 1960s*. London: Hayward, 2011.

Schiller, Friedrich, "On the Aesthetic Education of Man," in *The Bloomsbury Anthology of Aesthetics* ed. Joseph J Tanke and Colin McQuillan. New York: Bloomsbury, 2012

Sheets-Johnstone, Maxine. "Bodily Resonance." *Moving Imagination*. Philadelphia, PA: Johns Benjamins, 2013.

Sillman, Amy. *O-G v. I*. [http://www.amysillman.com/pages/zine\\_read.php?page=7](http://www.amysillman.com/pages/zine_read.php?page=7).

Solnit, Rebecca. *Wanderlust: a history of walking*. New York: Viking, 2000.

Stunda, Hilary. "New Ways of Seeing: A Conversation with Teresita Fernández." *Sculpture* 32.9 (2013).

Sulcas, Rosyln. "William Forsythe, Keeping the Brain Engaged." *New York Times* 16 Oct 2015. <http://www.nytimes.com/2015/10/17/arts/international/william-forsythe-keeping-the-brain-engaged.html>.

Vazquez, Edward. "Fred Sandback's Perspectives." *Artjournal*. 71.3 (2012): 98-116. <http://www.tandfonline.com/doi/pdf/10.1080/00043249.2012.10791105>.

Vellodi, Kamini. "Diagrammatic Thought: Two Forms of Constructivism in C.S. Peirce and Gilles Deleuze." *Parrhesia* 19 (2014).