We're Alive: The Resurrection of the Audio Drama in the Anthropocene

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In the age of the Anthropocene, in which many scientists believe that humanity has come to represent a biogeophysical force, the need for a public response to climate change is urgent. However, widespread, systemic change has been slow in coming. Kari Norgaard, in research on the social production of climate change denial, suggests that action will not truly begin to take place until the populace is equipped with more than just information or concern about the problem.[1] Instead, recent theorization suggests that fomenting action in response to climate change will require multiple tools: adequate understanding of the issues, internalized anxiety and emotional investment, social and political support, and (perhaps most importantly) a forum in which people might begin to envision themselves in more sustainable scenarios.[2] As artists and writers working to change the discourse surrounding environmental concerns struggle to find a medium capable of meeting these criteria, the psychological implications of sound, ways in which contemporary users have adapted mobile technologies, and thematic possibilities of audio dramas suggest that some podcasts could be particularly well suited to allow people to internalize (both physically and psychically) the issues confronting humanity in the age of climate change.

While audio recordings have long been available on the Internet, early podcasts, first available in 2003, were the first technology capable of automatically delivering audio content to both desktop and portable devices.[3] Rooted in the tradition of classic radio but available for access at the listener's convenience, podcasts have begun to transform the ways in which listeners consume audio media. According to a study by the Pew Research Center, 27 percent of the U.S. population reports ever having listened to a podcast, while Edison Research reports that 15 percent of the U.S. population listened to podcasts weekly in 2014.[4] Moreover, because the vast majority of podcasts are free for download, they are relatively accessible to anyone

with Internet access worldwide—a population the United Nations reports will be approaching three billion by the end of 2014.[5] Podcasts, then, use modern technology with a vast global reach to disseminate media rooted in the radio tradition, in genres as diverse as do-it-yourself tutorials, political talk radio, comedy chat programs, and serial audio dramas.

As a case study of the potential potency of podcast audio dramas, *We're Alive* seems particularly relevant. Written by Kc Wayland, *We're Alive* began broadcasting in 2009 and concluded on July 29, 2014. Although *We're Alive* is a product of relatively recent technology, it pays clear homage to the serial radio dramas upon which it is modeled both technologically and thematically. The majority of the sound effects that animate the action of *We're Alive* are created not digitally but on the more traditional Foley-stage, where the cast and crew reproduce the sounds of everyday life using conventional materials, creating a soundscape that evokes the golden age of radio. Similarly, *We're Alive* is set in motion by the sudden appearance of zombie-like creatures, referencing a body of historical audio zombies that have long been used to metaphorize the complex issues plaguing audiences.

As with conventional zombie audio plays, *We're Alive* uses the dread fostered by its zombie-like creatures to conjure more pressing real-world anxieties. Analyzing zombie radio plays of the 1930s and 40s, Richard Hand suggests that the most effective dramas were set contemporaneously so as to best encourage audiences to suspend disbelief and succumb to the horror of the narrative. Describing a 1945 episode of *Inner Sanctum Mysteries* in which a woman comes to believe her husband is undead, Hand notes that setting the tale in 1940s New York City ensures that the play has "great resonance and can be interpreted as a reflection of postwar angst, paranoia, and guilt: a society emerging from a global conflict that had created thousands of war widows or families attempting to readjust to the return of their menfolk."[6] Similarly, *We're Alive* is set in more or less contemporary Los Angeles. The saga begins with three soldiers reporting for duty to subdue rioters who have begun attacking civilians across the city. It quickly becomes apparent that the rioters are, in fact, mutated humans who can spread their mutations through bodily fluids. As other unmutated survivors join the soldiers, however, the mutated enemies (called alternately "creatures," "zombies," "flesh eaters," and "monsters") recede into the background as minor threats amidst a cacophony of concerns. With unmutated human populations decimated and no remaining urban infrastructure, narratives of scarcity begin to overshadow other crises.

On the podcast's website, a short synopsis of the plot ends with a line that tellingly neglects to mention the "creatures" at all: "Little food. Little water.

Little hope. Who is lucky enough to say 'We're Alive?'"[7] By deemphasizing the injury inflicted by the sudden ruination of human society against that of protracted resource exhaustion, *We're Alive* establishes itself as something more than a conventional model of apocalypse. While scenarios of apocalypse continue to be popular in narratives concerning climate change, much theorization suggests that they are largely impotent in their ability to instigate audience action. As Bill McKibben warns, for example, overblown narratives of apocalyptic calamity can permit skeptics to more easily dismiss the threat of climate change.[8] Critiquing the model from another angle, Greg Garrard notes that narratives of apocalypse that represent the future as hopeless can actually convince people that any interventions may be futile.[9] In contrast, *We're Alive* presents an apocalyptic moment that is woven into the fabric of ongoing life—the cataclysmic outbreak does not completely destroy the known world or lead to hopelessness and despair. If the spectacular violence enacted by the "creatures" is the catalyst for the dramatic reconfiguration of human society, it is the slow devastation of drought and depletion that is most destructive to conventional models of modern human civilization. Nevertheless, the podcast's characters never cease trying to find a sustainable solution to all of the environmental problems plaguing their reality. The characters of *We're Alive* engage in worldbuilding, a term coined by science fiction writers to describe the ways in which authors intentionally unfurl the details of their imagined worlds. In *We're Alive*, worldbuilding translates to the process of actively and consciously constructing the lived environment to accommodate the new reality in which the characters find themselves, not unlike the ways in which climate change activists like Naomi Klein have suggested people will need to intentionally reconfigure societal structures if we are to mitigate the effects of anthropogenically motivated climate change and environmental degradation.[10]

Susceptible to melodrama and over-the-top sound effects, *We're Alive* is not highbrow literary fiction. However, it is largely because of *We're Alive*'s rootedness in genres of horror and hypermasculinized action-adventure that it has been able to attract a variegated global audience. While certain forums through which to approach issues of climate change seem marketed to those already invested in the cause, *We're Alive*'s early listening public was replete with listeners who might not otherwise seek out narratives of sustainability; initial audiences consisted of those who personally inhabited the cast and crew's orbits, drawn entirely by word of mouth.[11] This initial listening public also included a surprisingly large contingent engaged with the military-industrial complex, as Wayland's military background inspired much of the story and spawned references to specific people with whom he

served.[12] What began as a local, grassroots project, though, expanded into something of a global phenomenon: at 20 million downloads, *We're Alive* is consistently one of the most popular podcasts on iTunes.[13] In the following pages, this paper will work to show how the podcast's auditory medium (and associated listening technologies) encourages its diverse audience to actively engage in worldbuilding along with the story's creators. Moreover, the podcast's fabula and syuzhet lead listeners to examine many of the same problems surrounding climate change by addressing issues of dread, geographical rootedness, and temporality, all while modeling long-term, sustainable problem-solving methods. *We're Alive* encourages listeners to confront, process, and imagine solutions to real-world environmental issues within the dynamic soundscape of the podcast's alternative reality: a process, I contend, that makes them all the more capable of doing so in their extratextual realities, as well.

We're Alive is an auditory artifact: the scripts have never been made available and no related televised show has been produced. Nevertheless, this purely sonic production might be particularly powerful as a medium through which to encourage listeners to internalize some of the unpalatable issues surrounding narratives of climate change. While sound is obviously a form of mediation, the similarity of sound to individual internal monologue is such that it can seem to closely mimic an individual's own process of cognition. As Theodor Adorno writes, sound leaves "no room for conceptual reflection between itself and the subject, and so it creates an illusion of immediacy in the totally mediated world."[14] In the public imaginary, a pervasive mythos depicts sound as the medium of immutable truth.

The ability of sound to masquerade as "truth" is partially because of the similarities between perceived sound, which is channeled through physiological listening mechanisms, and imagined sound, which is entirely cognitively generated. The conflation of the two is, at least in part, due to the fact that imagined sound is an internal recreation and adaptation of memories of perceived sound.[15] As Don Ihde notes in "Auditory Imagination," inner speech, which has been largely overlooked as a variety of imagined sound, "is an almost *continuous* aspect of self-presence. Within the 'contingency' of human language it is focally embodied in thought as an imaginative modality of spoken and heard language."[16] While Ihde is cautious to note that a polyphony of sonic experiences can harmoniously coexist, consideration must be given to the ways in which perceived sound can intrude and interrupt imagined sound (like internal monologue). In some cases, the discrepancy between the perceived and the imagined can be so negligible as to disorient the listener, blurring the lines between extracorporeal and intracorporeal auditory experience.

In the case of *We're Alive*, the imbrication of imagined and perceived narrative is enhanced by the presentation of segments of prolonged stream of consciousness. As an expansive cast of characters thinks aloud in voices not so unlike the listeners' own, the division between thought and auditory perception collapses. Moreover, Wayland leaves some aspects of character development to the imagination—exact features of the characters, the backgrounds from which they come, and the precise details of their movements and actions—allowing his listeners to imagine at least certain characters as representations of themselves or people familiar to them. By structuring some characters as avatars into the world of depletion that serves as both setting and driving mechanism for *We're Alive*, Wayland has created an artifact in which listeners can hardly help but imagine themselves. This process of imaginative self-identification, too, leads listeners to engage actively with the medium: listeners to *We're Alive* are also its part owners, able to participate intellectually in its production.

The willingness of listeners to engage with *We're Alive* suggests that serialized audio dramas can continue difficult conversations about climate change when purely information-based methods fail. Norgaard's research suggests that even when people are well informed about the issues surrounding climate change, and even if they care about those issues, they still may not respond appropriately to the rationally understood risk. This is partially because people often ignore thoughts that make them unhappy or uncomfortable, like those concerning climate change, but also because such emotions seem socially unacceptable or outside the cultural norm.[17] Emotional management, therefore, can inhibit paradigmatic cognitive and behavioral shifts necessary to manage the adverse environmental consequences of human activity. As a possible solution to widespread inaction, futurists like Aleta Lederwasch have speculated that scenario art, in which possible alternative futures are visually presented, might prove a useful medium through which to allow people to directly face—and generate solutions for—the consequences of climate change. Lederwasch proposes that "Scenario Art, when coupled with decision-making processes that may have long-term implications on the sustainability of social, political, natural and/or economic environments, will facilitate a transition to sustainable futures."[18] Citing contemporary neurological theory, Lederwasch suggests that art can foster empathy, kindle inventive and productive patterns of thought, and catalyze responses to risk.[19] While Lederwasch focuses on the use of visual aids in facilitating imaginative engagement with concrete problems associated with issues of climate change and environmental degradation, however, the imaginative potency of sound makes podcasts like *We're Alive* equally viable as works of scenario art.

This imaginative engagement with the podcast can be seen digitally manifested by listener reaction to *We're Alive*, which has spawned a large body of fan fiction, two fan-produced podcasts, and an exceptionally active online forum designed to analyze, critique, and laud the program. It is within these venues that the listeners themselves have contributed an extratextual body of knowledge that more explicitly links the world of *We're Alive* to the vulnerable bioregions it has fictionalized: the podcast's global listeners have suggested that the outbreak that led to the collapse of global human civilization in the narrative can be traced back to any number of environmental concerns, including a "Gaia's revenge" scenario in which Earth cleanses herself of destructive humans; superbugs bred by animals developing antibiotic resistance through interactions with overly medicated humans; and hydraulic fracturing processes designed to extract natural gas (commonly known as fracking).[20] In an interview with Fred Greenhalgh, Wayland suggests that audio dramas are uniquely suited to foster interactive audience participation because they "offer something that is a hybrid between movies and books, where in books they have to give you every little detail to give the nuance of how someone says something, and in a movie you visually see the character say something, whereas the audio drama is kind of midway there ... this you kind of have to figure it out for yourself."[21] Wayland articulates a conviction that a medium of representation that seeks to invite active participation *must not* provide listeners with a fully materialized worldscape, but *must* produce enough structure to scaffold the participatory experience: a model that has serious implications for the ways in which media designed to incite engaged discussion of climate change is constructed. By simulating internal monologue and inhibiting passive audience reception, the podcast seems well equipped to activate a participatory listening public.

Even though podcasts enable individuals to speculate about long-term scenarios of climate change, recent theorization suggests that such microshifts in ecological philosophy are insufficient to enact impactful change. Norgaard, for example, argues that social context and interaction are central to the cultural production of climate denial.[22] To that end, podcasts—frequently consumed through mobile listening devices—might seem like an unlikely solution, as most portable digital technology has come to synecdochally represent a generation disconnected from physical community. While a multitude of theorists of mobile technologies have inquired as to whether or not such devices are alienating, most recent scholarship suggests that "mobile music users are modifying these tools from a purely personal indulgence and environmental isolation to a means

of self-expression. Moreover ... they are using these potentially isolating tools in ways that are actually community- and social network-building mechanisms."[23] Similarly, Michael Bull notes that while mobile technologies like iPods might isolate listeners from the immediate environment, they also lead users to reconfigure conventional social organization.[24] For Bull, this active worldbuilding, which demands the construction of societies that are sometimes at a physical remove, can shape a more productively skeptical modern subject. The user of such mobile auditory technologies has an outlook that "potentially extends beyond a one-dimensional collapse of subjectivity in which the urban subject automatically identifies with all facets of a commodified culture. The auditory self rebels at the very same time as it is seduced—this is the dialectic of iPod culture."[25] By interrogating the perceived divide between the media as translated through mobile technologies and the environment as experienced corporeally, listeners both work to structure new types of communities and question the kind of worldview that might otherwise be passively accepted. As these technologies improve, offering new ways of scaffolding social interaction, mobile devices may become increasingly effective tools for shaping interpersonal communication and community solidarity.[26]

The nature of long-run audio dramas, particularly when experienced through mobile technologies, encourages listeners to juxtapose the fictional realm of the narrative against the lived world. For Seth Kim-Cohen, such juxtaposition is critical to the development of meaning in sound. Describing Doug Aitken's 2009 work *Sonic Pavilion*, in which a battery of microphones and accelerometers placed in a deep hole on a Brazilian hilltop translate the sounds of the earth's rotation and the shifting of seismic plates into a register humans are capable of hearing, Kim-Cohen writes: "Aitken is not the first artist to turn to the medium of sound in an effort to create, as he put it, an experience with 'no beginning and no end, deep-rooted, pure and direct'. There is a pervasive sense—not just among visual artists who turn to sound as an alternative but also among artists who work primarily with sound—that the sonic is truer, more immediate, less susceptible to manipulation, than the visual."[27] Kim-Cohen rejects this fallacy of incorruptibility: it is not that sound is capable of revealing any objective truth, but that sound makes meaning only through contextualization.[28] As listeners of *We're Alive* frequently experience the podcast through mobile listening devices as they go about their daily lives, the fictitious necessarily enters into conversation with the experienced. By contrasting the world evoked by *We're Alive* (or perhaps more accurately by the auditory interchange between listeners and the podcast itself), against the world in which

listeners physically find themselves, audience members have the potential to use *We're Alive* to arrive at a more nuanced understanding of what the landscape in which they live, altered by unmitigated climate change, could come to be. The importance of the juxtaposition of lived experience and scenario art begins to reveal the unique position of podcasts to bring issues of environmental degradation and climate change directly into contact with the everyday lives of listeners. Whereas a listener of *We're Alive* could listen to the podcast while engaging in any number of activities that involve active consideration of the surrounding environment, a somewhat similar text in a different medium, like *The Walking Dead* television program on AMC Networks or the graphic novels from which it spawned, demands more sedentary consideration.

The pervasive myth that such mobile technologies render their users less able to engage with human society may stem from anxiety surrounding the ways in which such devices, handheld and frequently paired with in-ear headphones, become physical extensions of users' bodily selves. Such bodily incorporation continues to collapse the division between perceived and imagined narrative, as the ways in which users employ such physically integrated technology helps them to imagine such devices—and transitively, the media they stream—as extensions of self-identity. James E. Katz, Katie M. Lever, and Yi-Fan Chen address this relationship explicitly: "The increasing integration with the physical body, social meaning, and individual identity is captured by the phrase 'machines that become us.' Users are extending their physical attributes to include the technologies that have been increasingly connected to one's being."[29] This acceptance of technological devices as extensions of the human body enables users to expand their realms of capability, imagination, and knowledge. Moreover, it seems possible that listeners to podcasts streamed through such devices are more inclined to view their narratives and the behaviors they model in conversation with their own realities. The material transposition of the electronic device into the listener's body invites the listener to contrast and contextualize the world of the narrative against lived experience.

While the podcast itself, through its means of mediation, is physically embodied by the listener, Wayland also experiments with thematic issues of embodiment and transcorporeality. Stacy Alaimo employs the term *transcorporeality* to indicate "the imbrication of human bodies not only with each other, but with non-human creatures and physical landscapes."[30] With the exact causes of the outbreak shrouded in mystery, the characters of *We're Alive* struggle to remain inviolate against a microscopic contaminant. This aspect of the narrative becomes increasingly convoluted as three

main characters—Saul Tink, his mother, Tanya, and Datu Mata—all come into contact with bodily fluids of the "zombies" only to find themselves transforming so gradually as to seem almost immune. Datu, in particular, struggles with his transformation, occasionally slipping into an alternative identity in which he, as human, finds himself relegated to bystander within his own body while a "zombie" self attempts to seize control.[31] As Donna Haraway notes, symbolic associations between immune systems and battlefields have been used, extensively, to metaphorize the consumptive and destructive nature of terrestrial human habitation: "The perfection of the fully defended, 'victorious' self is a chilling fantasy, linking phagocytotic amoeba and space-voyaging man cannibalizing the earth in an evolutionary teleology of post-apocalypse extraterrestrialism."[32] For Haraway, conceptualizations of the workings of the inner body, and its relation to the exterior world, are critical to the ways in which humans imagine themselves as worldbuilding agents: "The circuits of competencies sustaining the body as a defended self—personally, culturally, and nationally—spiral through the fantasy entertainment industry, a branch of the apparatus of bodily production fundamental to crafting the important consensual hallucinations about 'possible' worlds that go into building 'real' ones."[33] Despite the importance of these narratives of immunological compromise, Haraway suggests that the traditional way of imagining them, notably through militaristic analogies, presents a largely inaccurate view of what it means to adapt to living in an environment that is, for better or worse, already altered by human intervention.[34] What *We're Alive* does differently than the narrative style Haraway critiques, however, is that it also shows how all three of the contaminated characters use their semimutated positions to attempt alternative ways of understanding the world in which they find themselves. While Tanya uses her blood work to conduct research on how the human body mutates after contamination and looks for a medical solution, Mata uses his altered consciousness to attempt a more empathetic understanding of what motivates the "zombies'" attacks. Although Saul does not adapt his semimutation advantageously initially, he ultimately uses his difference to penetrate the territory of the creatures more deeply than ever before.[35] If the landscape of *We're Alive* is a battlefield, it is not one that is mirrored at the biological level of its characters. Wayland's immune system narrative serves a dual purpose: to highlight the permeability of bodily boundaries at a molecular level, and to nurture the dread of listeners.

Although *We're Alive* resists employing militaristic analogies at the biological level of its characters, it nevertheless deploys military techniques against its listeners. Building upon Ulrich Beck's theories of risk perception,

Ursula Heise articulates how dread can be a powerfully motivating component of the discourse surrounding climate change. As Heise emphasizes, risk perception is largely based on emotional response more than rational consideration, in that dreaded outcomes are viewed as having higher levels of unacceptable risk than outcomes that do not evoke such an affective response.[36] Wayland's ability to cultivate a climate of dread and anxiety, then, is one of the ways in which *We're Alive* participates in elevating public risk perception of narratives of scarcity. While diegetic devices like the deaths, injuries, and mutations of beloved characters are part of the complex coalition of strategies Wayland employs to foster a sense of dread, however, he also depends upon established techniques of auditory assault. In *Sonic Warfare: Sound, Affect, and the Ecology of Fear*, Steve Goodman notes that some frequencies alone can produce a visceral response, as evidenced by reactions to atonal or discordant sounds or the sense of dread evoked by low-frequency drones. He goes on to suggest that such perceived sound can impact the way people behave: "Affective tonalities such as fear, especially when ingrained and designed into architectures of security, can become the basis for a generalized ecology, influencing everything from microgestures to economics."[37] By employing some of these same affective tonalities, through a combination of ominous scores, vocally emoting actors, fraught silences, and plausible explosions, various components of the show work in concert to convince the listener that a palpable threat is present, if unseen. While this strategy is in line with the psychology of sound, it has also been seen in the history of auditory warfare. Describing sound bombs, the likes of which were reportedly deployed by the Israeli airforce in 2005 assaults on residents of the Gaza Strip, Goodman notes that a purely sonic attack induces fear that is at least as palpable as that provoked by actual bombs: "The same dread of an unwanted, possible future is activated, perhaps all the more powerful for its spectral presence."[38] Through thoughtful sonic orchestration, Wayland forces listeners to confront *their* unwanted, possible future: one in which gradual depletion will almost certainly be their ultimate undoing.

Wayland enforces this sense of dread by situating *We're Alive* within the known world: Los Angeles, the stage for the bulk of the show, is so foregrounded as to be an essential character unto itself. The dominant themes of scarcity in the narrative begin because of the artificial nature of large human settlements in arid regions. In the immediate aftermath of the outbreak, group members assess their options for survival, and realize that without the ability to import water, staying in Los Angeles is not a viable option. Early efforts to produce fresh food through gardening founder as soon as

modern plumbing systems fail, and health and hygiene become increasingly pressing concerns. One of the soldiers, Angel Tunudo, uses the looming threat of water scarcity to galvanize group members to collaborative action: "How long are we gonna have power or water? It's not like we can just wander down to the local river or stream. Once our utilities are gone, they aren't likely to come back."[39] Because of such scarcity, the survivors begin to migrate away from urban environments, not because of the urban landscape so much as the arid bioregion. *We're Alive* works to avoid establishing the nature/culture binary that plagues so much of "environmental literature," focusing on images of nature within urban contexts as well as beyond. Moreover, as the "creatures" remain a delimiting constant throughout the text, serving to establish a boundary between unmutated human and mutated human territory, the binary between urban and rural environments collapses into the more critical division between "safe" and "unsafe" territory. Unusually dry conditions and the lack of sustainable ground wells in California drive the survivors repeatedly into increasingly unsafe territory, forcing them to recognize that resources like water and power are both precious and unlikely to ever again be bountiful or easily acquired.

These critiques of Los Angeles as a sustainable living environment are more resonant for listeners because Los Angeles has been so often depicted through popular media. Through films, music, television, and literature, Los Angeles and Hollywood in particular have occupied prominent positions in the global cultural imaginary. As Shani Orgad contends, media representations produce symbolic resources that stoke the human imagination, resulting in a sense of familiarity for that which is absent or even entirely unknown.[40] Los Angeles is the home base of the podcast, most of its production and performing staff, and its initial listening public, but is also depicted through an enormous volume of internationally popular media, making it somewhat familiar to even a global audience.[41] This setting makes it harder for listeners to dismiss the events depicted within the podcast as distant impossibilities, particularly because *We're Alive* uses real-world controversies surrounding resource extraction to help legitimize its narrative. Details provided about the outbreak's causes, which are never fully resolved, allow for the possibility that the creatures have developed in response to human interventions that are already under way. The characters have noticed that noxious gas and more heavily mutated creatures exist in the area surrounding Inglewood, dubbed "ground zero," where deep fissures in the earth extend deeper "than any sewer or gas line I've ever seen."[42] The location and nature of these deep fissures led some fans to speculate that the narrative is building upon the real-world fracking taking place on the Inglewood Oil

Field, which, in 2006, released a toxic cloud that forced widespread evacuations and resulted in a lawsuit settled out of court.[43] The geographical familiarity of *We're Alive* is mirrored by similar temporal proximity, locating the outbreak in present day. As a result, *We're Alive* presents a speculative imagining of the repercussions of climate change that seems much more immediate than many futuristic science fiction narratives of apocalypse. As Jeff May notes in "Zombie Geographies and the Undead City," present-day zombie narratives resist creating distant utopias or dystopias, instead showing how the consequences of cataclysmic events (like the mutations seen in *We're Alive*) can immediately alter both geographical landscapes and personal understandings of what it means to be human in a changing world.[44] By tethering the narrative to familiar locations and, potentially, contemporary environmental issues, Wayland provides listeners the space to imagine the possible consequences of unsustainable practices already taking place.

While *We're Alive* works to reflect contemporary anxieties surrounding issues of scarcity, energy production, chemical contamination, and resource exploitation, it also works to help listeners imagine viable solutions. By refusing audience members the ability to imagine that the effects of unsustainable practices will most likely take place in a future beyond their life spans or geographical scope, *We're Alive* forces listeners to consider solutions that have immediate relevance. Moreover, *We're Alive* does not simply animate the dread surrounding issues of climate change, but it shows a broad, diverse cast of characters working out of various backgrounds and skill sets to limit energy consumption, develop kinetic energy, farm sustainably and seasonably, preserve water supplies, and find alternative materials from which to construct the commodities that simply cannot be done without. While *We're Alive* voices contemporary anxieties, it also attempts to show listeners the tools with which to mitigate the causes of such anxieties.

Although *We're Alive* is approximately set in the present day, the narrative also asks listeners to look ahead to a possible future after the sudden collapse of petroculture. Early during the podcast's tenure, characters notice the changed world, free of light pollution or smog.[45] These exchanges are tinged with lament for the loss for human life, but also with awe for the resilience and beauty of a seemingly repurified environment. In the immediate aftermath of the outbreak, Burt Scott, a grizzled former gunnery sergeant with the U.S. Marine Corps, expresses his awe at being able to see the stars in Los Angeles without interference from light pollution. Scott recognizes the shifting global balance that will change the landscape of a planet no longer occupied by an overabundance of humans and their attendant technologies: "Well, it's hard to see with all the lights everywhere.

Now that people are gone, it seems like nature's starting to take back over again . . . A lot's going to change now that there are so few of us."[46] As the narrative progresses, however, such "back to nature" fantasies are replaced by the harsh recognition that humans have done such long-term damage to the environment that even the few remaining survivors cannot subsist on the world's remaining resources. Outlining the group's increasingly limited access to potable water, the group's strategist, Chinwe Jiang, laments: "I just don't know what to do anymore . . . We have tried everything to clean what's in the riverbeds or the creeks but, there are too many oils . . . And even if we could filter it, we need at least 100 liters a day, and that's only for drinking and cooking. I mean, we have rain catchers already in place, but we live in a desert. The ground well is the only thing clean enough and consistent to keep everyone healthy, but without that big ass generator to run the pump, we're gonna go dry. And then, if people find that out, they're just going to leave."[47] Jiang's exhausted monologue is not merely a convenient recap of the group's circumstances for listeners. Instead, it is an acknowledgment that environmental degradation cannot be simply undone, even if current models of resource extraction are drastically and immediately reduced.

As in real-world conversations about resource distribution, the characters of *We're Alive* are divided about the group's priorities. In a later episode, Jiang engages Pegs Mitcham in a prolonged debate about their future. As Jiang begins to explain the dire circumstances facing the survivors, Mitcham, who seems to take on the subject position of environmentally concerned consumer, engages in denial and bargaining: the colony has planted thriving crops, and team work, basic conservation of resources, and a wider search for petroleum can solve the community's problems. The debate goes back and forth: Jiang describes a vicious cycle in which the colonists will run out of the supplies needed to generate power to run both means of refrigeration and the pumps that draw the only available potable water, while Mitcham, as optimistic as mainstream "green" marketers, argues that members of the colony are developing more sustainable energy sources. Finally, in a critique that seems all too relevant to contemporary society, Jiang notes that sustainable alternatives themselves depend upon petroleum for their very production, and will not be completed until it is simply too late to secure human survival. Ultimately, Jiang concludes that the dissolution of the colony is inevitable not because of the "creatures," but because resources are too degraded to support the human population: "You know, I really thought that this place would be different . . . All the time and resources just to keep us safe: who knew the only thing [the "creatures"] had to do was to wait us out?"[48] Given that Jiang's last post-outbreak community is repeat-

edly described as having the resources to support its population, it seems plausible that Jiang does not mean that her last residence is what "this place" should be different *than*: instead, Jiang is comparing her current, depleted reality to the pre-apocalyptic concerns about scarcity *We're Alive*'s listeners experience daily.

While Jiang's narrative might seem hopeless, the podcast still seeks to counter the sense of despair that can come from the acceptance of climate change. If Mitcham's attempts to postpone the dissolution of a colony that is still dependent upon fossil fuels seem desperate, it is relevant to note that her process of bargaining is nevertheless an attempt to solve complex problems. Similarly, the ways in which other characters attempt to harness alternative means of energy are perhaps more potent in their dual function of suggestion and warning: they are begun too late to be effective at the beginning of the outbreak, but when completed have notably improved upon their more conventional alternatives. This is particularly true of Mata's "Matagun," which consists of compressed air and ball bearings that can penetrate the hide of the "Behemoth" mutants, which few conventional firearms can, but which can only be loaded through the use of a gas-powered air compressor. The Matagun is one of the paradoxes Jiang notes as she expresses anxiety over her society's continued dependence on petroleum products; it is designed to preserve depleted reserves of ammunition, but demands even more precious reserves of gasoline. The situation is not without its resonance for listeners of the podcast *We're Alive*. The ecological consequences of the electronic devices that allow users to access podcasts—from resource extraction, to the transportation of materials, to embodied energy, to inadequate methods of disposal—has been extensively documented and widely lamented.[49] To use a medium that depends upon ecologically destructive technologies to encourage listeners to consider a more ecologically responsible future is nothing if not paradoxical. But in a global climate in which, as the U.N. recently put it, more global citizens have access to cell phones than toilets, the ecological footprint of a single podcast is all but impossible to calculate.[50] As Jiang and Mitcham seem to conclude about the colony's experiments to develop the Matagun, the use of finite reserves to develop long-range technologies that might ultimately help eliminate the need for such reserves is the best that they know how to manage.

The most important long-term solution modeled by *We're Alive* comes not in the form of technologies imagined by the show's writers, but in the ways in which characters are seen to privilege multiple forms of knowledge. The text's protagonists are shown working to compile one polyvocal narrative that might, ultimately, allow them to cure the "creatures" or at

least limit their contagion. Collaborative acts of knowledge generation are most explicitly manifested in the act of journaling: immediately after the outbreak, the survivors agree to log their relevant knowledges and compile them, which (the instigator of this practice notes) is "the only way we know as much as we do now."[51] The information found in these logs, referenced repeatedly throughout the podcast, also shapes the long-term plans of the survivors.

Without resorting to heavy-handed didacticism, *We're Alive* successfully models many of the behaviors that might, theoretically, allow people to better mitigate the adverse consequences of anthropogenically motivated climate change and environmental degradation. Describing the ways in which climate change must be handled, Naomi Klein argues that there must be a dramatic reconfiguration of society as a whole. She writes: "Responding to climate change requires that we break every rule in the free-market playbook and that we do so with great urgency. We will need to rebuild the public sphere, reverse privatizations, relocalize large parts of economies, scale back overconsumption, bring back long-term planning, heavily regulate and tax corporations, maybe even nationalize some of them, cut military spending and recognize our debts to the global South."[52] *We're Alive* seems to have taken on Klein's call to arms. If the world of *We're Alive* is viewed in abstract, it depicts a society that values public input and knowledge, fosters a local economy, condemns overconsumption, depends upon long-term planning, and does not support any corporations. Moreover the survivor's increasing dependence on militarization is depicted with some ambivalence: the group's leaders struggle over whom they need to train, and aim to develop a restructured armed forces.[53] *We're Alive* encourages listeners to imagine themselves participating in these activities alongside the characters, and, as certain strategies succeed or fail, to invent adaptive solutions of their own.

We're Alive, as a zombie tale rife with unabashedly campy elements, is effective not in spite of its genre, but because of it; it is exactly the type of antielitist media that Haraway suggests is capable of a more collaborative engagement with its audience. For Haraway, SF, which encompasses not just science fiction but also speculative futures, science fantasy, and speculative fiction, motivates readers to participate with the narrative, theorizing possible alternative endings and plot turns.[54] This interaction is enabled precisely because of SF's lack of designation as high art: because SF feels cheap, disposable, and anticanonical, it is something the reader feels empowered to play a more active role in (re)creating. Whereas the polyphony of cyberspace can be so overwhelming that it stymies personal action and activism,

SF provides readers with a guidepost in the form of a cast of characters with whom to identify, and around which to imagine alternative realities.[55] This active engagement, more than any experience of passive entertainment, positions readers to imagine themselves in possible alternative realities:

> Most of the SF I like motivates me to engage actively with images, plots, figures, devices, and linguistic moves, in short, with worlds, not so much to make them come out "right," as to make them move "differently." These worlds motivate me to test their virtue, to see if their articulations work—and what they work for. Because SF makes identification with a principal character, comfort within the patently constructed world, or a relaxed attitude toward language, especially risky reading strategies, the reader is likely to be more generous and more suspicious—*both* generous and suspicious, exactly the receptive posture I seek in political semiosis generally.[56]

The frustration of a happy ending is critical to the generation of new ideas: as Haraway notes, once a conclusion seems finalized, generous suspicion is foreclosed and stasis takes over for a reader who has been handed an acceptable answer.[57] If *We're Alive* invites this kind of engagement because of its free and disposable medium, it also does so in its prolonged presentation. The conclusion to the mysteries surrounding *We're Alive* consumed listeners from its inception in 2009 to its conclusion in 2014—five years during which fans continuously speculated about possible explanations and solutions to the seemingly unresolvable problem set outlined by the narrative.

In the finale episode of *We're Alive*, which transports its listeners fourteen years into the future, the cause of the initial outbreak is left unresolved. Instead, the survivors posit an unconfirmed theory that suggests that subterranean toxic gas, coupled with human interference, resulted in the downfall of the majority of the human population. The survivors are shown still working together to develop long-term solutions that might allow them to demilitarize, but some of their sustainable developments are emphasized as being entirely viable and utterly indispensable. It's possible that *We're Alive* was not created with climate change in mind. Contemporary climate change discourse is noted explicitly only once within the body of the podcast, in an aside in which Scott notes, while climbing into a Prius in order to spare as much gasoline as possible: "You know my niece drove one of these hybrids. She was one of those Code Pinkers. You know, 'Save the Earth.' Like any of that matters now."[58] Nevertheless, as Katz, Lever, and Chen note, users within social environments continuously adapt and modify forms of technology to serve their needs and interests.[59] Regardless of authorial intention, *We're Alive* has become a collaborative document that allows active participants to read, both onto and into, the narratives of climate change. *We're Alive* is a mutable, embodied, auditory environment in which listeners can internal-

ize the threats of climate change and environmental degradation and begin to consider sustainable solutions to overcome those threats. Free to download, available to play on any web-accessible mobile cell phone or listening device, and less expensive to produce than a television show, film, or book, podcasts like *We're Alive* have the potential to engage recalcitrant listeners from various socioeconomic tiers and geographical locations in the process of accepting and negotiating the Anthropocene.

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NOTES

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