



PERFORMANCE  
PHILOSOPHY

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## CLIMATE CHANGE AND THE INESCAPABLE PRESENT

JEANNE TIEHEN WAYNE STATE COLLEGE

Global climate change is a crisis on many levels. In this article, I am interested in climate change as a crisis of temporality, affecting our experience of time in two ways. The first is that climate change spans time and tense in ways that make it difficult to conceptualize. For example, climate change raises questions about how our past actions have led us to this moment in time. It also demands that in our present we consider initiatives necessary to decelerate climate change's consequences, but the potential outcomes of climate change and these interventions point to a future of uncertainty. Complicating this idea, climate change as a human and cultural experience follows no past precedent, and the predictions surrounding it often paint a picture of an unimaginable future. The second way time is interwoven with climate change is that it encounters us at a moment when time often feels scarce. Sociologist Judy Wajcman, referring to the works of David Harvey and Nigel Thrift, describes, "Time-space compression is a constant theme in mainstream sociological accounts of post-modern society." She adds that despite the increase of automation and technology, we still have a "time poverty and the paucity of leisure" (Wajcman 2008, 59–60). These two time-centric ideas collide in our assessment of climate change, which suggests a phenomenological quandary: we are confronted with an experience humans have never faced, and we remain slow to respond to it with an urgency climate scientists advocate.

This article explores climate change and its relationship to time by assessing how theatre has portrayed this phenomenological tension. In *Theatre and Phenomenology*, Daniel Johnston describes phenomenology as a movement "aimed at uncovering the nature of our consciousness of the world," and is an "inquiry into how we apprehend" things by understanding that how something appears relates to the way something is (Johnston 2017, 29–30). In this article, I interrogate how both climate change and time appear as phenomena to our consciousness,

recognizing that human consciousness often struggles to mutually reconcile these two phenomena in this specific relationship. Given the immensity of these two phenomena, I explore climate change and time by noting how these two phenomena coalesce within the confines of the stage, extrapolating what that may tell us about our cultural response toward climate change.

This article has three parts. In the first, I introduce climate change and identify some of the difficulties in understanding it as a crisis. I then suggest some of the limitations and possibilities of using phenomenology to look at climate change on stage. In the second, I utilize Husserlian phenomenology and a theory of presentism to illustrate the problem of apprehending the phenomenon of climate change at a moment when we are culturally conditioned to think primarily about the present. I connect these ideas to the structure and content in Moira Buffini, Matt Charman, Penelope Skinner, and Jack Thorne's play *Greenland* (2011). Finally, I analyze Heideggerian phenomenology and feelings of angst in relation to the awareness that our existence and future is finite, underlining how the crisis of climate change heightens this angst by presenting a high-stakes crisis we do not want to confront. These views are reflected in Stephen Emmott's 2012 hybrid science presentation/theatrical event staged at the Royal Court Theatre, *Ten Billion*. In conclusion, I argue that theatre presents the crisis of climate uniquely due to its phenomenological particularities, which include how it utilizes time, and its correlation to an ephemeral and inescapable present.

### Contextualizing Climate Change On and Off Stage

In her book *This Changes Everything* Naomi Klein writes, "Faced with a crisis that threatens our survival as a species," we continue to do the "very thing that caused the crisis" (2014, 2). Klein is referring to the continued rampant use of fossil fuels and our dependence on oil and coal. She adds that our unwillingness to dispense with fossil fuels despite their damaging effects on the environment is symbolic of the "cognitive dissonance" that defines our era (3). In this article I contend that part of this cognitive dissonance has to do with the inability of our consciousness to reconcile the intricate relationship between climate change and time. Another key factor, however, is the conceptual expansiveness and elusiveness of climate change. In utilizing the term for this article, I cite historian of science Erik Conway, who differentiates that the term "climate change," unlike "global warming," considers the long-term transformation of our planet and encompasses changes beyond destructive rising temperatures. This includes important shifts in "precipitation patterns and sea level," which will likely have a "greater impact" for life on earth (Conway 2008). As an object of study, climate change is explored in ecology, sociology, geopolitics, epidemiology, geology, and zoology—to name a few concerned disciplines. Climate change's span across these different areas of research demonstrates how understanding it is multifaceted and complex. Moreover, it is a crisis continually reassessed due to its accelerating speed of change. Bill McKibben articulates that "Time might be the toughest part of the equation" in evaluating climate change because it has multiple "feedback loops" (2009, 33). For example, carbon dioxide leads to ice caps melting, and when Arctic ice and permafrost melts and thaws, even more methane gas is released, which in turn is a "more potent greenhouse gas than carbon dioxide" (ibid.). Recent news reports

indicate that polar ice melting is happening even faster than earlier predicted, because “the more [glaciers] melt, the more they drive further melting” (Gabbatiss 2018).

Undoubtedly, climate change defies simplicity in comprehension. Andrew Hoffman’s research on social responses to climate change exemplifies how people are often unfamiliar, confused, and dismissive about it. He provides an example of the misperceptions by the public: “scientists tried to explain that the issue over climate change is about global temperature increases, not regional weather deviations, and that one weather event does not prove or disprove the science” (2015, 2). Ursula Heise describes a similar problem in her work about species extinction in relation to climate change, writing that the science is often “extremely complex, indeterminate, or unknown” (2016, 13). This is not to posit an anti-scientific approach or to give justification to scientific ignorance about the topic, but instead underlines important issues regarding it: given its size and scope, how do our minds conceive climate change and how do we in turn culturally respond. Climate change is not simply a scientific crisis; it is also a pertinent crisis for individuals and for our culture that requires recognition and action. Phenomenology offers a different approach than science toward climate change by helping contextualize these issues, particularly as an approach to explain how our experience of temporality in relation to climate change plays a major part in our response to it.

Before analyzing *Greenland* and *Ten Billion*, it is important to acknowledge an inherent anthropocentrism in this approach. Mark Fortier defines phenomenology in a way that aligns with my objective here: “Phenomenology is not concerned with the world as it exists in itself but with how the world appears (as phenomena) to the humans who encounter it” (2002, 38). In examining how climate change and time appear to *our* consciousness, it is worth mentioning that my phenomenological analysis of these two plays centers on human experience. Wendy Arons and Theresa J. May in *Readings in Performance and Ecology* (2012) aptly explain that the arts “have traditionally been conceived as the activity that most divides humans from ‘nature,’” and that theatre often puts the “emphasis on human conflict in the context of human institutions” (1). These two plays and my analysis follows suit, despite the fact that there is significant work done by theatre and performance scholars that recognizes the larger ecological impact of climate change, and even includes ideas like animal consciousness. Una Chaudhuri, for example, contends that as ecological thought and awareness of animal consciousness have evolved, the binary between human and animal is breaking down. She describes how interspecies performance and animal acts challenge the “epistemological morass to which we humans have exiled the other animals” (2014, 9). Climate change is already greatly affecting the forms of life and places that are most vulnerable, and this includes many animal species. Elizabeth Kolbert’s *The Sixth Extinction* offers a dire warning, claiming that “one third of all reef-building corals, a third of all freshwater mollusks, a third of sharks and rays, a quarter of all mammals, a fifth of all reptiles, and a sixth of all birds are headed toward oblivion” (2014, 17–18). When we do care about other animals and climate change, Heise confirms that stories “gain sociocultural traction to the extent that they become part of the stories that human communities tell about themselves” (2016, 5). We tend to view animals as metaphors (such as the polar bear, which Chaudhuri and Heise have written about) and only see their existence as relevant in relation to human life.

My analysis does little to reconcile this narrative and cultural treatment of other species, and phenomenologically, only considers human consciousness. Considering the framework of this article, it is somewhat unavoidable. If we do not think we have time to respond to climate change on our own behalf, why should we anticipate an urgent response to save other species? Inherent in my evaluation of how we perceive, experience, and finally act toward the temporality of climate change is the fact that there are many gaps in our rationalizations about this crisis. This is also reflective in the gaps of stories we tell about climate change. The struggle to put climate change on stage is evident in the lack of play titles that exist, described by Julie Hudson in "If You Want to Be Green Hold Your Breath": Climate Change in Theatre." Assessing that the climate change debate is "made for the stage," because it has a ripe combination of ethical dilemma, narrative tension, and special effects, she observes that it is "conspicuous by its absence on the stage" until recently (2012, 260). Amitav Ghosh similarly argues that the stories we tell in the arts and humanities are critical to our understanding of climate change. He writes, "the climate crisis is also a crisis of culture, and thus of the imagination," but adds that "if the urgency of a subject were indeed a criterion of its seriousness [...] it should surely follow that this would be the principal preoccupation of writers the world over—and this, I think is very far from being the case" (2016, 9, 8). Put simply, we have not done enough in fighting climate change or in telling the story of climate change in a way that can help transform individual and cultural mindsets. The topic of climate change is difficult to stage and also hard to conceptualize given its temporal and geospatial span. Nonetheless, *Greenland* and *Ten Billion* show that it is possible through two unique approaches. The two plays illustrate the phenomenological significance of time in relationship to the climate change crisis and also that theatre offers a rare space to make these elusive temporal aspects of climate change more apprehensible to audiences.

### Husserlian Phenomenology and *Greenland*

Phenomenologists like Husserl and Heidegger provide a dynamic piece to this phenomenological puzzle by positing that time experienced *is* time known: or more reductively, experience is knowledge. Johnston adds that phenomenology "seeks to grasp the modes of experience or 'givenness' of the world," and that it "demands rigorous attention to 'the things themselves' (the object as it is actually experienced)" (2017, 29). This is a reason why temporality is such an appropriate object of consideration for phenomenology: time is a nonmaterial thing that can be challenging to understand apart from the experiential, and time simultaneously shapes what it is we experience. This was evident to the early phenomenologists like Husserl. In his book *On the Phenomenology of the Consciousness of Internal Time*, Husserl evaluates the flow of time-consciousness, explaining that most phenomena inhabit a temporal moment. He describes that such phenomena are then given shape within our consciousness through mental processes like perception and memory.

To illustrate how perceiving a phenomenon is often a temporal experience, Husserl refers to the duration of perception when one listens to a melody (1991, 28) (and I would argue that one's apprehension during a theatre performance is analogous). The way our consciousness works,

Husserl contends, is that we have temporal apprehensions of a tone that when played lasts a duration that “endures and fades away.” In truth, Husserl affirmed that he did not “hear” the melody, but rather a “single present tone,” while the tones that have faded remain part of his retention in the flow of consciousness. Each note is part of an ephemeral now, which once played, stays in his consciousness as his mind connects the notes: the flow of consciousness corresponds with the flow of the melody. That is until he is conscious of what Husserl considered a “continuity of phases as ‘immediately past,’” which signals that the melody is over. He clarifies: “After the melody has died away, we no longer have it perceived as present, but we do still have it in consciousness. It is not a present melody but one just past” (34–38). This past melody then remembered becomes a re-represented past, never a past relived exactly in memory. Our memory thus remembers an ephemeral performance or temporal experience differently than its actuality. James Mensch adds that Husserl believed we “anticipate on the basis of past experience,” providing the example that if we continually experience A then B, then the “occurrence of A leads by association to the thought of the accompanying B” (2010, 215). This also has important consequences for climate change, because much of what Husserl describes clarifies why climate change—with its many threads of phenomena and projected, unknown affects—make it difficult to anticipate what is next. For example, in terms of weather patterns and climate norms, A may no longer lead to B.

To fully grasp the implications of Husserlian phenomenology, climate change, and theatre, I also need to explain briefly how presentism ties into this phenomenological examination. Presentism is a weighted term that can convey multiple meanings in philosophy. Craig Bourne evaluates the view known as “ersatz presentism” in “A Theory of Presentism.” This version of presentism allows claims that it is not that “only one time exists, but that only one time has a concrete realization” (2006, 11): that is, the present. In this presentism, there is still room for a time series, such as something occurring “‘earlier than’ without being committed to the existence of real, or rather, concretely realised *relata*, something anathema to presentism” (ibid.). Ersatz presentism, Bourne argues, avoids the strict demarcations of the past, present, and future without dispelling the fact that events still happen in different moments of time that can be viewed in relation to each other. Philosopher D.H. Mellor makes a similar argument in his books *Real Time* and *Real Time II*, expressing that *dates* are fixed, but *tenses* are not, given that tenses change, i.e. what is in the future will soon be present and then be past (1998, 22). Mellor contends that there are “inescapable objective truths about what is past, present, and future, even though nothing really is past, present, or future in itself,” continuing that “tense is not an aspect of reality” but it is “an inescapable mode of perceiving, thinking and speaking about reality” (Mellor 1981, 6). That time appears tensed is arguably a phenomenological way of looking at time, because it appears to us that time functions this way and we utilize this belief in our language and perceptions.

Ersatzer presentism “treats the past and the future as ontologically on a par, in the sense that it denies that there are any concrete truthmakers located there” (Bourne 2006, 12). And what about the future? Bourne differentiates past and future through a branching of time, wherein the past has a one-one relation to the present and the future has a one-many relation to the present, i.e. it branches off from the present to many possible futures that could be, even though only one of

those branched futures will actually be realized (14–18). Bourne states that this allows us to agree with the platitude that the past is fixed and the future is open (12). Considering presentism through our scope of experience, we “know” the/our past is set, but because the future is experienced as open, branching in many possible directions, we have a hard time knowing what it will entail or become. We are grounded in the present, as Husserl suggests, because that is how we experience the world through our consciousness. Bourne’s and Mellor’s arguments corroborate that while we often utilize tense in speaking about the past and future, they are not consistent realities of time but instead are helpful to explain time.

Confronted with the uncertainty of the future, and particularly in the face (and fear) of climate change, our consciousness attempts to treat the future as if it will be like the past—narrow, conclusive. Husserlian explanations of our consciousness and how our anticipations are created from experience of the past support this. Based on our past experience and knowledge, we create a picture of our present reality and anticipate what it is we will experience ahead. Unfortunately, climate change does not appear to play by these tidy rules, because what we have known about our climate, our existence within it, and how to survive may have to alter radically. Kolbert writes a similar thought about mass extinction in relation to climate change: “past performance is no guarantee of future results” (2014, 268). The past will not show us how to adapt to the new world before us. We find safety in tense demarcations when challenged by a visualization of a future we do not want to encounter. Thinking further about Husserlian phenomenology and presentism, our consciousness receives information about climate change in the form of statistics and prognostications from media sources. Yet, simultaneously, we are enveloped in a presentist culture that inundates each of us with other stimuli. We cannot cleanly sort out the “notes” of the climate change “melody” from all the other “notes” we receive, and we then have difficulty in consciously creating a composite “flowing picture” of climate change. We hear about melting Arctic glaciers, upticks of natural disasters, and the vast array of consequences attributable to climate change in a digital/24-hour news cycle, but what does that all mean for us in this present moment that is also barreling down on us?

This presentist sentiment is articulated near the end of the play *Greenland*, written by Moira Buffini, Matt Charman, Penelope Skinner, and Jack Thorne, when the character Sarah states:

It’s not like I don’t ever watch the news. I see the fires. The floods. But two minutes later it’s all about the recession. Or some—election [...] They say we’re all going to die. Then there’s an ad break full of happy songs and adverts for airlines. (2011, 89)

Sarah’s words echo the common feeling of being overwhelmed by climate change. She questions what to believe or focus on when everything happens quickly, and when she is simultaneously inundated with other information about things that may also need her immediate (in)attention. Such reactions toward the time-pressing demands of climate change appear throughout *Greenland*. In its use of time, the play offers an assortment of scenes set in the present, with several characters struggling with some aspect of climate change. The panoply of scenes and characters creates an intriguing picture of how the scope of climate change and its effects are far-reaching

and diverse. The playwrights crafted a play with several storylines set in different spaces and times with little indication of when a scene may shift, often introduce new characters, and leave ambiguous endings to many of the storylines. These choices symbolize the boundlessness of climate change that ultimately affects everyone on stage (and in the audience too). Scene two begins with the stage directions: *"The company try and respond to a series of climate-based quiz questions. They don't know the answers. Music and a large amount of plastic falls from above. The company scatter it about the space"* (4). This moment conjures a phenomenological demonstration of disarray. There seems to be something about the phenomenon of climate change that elicits such an experiential response of not knowing solutions or answers, which results in chaos.

The disjointed and frenzied feel of the play continues. Over the course of the play a young woman, Lisa, becomes a passionate new crusader in the environmental fight by joining radical protestors. In her first scene, Lisa is with her mother Paula at the grocery store. Having read books such as *Climate Wars*, she has come to the grocery store to protest the use of plastic packaging, the global transportation of food, and the waste of produce and meats that should not be sold off-season. In relation to the argument I am developing here, Lisa offers a critique of presentist cultural norms. But this is undermined by the other characters: Paula retorts, "Yes but we recycle" (6), and Lisa's father later responds that the books she reads are creating "a campaign of fear," and that global warming has happened time and again through "geological time" (16). Thinking about this response with a Husserlian view of experience, we can see why similar arguments continue to find saliency amongst deniers; according to those who make such arguments, because there have been weather shifts before, current weather problems do not signify that the climate is irreversibly changing. The character Phoebe works for the Department of Energy and falls in love with Ray, a climate scientist. Ray concedes that he expects "the sixth mass extinction of life on the planet [...] Half the species gone by the end of the century," but despite this evidence, admits, "I want a future. I want a family. A family one day" (51). Ray has the impulse to have a family despite knowing he is part of a species that may go extinct, and that it is not a logical want because of what he knows about the realities of climate change. Nevertheless, he has a desire to remain present-focused and build a life like those before him; in the past a person did not have to consider experiences like mass extinction due to environmental instability.

Later in the play, Alamir and Seydou, members of the Mali ministry of the environment, directly address the audience in a rupture of the fourth wall as the play shifts to the 2009 United Nations Climate Change Conference. Such moments disrupt not only the space of the stage reality but also its temporal boundaries; are we to believe that they are in Copenhagen during 2009 as they say they are, or do we understand they are speaking as actors/characters in a play within the temporal space of fiction? Or both? Or neither? As the two characters describe the devastating impact Mali has already experienced due to climate change, Seydou asks the audience if they even know the capital of Mali, and Alamir replies, "that lady almost had her hand up" (49). Seydou and Alamir acknowledge that the crisis of climate change is hitting certain geographic areas hardest now, and the present experience of climate change is not comparable everywhere. For example, as one geographic area of the world experiences droughts and wildfires, another area may experience high levels of rainfall and flooding. Moreover, given the economic and governmental discrepancies

across the globe, how climate change impacts each region is presently catastrophic for one area and not yet severe in another. This moment between Alamir and Seydou also closes the phenomenological gap of time and space, fiction and truth, for the audience watching the play. Bert O. States describes the “representational mode” of theatre as always containing the potential for such moments of phenomenological self-reflection, when theatre can say, “Why should we pretend this is an illusion. We are in this together” (1985, 181). This is such a moment in the play when the “we” expands beyond the characters and includes the audience in recognizing climate change’s real and current global impact. This moment also highlights the inescapable present of the theatre, as the actors/characters interacting with the audience push back against the safe fiction the stage can provide. In this break from illusion, the play cuts through a theatrical flow of performance boundaries, and thus our consciousness, by halting the mechanics of cognitive detachment that may otherwise permit one to think that what is on stage is only artifice.

*Greenland* shows a representation of presentism that can be understood in philosophical terms. Throughout the play, characters either try to downplay the effects of climate change as other business in their present life consumes them, or they come to the distressing realization that it has never been like this before. These two responses seem to paralyze any institutional or widespread progressive action against climate change, which the international climate conference portrayed in the play exposes. Media theorist Douglas Rushkoff writes about similar cultural attitudes in *Present Shock*, assessing that the “twenty-first [century] can be defined by presentism” (2013, 3). Thinking the present is all that is real or matters is not only an academic or theoretical way of thinking about climate change, but it is also a mindset encouraged by many operations in our current cultures’ structures. Rushkoff describes many attributes of a presentist culture, where we live in a “distracted present”—one in which meaningless pop culture events can hold our attention while those forces “immediately before us are ignored” (4). Climate change is a fitting example of one of those things immediately before us that we nonetheless ignore as our present is shaped by “time-space compression,” to recall Wacjman’s description I cited at the beginning of this article. Rushkoff explicates that the constant stream of news and information via social media and the Internet at all times of the day makes it nearly impossible to think ahead about something like climate change and its endless complications.

In this way, even as we are cautioned by climate change scientists that we are not doing enough in the present, we are distracted from taking action by our preoccupation with that very “present.” In *Theatre and Time*, David Wiles describes how the “ever increasing speed of trains, jet aircraft and digital telecommunications [...] means that capitalism puts a premium on ephemerality, and if the present is volatile and subject to instant change, there can be no point in engaging with the past or in long-term planning for the future” (2014, 60). Our present distresses us because we fear the crisis of climate change; yet our present also drowns us in the information and busyness that shapes this cultural zeitgeist. Understanding these phenomena, it perhaps is not all that surprising that climate change solutions and strategizing that requires more time, more effort, and more money are not easily finding traction. This non-response is on full display in *Greenland*, evident when Seydou and Alamir are ignored at the climate conference.



In the *New York Times*, Matt Wolf describes *Greenland's* set as a “gaping bleak, black hole in which anything is possible, given the impossible mess we are making of life on Earth” (2011). The set appears to be a phenomenological representation of climate change in the play; *Greenland* confronts the anxiety that we, spatially and temporally, will cease to be, dissolving into the darkness. What better image than a black hole of a set to represent this idea? The final stage image of the play is the entire cast on stage, and the stage directions describe that while one character calls out another’s name, “*The snow consumes everyone*” (Buffini et. al 2011, 95). This symbolic moment conveys a sense that we will all ultimately be consumed by nature. The stage space becomes one where time is irrelevant and we return to nothing. It represents an experience of climate change’s consequences that grasps the severity of this crisis.

*Greenland* illustrates the merging of space and time in both its theatrical deployment of multiple storylines and set design. Doing so, it highlights how space and time are being redefined by climate change. Sociologist Barbara Adam comparably evaluates how in our modern life, “Time has been compressed to its limit [...] No-where and now-here have become interchangeable” (2004, 146). As time is compressed to the point of collapse of meaning in our culture, she makes clear that it feels like “there is no before and after, no cause and effect” (ibid.). Presentism can produce such outlooks. This sentiment also encapsulates the time haziness of climate change, which the overall structure of *Greenland* also depicted with its tangled storylines, reappearing and disappearing characters, its breaking and resumption of the fourth wall, and its blend of minimalism and high theatricality that gives it a feeling of no-where and now-here. It is hard to anticipate what comes next within the play, perhaps replicating our world outside the theatre doors. The play confronts the limitations of our Husserlian consciousness, showing us that our perceptions of the past will not give us much of a guide for the future. This is even truer in a culture that is distorted by presentism. As a theatrical intervention on climate change, *Greenland* was not without its critics.<sup>1</sup> However, as a phenomenological depiction of climate change, it captures a temporal confusion by exhibiting how we are grounded in the present, that the past provides no direction how to solve this crisis, and the unknowable future looms ahead like a black hole.

### Heideggerian phenomenology and *Ten Billion*

What may lie ahead can evoke feelings of dread and fear. Our consciousness struggles to make sense of the potential consequences of climate change, which are discordant with the way we want to imagine our future. Despite our desire to think that now is all that matters, we are still temporal beings, and aware that time continues to move forward. Heidegger’s thoughts on time and phenomenology are relevant to this assessment. His ideas are helpful in revealing how our being is inseparable from how we experience the world, and that as beings we are temporal, constructed of an individual past, present, and future that shape how we view life. Time in this regard is ontologically relevant. As temporal beings there are instants of time where we are aware of our temporality, given our existence is “finite, limited” and it “inevitably, must meet its ultimate end” (P. Hoffman 2006, 232). For Heidegger, this awareness of finitude is not a fleeting moment of realization, but instead an ongoing and lived experience. Heidegger, similarly to Husserl,

considered how our past shapes our present. However, Heidegger believed that our past also shapes our identity and our future, and that in facing our future's inevitable ending, we confront our past again. Our sense of the past is therefore created in our experience with the knowledge we have a future, and this awareness of the future informs our present (just as our past does, albeit for different reasons). Johnston writes of Heidegger's ideas:

Not only are human beings inextricably linked to the world in which they live but they are also thrown between possibility (the way things might be) and actuality (the way things are) [...] The meaning of Being, including human existence, is only sensible in so far as being is always within time—the fact that life begins at birth and ends at death gives meaning to what happens in between. (2017, 31)

Consequently, our past, present, and future are created with the knowledge we have of a *limited* future. This not only affects our perception of our personal timeline but also shapes our view that we are a “determinate self, a self endowed with a particular life history” (P. Hoffman 2006, 232). Heidegger writes that “death is ontologically constituted by mineness and existence,” and that it is “not an event, but a phenomenon to be understood existentially” (Heidegger 2006, 223).

Heidegger's words articulate the surreal realization that at some point, as temporal beings, we simply will not be. In his view, this is so peculiar because death's actuality is unlike any other experience we have in being, thus creating certain “*Angst*” (232). Heidegger even suggests, arguably, that this *Angst* does not stem from fear of one's death, per se, but arrives as an “attunement of the *Da-sein*, the disclosedness of the fact the *Da-sein* exists as thrown into being-*toward-its-end*” (232–233). Johnston further explains that most of the time “humans are caught up in their everyday concern with practical engagements with the world,” but there still exists an “anxiousness toward existence” that we try to settle, and specifically in regard to our ending/death (Johnston 2017, 42). In facing climate change, we are confronted with a considerable number of predictions about the end of existence for many species and potentially catastrophic losses of human life (Kolbert 2004). This phenomenological experience of considering a future comprised of widespread plights—which includes more natural disasters, more diseases due to warmer temperatures, and political instability exacerbated by fighting over limited resources—challenges our sense of existence in the present. It is nearly incomprehensible to imagine this future when our collective past has never told this story. The angst we may feel about our own death and end is heightened under the future threats of climate change, which pushes against the idea that even our existence as a species is a given. Climate change can evoke a dreadful angst of the future and our end. This feeling shadows our present and paralyzes us in its magnitude.

The angst of this reality is on full display in the play *Ten Billion*. Directed by Katie Mitchell at the Royal Court Theatre and “performed” by computational neuroscientist Stephen Emmott, the play is essentially Emmott conveying his ideas on the problem of overpopulation and climate change. The collaborative production stemmed from struggles Mitchell had in creating a play about climate change until the realization: “just put the science onstage as is” (Trueman 2014). Therefore, she put a scientist on stage to lecture. The website for the Royal Court cites names in correlation with the production, including their theatrical roles, but Emmott's name is listed without a designation. He

is not noted as “actor,” “performer,” or “scientist.” Emmott describes the process of the performance:

It is like nothing else I have ever done before and has involved a great deal of revision. My first scripts were too formal. It was as if I was writing for a journal. I have had to find a more naturalistic voice. I am not learning lines, however, just a set of points that I want to make as the show progresses. Katie will then introduce the kind of tempo that the show needs. I want to change people’s ideas about the impact we are having on the planet. (McKie 2012)

Emmott performs the role of educator as he guides the audience through multiple causes and effects of climate change. The play quickly progresses into a litany of data he shares regarding the rapid increase of our earth’s population. Michael Billington described Emmott’s performance/lecture as using “an array of statistics to reinforce his argument” about the dire effects of our population surging toward ten billion people, especially as it does so under the umbrella of climate change (Billington 2012). He also adds, “Some will argue this is a lecture, not theatre. But the distinction seems nonsensical,” indicating that while the performance occurs in a theatre space, it challenges the definitional boundaries of what is designated as a play. In the play, Emmott asserts that by 1930 we had hit two billion people and by 1960, three billion. Emmott adds that as the population number swells, our need for water, food, land, transportation, and energy match these rising numbers, and in turn, “we are now accelerating the rate at which we’re changing our climate” (Emmott 2013, 44). He thoroughly presents how we as a people, our environment, and world have progressed in the past two centuries, and then he assesses where we are currently because of these supposed advances. This defining shift from the past into the present allows Emmott to portray how our actions across time are entangled in the crisis of climate change.

Emmott’s arguments cover many angles: our meat consumption, the amount of water used to make chocolate, our use of oil and gas—where he explicates he is “not worried about running out [...] I’m worried that we’re going to continue to use them”—the amount of cars we continue to make and scrap, how much we will fly this year, and how much we are transporting various manufactured goods across the globe (86). Identifying these cultural habits that have been established over decades, he then turns to the climate, evaluating how quickly climate change is accelerating because of these behaviors. Shifting to the future, he estimates what the world will look like in 2050, how many people will live in cities (70%), and that our food production may encounter unmanageable conditions with soil degradation and desertification of agricultural lands. Further, he warns of the potential for pathogens that devastate crops in an ever-changing climate to which we have not adapted, and increased water shortages that will make it hard to water said crops (135). Emmott suggests the potential solutions of green energy and geo-engineering are not only problematic but too late to implement effectively. Emmott paints a broad, ominous landscape, which also makes note of celebrities and their halfhearted eco-measures and incompetent and indifferent politicians. He concludes the performance with little hope to offer. Billington describes: “He is quiet, humane and deeply concerned and when he says, at the end, ‘I think we’re fucked’ you have to believe him” (Billington 2012).

Despite mixed reviews of the play, Emmott's stage play importantly highlights the crisis of climate change that has evolved through time and the unique challenge it poses for our phenomenological apprehension. Part of the play's phenomenological achievement, I argue, is Emmott's unwillingness to relent and its phenomenological collapse of the real and unreal. Billington described the production: "This is one of the most disturbing evenings I have ever spent in the theatre" (2012), because the play awakens a feeling of unease through the Heideggerian anxiety/angst it rouses. Other critics voiced similar thoughts. This response to the play is aided by the resistance to fiction that the performance establishes through its form as a lecture. Writing about the body of the actor in a play, Stanton Garner described such a mix of the corporeal and fictional: "Jointly claimed by actor and character, the body on stage is also implicated in the real and the imaginary that underlie the twinnedness of dramatic fiction" (2004, 44). Yet, in *Ten Billion*, Emmott immediately states that he is not an actor but a scientist, making the information that Emmott shares that much more haunting. There is no fictive present to hide behind in our audience presence/present. We do not get to dismiss him as only a character. In this space that is so often filled with the make-believe and imaginary fictions of created worlds, there are now facts and information about our reality. We do not get to do what Rushkoff describes, and inhabit a distracted present of "nowness." Emmott unrelentingly paints this temporal arc of climate change while audiences are held captive by a truth about our existence. In this branch of the future that Emmott describes, there is no respite.

The play is not an attempt to acquaint us with climate change or feel an empathetic response. Emmott's thesis is that we are losing the fight against climate change, and he had no desire, and ultimately Mitchell did not either, to sugarcoat this reality. Emmott instead wants to command our attention. Considering a Husserlian phenomenological experience of this play, the audience's consciousness is provided a clear composite picture during this hour spent in the theatre: we have no precedent in our past for this crisis but it is also not a problem we can ignore. That is not an experience we often are given in the theatre or when informed about climate change elsewhere. Through a Heideggerian lens, the play sharply critiques our presentist attitudes and mindsets, reminding us that our continued existence is not guaranteed—eliciting a response toward climate change that conjures Heideggerian angst. As a presentation of time and climate change, Emmott informs us how our past decisions have led us here and points out the ways we personally and collectively continue to make eco-damaging choices, favoring a presentist-rewarding culture of consumerism. We may not want to hear about the future Emmott describes and what that means for our Being, beyond rescue though it may be. We can also no longer afford to ignore his warning.

### **A Present We Can No Longer Escape**

The two plays I discuss in this paper are British works, staged at prestigious theatres in London. As a US American concerned about climate change, the theatrical response has been quieter in my own country. Under the current political administration, the very words "climate change" have become taboo, and its mention has been removed from countless online resources by the Environmental Protection Agency (Friedman 2017). It is an act of cognitive dissonance and gross

irresponsibility, rooted in a belief that if we no longer read about it or address this crisis, maybe it can be an experience we can avoid altogether. Andrew Hoffman describes that climate change itself will not likely force people to be “increasingly open to the reality of climate change” until catastrophes continue to affect the economic market “and costs begin to rise for both business and the consumer” (A. Hoffman 2015, 86). The costs are already rising, evident by the increase of severe natural disasters and record-breaking season temperatures that are creating a multitude of consequential and expensive problems.

Balancing both a Husserlian understanding about how past experience creates future anticipations, and a Heideggerian sense of time that is connected to the angst regarding our finite existence, it is obvious why the concept of climate change does not sit well with us. Climate change spans time and inhabits all regions of the Earth, though its effects are experienced unequally. It does so while challenging the very possibility of our existence at a moment where the present can already feel incessantly busy, and our lives are spread thin by other demanding political, economic, and social causes. What makes climate change problematic for our consciousness to perceive as a phenomenon is that we as a species cannot recall an experience like it. Even though there is scientific consensus about human activity contributing to climate change, there is still reluctance to accept this reality in entirety. We do not want to see past our present horizon into this future, which appears almost apocalyptic in description. In light of Heidegger, death is something we struggle to comprehend on an individual scale (the strangeness of realizing we will cease to be), so of course we struggle processing it on such an epic scale. How can we in our consciousness fathom something like that?

In the theatre, where our immediate attention is demanded, and where there is a living connection and co-presence between the spectator and the character onstage, there is still hope. Maybe in watching a play, audiences can empathize with and/or think about the climate scientist, the young protestor, or the government politician, all of whom may struggle to do what is most effective to help reverse the effects of climate change. Theatre is perhaps one of the last vestiges that can break the time-numbing hum of presentism and busyness that dominates so many other experiences by demanding our time with its own conventions. Rayner (2006, 21) writes, “Conditioned to the conventions of time, we ignore the daily coercions we submit to”—but in the dark of the theatre, with many of those coercions put on pause, we are offered the rarest of gifts: time to witness. In our perception of the phenomena on stage and the phenomena of climate change and time, we get a chance for the flow of our consciousness to parallel the “melody” of the play performed in a present experience that asks for our time and our focus. We are not allowed to also multitask and check our emails, posts, or texts, or at least not encouraged to. Johnston argues a similar point, writing, “Most of the time, we don’t even notice time,” but in contrast theatre is so “deeply imbued with time and history, it lends itself as an obvious vehicle for conscious investigation of these phenomenological aspects of existence” (2017, 159–160). Time and climate change can find a rare and compelling life on the stage as an audience phenomenologically encounters both in ways that most experiences outside the theatre doors do not, and cannot, mirror. Where else can the crisis of climate change be enclosed by space and time, quickened and slowed down with the skill of pacing, and attached to a shared presence/present of performer and

audience? Within the distinctive phenomenological sphere of the theatre, I assert we should hold hope that theatrical representations can help reshape our consciousness, and thus our conscience by the stories it tells and the people it reaches. For this is no longer a crisis we can temporally or experientially escape.

### Notes

<sup>1</sup> Michael Billington (2011) for the *Guardian* gave *Greenland* three out of five stars. He described it possessing “intersecting narratives,” and stated that the play “while well staged, lacks focus.” He also wrote that the play “stabs the conscience without offering a perceptible point of view.” Paul Taylor (2011) for the *Independent* called *Greenland* one of “conceptual compositeness,” and “an intellectual extravaganza” that was “brilliantly directed [...] stunningly well designed.” Taylor complimented the play for being “undeniably stimulating,” but nevertheless concluded, “I couldn’t give a damn about any of the multiply-authored characters,” because the play lacked “felt life.”

### Works Cited

- Adam, Barbara. 2004. *Time*. Cambridge, UK: Polity.
- Arons, Wendy and Theresa J. May. 2012. “Introduction.” In *Readings in Performance and Ecology*. Edited by Wendy Arons and Theresa J. May, 1–10. New York: Palgrave Macmillan.
- Billington, Michael. 2012. “*Ten Billion* – review.” *Guardian*, July 19. Accessed July 15, 2017. <https://www.theguardian.com/stage/2012/jul/19/ten-billion-review-royal-court>.
- . 2011. “*Greenland* – review”. *Guardian*, February 1. Accessed September 15, 2016. <https://www.theguardian.com/stage/2011/feb/02/greenland-review>
- Bourne, Craig. 2006. “A Theory of Presentism.” *Canadian Journal of Philosophy* 36 (1): 1–24. <https://doi.org/10.1093/acprof:oso/9780199212804.003.0003>
- Buffini, Moira, Matt Charman, Penelope Skinner, and Jack Thorne. 2011. *Greenland*. London: Faber and Faber.
- Chaudhuri, Una. 2014. “Introduction: Animal Acts for Changing Times, 2.0: A Field Guide to Interspecies Performance.” In *Animal Acts: Performing Species Today*. Edited by Una Chaudhuri and Holly Hughes, 1–12. Ann Arbor: University of Michigan Press. <https://doi.org/10.3998/mpub.5633302>
- Conway, Erik M. 2008. “What’s in a Name? Global Warming vs. Climate Change.” *National Aeronautics and Space Administration*, Dec. 12. Accessed May 15, 2018. [https://www.nasa.gov/topics/earth/features/climate\\_by\\_any\\_other\\_name.html](https://www.nasa.gov/topics/earth/features/climate_by_any_other_name.html).
- Emmott, Stephen. 2013. *Ten Billion*. New York: Random House.
- Fortier, Mark. 2002. *Theory/Theatre: An Introduction*. New York: Routledge.
- Friedman, Lisa. 2017. “E.P.A. Scrubs a Climate Website of ‘Climate Change.’” *New York Times*, October 20. Accessed February 13, 2018. <https://www.nytimes.com/2017/10/20/climate/epa-climate-change.html>.
- Gabbatiss, Josh. 2018. “Sea levels could be rising faster than predicted due to new source of Antarctic ice melting.” *Independent*, April 18. Accessed June 9, 2018. <https://www.independent.co.uk/environment/antarctica-sea-level-rise-ice-melting-climate-change-global-warming-positive-feedback-a8310681.html>
- Garner Jr., Stanton B. 1994. *Bodied Spaces: Phenomenology and Performances in Contemporary Drama*. Ithaca: Cornell University Press.

- Ghosh, Amitav. 2016. *The Great Derangement: Climate Change and the Unthinkable*. Chicago: University of Chicago Press.
- Heidegger, Martin. *Being and Time*. 1996. Translated by Joan Stambaugh. Albany: State University of New York Press.
- Heise, Ursula. 2016. *Imagining Extinction: The Cultural Meanings of Endangered Species*. Chicago: University of Chicago Press. <https://doi.org/10.7208/chicago/9780226358338.001.0001>
- Hoffman, Andrew. 2015. *How Culture Shapes the Climate Change Debate*. Stanford: Stanford University Press.
- Hoffman, Piotr. 2006. "Death, time, history: Division II of *Being and Time*." In *The Cambridge Companion to Heidegger*, second edition. Edited by Charles B. Guignon, 222–240. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CCOL0521821363.009>
- Hudson, Julie. 2012. "'If You Want to Be Green Hold Your Breath': Climate Change in British Theatre." *New Theatre Quarterly*, 28 (3): 260–271. <https://doi.org/10.1017/S0266464X12000449>
- Husserl, Edmund. 1991. *On the Phenomenology of the Consciousness of Internal Time (1893–1917)*. Translated by John Barnett Brough. Norwell, MA: Kluwer Academic Publishers.
- Johnston, Daniel. 2017. *Theatre and Phenomenology: Manual Philosophy*. London: Palgrave.
- Klein, Naomi. 2014. *This Changes Everything: Capitalism vs. The Climate*. New York: Simon & Schuster.
- Kolbert, Elizabeth. 2014. *The Sixth Extinction: An Unnatural History*. New York: Henry Hold and Company.
- McKibben, Bill. 2009. "Climate Change." *Foreign Policy* 170: 32–38.
- McKie Robin. 2012. "Stephen Emmott, co-creator of Ten Billion: Interview." *Population Matters*, July 22. Accessed July 23, 2016. <http://www.populationmatters.org/stephen-emmott-cocreator-ten-billion-interview>.
- Mellor, D.H. 1981. *Real Time*. Cambridge: Cambridge University Press.
- Mellor, D. H. 1998. *Real Time II*. New York: Routledge.
- Rayner, Alice. 2006. *Ghosts: Death's Double and Phenomena of Theatre*. Minneapolis: University of Minnesota Press.
- Rushkoff, Douglas. 2013. *Present Shock: When Everything Happens Now*. New York: Penguin.
- States, Bert O. 1985. *Great Reckonings in Little Rooms: On the Phenomenology of Theater*. Los Angeles: University of California Press.
- Taylor, Paul. 2011. "Greenland, National Theatre: Lyttelton, London." *Independent*, February 2. Accessed July 12, 2016. <http://www.independent.co.uk/arts-entertainment/theatre-dance/reviews/greenland-national-theatre-lyttelton-london-2202512.html>.
- Trueman, Matt. 2014. "Katie Mitchell and Duncan Macmillan on 2071." *Matt Trueman: Theatre Critic and Journalist*. November 23. Accessed August 15, 2016. <http://matttrueman.co.uk/2014/11/katie-mitchell-and-duncan-macmillan-on-2071.html>.
- Wacjman, Judy. 2008. "Life in the fast lane? Towards a sociology of technology and time." *The British Journal of Sociology* 59 (1): 59–77.
- Wiles, David. 2014. *Theatre & Time*. New York: Palgrave Macmillan.
- Wolf, Matt. 2011. "In London, Climate Change Comes to the Stage." *New York Times*, February 8. Accessed July 9, 2016. <http://www.nytimes.com/2011/02/09/arts/09iht-lon09.html>.

## Biography

Jeanne Tiehen is an Assistant Professor and Director of Theatre at Wayne State College in Nebraska. She graduated with her Ph.D. and M.A. in Theatre Studies from the University of Kansas where she served as Managing Editor for the *Journal of Dramatic Theory and Criticism*. Her dissertation, *Time is of the Essence: The Centrality of Time in Science Plays and the Cultural Implications*, explores representations of time in several science plays, arguing that theatre uniquely demonstrates the cultural relationship between science and time. Her Master's Thesis, "Frankenstein on Stage: Galvanizing the Myth and Evolving the Creature," received University of Kansas's College of Liberal Arts and Sciences' Outstanding Thesis Award in 2013. She has presented her work on science plays at several conferences, including the American Society for Theatre Research conference, the Comparative Drama Conference, and the National Popular Culture Association & American Culture Association conference.

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