



THINKING DEAD

What the Zombie Apocalypse Means

EDITED BY MURALI BALAJI

ELEVEN

Space Junk and the Second Event: The Cosmic Meaning of the Zombie Apocalypse

Barry Vacker

INTRODUCTION

As illustrated by this anthology, much has been written about the cultural meanings of zombies and the zombie apocalypse, as depicted in an endless variety of novels, films, television programs, and video games. The many multiple readings of the zombie apocalypse span cultural theory—including political power, economic inequality, social Darwinism, oppression and exploitation, capitalism run amok, consumerism devouring the planet, the breakdown of modern society, the demise of technological civilization, and even the death of meaning.

The goal of this chapter is to offer yet another assessment of the zombie apocalypse, an apocalypse signaling a death that reaches 1) far into the cosmos and 2) deep into our consciousness. This death can be seen in two profoundly revealing scenes in the first season of *The Walking Dead*, the popular zombie television series that premiered in 2011. The two scenes are the “Space Junk” finale to Episode 1 (“Days Gone By”) and the “Second Event” scene in the final episode of Season 1 (“TS-19”). In *The Walking Dead*, the zombie apocalypse onscreen symbolically expresses the philosophical apocalypse taking place in our culture.

What is the philosophical apocalypse? It is the inability of secular philosophy to keep up with the discoveries of science and cosmology—the lack of philosophy and cultural theory that attempts to provide a meaningful and unifying narrative for humanity in the vast and ancient

universe. As Stephen Hawking and Leonard Mlodinow stated: "Philosophy is dead" (2011, 5). Philosophy is not solely to blame, for art, education, and even cosmological science itself have failed to provide meaningful narratives for a human existence in the universe revealed by science and media technologies (Abrams and Primack, 2011). What is left to fill the void is tribalism and theism, particularly the rise of creationism and fundamentalism and the increasing attacks on science, evolution, cosmology, and the Enlightenment project (MacKenzie, 2004; Mooney and Kirshenbaum, 2009). Accompanying the creationist attacks on science are anti-intellectualism and threats to human rights and democratic society (Jacoby, 2008). Finally, the philosophical apocalypse and lack of cosmic meaning are at the heart of the proliferation of apocalyptic cultural theory and the endless "end of the world" scenarios, including the zombie apocalypse (Vacker, 2012).

What does the philosophical apocalypse have to do with the zombie apocalypse and *The Walking Dead*? The two scenes mentioned above dramatically and symbolically illustrate the philosophical apocalypse and the prevailing intellectual conditions in America and elsewhere around the world. This chapter will suggest that the deepest meanings of the zombie apocalypse reside in humanity's inability or unwillingness to accept its place in the cosmos, as best we understand it, as revealed by the ever more powerful media technologies linking up around the world.

FAR INTO THE COSMOS SCENE 1: "DRIFTING DOWN THE SPACEWAY"

At the conclusion of the first episode of *The Walking Dead*, Sheriff Rick Grimes (Andrew Lincoln) is trapped inside an army tank as zombies swarm all over the tank and the streets of Atlanta. In the next to last scene, television viewers are looking down on a close-up of zombies disemboweling and devouring the bloody organs of a dead horse, accompanied by a song that begins with the passages: "Drifting down the spaceway" and "Mapping out the constellations" of the "place I know so well." The song is "Space Junk," recorded in 1997 by Wang Chung, the new wave band who first found music fame in the 1980s. The hit song tells the story of someone (an unnamed male) drifting through the cosmos in "the master game," in a world full of "space junk." This someone is even "riding on the space junk" as he learns that "words are coming through" from another person (also unnamed). Riding on the space junk, he also passes by the "Betelgeuse Hotel," referencing Betelgeuse, the eighth brightest star in the night sky.¹

In the final scene, the camera immediately begins a slow zoom up from the top of the tank, allowing viewers to look downward between the skyscraper to get a bird's-eye view of the apocalyptic carnage on the

streets below. As we view the carnage, the song's refrain repeatedly says "welcome to my world." As the tops of skyscrapers appear, one might think we will get a Google Earth or NASA view as we zoom away from the city and planet. Instead, the screen quickly fades to black, followed by the credits and the song stating that the "space junk" is "bringing me to you." So what do these lyrics and television imagery have to do with the cosmic meaning of the zombie apocalypse?

For the purposes of this chapter, "space junk" has two meanings, two philosophical connotations that are relevant to understanding the zombie apocalypse and the imagery in *The Walking Dead*. The first meaning of the term refers to "orbital debris," the detritus of the space age that now pollutes the space around our planet. The second meaning is humanity and our home planet, Spaceship Earth—upon which we are "drifting on the spaceway . . . in the master game" of the big bang and the expanding universe. It is this second meaning that hurtles us away from the planet and far into the cosmos.

SPACE JUNK AND ZOMBIE SATELLITES

Since the industrial age polluted the planet and atmosphere, perhaps it should be no surprise that the space age has polluted the area immediately beyond the planet and atmosphere. NASA defines space junk or orbital debris as "man-made objects in orbit about the Earth which no longer serve a useful purpose" (NASA Orbital Debris Program Office, 2012). Examples of space junk include the following:

Derelict spacecraft and upper stages of launch vehicles, carriers for multiple payloads, debris intentionally released during spacecraft separation from its launch vehicle or during mission operations, debris created as a result of spacecraft or upper stage explosions or collisions, solid rocket motor effluents, and tiny flecks of paint released by thermal stress or small particle impacts (NASA Orbital Debris Program Office, 2012).

NASA's estimates of the size and quantities of space junk are staggering:

More than 21,000 orbital debris larger than 10 cm are known to exist. The estimated population of particles between 1 and 10 cm in diameter is approximately 500,000. The number of particles smaller than 1 cm exceeds 100 million (NASA Orbital Debris Program Office, 2012).

The large objects are tracked and monitored by the U.S. Space Surveillance Network, while objects as small as three millimeters can be detected by ground-based radar. These objects are orbiting Earth at speeds reaching four to seven miles per second, creating significant hazards for satellites and space vehicles carrying humans. The primary sources of space junk are satellite explosions and collisions.

Prior to 2007, the largest source of space junk was upper stage launch vehicles, which remained in orbit after their usage. More recently, significant new sources of space junk have appeared. The "derelict spacecraft" primarily include defunct satellites, which remain in orbit long after their operational demise. No longer able to communicate but still in orbit around the Earth and posing a serious risk of collision with other satellites and spacecraft, these derelict and defunct satellites are known as "zombie satellites." For example, the famous Telstar telecommunications satellite, launched in 1962, is now a zombie satellite and destined to orbit the Earth for many years to come.

In 2007, China used a laser to detonate the Fengyun 1-C weather satellite, a zombie satellite no longer operational. The destruction of the zombie satellite left behind a debris trail that now circles the planet in the previous orbit of the satellite; the debris trail will last for centuries. In 2009, the two thousand pound Russian Cosmos satellite collided with the one thousand two hundred pound American-made Iridium commercial satellite. Since the satellites collided at an estimated speed of 7.3 miles per second (or about twenty-six thousand miles per hour), it is no surprise that they shattered into over two thousand pieces of orbital debris. The Cosmos had been deactivated and was a zombie satellite that crashed into the functional Iridium satellite.

This crash of the zombie satellite and functional satellite is representative of where culture is today. When the Soviets launched the Sputnik satellite in 1957, it was immediately clear that global telecommunications would become a reality for the world, though Sputnik also terrified the Americans, who feared that nuclear bombs could also be attached to the rockets that launched satellites. Though thousands of nuclear warheads were attached to Russian and American rockets, the birth of the rocket-powered telecommunications satellite—Sputnik and America's Telstar in 1962—was heralded as signaling a new era of global communication and the possibility of greater harmony and understanding among nations. A similar utopian optimism greeted the arrival of the internet. Indeed, the proliferation of electronic media technologies has collapsed space and time into instant global communication—"bringing me to you" and the "words are coming through." But the era of global peace has yet to arrive, despite ever more media technologies and ever more words coming through somewhere. The same electronic media technologies and satellite systems can bring drones to you, making anyone and everyone a target for surveillance or a subject for assassination. No wonder so many people are shrinking their world into the self-centered social media sites and ever-tinier tribes. In the demise of the Cold War and rise of the Terror War, nationalist and theist tribes around the world are slavishly wedded to undemocratic, unscientific, and blatantly irrational ideologies that continually generate war and oppression, while devouring resources and people on the planet. If consumerism can be equated with zombies,

then why not militarism, creationism, irrationalism and anti-intellectualism?

World military expenditures for the first decade of the millennium exceeded \$15 trillion, or more than \$2,100 per person on the planet (Jackson, 2010). Think of what these resources could do for art, science, ecology, education, and enlightenment on a global scale, not to mention the effects of peaceful existence. We are repeatedly told that soldiers are heroes, but if the world militaries (and warrior tribes of all kinds) are devouring massive resources and soldiers-warriors are torturing and killing people while destroying their enemies' cities and homes, then are the soldiers-warriors not zombie-like in their blind obedience to following orders and their lust to kill and maim? Perhaps soldiers themselves are a kind of space junk, serving no functional purpose for humanity or our species other than allegiance to the death of other humans and wanton destruction, leaving a debris trail around the planet. Much like the colliding satellites, our functional media technologies, capable of global understanding and enlightenment, are colliding with our tribal ideologies, creating an omnipresent state and ignorant culture populated with drones and zombies—human space junk devouring and despoiling life on a planet in a universe it does not understand, a universe that renders its ideologies ever more irrational and irrelevant.

"WELCOME TO MY WORLD"

The refrain for "Space Junk" is "Welcome to my world." But what exactly is "our world," and how do we understand our place in the cosmos as we inhabit a planet "drifting down the spaceway?" What have our most powerful media technologies revealed about our world, and *what are we doing with that knowledge?* If we deny this knowledge or do not use it to build a better, more informed, more sustainable civilization, then are we not equivalent to the zombie satellites, a kind of human space junk on Spaceship Earth?

Among the spacecraft orbiting Earth, the overwhelming majority is directed down toward the events and people on Earth. For every Hubble Space Telescope looking *up and outward* and focusing on the stars and galaxies in a vast universe, there are hundreds of satellites looking *down and inward* and focusing on the humans and tribes on a tiny planet. That's because the discoveries of cosmic media technologies—satellites, space telescopes, space probes, and computers linked around the planet and into the cosmos—have revealed a universe so vast and ancient that its true meaning is terrifying for most everyone on Earth, precisely because humans are not the center of it and are seemingly insignificant or irrelevant, at least according to current cosmologies.

Perhaps the evolution of social media technologies is our existential compensation for the discoveries of cosmic media technologies, for the revelation that we are not the center of the universe. Just as cosmic media peer outward, our social media peer ever more inward into a shrinking world of total surveillance and immediate awareness, where outer space is countered by cyberspace, the space age by the face age, and Hubble by Facebook (Vacker and Gillespie 2013). Perhaps looking outward is just too unbearable, revealing a "master game" with knowledge that must be denied.

What is the master game? How could it not be the Big Bang and 13.8 billion years of cosmic evolution in an expanding universe? In addition to "mapping out constellations" of the place we "know so well," we have also mapped out hundreds of billions of galaxies, each with hundreds of billions of stars. Betelgeuse is the eighth brightest star in the night sky, but it is one of an estimated three sextillion stars in the observable universe.

Spaceship Earth is "drifting down the spaceway" at breathtaking speeds, spinning on its axis at 932 miles per hour and orbiting the sun at sixty-seven thousand miles per hour to complete the six-hundred million mile annual journey. That's why our birthdays are so special; they represent the completion of a long journey around a star. Meanwhile, the solar system is orbiting the center of the Milky Way at four-hundred-ninety-two million miles per hour on a journey that takes two-hundred-twenty-five million years to complete a single orbit. The Milky Way is hurtling through the universe that is expanding and accelerating in all directions (Cox 2011, 204-205).

The galaxies (and clusters of galaxies) are not propelling themselves through space, but rather the voids of space are expanding and shoving the galaxies along. Apparently, the voids are powered by unseen "dark energy," and the cosmic expansion is happening at ever-greater velocities (Hooper 2007). As Stephen Hawking stated, "The further away a galaxy is, the faster it is moving away" (1998, 41). As space expands, the galaxies move away and recede from all the other galaxies, thrust apart by ever-expanding voids of space (Gribben, 100-101). Scientists estimate that the edges of the universe are expanding at about one billion miles per hour. The lifespan for the observable universe is trillions of trillions of years. This will far outstrip the lifespan of Earth, which is expected to last another four to five billion years (when the sun will exhaust its energy and the reduced gravity will cause it to expand outward and scorch us).

Situated in a galaxy cluster spanning across millions of light years, the Milky Way is a spiral galaxy that stretches across one-hundred thousand light years and contains at least two-hundred billion stars. The structure of the galaxies is shaped by the gravity from the visible matter and energy of the universe—stars, planets, atoms, and so on—and an unseen form of matter known as "dark matter." According to the latest estimates, the

visible universe comprises less than 1 percent of the stuff of the universe, while invisible atoms make up 4 percent, dark matter 25 percent, and dark energy 70 percent. If these observations are true, it is mind-boggling to realize that the all stars and galaxies visible from the observatories on Spaceship Earth represent but 1 percent of the universe (Abrams and Primack, 2011, 39-66).

In the visible universe, the five most common elements are: 1) hydrogen, 2) helium, 3) oxygen, 4) carbon, and 5) nitrogen. Not surprisingly, four of those comprise the most common elements in the human body: 1) hydrogen, 2) oxygen, 3) carbon, and 4) nitrogen, with the fifth most common being everything else. The universe is inside us, which is why we must have evolved as part of the universe (Tyson and Goldsmith, 2004, 225-249).

Most likely, the solar system and Earth are aggregates of space junk. The solar system is comprised of the remnants of an exploding supernova. Gravity warps the fabric of space-time to pull together the sun, planets, and moons and gives the orbits of the solar system their circular shape. Earth was likely created through an aggregation of cosmic detritus—meteors, asteroids, and comets left over from the supernova, with the force of gravity effecting the collisions and creating the circular shape of our planet and the circular shape of other celestial bodies too.

From the cosmic elements, life on Earth evolved from simplicity to complexity across about 4 billion years. A product of this cosmic and biological evolution, all humans share 99.5 percent of the same DNA and share the biosphere with all other life-forms. Our brains have at least one-hundred billion neurons with perhaps one-hundred trillion connections, all of which make possible our consciousness and our thoughts, creativity, experiences, memories, emotions, knowledge, worldviews, and so on.

Welcome to our world. For some passengers on Spaceship Earth, this view of the cosmos and consciousness is awe-inspiring and suggests that humans should set aside their creation myths and outmoded ideologies by realizing we are one species, sharing one ecosystem on one planet and cruising through the cosmos. For most passengers on Spaceship Earth, this discovery about life and the universe is simply unfathomable and even unbearable—a cosmology that provides no self-evident meaning because it removes humans from the center of the universe and overwhelms our delusions of cosmic significance as owners of an eternal destiny customized for us by a omnipotent deity.

WE ARE NOT ZOMBIES, IF WE CHOOSE NOT TO BE

It is the size and complexity of the human brain—with its billions of neurons and trillions of connections—that enables us to rise above the lower levels of consciousness in the other species on this planet, to make

us something more than zombies lusting after our next big meal or Big Mac, or next big-screen TV or big credit-card purchase. But this large and complex neural network burdens us with the challenge of philosophical reflection and deriving meaning for our existence. It is in this challenge that our current secular and cultural ideologies have fallen far short, as evidenced by the endless warfare and the ravaging of our planet. Our species has yet to embrace the concept that we humans are self-aware stardust and a single species among many, sharing a single ecosystem that spans Spaceship Earth. Evolution has given us the power to not be zombies, but society and individuals can descend to the zombie level of awareness via short-term, unreflective behavior and the lack of critical, long-term, macro-level thinking—based on the best available information and knowledge that merge the empirical with the theoretical.

Of course, our non-centrality to the cosmos has been known since Copernicus and Galileo. In 1968, that non-centrality became unavoidable when NASA and Apollo 8 televised this fact to the world, followed by a special message. And it was in 1968 that the zombie was reborn in America.

NIGHT OF THE SATELLITE DEAD

Zombies have their historical origins in African and Caribbean cultures, but their viral replication in pop culture can be traced to George Romero's low-budget masterpiece *Night of the Living Dead* (1968). Romero's zombie apocalypse is commonly viewed as capturing the zeitgeist of the late 1960s, a metaphor for an American culture engulfed in widespread rage—rage over the Vietnam War, rage over the battles for civil rights, and rage over the assassinations of President John Kennedy, Malcolm X, Martin Luther King, and Senator Robert Kennedy. Importantly, these horrors were not the only major stories happening in 1968, for America and the former Soviet Union were in a space race, both seeking to be the first nation to land humans on the moon.

Recall what triggers the rise of the zombies in *Night of the Living Dead*? It's an unexplained phenomenon from outer space brought back to Earth via the Venus "Explorer" satellite. Does a zombie satellite trigger the zombie apocalypse? As reported on television broadcasts in *Night of the Living Dead*, the zombie apocalypse is sweeping across America. No one can find an immediate reason for the "epidemic of mass murder" that is "engulfing much of the nation." The television reports state that the president has called a special meeting of his cabinet, joined by officials from the FBI, Joint Chiefs of Staff, the CIA, and "high-ranking scientists" from NASA. Apparently, the scientists and military experts don't know the cause of the zombie apocalypse, though one scientist suspects radioactive

contamination from a space probe returning from Venus that exploded in the Earth's atmosphere. As one TV announcer wonders:

Why are space experts being consulted about an Earth-bound emergency? So far, all the betting on the answer to that question centers on the recent Explorer satellite shot to Venus. That satellite, you'll recall, started back to Earth but never got here. That's the space vehicle which orbited Venus and then was purposely destroyed by NASA when scientists discovered it was carrying a mysterious high-level radiation with it. Could that radiation be somehow responsible for the wholesale murders we are now suffering?

Later, another TV reporter learns that there is disagreement between a professor and military official on whether "the Venus satellite radiation is causing the zombies to be reborn." The zombie apocalypse continues on through the night, though it's brought under some control by the next morning, as vigilantes sweep through the area, casually killing zombies and carelessly killing humans mistaken for zombies. The film ends with piles of dead humans ablaze in bonfires.

Without doubt, it seems the film metaphorically captured that rage of the late 1960s. Yet did the film also capture or anticipate another moment from the same era, another key zeitgeist, one that has been reborn and replicates widely in global culture today? Such a possibility should not be surprising, since two other films from 1968 sought to make meaning of the space age. Stanley Kubrick's *2001: A Space Odyssey* depicted a mysterious and awe-inspiring destiny for humans in deep space while providing warnings about technological evolution overtaking human evolution. In contrast, Franklin Shaffner's *Planet of the Apes* foresaw the devolution of humans during or after the space age, with anti-intellectual apes evolving to rule tribes of mute humans after the humans have destroyed civilization in a nuclear war. Released on October 1, 1968, *Night of the Living Dead* also appeared at the height of the space age, a few months before the launches of Apollo 8 and Apollo 11. *Planet of the Apes* shows apes ruling mute humans, while *Night of the Living Dead* shows humans reborn as zombies to devour the other humans.

Consider the moment: Just prior to the pinnacle of scientific and technological accomplishment, something from outer space—the dead Explorer satellite—triggers the rebirth of the brain dead in *Night of the Living Dead*. Our beginning exploration of the cosmos triggers the beginning of our possible demise.

DEEP INTO OUR CONSCIOUSNESS: APOLLO 8 AND THE PHILOSOPHICAL APOCALYPSE

Propelled into orbit on December 21, 1968, the Apollo 8 astronauts—Frank Borman, James Lovell, and William Anders—were the first hu-

mans to escape the gravity of Earth and enter the gravity of another celestial object. Their mission was to orbit the moon ten times, conduct television broadcasts, and return safely to Earth. In July of 1969, the astronauts of Apollo 11 would face the challenge of actually landing and walking on the moon.

From NASA's perspective, the Apollo 8 mission comprised two main challenges, two main events: 1) get to the moon, 2) return to Earth. From a cosmic and philosophical perspective, the Apollo 8 mission can be divided into two different main events. The first event is seeing Earth from space, made famous in the television broadcasts and in the "Earthrise" photograph, one of the most important images in human history (Poole 2008). The second event is the television broadcast on December 24, 1968, as the astronauts orbited the moon, explained what they saw and felt, and tried to give it meaning. The following events remain some of the most philosophically important in the history of media and humanity—reaching far into the cosmos and deep into our consciousness.

The First Event: Seeing Our Place in the Cosmos.

En route to the moon, the Apollo 8 astronauts conducted a television broadcast that included images of the Earth as seen from outer space. The black-and-white images were transmitted back to mission control and then around the world via satellite. Approximately five-hundred million to one billion people gazed in awe at the totality of human origins and human destiny captured in a single image, glowing on the black-and-white screens—Earth as a gray orb floating in the cosmic void. This was the first time humans had seen Earth from space, from off the planet, from the cosmic perspective.

On December 24 as Apollo 8 entered the orbit of the moon, the astronauts noticed Earth emerging beyond the moon's horizon. Naturally excited, the astronauts grabbed their cameras. Using a camera containing black-and-white film, Frank Borman captured the first photo of Earth from the moon. William Anders used a camera with color film and captured what is perhaps the most famous image in human history, the image known as "Earthrise." Both photos featured Earth *next* to the moon, to the left of the moon and not above it, thus providing humans with the first chance to view Earth's place in the cosmos as it really was: a planet existing amidst the vast cosmic voids and not the center of anything.

The Second Event: Denying Our Place in the Cosmos.

For the famed "Earthrise" image, the color photo was flipped ninety degrees to the right, thus giving the impression that our planet was rising about the moon's gray and barren horizon. In addition, the image was

cropped so that Earth seemed larger. This altered photo became the Earthrise image that captured the imagination of people on Earth, inspiring some to see the idea of "Spaceship Earth" and the emergence of a new era on Earth, one of peace and understanding. Robert Poole attributes the alteration to human instinct and the desire to see Earth from an Earth perspective rather than a moon perspective (2008, 29). While perhaps true, in this instinctual desire is there not philosophical denial? Perhaps the other perspective, the cosmic perspective, was too terrifying.

Why do NASA and humans prefer to see Earth rising above the moon and not floating beside the moon? Perhaps Earth "rising" above the moon is much more existentially comfortable, suggesting just another morning sunrise. Earth floating beside the moon with nothing above or below is much more existentially vertiginous. Earth moving alone in the void, emerging only as the astronauts orbited the moon, also verified that our planet was not the center of the universe. The visual vertigo and existential decentering must have been unbearable for viewers on Earth. In fact, it was utterly unbearable for the Apollo 8 astronauts.

After orbiting the moon several more times, the astronauts conducted perhaps the most important broadcast in human history. The astronauts again aimed the TV camera at Earth to reveal a gray orb floating amidst the darkness. As if that image were too awe-inspiring, too terrifying, too worldview-shaking, the astronauts turned the camera toward the moon's surface and described what they saw:

Frank Borman: I know my impression is that it's a vast, lonely, forbidding-type existence, or expanse of nothing.

Jim Lovell: The vast loneliness up here of the moon is awe inspiring, and it makes you realize just what you have back there on Earth. The Earth from here is a grand oasis in the big vastness of space.

Bill Anders: The sky up here is also a rather forbidding, foreboding expanse of blackness, with no stars visible when we're flying over the moon in daylight (Zimmerman, 1998, 242-243).

The significance of this philosophical event should not be overlooked. Along with the three astronauts, almost one billion humans on Earth were simultaneously contemplating the same cosmic phenomena. It was as if television were permitting the universe to pose our most profound questions, confronting and challenging humans to consider their actual existence in the cosmos. On December 24, 1968, television and humanity were united in a scientific and philosophical accomplishment, a collective experience of the cosmic sublime—the awe and terror of seeing our actual existence in the universe.

It was the overwhelming terror that generated the philosophical apocalypse. At the penultimate moment of science, technology, and human achievement, the astronauts concluded the broadcast by trying to give the event sufficient meaning. In so doing, they provided *no* reference to

art, science, or modern philosophy. Instead, the astronauts read from Genesis in the Bible. Anders began the reading with these words:

We are now approaching lunar sunset, and for all the people back on Earth, the crew of Apollo 8 has a message that we would like to send to you. In the beginning, God created the Heaven and the Earth. And the Earth was without form, and void; and darkness was upon the face of the deep. And the spirit of God moved upon the face of the waters. And God said, "Let there be light." And there was light (Zimmerman, 1998, 244-245).

Lovell and Borman continued with subsequent passages before concluding with "Merry Christmas and God bless all of you—all of you on the good Earth" (Zimmerman, 1998, 246). Surely, the Genesis reading reflected Cold War ideologies, suggesting the God-fearing Americans had defeated the godless Russians in the race to the moon. Yet the deepest meanings of the space age were not merely nationalist and political.

At the moment of humankind's greatest scientific and technological accomplishment, secular and modern philosophy were completely absent as the astronauts recited creation myths to the humans on Earth, precisely as a billion humans gazed into the cosmic voids of their expanding universe. If the Apollo 11 moonwalk was a "giant leap for mankind," then the Apollo 8 space-talk was a great leap backward for the human mind. If there was a moment signaling the philosophical apocalypse and the rebirth of creationism and fundamentalism, then perhaps it was the Apollo 8 astronauts reading from Genesis precisely when humankind had a chance to understand its true place in the cosmos and unite as a single species on the planet.

Despite what was present directly before the eyes of Apollo 8 astronauts and on television screens all over the world, the cosmic denial allowed the dominant myths and ideologies to remain fully in place, having successfully neutralized any scientific or secular encroachment on the meaning of human destiny and how to live on Spaceship Earth. In the wake of Apollo 8 and Apollo 11, the Cold War continued, as did the nationalist-tribalist wars in Vietnam and elsewhere on the planet, as if the image of Earth from space meant absolutely nothing. In 2013, the wars, poverty, exploitation, and ecological degradation persist, even though we now know far more about our species and our impact on the planet. Perhaps the cosmic denial is why the new era of peace and understanding has yet to emerge. The Genesis reading represented a cosmic denial—an intellectual death that reached far into the cosmos and deep into consciousness. And it was deep into consciousness that the zombie apocalypse effected its resurrection.

SCENE 2: "THE SECOND EVENT"

In "TS-19," the featured survivors (Sheriff Grimes et al.) of *The Walking Dead* make it to Atlanta and the Center for Disease Control and Prevention (CDC), the United States government's headquarters for the study of infectious diseases, pathogens, and various viral and microbial contagions. The survivors are hoping to find some answers that explain what caused the zombie outbreak that has decimated civilization. They also hope there might be a cure so they can survive.

Inside the CDC, the survivors find a single solitary scientist, Dr. Edward Jenner, a biologist who reluctantly invites them in so they can shower and have a decent dinner. During the dinner conversation, this exchange occurs:

Shane: When are you gonna tell us what the hell happened here, Doc? All the other doctors who are supposed to be figuring out what happened. Where are they? . . . This is why we are here, right? . . . Supposed to find all the answers. Instead, we found him. [*Smugly snickering while gesturing toward Jenner.*] Found one man. Why?

Dr. Jenner: Well, when things got bad, a lot of people just left, went off to be with their families. And when things got worse, when the military cordon got overrun, the rest folded.

Shane: Every last one?

Dr. Jenner: No. Many couldn't face walking out the door. They opted out. There was a rash of suicides. That was a bad time.

Andrea: You didn't leave. Why?

Dr. Jenner: I just kept working, hoping to do some good.

Glenn [to Shane]: Dude, you are such a buzzkill.

Yeah, it's a buzzkill when scientists are unable to "find all the answers" and cannot solve the zombie outbreak, ultimately fleeing or committing suicide. It looks there will be no antibiotics to cure this contagion.

What Shane and the others learn the next day is even more radical, something that is philosophically revealing as it reaches deep into human consciousness. In the central laboratory, Dr. Jenner provides a video demonstration of what happens in the human brain when it's infected with the zombie contagion. Displayed on a large electronic screen in the lab, the video functions like an X-ray, zooming deep into the brain and its billions of neurons, its trillions of links aglow with pulses of light moving through the neural networks.

Shane: What are those lights?

Dr. Jenner: It's a person's life. Experiences. Memories. It's everything. Somewhere in all that organic wiring, all those ripples of light is you. The thing that makes you unique and human. [*Shane looks down and away at this moment, facing the unbearable truth.*]

Daryl: You don't make sense, ever?

Dr. Jenner: Those are synapses, electrical impulses in the brain that carry all the messages. They determine everything a person says, does, or thinks from the moment of birth until the moment of death.

Rick: Death? That's what this is—a vigil?

Dr. Jenner: Yes. Or rather the playback of the vigil.

The survivors learn that the brain is that of Test Subject 19, someone who was bitten and infected and volunteered to have their brain studied by the scientists via X-rays and computer models. Dr. Jenner then plays back the "First Event"—the video shows a black virus sweeping into the brain, extinguishing the light impulses rippling through the neural networks. Dr. Jenner explains:

It invades the brain like meningitis. The adrenal glands hemorrhage. The brain goes into shutdown. Then the major organs. Then death. Everything you were or ever will be—gone.

After a brief dialogue with those who lost loved ones, Dr. Jenner then explains the "Second Event":

The resurrection times vary widely. We have reports of it happening in as little as three minutes. The longest we heard of was eight hours. In the case of this patient, it was two hours, one minute, seven seconds.

The video screen shows lights fully extinguished, the brain of TS-19 now dark. The head and torso are convulsing, a few pulses of red lights appear on the brain stem. A few pulses of light ripple outward and quickly disappear, the brain and neurons remaining dark. The red light occupies just a small part of the brain, unlike the healthy brain, aglow with light pulses rippling throughout.

Lori: It restarts the brain?

Dr. Jenner: No, just the brain stem. Basically, it gets them up and moving.

Rick: But they're not alive.

Dr. Jenner: You tell me.

Rick: It's nothing like before. Most of that brain is dark.

Dr. Jenner: Dark, lifeless, dead. The frontal lobes, the neocortex, the human part—that doesn't come back. The "you" part. Just a shell driven by mindless instinct.

[*We then see the streak of a bullet tearing through the brain, thus killing Test Subject 19.*]

Andrea: You have no idea what it is, do you?

Dr. Jenner: It could be microbial, viral, parasitic, fungal.

Jacqui: Or the wrath of God.

Dr. Jenner: There is that.

Andrea: Somebody must know something. Somebody, somewhere.

Jacqui: There are others, right. Other facilities.

Dr. Jenner: There may be some. People like me.

Rick: You don't know? How can you not know?

Dr. Jenner: Everything went down. Communications. Directives. All of it. I've been in the dark for almost a month.

Andrea: So it's not just here. There's nothing left anywhere. Nothing. That's what you're really saying, right?

Jenner turns away, not denying Andrea's conclusion. Andrea is exasperated, while Jacqui exclaims: "Jesus." Daryl then states: "Man, I'm gonna get shit-faced drunk again." If getting drunk is all we have left, then I'll take margaritas, heavy on the salt and tequila. But who knows if we can get fresh limes amidst a zombie apocalypse?

Soon after this dialogue, the CDC nears the end of its energy supply and prepares to self-detonate, effecting total destruction of the facility in a fireball of five thousand degrees. Dr. Jenner decides to stay in the center and commit suicide in the blaze. Shortly before the detonation, the following passage occurs between Jenner and some of the survivors.

Dr. Jenner: There is no hope. There never was.

Rick: There is always hope. Maybe it won't be you, maybe not here. But somebody, somewhere.

Andrea: What part of "everything's gone" do you not understand?

Dr. Jenner: Listen to your friend. She gets it. This is what takes us down. This is our extinction event.

CONCLUSION: OUR EXTINCTION EVENT?

The words and visual imagery are powerful in these scenes from *The Walking Dead*. The survivors came seeking answers to prevent their demise, to have a reason to hope. Dr. Jenner, the sole scientist, has no answers and can only give us a playback of our extinction event, not unlike the various science documentaries on the History Channel, where scientists excitedly show how the cosmos can wipe out humanity via comets, meteors, supernovas, gamma rays, black holes, and dark energy. In *Night of the Living Dead* and *The Walking Dead*, science has no answers. Like the Explorer satellite, our science and technologies have reached into the cosmos and consciousness only to strike fear and terror in the minds of the humans.

The imagery in "TS-19" seems clearly symbolic and suggestive: Some parasite is attacking and invading the human brain, killing off the glowing neurons of human individuality and enlightenment, the death of the neocortex and frontal lobes. What is left is a dark brain that is soon reborn, with only a few red flashes amidst the darkness. The brain goes into shutdown, only to experience "resurrection" at a nonhuman, non-intellectual level. What's left is the shell of a human, unable to reason and operating only on animal instinct. Is the zombie apocalypse the biological effect of the "Wrath of God" or the intellectual effect of the myth of God, the deity that supposedly has a special destiny for us? How can the

dramatic words and imagery in *The Walking Dead* not be symbolic of the rising anti-intellectualism, creationism, and fundamentalism in America and other parts of the world? Is the brain shutdown not suggestive of what happened with Apollo 8 astronauts reading from Genesis at the moment of humanity's great scientific achievement? Is Apollo 8's philosophical second event symbolized by the biological "Second Event" in *The Walking Dead*?

Without doubt, the Apollo 8 telecast was the greatest moment of "cosmic doublethink" in human history. The term "cosmic doublethink" is a reference to George Orwell's concept of "doublethink," which Orwell extended to the realm of cosmology in his dystopian masterpiece, *1984*. The cognitive contradictions of the Apollo 8 astronauts and the television viewers were made possible by doublethink—the method of "thinking" in which people accept and believe that two opposite and contradictory propositions are both true at the same time and in the same respect (1984, 176-177). The following dialogue from *1984* includes O'Brien (the state torturer for the nation of Oceania) and Winston (the resistor being tortured):

O'Brien: Before man there was nothing. After man, if he could come to an end, there would be nothing. Outside man there is nothing.

Winston: But the whole universe is outside us. Look at the stars! Some of them are a million light-years away. They are out of our reach forever.

O'Brien: What are the stars? They are bits of fire a few kilometers away. We could reach them if we wanted to. Or we could blot them out. The earth is the center of the universe. The sun and stars go round it. For certain purposes, of course, that is not true. When we navigate the ocean, or when we predict an eclipse, we often find it convenient to assume that the earth goes around the sun and that the stars are millions upon millions of kilometers away. But what of it? Do you suppose it is beyond us to produce a dual system of astronomy? The stars can be near or distant, according as we need them. Do you suppose our mathematicians are unequal to that? Have you forgotten doublethink? (219)

As Orwell understood, cosmic doublethink and the dual system of astronomy allow people to remain in denial of new knowledge by holding two oppositional cosmic beliefs, one of which allows them to pretend they and their tribe, nation, and destiny are central to Spaceship Earth and an imaginary universe. Cosmic doublethink and the dual system of astronomy are necessary for the stability and survival of the state and the dominant ideologies that justify endless war in the name of the tribes, the very tribes the war bankrupts and the state dominates.

Cosmic doublethink is central to the philosophical apocalypse. In the cultural and intellectual void left by science and philosophy, creationism and anti-intellectualism have deployed cosmic doublethink to imagine a dual system of astronomy in which evolution can be denied and the

universe can be ten thousand years old, with humans at the center of its destiny. How is Orwell's or Apollo 8's doublethink any different than believing the universe is ten thousand years old? According to a 2012 Gallup Poll, 46 percent of Americans believe in creationism—the view that the universe is ten thousand years old and God created humankind in its present form (Newport, 2012). In Texas, home to mission control, a University of Texas at Austin survey found that 51 percent believe in creationism (Ramsey, 2010). Should we be surprised that the Cold War has been followed by the Terror War, which is—in large part, though not exclusively—a religious war between two tribes of fundamentalists (Vacker, 2008)? Should we be surprised that the nation that read from the Bible while orbiting the moon is now committed to inquisitional methods of torture and execution without a trial? Should we be surprised that ecological apocalypse is the explicit goal of "dominion theologians," a group in America whose fundamentalist ideology holds that the destruction of nature and exhaustion of the Earth's resources will hasten the Second Coming of Jesus Christ (Hendricks, 2005)? For these believers, Apollo 8's "words are coming through."

In "Second Event" scene, the brain goes dark, signaling the reign of the zombie and the death of reason and enlightenment, the onset of a new "dark age" as reported in a *New Scientist* cover story in 2005. The current anti-intellectualism of American culture is embedded in the types of people among the featured survivors of *The Walking Dead*. Among the featured survivors in *The Walking Dead*, there are no artists, scientists, technologists, educators, or intellectuals, only the motley collection of cops, soldiers, lawyers, and housewives along with a redneck hunter, car salesman, pizza delivery guy, and former football player. Who needs art, science, knowledge, or a *new cosmology* when one is trying to survive an apocalypse? It's like the newscast in *Night of the Living Dead*: "Why are space experts being consulted about an Earth-bound emergency?" After all, it was the Explorer satellite that returned from Venus and may have triggered the zombie apocalypse.

For the populace, it seems there is little need to explore the cosmos if the discoveries threaten our ideologies or remove us from the center of the "master game." NASA's mission and agenda are unclear in the new millennium, while social media generate far more popular excitement than space exploration. This is true among investors as well as citizens.

Dr. Jenner says that the zombie apocalypse is the human extinction event, a claim that is emblematic of the proliferating beliefs in upcoming apocalypses, mistakenly believed to have been foretold in Revelation and in the Mayan calendar. A key reason the apocalypses are proliferating is the apparent void in cosmic meaning, the lack of reason to hope for a destiny after death (Vacker, 2012). As Andrea realizes in her conversation with Dr. Jenner, there is "nothing" to look forward to, nothing to hope for, no meaningful destiny with a grand purpose. "Nothing" to look

forward to is unbearable for most everyone, especially the lack of meaning.

Yet confronting nothingness is at the heart of the human condition. As Jean-Paul Sartre (1957) explained, we come into existence facing three nothingnesses, three voids, three lacks. There is the lack in the physical world, the lack of food, clothing, and shelter, voids we fill with civilization—agrarian, industrial, and postindustrial. There is the lack of knowledge in our consciousness, so we invent language, art, writing, books, computers, and the internet, all of which have become as essential to our survival as food and shelter. Thus we see the survivors in *The Walking Dead* doing what they can to find food, shelter, and information in the remnants of civilization. Yet, as the hopes of Rick and fears of Andrea illustrate, the third nothingness is perhaps the most terrifying: the void of the future, the lack in destiny that we must fill with action and meaning. A future without meaning, without a plan, without a purpose, without a hopeful destiny is much too unbearable. Without the meaning and the plan, we can only imagine immediate desire and consumption followed by apocalypses and our eventual extinction—technological, ecological, environmental, resource, economic, cultural, moral, cosmic, philosophical, and zombie (Vacker, 2012).

So while twenty-first century cosmology says “Welcome to my world,” much of humanity has turned away, terrified and unable to accept the “words” that “are coming through.” This cosmic denial is happening precisely as humans ravage the planet’s resources in the name of consumer desire and wage war all over the planet in the name of creationist delusion. Fossil records suggest there have been several apocalyptic mass extinctions in the deep past; perhaps a mass extinction is happening now due to the human impact on the planet’s ecosystems or a forthcoming apocalypse of the 22,600 nuclear warheads in the world’s arsenals. Ecological suicide, endless war, and evangelical wishes represent the zombie apocalypse, the implosion of consciousness and the philosophical apocalypse when confronting the meaning of human existence in an expanding universe (Vacker and Gillespie, 2013).

Born of a premodern cosmology once thought dead, the zombie is the unthinking human reborn, a body without a mind, stalking and devouring brains on the planet it hopes to rule in a cosmos it fears and does not understand nor care to understand, in a destiny where it can only imagine it’s the center of everything. That’s why the zombie’s favorite delicacy is a soft, bloody brain, home to the consciousness killed in the “Second Event.”

If there is to be any meaning to our existence in the cosmos of the Big Bang, a reason to hope in a vast and ancient universe, a reason to avoid the many apocalypses, then perhaps it is the fact that we are self-aware stardust. Maybe we are the tiny elements of space junk that provide one small way for the cosmos to know itself, with our art, science, and lan-

guage (the words that are coming through). Since we owe our existence to the cosmos and planet from which we emerged, perhaps we can imagine a new human narrative in the sustainable merger of the cosmological, ecological, and technological. From this perspective, we can avoid becoming “the walking dead” but still face the challenge of creating a meaningful human existence on our planet “drifting on the spaceway.”

NOTE

1. For the full song lyrics, go to <http://www.songlyrics.com/wang-chung/space-junk-wang-chung-97-lyrics/>

WORKS CITED

- Abrams, N.E., & Primack, J. R. (2011). *The New Universe and the Human Future*. New Haven: Yale University Press, 39–66.
- Cox, B., and Cohen, A. (2011). *Wonders of the Universe*. New York: HarperCollins.
- Gribben, J. (2000). *Stardust: The Cosmic Recycling of Stars, Planets, and People*. London: Penguin Group, 98–111; 100–101.
- Jacoby, S. (2008). *The Age of American Unreason*. New York: Pantheon.
- Hawking, S. (1998). *A Brief History of Time*. New York: Bantam Books, 37–54; 41.
- Hawking, S. and Mlodinow, L. (2011). *The Grand Design*. New York: Bantam Books.
- Hendricks, S. (2005). *Divine Destruction: Wise Use, Dominion Theology, and the Making of Environmental Policy*. Hoboken: Melville House, 49.
- Hooper, D. (2007). *Dark Cosmos: In Search of Our Universe’s Missing Mass and Energy*. New York: Smithsonian Books.
- Jackson, S.T., (2010). “Arms production.” *Stockholm International Peace Research Institute Yearbook 2010*. Solna: Stockholm International Peace Research Institute, pp. 12–13.
- Kurlansky, M. (2004). *1968: The Year That Rocked the World*. New York: Random House, 381–383.
- Mackenzie, D., (2004). “End of the Enlightenment.” *New Scientist*, October 8–14, pp. 40–43.
- Mooney, C., and Kirshenbaum, S., (2009). *Unscientific America: How Scientific illiteracy Threatens Our Future*. New York: Perseus.
- NASA Orbital Debris Program Office (2012). <http://orbitaldebris.jsc.nasa.gov>. Accessed February 20, 2013.
- Special Report, (2005). “Fundamentalism: Descent Into the New Dark Ages.” *New Scientist*, October 8–14.
- Poole, R. (2008). *Earthrise: How Man First Saw the Earth*, New Haven: Yale University Press.
- Newport, F. (2012), “In U.S., 46% Hold Creationist View of Human Origins,” *Gallup Politics*, June 1. Accessed June 18, 2013. <http://www.gallup.com/poll/155003/Hold-creationist-view-human-origins.aspx>
- Ramsey, R. (2010). “Texans: Dinosaurs, humans walked the earth at same time.” *The Texas Tribune*, February 17. Accessed February 24, 2013. <http://www.texastribune.org/2010/02/17/texans-dinosaurs-humans-walked-the-earth-at-same/>.
- Sartre, J.P. (1956). *Being and Nothingness*. New York: Citadel.
- Time, “The Voyage: Poetry and Perfection,” January 3, 1969 issue, accessed October 12, 2012, <http://www.time.com/time/subscriber/article/0,33009,900487-1,00.html>.
- Tyson, N.D., and Goldsmith, D. (2004). *Origins: Fourteen Billion Years of Cosmic Evolution*. New York: Norton, 225–249.

- Vacker, B. (2008). "Lone Stars, Lost Amidst the Big Bang. *Signs* (photographs by Peter Granser). Stuttgart: Hatje Cantz and the Chicago Museum of Contemporary Photography, 4-11.
- Vacker, B. (2012). *The End of the World—Again: Why the Apocalypse Meme Replicates in Media, Science, and Culture*. Philadelphia: Center for Media and Destiny.
- Vacker, B. and Gillespie, G., (2013). "Yearning to be the center of everything when we are the center of nothing: parallels and reversals in Chaco, Hubble, and Facebook," *Telematics and Informatics* 30, no. 1 (February), pp. 35-46.
- Zimmerman, R. (1998). *Genesis: The Story of Apollo 8*. New York: Dell, 242-246.