

UNIVERSITY OF CALIFORNIA,  
IRVINE

Using Dance to Communicate Issues of Climate Change

THESIS

submitted in partial satisfaction of the requirements  
for the degree of

MASTER OF FINE ARTS

in Dance

by

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2016



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## ACKNOWLEDGMENTS

I would like to express my sincerest gratitude to my committee chair, Professor Shaun Boyle, for her genuine interest in my work, her encouragement, guidance, and dedication to this project. She constantly inspired me to go beyond my wildest expectations. Her advice consistently stimulated new thoughts and ideas that urged me to encounter this project with innovative approaches. Above all, she believed in me, as an artist and a scholar, and for that, I am deeply thankful.

I would like to thank my committee members, Professor John Crawford and Professor Lisa Naugle, whose support has been integral throughout this project. Professor Naugle has imparted innovative choreographic methodologies and improvisational techniques, which vastly expanded my approaches to exploring movement. Professor Crawford's guidance in dance and video technology was essential in the process of producing a screendance. I thank him immensely for his encouragement to apply for the UC Carbon Neutrality Initiative (CNI) Communications and Engagement Fellowship. Being a CNI Fellow developed my understanding of climate change and how it is communicated both on campus and throughout the world. I would also like to thank Professor Crawford and all those involved with the EMERSE Project in the xMPL for allowing my dancers to explore movement within the installation. The experience was invaluable to my creative process.

I would like to thank all the individuals I worked with throughout my time as a CNI Fellow – they taught me how to be a leader in the field of climate action.

In addition, a thank you to the entire UCI Dance Department faculty and staff for their endless support. I thank my cohort for their enthusiasm, encouragement, and friendship. I convey deep appreciation to my dancers for their time, energy, and dedication to this project.

I thank Kris and Linda Elftmann for selecting me as a scholarship recipient, supporting my research of dance as a form of climate communication.

## **ABSTRACT OF THE THESIS**

Using Dance to Communicate Issues of Climate Change

By

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Master of Fine Arts in Dance

University of California, Irvine, 2016

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Climate change may be one of the most pressing issues of our time, and yet the topic is frequently communicated inadequately, using confusing jargon and Doomsday narrative. This often makes it difficult to understand the effects of climate change on human beings and what actions we should take. Dance has the potential to convey some of the emotional attributes of climate change, impacting the dancer's awareness of issues and influencing audiences who watch that dance performance. History tells us that choreographers create works expressing issues of their time and several serve as examples for addressing social and environmental issues in their work. This research includes the artistic approaches of six American female choreographers: Anna Sokolow, Anna Halprin, Liz Lerman, Karole Armitage, Jody Sperling, and Cassie Meador. Interviews were conducted with Karole Armitage, and with University of California, Irvine Professor of Earth Systems Science Julie Ferguson. The science behind climate change is summarized, and the issues with climate communication are presented. Both live performance and screendance are introduced as forms for climate communication. As a whole,

this paper supports my choreographic processes, the creation of a live performance and a screendance, all of which express my response to issues of climate change and human interaction with nature.

## INTRODUCTION

From the politics of war to workers' rights, to the human genome, choreographers of the twentieth and twenty-first centuries have effectively explored and created dance works communicating critical issues of their time. These choreographers have used distinct methods in creating movement that convey these issues. Movement is an embodied form of communication, and that communication is the usage of language, sounds, symbols, and movement to share information with others. Choreography is a form of communication, and the viewing or participation in a particular dance may also be transformative in that it has the potential to change the person's perspective on that topic.

### Background

As I was walking home from campus one day, new to California, I took notice of my surroundings. My olfactory system ignited with delight. I could smell the lush flora analogous with the warmth of the territory. A glimmer of sweat dripped down my arm – it was 85°F on that day in November. As an Oregonian, used to cold, crisp November days, this seemed outrageous. In that moment, I had a revelation – climate change is occurring right before my eyes. Southern California is in the midst of a severe drought. It is affecting our environment – the plants, the animals, and the people. I became wholly concerned with this issue, and knew that there was a way that I could help.

I began exploring facets of climate change in my classes at University of California, Irvine, particularly investigating relationships between humans and nature. For instance, in Graduate Choreography, I studied how the aromas found in nature could be translated into dance. I examined these ideas through improvisation, and eventually created a choreographic solo that



showcased my experience with scents in nature. Similarly during Graduate Screendance, I studied how movement and human interaction with nature could be captured on video. By the end of the course I had created a screendance that illustrated the need to escape a busy lifestyle, and rather, become lost in nature. This was the inception of my fascination with screendance as a tool of climate communication.

Later that year, I was selected as a co-fellow for University of California's (UC) inaugural Climate Communications and Engagement Fellowship, which gave me the opportunity to meet many renowned individuals in the fields of sustainability and climate action. My first accomplishment as a fellow, was the establishment of the Earth Week Artists Showcase. I put out a call to artists who create works that highlight the environment, sustainability, and the future of the Earth. Coordinating this event, and viewing remarkable pieces of art, from photography and paintings, to poetry and dance, I was increasingly inspired to communicate climate change through a choreographic medium. The fellowship culminated with a retreat in San Francisco, where nearly all of the fellows from each of the UC schools gathered to listen, give each other feedback, and learn about leadership skills in the field of climate action. We then attended the California Higher Education Sustainability Conference (CHESC), where I presented a poster outlining my goals to create a dance performance about the issues surrounding climate change. This concept was received with enthusiasm from both administrators and my colleagues.

During the fall of 2015, I worked for Know Tomorrow, an organization that established a national day of climate action. For this event, I coordinated another large artists showcase, which included an art gallery, musicians, guest speakers, dance performance, poetry reading, and student sustainability organizations. The turnout was not as sizeable as I had hoped, but the event did receive substantial positive feedback. Being surrounded by so many artists, scientists and

activists engaged in climate awareness left me motivated and ready to embark upon my journey to develop a work of choreography inspired by the pressing issue of climate change. Like choreographers who have come before me, I too, aim to create dance that might influence, inspire, or shift the perspectives held by my audience.

My research examines the choreographic methods of six American female choreographers: Anna Sokolow, Anna Halprin, Liz Lerman, Karole Armitage, Cassie Meador, and Jody Sperling. Each of these renowned choreographers has used various processes to create dance works that convey a particular message. By examining their choreographic procedures, I determined which methods seemed most relevant for my own choreographic work regarding climate change. My stance as an artist is that dance can poetically convey climate change. Climate is often communicated in terms of statistics and scientific facts in magazines, the news, films, and handouts. By researching some of the psychological aspects of climate communication, I found that technical jargon on this topic has limitations toward understanding the deep impact and effect on human life . Perhaps dance, an art form that embodies emotion and concepts can provide a more relatable means of climate communication. My overarching goal in this research was to create choreography that embodies and communicates some of the emotion behind climate change through both live dance performance and screendance, or dance for film.

# CHAPTER 1

## Selected Choreographers and Dance as Social Commentary

“Choreography is a way of thinking. It is a way of gathering evidence, laying out the pieces organizing the trail. Choreography is a way of seeing the world, that things move against each other and then back into their own places.”<sup>1</sup> –Liz Lerman

Renowned choreographers Anna Sokolow, Anna Halprin, and Liz Lerman have used dance as a way of communicating social, political, economic, and cultural topics of their time. How exactly did these choreographers create those works? What were their methodologies? In the following pages, I briefly explore what inspired them, their methods, and highlight some of their thoughts about creating choreography that cover topics deeply rooted into society.

Anna Sokolow, pioneering artist with the Workers’ Dance League during the 1930s, and soloist for Martha Graham<sup>2</sup> was part of a community who believed that “dance is a weapon in the class struggle.”<sup>3</sup> This was the slogan of the New Dance Group, a group of artists who came together during the Great Depression. They were devoted to generating dance works that evoked social change. The structure of the New Dance Group classes included technique, creative work and a session to converse about revolutionary literature.<sup>5</sup> This process allowed the dancers to experience and reflect upon topics presented through the choreographic work – the dancers were also researchers. The process of discussing current events regarding the topic at hand, and then investigating how that topic can be translated through dance built an original body of movement and choreography.

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<sup>1</sup> Liz Lerman, *Hiking the Horizontal* (Middletown: Wesleyan University Press, 2011), 282.

<sup>2</sup> Hannah Kostrin, “Inevitable Designs: Embodied Ideology in Anna Sokolow’s Proletarian Dances,” *Dance Research Journal* 45 no. 2 (2013): 5.

<sup>3</sup> Larry Warren, *Anna Sokolow: The Rebellious Spirit* (The Netherlands: Harwood Academic Publishers, 1998), 25.

<sup>5</sup> Larry Warren, *Anna Sokolow: The Rebellious Spirit* (The Netherlands: Harwood Academic Publishers, 1998), 26.

Sokolow came from a Jewish Russian working class family. This identity often surfaced in her creative work. In her article “Inevitable Designs: Embodied Ideology in Anna Sokolow’s Proletarian Dances,” Hannah Kostrin states, “her proletarian dances represented struggles that resonated with her own experience from a social or ethnic position that differed from her own.”<sup>6</sup> She always tackled an issue by wholly embodying it, that is, connecting it to her own experiences. In the 1930’s, while she was dancing with Martha Graham, Sokolow began her own company, Dance Unit, geared toward producing works with a leftist perspective.

Although Sokolow’s work often had a seemingly radical point of view, her strong background in modern dance brought in a wide range of viewers.<sup>7</sup> At the time, modern dance concert attendees were often relatively conservative. Kostrin states, “Critics without overt leftist leanings identified with these dances even though the work did not speak to their social positions. Sokolow’s choreography allowed middle-class audiences, who likely would not otherwise examine proletarian issues...”<sup>8</sup> Sokolow was able to draw the attention of both conservatives and liberals, in works such as *Strange American Funeral* and *Case History No*, which portrayed realities of the working class.<sup>9</sup> She and other dancers of this time, such as Edith Segal, Miriam Blecher and Chilkovsky, felt that dance could be used as an agent of social change.<sup>10</sup>

Sokolow once stated, “[dance] is influenced by the life of the common man... [it] draws its life from the people.”<sup>11</sup> She tended to choreograph topics in an abstract sense; her pieces were

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<sup>6</sup> Hannah Kostrin, “Inevitable Designs: Embodied Ideology in Anna Sokolow’s Proletarian Dances,” *Dance Research Journal* 45 no. 2 (2013): 8.

<sup>7</sup> Ibid, 6.

<sup>8</sup> Ibid, 17.

<sup>9</sup> Ibid, 6.

<sup>10</sup> Larry Warren, *Anna Sokolow: The Rebellious Spirit* (The Netherlands: Harwood Academic Publishers, 1998), 26.

<sup>11</sup> Ibid, 12.

not literal. Although her work was abstract, Sokolow's deep connection with her choreography allowed the audience to understand the work.

These abstract, yet connected qualities were clearly seen in her work *Dreams*, a heart-wrenching work about the Holocaust that premiered in 1961. Originally, the piece was about Sokolow's troubled dreams, but later she began to tie her dreams with André Schwarz-Bart's *The Last of the Just*, an intense book about the Nazi concentration camps.<sup>12</sup> The movement in her choreography seemed human, and made it relatable. For example, during one section, a man ran in place outside a building with his upper body hung over his legs. He looked back as though he was checking that premises were clear for his escape. The sound of his shoes against the ground and his slumped-over body yielded what I viewed as a sense of grief and misery. The fact that he ran in place, not moving forward, seemed to signify his battle to live, but that it took him nowhere. Eventually, his running stops and his hand slowly and forcefully grasps his face and turns his head, seemingly like he has been caught and cannot abscond. Although the movement was simple, the dancer expressed great pain and fear – he was deeply connected to the movement. Also, Sokolow's moments of stillness throughout her work became very poignant. For example, during one section of *Dreams*, all movement stopped, and the choreographic focus was to a solo female performer's face. Slowly her mouth opened as wide as physically possible, as though she was yelling for help, but no sound came out. The expectation that one might hear her say something and yet no one could hear a sound, created an atmosphere of trepidation.

In the 1970s, Sokolow collaborated with a member of the Limón Dance Company and the director of Contemporary Dance Systems, Daniel Lewis, to adapt *Dreams* for television. The

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<sup>12</sup> Larry Warren, *Anna Sokolow: The Rebellious Spirit* (The Netherlands: Harwood Academic Publishers, 1998), 143.

film was full of interesting methods for recording dance.<sup>13</sup> There was a scene in which the videographer filmed the dancers through a cracked hole in a wall. The different effects of wide shots and close-ups played a huge role in the footage. It seemed that the close-ups created a personal, emotional connection with the viewer, while the wide shots brought unity to group pieces. Seeing one dancer in a large, open space evoked a sense of despair. The camera gave Sokolow the opportunity to show her work from a new perspective, using specific locations outside of a proscenium stage, and focusing on certain moments within the choreography. Dance for film allows the choreographer to make their work even more relatable by providing more context, like location and film angle. These are elements that I considered as I created my screendance at various locations in Southern California.

Like Sokolow, post-modern choreographer Anna Halprin often works with real-life scenarios. Halprin believes that dance is a tool of discovery:

One of the things about working with real-life issues is that it can be transformative. You work with an issue because it is unresolved, and through the dance, we hope to discover new possibilities...It's not about the dancers and it's not about the interpretation of a theme, it is real...The dance changes the dancer."<sup>14</sup>

Halprin thinks that the focus of movement should be on the transformative experience of the dancer. She also has an interesting view of cultural issues. She comments, "When they [issues] are deep enough in our culture they will ultimately affect our economy and then they become political and social."<sup>16</sup> This is precisely how the conversation around climate change has evolved. It is not only a scientific issue, but it is also political, social, cultural, and economic.

One of Halprin's biggest concerns when tackling a social issue is that the issue would overpower

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<sup>13</sup> Anna Sokolow, *Dreams*, video, directed by Roger Englander (1977; Aviva Films Ltd., 2007), online, URL: <http://search.alexanderstreet.com/view/work/394454>.

<sup>14</sup> Anna Halprin, *Moving Toward Life: Five Decades of Transformational Dance* (Middletown, CT: Wesleyan University Press, 1995): 14.

<sup>16</sup> Ibid, 5.

the artistic properties of the work. She stated, “I’m terribly concerned that when I take on a social issue it should not completely overshadow the artistic aspect.”<sup>17</sup> In other words, there must be a balance between social commentary and the artistry.

As a post-modern dance artist, Halprin broke away from modern technique, and explored the idea that anything can be dance like artists who came before her such as Hanya Holm and Mary Wigman. This gave Halprin a great deal of freedom in movement vocabulary, and in determining who can dance – anyone can dance.<sup>18</sup> Many of her works were created to be a healing process, or a ritual. For example, her work *Circle the Earth* (1985), is based on the premise of community, creativity, and peace. It is based on a fluid score that Halprin established along with a group of 100 participants, including both dancers and non-dancers. Halprin states:

The underlying objective [of *Circle the Earth*] is to make a vivid statement for mutual understanding and peace, one that can be taken from the performance in Marin and shared with many people in many places...By involving people in this performance, it is hoped that another spark for peace and global community can be nurtured.<sup>19</sup>

*Circle the Earth* has been performed across the globe. Eventually, people who participated in the work wanted to take it to their hometowns, using part of the score. Halprin then decided to establish *Planetary Dance*, in which a specific section of *Circle the Earth* can be used and manipulated to accommodate different communities around the globe. *Planetary Dance* continues to be performed annually near the Spring Equinox, as a symbol of renewal, peace, and hope.<sup>20</sup>

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<sup>17</sup> Ibid, 24.

<sup>18</sup> Anna Halprin, *Dance On*, video, directed by Ben Detenber (1986; Kansas City: Dance On Video, 1987), online, URL: <http://search.alexanderstreet.com/view/work/2657518>.

<sup>19</sup> Anna Halprin, *Moving Toward Life: Five Decades of Transformational Dance* (Middletown, CT: Wesleyan University Press, 1995): 244

<sup>20</sup> Ibid, 232.

The natural world was a very important aspect of Halprin's work. "Our kinship with the natural world, and the inspiration we derive from it, seems to be a central part of the human experience."<sup>21</sup> Halprin believed in exploring the environment as though it is a reflection of who we are, rather than simply interpreting the environment through representation. She utilized nature, its patterns, its qualities, and its therapeutic attributes in her own work.<sup>22</sup> Halprin felt that human connection to the earth has diminished in western culture:

This idea—that the earth is a living entity, a goddess—is foreign to the white West, which has related to the natural world as an inanimate object to exploit and control...As a dance artist, I am propelled towards the natural world by three beliefs. One is the notion that the human body is a microcosm of the earth; the second is that the processes of nature are, for me, guidelines to my aesthetics; and the third is that nature is a healer.<sup>23</sup>

This is an imperative point of view – human life is a part of the natural world.

Liz Lerman is founder of the Liz Lerman Dance Exchange and the Critical Response Process, a feedback system for works-in-progress. Lerman also choreographs works regarding real-life situations, or what she has termed, "subject matter choreography," which is "a way of describing narrative, story and 'aboutness' in contemporary dance."<sup>24</sup> Her choreography often translates important current events into dance. Lerman's work is often enhanced by audio, narrative, and projected text, video and images, so that an audience can better understand the subject matter. *Ferocious Beauty: Genome* is an example of her subject matter choreography, dealing with the vast topic of the human genome. Just as I have found with climate change, the human genome has a surplus of subtopics, each very important. Which subtopic(s) should a choreographer pursue in his/her work to create a transformative experience? In Lerman's book *Hiking the Horizontal*, she explains that, "the piece [*Ferocious Beauty: Genome*] is ultimately

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<sup>21</sup> Ibid, 212.

<sup>22</sup> Ibid, 216.

<sup>23</sup> Ibid, 214.

<sup>24</sup> Liz Lerman, *Hiking the Horizontal* (Middletown: Wesleyan University Press, 2011), 68.



about some particular sparks of interest we discovered in our explorations and in the minds of people we encountered.”<sup>25</sup> Essentially, Lerman and her dancers chose subtopics of the human genome that they found most intriguing. This is an effective method for delimiting a choreographic work – explore the possible subtopics, and work with those most prominent. This process provides a deep connection between the dancers and the chosen topic, as they are working with the director to study and discover which topics they find most stimulating.

Ultimately, Lerman feels that dance is not a universal language; not everyone understands dance.<sup>26</sup> She often utilizes other artistic mediums that can enhance the comprehensibility of a complicated topic, such as the human genome.

Being aware of the complexity of the subject we were tackling, I determined early on that *Ferocious Beauty: Genome* would incorporate some additional elements, designed to help convey information, carry feeling, and to shape the stage pictures and the structure of the acts. So the production you are seeing incorporates projected video and still imagery, a complex soundscape, and richly textured lighting.<sup>27</sup>

Although Lerman believes that dance is not understood by everyone, she creates choreography that is not blatantly comprehensible, but “that in the end something exists that allows a watcher to dream, learn, discover, understand, comprehend, notice, laugh at, or be surprised by ideas – ideas of the body, ideas of the mind, ideas of both.”<sup>28</sup> Lerman believes that dance can simply be about the movement, or it can attempt to convey something specific. In my case, my work expressed a rather particular topic, not only through live performance, but also through screendance.

Upon assessing and analyzing the choreographic methods of Anna Sokolow, Anna Halprin, and Liz Lerman, it was clear to me that dance has been and will continue to be used as

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<sup>25</sup> Ibid, 90.

<sup>26</sup> Ibid, 70.

<sup>27</sup> Ibid, 91.

<sup>28</sup> Ibid, 71.

social commentary. Sokolow produced works regarding social issues that appealed to a wide audience. She also created works in which the movement was abstract, but relatable through its simplicity and focus on stillness. She believed that the choreographer must connect with his/her work in order for the audience to connect with the work. Halprin was vastly inspired by the natural world, and felt that it is an integral part of human life – we are a part of the earth. She created works with intention of healing and finding peace through community and dance. Lerman often amalgamates dance with other mediums, such as video, audio, and lighting, and scenic design, in order to create a sensorial experience. She and her dancers research and investigate each topic that she tackles in her choreography. Overall, these choreographers have impacted the dance world by illustrating that movement has the power to be informative and transformative – altering the perceptions of the dancers and the audience. These American female choreographers demonstrate that dance has the ability to poetically communicate current social issues.

## CHAPTER 2

### A Brief Summary of Climate Change and Climate Communication

“A fundamental principle of activism is that none of us can change the world alone; the task is always way too big... This reality is why we need to make climate communications as social, interactive, and local as possible.”<sup>29</sup> -Per Espen Stoknes

This chapter examines select studies by renowned climate researchers. It will briefly summarize and define climate change, as well as uncover the issues of climate communication. The analyses of researchers, Per Espen Stoknes and Paul Fleischman, have helped to inform my creative work which resulted in a dance concert.

According to NASA, “ninety-seven percent of climate scientists agree that climate-warming trends over the past century are very likely due to human activities, and most of the leading scientific organizations worldwide have issued public statements endorsing this position.”<sup>30</sup> If the above finding from NASA is true, then why is it that many people seem to deny that climate change is happening, or don’t feel the need to make any changes toward a sustainable future? In an effort to better understand the research, scientific jargon, and the graphs, which in my opinion create confusion and disinterest, I researched the science behind climate change and the current issues concerning how climate change is communicated. This research inspired my creative process and my methods for working with dancers to shape the facts and technical information into an embodied experience.

### What is Climate Change?

Let us begin with a short synopsis of the greenhouse gas effect. Earth is warmed by solar radiation from the sun and approximately half of the solar radiation is absorbed by the Earth’s

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<sup>29</sup> Per Espen Stoknes, *What We Think About When We Try Not to Think About Global Warming* (White River Junction, VT: Chelsea Green Publishing, 2015), 107.

<sup>30</sup> “Climate Change: How do we know?” *NASA.gov*, March 16, 2016, <http://climate.nasa.gov/evidence/>.

surface; the remainder is reflected through the atmosphere and into space.<sup>31</sup> Infrared radiation is reflected from the Earth; some of it passes out through the atmosphere, “but most is absorbed and re-emitted in all directions by greenhouse gas molecules and clouds.”<sup>32</sup> Once again, this causes a warming of the Earth’s surfaces. Essentially, greenhouse gases, such as carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) trap the heat within the atmosphere. According to the Intergovernmental Panel on Climate Change (IPCC), “anthropogenic greenhouse gas emissions have increased since the pre-industrial era driven largely by economic and population growth.”<sup>33</sup>

The IPCC defines climate change as the following:

Climate change in IPCC usage refers to a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity.<sup>34</sup>

As seen in fig. 1, natural variations in climate have existed for centuries, but around 1950, the amount of CO<sub>2</sub> in the atmosphere began to spike past 300PPM. Currently, the CO<sub>2</sub> in our atmosphere has risen beyond 400PPM. This is causing more entrapment of radiation, increasing the temperature of the Earth’s surface. Essentially, the burning of fossil fuels, the increasing population, and the consumption of meat products (18% of greenhouse gas emissions come from animal agriculture<sup>35</sup>), pertain to this spike in greenhouse gasses. Paul Fleischman, author of *Eyes Wide Open: Going Behind the Environmental Headlines*, states, “Rising population and consumption, the advent of the car, changes in agriculture, and deforestation all combine to put enough greenhouse gases into the atmosphere to raise global air and water temperatures.”

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<sup>31</sup> “A Blanket Around the Earth,” *NASA.gov*, March, 16, 2016, <http://climate.nasa.gov/causes/>.

<sup>32</sup> “What is the Greenhouse Effect?” *IPCC.ch*, March 16, 2016, [https://www.ipcc.ch/publications\\_and\\_data/ar4/wg1/en/faq-1-3.html](https://www.ipcc.ch/publications_and_data/ar4/wg1/en/faq-1-3.html).

<sup>33</sup> *Climate Change 2014: Synthesis Report* (Switzerland: IPCC Secretariat, 2014), 1.

<sup>34</sup> “Observations of Climate Change,” *IPCC.ch*, March 17, 2016, [https://www.ipcc.ch/publications\\_and\\_data/ar4/syr/en/mains1.html](https://www.ipcc.ch/publications_and_data/ar4/syr/en/mains1.html).

<sup>35</sup> “The Facts,” *Cowspiracy.com*, March 17, 2016, <http://www.cowspiracy.com/facts/>.

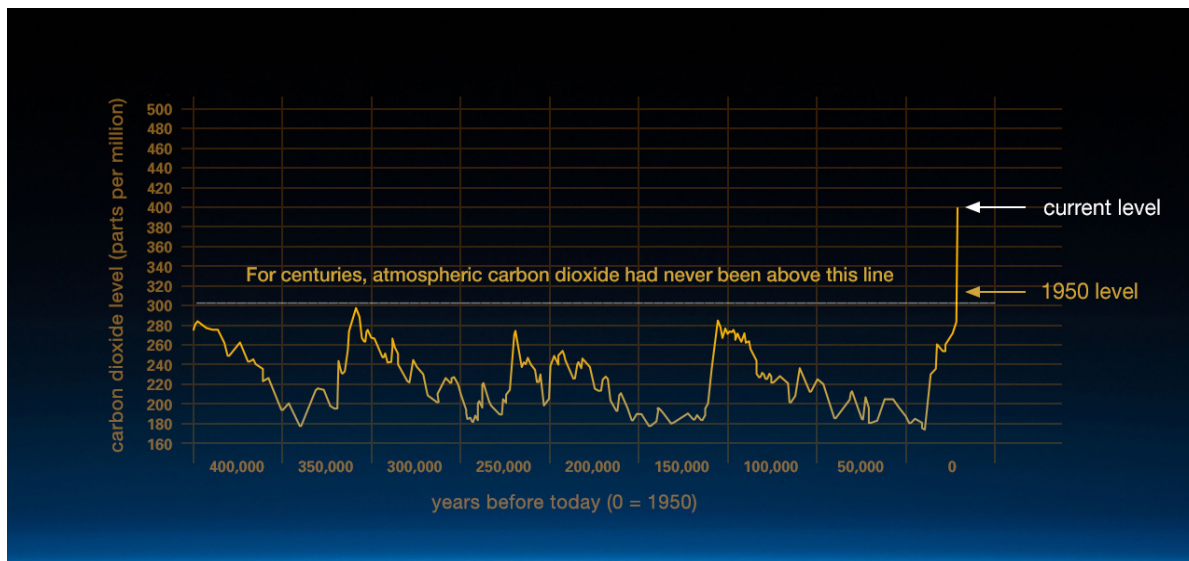


Figure 2.1. Carbon dioxide level over time

Source: “Climate Change: How do we know?” *NASA.com*, March 21, 2016, <http://climate.nasa.gov/evidence/>

## Climate Communication

The effects of this increase in atmospheric greenhouse gases, such as drought and flooding, are seen today, primarily in developing countries – areas of the world that are not causing the problem, but feel the effects.<sup>36</sup> For example, weather patterns in Kenya have become increasingly unpredictable, creating difficulty for farmers and the agricultural industry.<sup>37</sup> Most industrialized nations do not directly experience the devastating affects of climate change, and therefore have not been compelled to exact immediate change. This accentuates the problem of climate communication; the transmission of information regarding climate change. According to Fleischman, there are five reasons why humans are not responding to the potential threats of climate change – invisibility, distance, time span, complexity, and uncertainty.<sup>38</sup> Similarly,

<sup>36</sup> Philip Smith and Nicholas Howe, *Climate Change as Social Drama: Global Warming in the Public Sphere* (New York: Cambridge University Press, 2015), 178.

<sup>37</sup> Tom Osborn, “Why Developing Countries are Disproportionately Affected by Climate Change – and What Can They Do About it,” *Huffingtonpost.com*, March 22, 2015, [http://www.huffingtonpost.com/tom-osborn/why-developing-countries-b\\_6511346.html](http://www.huffingtonpost.com/tom-osborn/why-developing-countries-b_6511346.html).

<sup>38</sup> Paul Fleischman, *Eyes Wide Open: Going Behind the Environmental Headlines* (Ann Arbor: Candlewick Press, 2014), 35-39.

psychologist and economist Per Espen Stoknes has written about what he has termed “The Five Psychological Barriers to Climate Action,” or “The Five D’s.” This includes: Distance, Doom, Dissonance, Denial, and iDentity.<sup>39</sup>

Because many people do not see the direct effects of climate change, as it is both distant and invisible, humans do not feel endangered, and do not feel the need to commit to action. In making a screendance on this topic, I filmed dancers in locations that have been affected by the changing climate. While a great deal of media surrounding climate change evokes a sense of doom, I sought to provide a sense of hope for the future. I wanted the dancers in the project and the audience viewing my creative work to have a feeling that they can take action and contribute to making a change in the situation..

Stoknes suggests that dissonance leads humans to doubt the facts, and eventually deny that climate change is real. “If what we know (for instance, our fossil energy use contributes to global warming), conflicts with what we do (drive, fly, eat beef, or heat with fossil fuels), then dissonance sets in.”<sup>40</sup> Denying that climate change is occurring allows an individual to protect themselves from the guilt of their lifestyle, and that it might be affecting the climate.<sup>41</sup> Lastly, Stoknes explains that identity can play a factor. An individual is most likely to listen to and read media that pertains to their political and cultural beliefs. If an individual hears something contrary to their beliefs, then they might not be willing to access the message. As Stoknes says, “cultural identity overrides the facts...We experience resistance to calls for change in self-

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<sup>39</sup> Per Espen Stoknes, *What We Think About When We Try Not to Think About Global Warming* (White River Junction, VT: Chelsea Green Publishing, 2015), 81-82.

<sup>40</sup> Ibid, 82.

<sup>41</sup> Ibid, 82.

identity.”<sup>42</sup> Although I did not aim to change the beliefs of the viewers, I did hope to influence the audience toward a positive perspective about their relationship with climate change.

Fleischman also considers that climate change occurs over an extended period of time. It is not one cataclysmic event, rather it is something that continues to progress gradually over an extended period of time perhaps causing people in general to feel less threatened by the issue. Fleischman states, “This is the problem called creeping normalcy or shifting baselines, which leaves us blind to longer-term developments.”<sup>43</sup> Clearly, climate change is a complex topic. The complexity can be overwhelming and hinder people from engaging in climate action. Finally, Fleischman finds that there can be disconnection between specific climatic events, such as Hurricane Sandy, and climate change in general. When scientists are not able to demonstrate a direct correlation, the public begins to doubt the inherent reality of climate change. This is very similar to the dissonance that Stoknes explains. Ultimately, dissonance and uncertainty are two factors that can both lead individuals to doubt climate change.

Stoknes explains that there are three principles to changing the psychology of climate action: “(1) Turn the barriers upside down. (2) Stick to positive strategies. (3) Act as social citizens, not individuals.”<sup>44</sup> These are ideas that individuals can try implementing in order to potentially initiate more climate action. Stoknes’ three principles resonated with me throughout my choreographic process. Researchers and politicians alike have clearly identified that the vast majority of thermal decimation is due to human activity. As an artist, I hoped to support their efforts by drawing attention to this profound problem.

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<sup>42</sup> Ibid, 82.

<sup>43</sup> Paul Fleischman, *Eyes Wide Open: Going Behind the Environmental Headlines* (Ann Arbor: Candlewick Press, 2014), 37.

<sup>44</sup> Per Espen Stoknes, *What We Think About When We Try Not to Think About Global Warming* (White River Junction, VT: Chelsea Green Publishing, 2015), 90.

## CHAPTER 3

### Choreographing Climate Change

“If you are an artist your job is to create work that speaks to the issues of our time. That can be anything from bringing awareness of how two colors in a painting vibrate when placed side by side to a topic such as climate change. Art is about how to perceive the world today in dialogue with history.” –Karole Armitage

Art is a portrait of time – how things were in the past, how they are now, and how they might be in the future. It is a glimpse into our history, and a vision of our future. Although they may not always ignite a revolution, artists have the ability to motivate and inspire by instigating change in people’s lives. Climate change is an integral component of our globalized, hi-tech world. Increasingly, as artistic work is produced and publicized on climate change, people will ponder the topic. Our planet begs for an abundant community of voices that will help proliferate climate action. Both climate scientists and choreographers agree that art can be a transformational experience, yielding new thoughts and perspectives that may not be understood fully with graphs and statistics.

Julie Ferguson, professor in the Department of Earth Systems Science at University of California, Irvine, studies how climate has changed in the past, before human influence was a factor. Professor Ferguson agrees with the current consensus that the “vast majority of current climate change is due to human impact.”<sup>45</sup> She reinforces the idea that it is not a scientist’s objective to publish work that accommodates the general public; it is a scientist’s goal to research and publish the findings of that research. Ferguson states her opinions on climate communication:

We [scientists] have been saying more-or-less the same thing for 30-40 years, and things like graphs don’t do it. The most successful people are...people who can

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<sup>45</sup> Appendix A.



bring a new perspective to it, and I think what they can do is bring emotion to it in a way that scientists are trained out of...we can't say that 'I am horribly upset that the ice is melting back.'<sup>46</sup>

Ultimately, Ferguson asserts that the arts can emotionally connect the general public to climate change. She states, "whether that's visual, whether that's art, whether that's dance, we need to communicate the emotion behind climate change. That's not something science is equipped to do. That's something that the arts have always been able to do."<sup>47</sup> In my choreographic work, I have applied a specific emotion to each section, allowing the audience to associate their feelings with various issues of climate change that are being addressed.

Choreographer Karole Armitage, Artistic Director of Armitage Gone!, also believes that the emotional aspect of dance can enhance climate communication. She has choreographed two works, *Four Seasons* (2014) and *On the Nature of Things* (2015), specifically on the topic of climate change. When asked about how she delimited the topic of her work, she stated, "The essential goal is to bring emotion to the theme of climate change. It is clear that simply presenting the facts, has not motivated change. The dances are about the effect of climate change on our psychic and emotional well-being." Armitage's work demonstrates that it is essential to connect the cultural context of climate change to human emotion.

Professor Ferguson was a bit unsure how dance could convey the issues of climate change; she feels that it could be complicated. "I think it's a challenge...It's easier for me to think of visual examples than it is for me to think of dance examples."<sup>48</sup> Nonetheless, she thinks that, through dance, people might be able to relate with climate change in a new, profound way. I agree with Ferguson; it is a challenge to choreograph climate change because dance is ephemeral – it must touch the audience deeply within just one moment, but in that moment, a viewer might

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<sup>46</sup> Appendix A.

<sup>47</sup> Ibid.

<sup>48</sup> Ibid.

acquire new insight. She also elaborated on an entity of dance that I have been analyzing – time span. Perceived intervals may be present in visual art, but performing art has the capacity to portray a long time span, such as the change in our climate. Ferguson stated that dance could represent time scales “better than perhaps some of the written or visual media could because it actually has a time component.”<sup>49</sup>

Similarly to Ferguson, Armitage believes that dance can convey the time span of climate change. When asked about her choreographic methods she states:

Dance communicates and creates interest and tension through the means of dance itself. Therefore, I had to find a way that dance was the motor of the production and was innovative in the use of dance language, time and space. The productions have to operate as pure dance while also taking the audience on a journey that was provoked by climate change.<sup>50</sup>

Dance has the potential to construct a journey for the audience. Whether an abstract, or narrative interpretation, choreographers take their viewers on a voyage through time and space. How exactly does a choreographer communicate that journey? Can the experience be transformative, and can it effectively communicate climate change? Armitage states that “dance operates in a very direct, but non-verbal level bringing to the viewer a heightened awareness of life.”<sup>51</sup> This heightened awareness of life, along with the choreographer’s envisioned excursion, provides the potential to transform the audience into a new realm that might enlighten their perspective of climate change. When asked whether or not she felt that dance could be an effective transformative tool of climate communication, Armitage commented, “Dance has a very small audience so it is never going to have a major impact, but every individual who becomes motivated to affect change is important.”<sup>52</sup> Although dance as a communicative device might not

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<sup>49</sup> Appendix A.

<sup>50</sup> Appendix B.

<sup>51</sup> Ibid.

<sup>52</sup> Ibid.

influence a wide population, it engages people through live performance. Additionally, dance on film has the power of engaging larger masses online and through social media.

In 2014, Armitage premiered *Four Seasons*, based on fables and fairytales from around the world and designed for a younger audience and families. Armitage describes her work:

Ten animal stories are brought to life by a menagerie of lions, ants, hares, bulls, bears, and frogs within a living forest. The stories provide a lovely glimpse into the beauty and fragility of the natural world while offering insight into the bonds that tie humans to each other and to nature.<sup>53</sup>

Like Armitage, I think that it is important to display both the splendor and the tenuousness of the Earth in a work encapsulating climate change. Armitage's use of global fables allows a wide range of viewers to make a connection with her composition. *On the Nature of Things*, a more recent work by Armitage, is about the cultural framework of climate change. This work premiered in 2014 at the American Museum of Natural History in New York City. Dr. Paul Ehrlich of the Center for Conservation Biology at Stanford University, wrote an original text that coincided with the dance.<sup>54</sup> I am intrigued by the usage of text or narrative in choreography; it is something that I plan to examine in my own work. Text paired with movement may fuel new discernments, and when effectively conducted, the audience might fully grasp the choreographer's intent. Armitage states, "The meditative essay on culture and climate runs simultaneously with the dance. The dance does not illustrate the text, but unfolds as a parallel voyage."<sup>55</sup> I feel like the use of text can effectively guide viewers through a choreographic journey. Thus, I chose to incorporate it into my choreographic work.

Two other dance artists, Cassie Meador and Jody Sperling, have also been inspired to choreograph on the topic. Cassie Meador, the current Artistic Director of Dance Exchange,

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<sup>53</sup> Appendix B.

<sup>54</sup> "Touring Repertoire 2014-2015," *armitagegonedance.org*, 2012, <http://www.armitagegonedance.org/photos/touring-repertoire>

<sup>55</sup> Appendix B.

created a work commissioned by the National Performance Network, titled *How to Lose a Mountain*, which embodies a 500-mile hike to discover the source of energy that powers her home in Washington D.C.<sup>56</sup> She and her dancers hiked to the top of a mountain where the mountaintop was removed to acquire coal that is used to produce electricity. During their journey they spoke with people from farms, power plants, towns and schools.<sup>57</sup> This experience inspired Meador's work. The project took three years before its staged premiere in 2013. Although I have not had three years and such an intrinsic experience to substantiate my work, I feel that the research I have conducted and my rehearsal processes will provide a beneficial, transformative experience, both for my dancers and the audience.

Jody Sperling, Founder and Artistic Director of Time Lapse Dance, had the opportunity in 2014 to travel to the Chukchi Sea, north of Alaska. She was the first choreographer-in-residence on the US Coast Guard icebreaker.<sup>58</sup> While there, she danced on a melting Arctic icecap. Her filmed work on the ice caps, *Ice Floe*, won second place from Human Impact Institutes Creative Climate Awards. She has also produced *Life Cycle of Ice*, a staged production based on the vulnerability of the Arctic icecaps.<sup>59</sup> This was a life changing opportunity for Sperling, turning her focus toward activism. Sperling states that:

The mission of Time Lapse Dance is shifting to basically integrate dance and climate science...It's a great feeling when you hit on what you really are meant to be doing in this world. I feel this sense of purpose right now that's very guiding.<sup>60</sup>

I think that "sense of purpose" is one crucial reason why an artist is committed to interpreting issues of their time. As with Sperling, climate change has guided my research. It is a topic so

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<sup>56</sup> "How to Lose a Mountain," *danceexchange.org*, <http://danceexchange.org/projects/how-to-lose-a-mountain/>

<sup>57</sup> Pamela Squires, "Dance review: 'How to Lose a Mountain' blends emotions, environmental issues," *washingtonpost.com*. March 17, 2013. [https://www.washingtonpost.com/entertainment/theater\\_dance/dance-review-how-to-lose-a-mountain-blends-emotions-environmental-issues/2013/03/17/56138170-8f1d-11e2-9173-7f87cda73b49\\_story.html](https://www.washingtonpost.com/entertainment/theater_dance/dance-review-how-to-lose-a-mountain-blends-emotions-environmental-issues/2013/03/17/56138170-8f1d-11e2-9173-7f87cda73b49_story.html)

<sup>58</sup> "Jody Sperling," *timelapsdance.com*. 2013. <http://timelapsdance.com/about/jody-sperling/>

<sup>59</sup> Ibid.

<sup>60</sup> Karen Hildebrand, "On Thin Ice," *dance-teacher.com*, May 1, 2015, <http://www.dance-teacher.com/2015/05/thin-ice/>.

global, so deeply rooted into our culture, yet vastly ignored, and that ignites a spark within me, to reach out and artistically share this universal predicament.

I found Sperling's filmed work, *Ice Floe*, to be particularly influential. It begins with a wide shot of the Arctic ice cap with a miniscule piece of fabric floating about the expansive ice. Sperling's choreography is inspired by the styling of modern dance pioneer Loie Fuller, who used large pieces of fabric that extended out from her arms by a wire.<sup>61</sup> The shot progressively focuses in on Sperling and her flowing fabric. Her head and face are not an integral part of the movement. As a viewer, my attention is drawn to the patterns of the fabric contrasting with the stillness of the ice. According to an article in *Dance Teacher Magazine*, "textile artist Gina Nagy Burns hand-painted the silk to resemble ice floes."<sup>62</sup> In this instance, costuming is a vital aspect of the work. During the film, Sperling bends downward, the fabric encompassing her body, as though she is melting away with the ice. I see this as a very powerful interpretation of the melting Arctic ice caps. The end of the film is edited so that her movement is quickened, and eventually reversed. Slowly, Sperling disappears into the distance, into an immense white environment, and the film goes to a whiteout at the end, as though she is melting with the ice caps.

After seeing the potential of dance for film in both Sperling's work and Sokolow's *Dreams*, I incorporated screendance, audio, and lighting to augment the comprehensibility of the topic. I believe that screendance, in particular, enhanced my choreographic illustration of climate change. According to screendance theorist Douglas Rosenberg, screendance is defined as "any and all work that includes dance and film or video as well as other screen-based

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<sup>61</sup> Karen Hildebrand, "On Thin Ice," *dance-teacher.com*, May 1, 2015, <http://www.dance-teacher.com/2015/05/thin-ice/>.

<sup>62</sup> Ibid.

software/hardware configurations.”<sup>63</sup> Dance is ephemeral, but screendance can translate that ephemeral movement into something everlasting. Rosenberg states:

Screendance is simultaneously conformative and performative. It *conforms* to the materiality of its host, while *performing* its desired identity; dance framed by and situated within the architecture of camera space and its attendant production technologies molds to those devices and their inherent boundaries. It does so while attempting to maintain its recognizable danceness.<sup>64</sup>

In effect, the dance conforms to the screen based upon the technology that exists, while the screen captures very specific moments and nuances of the dance. Rosenberg also describes how a viewer can create a story based upon the location of the screendance and the movement of the dancer. “The bodies that we view on screen are also illusions. We, the viewers, repatriate them to the locales, sites, and venues in which they appear to be ‘performing’ and simultaneously project histories and other narratives upon those bodies.”<sup>65</sup> This was an essential aspect of my screendance, as I considered the narratives that an audience perceives based upon both the movement of the dancers, the use of the camera, and the location of the screendance.

As both the director and choreographer of my screendance, I assessed various foci of the movement (i.e. what is in the camera frame). Rosenberg states, “Camera-looking is an active performance that frames an event and elevates it while ‘screening out’ all other information.”<sup>66</sup> Through the filmmaking and editing processes, the footage can be manipulated to bring attention to particular details, like fingertips in dirt or hair blowing in the wind. Close-up shots allow the viewer to see minute movements that might not be witnessed during a live performance. I applied this feature of screendance to my work in order to emphasize the dancers’ relationship to the natural world. Regarding close-ups, dance and film scholar Erin Brannigan states,

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<sup>63</sup> Douglas Rosenberg, *Screendance: Inscribing the Ephemeral Image* (New York: Oxford University Press, 2012), 3.

<sup>64</sup> Ibid, 155.

<sup>65</sup> Ibid, 155.

<sup>66</sup> Ibid, 69.

What we find in the multiplicity of bodily sites [during close-ups] are tiny muscle movements that constitute their own micro-dance—not expressing emotions or psychological shifts, but pure movement relating only to the body and its ‘hidden little lives.’<sup>67</sup>

I found interest in the contrast of wide shots, which highlight the full choreographic work within the location of the screendance, and close-ups, highlighting the micro-movements of the body.

In contrast to live performance, another significant characteristic of screendance is its capacity to have an audience beyond those seated in a theater; it can have a global audience via the internet. I believe that screendance can break the barriers of live performance by reaching a much larger audience, and defying the restraints of time and space. Human culture has become a fusion of natural and digital elements.<sup>68</sup> Screendance is a result of this conglomeration. We live in a time where information is easily shareable and accessible. News, photos, stories, and videos are continually transmitted through social media.

Per Espen Stoknes states, “A fundamental principle of activism is that none of us can change the world alone; the task is always way too big... This reality is why we need to make climate communications as social, interactive, and local as possible.”<sup>69</sup> My intention is to share the screendance locally and globally, providing an artistic interpretation of climate change that might affect an individual in a different way than simply reading the latest statistic. Author Paul Fleischman comments, “The computer has been vital in analyzing data and predicting outcomes. Its ability to link us together may prove just as valuable. It couldn’t have come at a better time [referring to climate change].”<sup>70</sup> Due to technology, we are linked as a global community. Dance

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<sup>67</sup> Erin Brannigan, *Dancefilm: Choreography and the Moving Image* (New York, NY: Oxford University Press, 2011), 52.

<sup>68</sup> Douglas Rosenberg, *Screendance: Inscribing the Ephemeral Image* (New York: Oxford University Press, 2012), 53.

<sup>69</sup> Per Espen Stoknes, *What We Think About When We Try Not to Think About Global Warming* (White River Junction, VT: Chelsea Green Publishing, 2015), 107.

<sup>70</sup> Paul Fleischman, *Eyes Wide Open: Going Behind the Environmental Headlines* (Ann Arbor, MI: Candlewick Press, 2014), 153.

for film creates avenues to challenge corporeality by manipulating aspects of time and space, and it provides access to larger audiences.

Both Armitage and Ferguson agree that the arts are essential in bringing emotion to climate change, connecting with the general public, emphasizing that this is an issue that must be addressed. Ultimately, I too aimed to create a work that touches the audience on an emotional level. Each section of my work was devised to evoke a different emotion that will connect the viewers to the movement, connect them to the issues of climate change. Because I wanted to reach a diverse audience, I decided to create both a screendance and a live performance work. Though screendance might reach more people, entering a space and viewing a dancer's passion face-to-face is powerful. The screendance placed the dancer at a specific locale, which might be preferable to a theater setting in conveying climate change.

The pertinent issues surrounding our changing Earth will not disappear; the time to act is now. It is the duty of scientists and artists to register their concern, then politicians worldwide will increasingly take notice. As Karole Armitage states, "The planet is speaking very clearly and fundamentally; everyone knows this is happening...Time is critical. We need to take political action NOW."<sup>71</sup>

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<sup>71</sup> Appendix B.



## CHAPTER 4

### The Creative Process

#### Rehearsal Process

I began the rehearsal process with nine dancers and we discussed the numerous subtopics that climate change encompasses. I delimited the topic similarly to Liz Lerman and her process of choreographing *Ferocious Beauty: Genome* – I decided to research climate change with my dancers, and select particular “sparks of interest.”<sup>72</sup> This provided a deep connection between the dancer, the movement, and the issues of climate change. We had discussions about climate change, how it is affecting areas of the world, and how we connect with it emotionally. From the outset, I reiterated that this process would be organic and fluid. I was not starting with concrete choreography, but rather, with an idea that would be molded and shaped by the experiences that I designed and shared with the dancers.

During one rehearsal I prompted the dancers to select an image or quote that each felt communicated the struggles of global warming. They were given time to assess the image or phrase, understand it emotionally, and then convert the idea into movement through improvisation. After each dancer had a chance to improvise, we discussed what happened and how it could be used choreographically. The time we had to converse reminded me of the New Dance Group, and how they discussed revolutionary literature in order to be informed in their work. When I first became interested in creating choreography about climate change, the use of improvisation as a choreographic tool was new to me, and now I see it as an ongoing practice. Improvisation was critical in providing the dancers with time to discover how to take something that is not dance and render it into emotionally and conceptually driven movement. I determined

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<sup>72</sup> Liz Lerman, *Hiking the Horizontal* (Middletown: Wesleyan University Press, 2011), 90.

whether the dancers would improvise in solos, duets, groups, or all together to give different perspectives and allow some dancers to watch and take notes while others performed. The dancers were given the opportunity to demonstrate how they might personify ideas. For example, how might a dried up lakebed be translated into creative movement? What are the qualities of a drought-stricken lakebed? One might describe it as cracked, vast, dusty, quiet, and eerie. We physically brought emotion to climate change, embodying an idea to establish corporeality.

We were thrilled to discover that the EMERSE Project, created collaboratively by UCI Dance Department Professor John Crawford and his colleagues, was set up in the Experimental Media Performance Laboratory (xMPL), where my live performance premiered. EMERSE is a media performance and installation that “traces relationships between humans and oceans, and in particular the contrasts and complexities of California’s coastal interfaces, using advanced digital media techniques.”<sup>73</sup> The installation consisted of two large screens installed in the space with one TV screen. A distorted image of the individual in the space was picked up by a camera and projected onto the screens. One of the projections included an image of the ocean lapping up against the coastline. The TV screen portrayed a map of the world and the changing surface temperatures of the oceans over a period of 34 years.

It was a pivotal experience to transport my dancers into this space, and give them the opportunity to interact with technology in real time, and grow a deeper understanding of the oceans. I requested that each dancer enter the xMPL with one current issue regarding the effects of climate change on the oceans. Examples included: increased ocean acidity, melting glaciers, stranded polar bears, and rising sea levels. Each dancer assessed their issue and embodied it in an improvised solo within the installment. I saw the dancers move in ways that I had not observed

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<sup>73</sup> “EMERSE,” *Art.uci.edu*, April 30, 2016, <http://www.arts.uci.edu/event/emerse>.

previously. The experience profoundly inspired my choreographic vision and my use of projection during the live performance. Although my dancers would not be interacting with projection in real time, I aimed to work with projected images throughout the live performance to enhance the message of my work.

Another part of the rehearsal process included a prompted improvisation. I presented prompts that interpret how humans peacefully interact and coexist with the natural world. Anna Halprin believed that dance could be a transformative experience for the dancer, and I wanted my dancers to have such an experience while evoking climate change through movement. The prompted improvisation was a transformative experience for the dancers. Many commented that they had compelling thoughts throughout the process and engaged with improvisation in new ways. One dancer felt like the group came together, preserving the environment. Others thought about playing in nature, in mud and dirt with child-like curiosity. Two of the dancers had seemingly contradictory thoughts after the improvisation – one of them embodied the prompts as though they were seeing the natural world for the first time; the other, as though it was the last time they were seeing the natural world. This concept deeply affected the outline of my choreographic work as I realized how to draw parallels between climate change, human emotion and thought, and movement vocabulary. Those two thoughts became two sections of my choreographic work – *In Mundo Naturali* (In the Natural World) and *Mortem Terrae* (Death of Earth). These sections elaborate on how we, humans, feel when we coexist with nature. How will we feel in the future if we don't make a change? How will we watch species and the Earth slowly die?

These initial experiences with my dancers established the building blocks for my artistic creation – the screendance, *Notre Terre*, and the live performance, *Carbon Footprint: Watch*

*Your Step*. Our research, embodiment of ideas, and discussions served as fundamental elements of my choreography. During improvisations, their movement vocabulary ranged from balletic to modern, fluid to staccato, depending upon the prompt and their own dance background. Once I understood the layout of my work, I began to analyze my notes and view the videos of the improvisations. Because my own artistic identity is influenced by my experience as a ballet dancer, I developed ideas from the improvisations and amalgamated them with my own choreographic concepts, which often involved ballet technique. Working and researching with the dancers, viewing their improvisations, and relating these experiences with my own choreographic voice resulted in works that I feel captured the relationship between human life and the Earth.

### **The Live Performance**

I decided to divide the live performance work, *Carbon Footprint: Watch Your Step*, into six sections, in which each section portrays how humans interact with nature, with each other, with society, and with one's self. The first section, *In Mundo Naturali* (In the Natural World), illustrates the joy we often find within nature. It is an energetic solo full of innocence and curiosity. The second piece, *Abandon*, takes a drastic shift into the reality of our society, demonstrating obsession with devices, robotic, mechanical movement, and lack of empathy for others. *Mortem Terrae* (Death of Earth), the third section, examines how we might feel if the natural world crumbles away – when we reach out to smell a flower, and it is no longer in existence. The next section, *The Call*, takes that sorrow as a realization that something must be done to make a change. *The Call* was created to be intense and fast-paced, grabbing the attention of viewers, calling them to action. *To Exist* is a solo choreographed to a poem that tells the story

of a woman who desperately wants people to realize that we are destroying the Earth, and how we must unite to make a change. The solo begins with gestural movements that embody the poem. Later, the poem becomes a song, and the dancer's movements grow. The last stanza of the poem speaks of hope, peace and unity, which transitions into the last piece, *Hope*. This section brings all of the dancers onto stage, showing the peace, calm, strength, and hope for a brighter future.

I wanted the audience to walk into a space that transports them into a different world. In doing so, I created an environment that effects the senses. I worked collaboratively with two sound designers who created original composition that shaped the journey of the performance. One particular audio aspect included a soundscape of the natural world. This sound was audible as the audience entered the space. While working with the sound designers, I gave them adjectives that described each piece, bringing an emotional quality to the musical score. Throughout this process, I created choreography prior to hearing the composition, which was difficult at times. I often had to change my choreography slightly to fit the newly created musical composition. Despite any struggles, it was inspirational to collaborate with other artists, and it is truly delightful to have a score that was designed specifically for my artistic vision.

I was moved by Liz Lerman's choreographic work on the human genome, to create an experience that was understandable; not purely abstract. In doing so, I included visual and auditory elements that aided the comprehensibility of the work. Prior to tech week, I edited still images of the natural world and of man-made machinery like oil rigs to project during the performance. I felt that this would enhance the setting and transport the audience to specific environments. During my experiences coordinating the Earth Week Artists Showcase and the Know Tomorrow Day of Climate Action, I became acquainted with other artists interested in

creating work focused on climate action. One of those artists was a woman who wrote a poem titled, “To Exist.” She and I worked collaboratively with my sound designer to convert the poem into spoken word and an a cappella song. The words of her poem directly related to my choreographic work. I believe that it enhanced the overall intention of the performance.

### **The Screendance**

For the screendance, *Notre Terre*, I selected four locations that epitomized aspects of climate change in Southern California – Barbara’s Lake at Laguna Coast Wilderness Park, Bolsa Chica Ecological Reserve, Bolsa Chica State Beach, and the San Geronio Pass Wind Farm. I visited each of these locations, assessing their relevance to climate change in Southern California. At the time of my visit to Laguna Coast Wilderness Park, Barbara’s Lake was completely dried up. The drought had taken its toll on the lake, and its appearance was devastating. The only naturally occurring lake in Orange County was completely arid. Bolsa Chica Ecological Reserve illustrates the recovery of a beautiful natural site that was once covered with oil rigs. Several oil rigs remain in the distance, but the reserve is protected and under restoration. Across from the reserve is Bolsa Chica State Beach, a coastal area where oil rigs continue to operate in the ocean. The wind farm, located off of Highway 10, represents hope for a sustainable future. Wind turbines and solar panels cover the dusty, desert land of San Geronio Pass.

These locations and their imagery were corporealized in the studio. We looked at the dried-up, cracked, desperate traits of the lakebed. We analyzed the dichotomy between the man-made machinery of the oil rigs, versus the natural splendor of the nature reserve and the coastline – the rigidity of machine and the fluidity of the ocean. Perhaps that juxtaposition illustrates the

destruction of the natural world. The burning of fossil fuels emits CO<sub>2</sub> into the atmosphere, acidifying the ocean, making it unlivable and poisonous to certain species of sea life.

During the improvisation embodying the wind turbines, a harmonious circular quality abounded. There was also a lack of movement which seemed to convey peace and quiet, a sense of solitude found within the mighty structure of a wind turbine. I had both a soloist and two dancers in a duet improvise the concept of a dried-up lake bed. The duet dancers described their experience as being “gentle, but stiff and rigid.” They imagined a scenario in which whatever was supposed to be there, was no longer in existence. They felt cracked and empty; conveying an entity that could no longer reproduce. Using their descriptions, I asked the solo improviser to interpret the word “cracked.” The movements were subtle, but immensely powerful. The dancer did not move through space, remaining in the same locale, creating peculiar micro-movements. All of the improvisational dances were carefully recorded so that I could adapt them to my choreographic work. The filming also allowed me to see which angles would best suit the screendance.

There were several drawbacks while we were shooting. When the cast and crew arrived at Laguna Coast Wilderness Park in mid-February (two months after assessing the location), Barbara’s Lake was full. We were thankful that the lakebed was lush and full of water, but we had to find a new location as we needed to illustrate the continuing drought in California. The trails and surrounding brush at Laguna Coast Wilderness Park were still very dry. As opposed to the once dried-up lakebed, we filmed along the park trail. We also experienced turmoil at the San Geronimo Wind Pass. A storm pummeled Southern California the morning of the shoot. The winds were so strong that the dancers could barely stand and the rain was pelting us from all

angles. As a result, we were only able to capture minimal footage in proximity of the wind turbines.

Based upon my research of climate communication, I wanted to end the screendance on a positive note. As mentioned in chapter two, Stoknes states that doom is one of the factors hindering people from climate action. Many individuals feel that nothing can be done, that the Earth has passed its tipping point and is headed toward destruction. I hope that my work will enable viewers to understand that there are viable changes that will improve the future of our Earth. The wind turbines are indeed a symbol of that hope and transformation.



## CHAPTER 5

### Conclusion

On the evenings of the show, a screening of *Notre Terre* took place in the lobby as guests entered the xMPL Theatre at the Claire Trevor School of the Arts. Many individuals expressed that they connected emotionally with the screendance. Others simply stated that it made them think, and that was precisely my intention. Viewers then entered the theatre to find a living olive tree featured in a pool of light as they took their seats. A soundscape provided a sense of calm and peace in nature.

After viewing *Carbon Footprint: Watch Your Step*, I believe that it conveyed a strong message – a message of hope that we can come together and make a change. The flow of the work took the viewer through a journey of human interaction with each other and with nature. The dancers in this project brought this point to life through their emotional intent, connection with each other, and their connection with the audience. Their artistic commitment to this work was essential to conveying the emotion and message of the choreography. In my research, I witnessed a visceral humanness in Anna Sokolow's *Dreams*, which I hoped to convey in my choreographic work. I think that the dancers of my project were able to exude that visceral quality through authentic emotion, and eye contact with each other and with the audience in the intimate setting of the xMPL.

As I found in my research, Anna Halprin believes that the focus of dance should be on the transformative experience of the dancer, but I believe that the focus of dance should be on the transformation of both the dancer and the viewer.<sup>74</sup> I think that if a dancer becomes fully

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<sup>74</sup> Anna Halprin, *Moving Toward Life: Five Decades of Transformational Dance* (Middletown, CT: Wesleyan University Press, 1995); 14.

invested in his or her artistic voice within a choreographic work, then that dancer can convey a message that might connect with a viewer in a very profound way. I saw this as I worked with my dancers, coaching them to take artistic initiative in expressing a journey of human interaction with nature. I am unsure how many viewers left the theatre feeling changed, but the few who spoke with me after the show exhibited a sense of connectivity to the message of the work. I believe that the rehearsal processes, which provided time for the dancers to embody aspects of climate change, enabled the dancers to connect with the choreography in an insightful manner. What would have happened without our rehearsal methods of climate change research and improvisation? Would the dancers have had the same connectedness to the work?

The lighting design and original musical composition brought texture to each section of my work. The lighting designer used gobos that accentuated the atmosphere of the space. As previously mentioned, I planned to incorporate projected images during the live performance. However, once I viewed the images along with the lighting design, I made the artistic decision to withdraw projection. The lighting was very complex and textured; the addition of projection seemed to make the space feel cluttered. The sound designer filled the space with vibrant audio, which he enhanced by inserting certain sounds through specific speakers. The emotion of each section was elevated by these artistic collaborations.

The concepts explored in this research are dense topics that could easily withstand a lifetime of exploration. I am interested in deepening my understanding of improvisation as a choreographic tool and as a device for dancers to expand their artistry. I think that there are a plethora of approaches to using dance as a form of climate communication, and I have only skimmed the surface. It would be interesting to explore dance and climate change in a similar way to Anna Halprin's *Circle the Earth*, bringing dancers and non-dancers together as a peaceful

community out in nature. I am also very fascinated with the idea of expanding *Notre Terre* by creating screendances in regions around the world that are affected by climate change, enhancing awareness that this is a global issue.

Overall, my goal was to direct attention toward climate change using dance and choreography as an artistic communicative device. The interplay between the dancers and their movement provided an emotional connection between the audience and the choreography. It was my intent that this production would help alleviate some of the complexity and uncertainty the audience may feel surrounding climate change by engaging the audience on an emotional level. I wanted the audience to realize the beauty of nature, and how it might feel if species of plants and animals continue to disintegrate – if the Earth continues to disintegrate. My choreographic work culminates with a message of hope for a sustainable and resilient future, rather than leaving the viewers full of doubt and a sense of doom. I aspired to create a work which poetically conveyed themes of climate change, in the hopes that viewers would leave the theater with an enhanced perspective, contemplating about how global warming might adversely affect our future and our inheritance, the Earth, our home. Many viewers stated that they enjoyed the flow of the work, and that it left them thinking and feeling hopeful – that was my intention. I know that this artistic work will not affect a large number of people, but I am optimistic that both *Notre Terre* and *Carbon Footprint: Watch Your Step* left some viewers thinking about the Earth and our relationship with nature. Perhaps they were inspired to make a change, and stand up for our future.

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## **APPENDIX A**

### **An Interview with Julie Ferguson**

**IRB Approved**  
**HS#: 2015-2430**

Full interview found at the following URL:

[https://drive.google.com/file/d/0B\\_5XLgmP8YDbbFhUQVhfdC1RaGM/view?usp=sharing](https://drive.google.com/file/d/0B_5XLgmP8YDbbFhUQVhfdC1RaGM/view?usp=sharing)

## APPENDIX B

### An Interview with Karole Armitage

**IRB Approved**

**HS#: 2015-2430**

Q: What works have you created regarding climate change? *Four Seasons*; *On The Nature of Things*; Please briefly describe these works and your experience.

A: *Four Seasons* (2014) is a dance designed for young people and their families based on stories about our planet, inspired by ancient and timeless fables from around the globe. Fables by Aesop and de la Fontaine are interwoven with stories from China and Native America cultures. Ten animal stories are brought to life by a menagerie of lions, ants, hares, bulls, bears, and frogs within a living forest. The stories provide a lovely glimpse into the beauty and fragility of the natural world while offering insight into the bonds that tie humans to each other and to nature.

*On The Nature of Things* (2015) is a meditative, site-specific dance production inspired by the theme of climate change and its cultural context in collaboration with Dr. Paul Ehrlich of Stanford University who wrote a brief text for the production. The meditative essay on culture and climate runs simultaneously with the dance. The dance does not illustrate the text, but unfolds as a parallel voyage. Beginning in harmonious calm, the journey turns perilous as the world goes out of whack. The audience follows the dancers on a voyage of changing consciousness that brings about a return to harmony.

Q: What inspired you to create a work about climate change?

A: It is the most important issue of our time.

Q: How did you delimit the topic of your work?

A: Dance creates meaning through body language through the architecture of time so the limits are posed by the nature of the medium. The essential goal is to bring emotion to the theme of climate change. It is clear that simply presenting the facts, has not motivated change. The dances are about the effect of climate change on our psychic and emotional well-being.

Q: What did your research process entail?

A: In both cases I worked with scientists who are leading experts on climate change: Dr. John Harte, UC Berkley and Dr. Paul Ehrlich, Stanford University. I did additional basic reading but mostly spent time figuring out the fundamental essential emotional core of the subject so that it could affect an audience on a visceral level.

Q: What were your choreographic methods?

A: Bad dance is illustrational or involved in storytelling. Dance communicates and creates interest and tension through the means of dance itself. Therefore I had to find a way that dance was the motor of the production and was innovative in the use of dance language, time and space. The productions have to operate as pure dance while also taking the audience on a journey that was provoked by climate change. The journey comes from the deployment of rhythm,



tension and body language to create attitudes and metaphors that show the emotional price that climate change can/is /and will inflict on our sense of wellbeing and innate biophilia.

Q: What feedback have you received from viewers?

A: The feedback comes mainly from the energy in the room during the show. It has been rewarding to see all ages, ethnicities and social groups responding positively.

Q: How would you define transformative communication?

A: Social and political change come from heightened awareness to bring a change of consciousness.

Q: Do you believe that dance can be a transformative tool of communication? If so, how? If not, then why?

A: Dance operates in a very direct but non-verbal level bringing to the viewer heightened awareness of life – this can range from an awareness of being in the moment to erotic desire. In the case of climate change the audience I have the audience witness harmony destroyed, resulting in increasing disarray, aggression, loss of liberty, etc. and then the opening of the eyes and mind to allow a change of course.

Q: Do you feel that dance can be an effective transformative tool of climate communication? If so, how? If not, then why?

A: Dance has a very small audience so it is never going to have a major impact, but every individual who becomes motivated to affect change is important.

Q: What do you think about current forms of climate communication?

A: The planet is speaking very clearly and fundamentally everyone knows this is happening. In the last couple of years it went from being questioned to being taken as a fact. Big business is scrambling to deal with it.

Q: What do you think the public should know about climate change?

A: Time is critical. We need to take political action NOW, which means a mass populist movement to force politicians who are getting big donations from the gas industry to stand up to the industry.

Q: Do you intend to create other works regarding issues of our time? If so, what topics do you find inspirational? If not, then why?

A: If you are an artist your job is to create work that speaks to the issues of our time. That can be anything from bringing awareness of how two colors in a painting vibrate when placed side by side to a topic such as climate change. Art is about how to perceive the world today in dialogue with history.

## APPENDIX C

Program from *Carbon Footprint: Watch Your Step*





Skye Schmidt Photography

## Artistic Statement

As I was walking through the UCI campus in November of 2014, a glimmer of sweat dripped down my arm - it was 85°F that day. As an Oregonian, used to cold, crisp November days, this seemed outrageous. In that moment, I realized California was in the midst of a severe drought, and I knew that there was a way I could help.

*Carbon Footprint: Watch Your Step* is based on my research, *Using Dance as a Transformative Tool of Climate Communication*. Through this research, I examined choreographic methodologies for creating works regarding current issues. I also investigated the current dilemmas with climate communication. Why aren't more people concerned with making changes toward a sustainable future?

Along with the live performance, I created a screendance, *Notre Terre*, which takes place at four locations in Southern California - each representing a different aspect of the natural world. *Notre Terre* will be playing in the lobby before the show begins. You can also view it online at: <https://vimeo.com/165023711>



Skye Schmidt Photography



# Carbon Footprint: Watch Your Step

Choreography and Artistic Direction by Amelia Unsicker

*In Mundo Naturali* (In the Natural World)

Music/Composition by: Jacques Zwiulich

Dancer: Dominique Kersh

*Abandon*

Music/Composition by: Jacques Zwiulich

Dancers: Jazmine Curie, A.J. Dirickson, Kari Morales,

Ashleigh Moss, Stacie Overmyer, Miku Yoshida

*Mortem Terrae* (Death of Earth)

Music/Composition by: Jacques Zwiulich

Dancers: Jazmine Curie, A.J. Dirickson, Dominique Kersh,

Kari Morales, Chloe Saalsaa, Miku Yoshida

*The Call*

Music/Composition by: Jordan Tani

Dancers: Dominik Haws, Ashleigh Moss, Miku Yoshida

*To Exist*

Poem written, read & sung by: Olivia Allen

Music/Composition by: Jordan Tani

Dancer: Stacie Overmyer

*Hope*

Music/Composition by: Jordan Tani

Dancers: Jazmine Curie, A.J. Dirickson, Dominik Haws,

Dominique Kersh, Kari Morales, Ashleigh Moss, Stacie Overmyer,

Chloe Saalsaa, Miku Yoshida

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Stage Manager: Liv Scott  
Technical Director: Bruce Warner  
Lighting Designer: Nina Agelvis  
Sound Designer: Jordan Tani  
Assistant Sound Designer: Jacques Zwiulich  
Board Operator: Caitlin S. Hemming

## **APPENDIX D**

### **Links to the Screendance and Live Performance**

*Notre Terre*

URL: <https://vimeo.com/165023711>

*Carbon Footprint: Watch Your Step*

URL: <https://vimeo.com/166579981/6358495972>