

Godzilla's Nuclear Narratives: The 1954 Japanese Original vs. the 21st Century American Trilogy

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ABSTRACT

Artistic interpretations of the nuclear age can critically reflect upon, and fight against, global nuclear pollution dangers. The question I address here is whether or not the films of Godzilla are engaged in such a fight. Through fan-based and film critic retellings, as well as via corporate-sponsored previews, the purported strong 'anti-nuclear' and/or 'proenvironmental' message of the original Godzilla movie has supposedly resurfaced into the 21st century American intertextual reboots of the movie. This paper explores how the Godzilla series' supposed anti-nuclear message is confused, problematic and also grotesquely overstated, with specific reference to: (1) the way that the original Godzilla movie ties its anti-nuclearism to a) Japanese nationalism, b) Anti-Americanism, and c) a therapeutic retelling of World War II tragedies, and (2) the way the American Godzilla reboots try to a) naturalize the nuclear cycle and b) situate the nuclear age as beneficent, manageable, and unchangeable.

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Introduction: The Rise of Antinuclear Godzilla (1954)

Critical appraisals of the Godzilla movie series made by the Toho Company (based in Tokyo) range from the dismissive to the celebratory. The dismissive critics suggest that Godzilla sits within the B-movie genre; a bunch of "creature features" that maybe reflect some popular technological developments but are generally presented via inferior special effects and either derivative or ridiculous plotlines (as reported by the likes of Kalat, 2012; Lees & Cerasini, 1998; Solman, 1998). The celebratory critics — on the other hand — declare the original Godzilla (1954) as dark cinema in the highest form with a searing moral motivation to rebuke the use of nuclear

weapons both during wartime (notably with regards to Hiroshima and Nagasaki) and in peace time (notably with regards to America's nuclear testing in the Pacific, as reported by the likes of Rhoads & McCorkie, 2018; Solomon, 2017; Tsutsui, 2004).

The first Godzilla movie evoked awe in 1950s moviegoers with its giant atomic fire-breathing reptile form--at least in Japan--where it wowed general audiences and became a huge hit. However, two years later, when an Americanized version hit cinemas on the other side of the Pacific, critics there were not so kindly disposed to it; lambasting the hammy acting, clumsy storytelling, abysmal visual effects, and an unrealistic, plastic, stodgy titular character (as recorded by Lemay, 2020). Fairly or not, the first Godzilla

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movie, and its sequels in the 1950s, 1960s, and 1970s were usually compared with big budget Hollywood science fiction films and most of the time Godzilla came up short.

Despite the negative reviews, Godzilla (1954) still made good profits in the U.S.A. to keep the Toho Company happy and to encourage them to press ahead with many a sequel aimed at audiences within and beyond Japan. The Godzilla sequels--almost all of them--did not exhibit the mature cinematography episodically featured in the original and were accepted by both American and Japanese critics as quick cheap knockoffs of the 1954 movie. By the 1960s, the Godzilla character was stretching its self-referential intertextuality in a juvenile manner; transforming into familyfriendly 'kiddies' entertainment (Hawker, 2014; Tustsui, 2013) and involving cutesy fantasy dinosaurs fighting each other in prowrestling fashion.

So much for the artistic components of the film, what of its social message? Since this question is the main focus of this paper, it is as well I acknowledge that I am working amongst long-established political principles of anti-nuclear activism (for example, see Lovins, Lovins & Ross, 1980; Marshall, 2006; May, 1987), academic tales about the social construction of nuclear technology (for example, see Hansen, 1991, Vilcinskas, 2018), and the idea of intertextuality (see for instance 2015; Martin, 2011). Lethbridge, consensus of opinion within the science fiction community, both popular and scholarly, is that the original Godzilla is a sharp evocation of the dire impacts of nuclear weapons (see Brougher, 2013; Carozza et al., 2021; Hawker, 2014; Tsutsui, 2004; Yam, 2020). In the 1954 film, Godzilla was an ancient dormant dinosaur-like monster hibernating within the earth below an atoll in the Pacific Ocean. He was brought back to the surface and then brought back to life (and hideously scarred in the process) by the testing of an H-Bomb. This interpretation of Godzilla holds that the film enabled Japanese audiences to reflect upon the horrors of Hiroshima and Nagasaki (and America's continued nuclear bomb tests in the Pacific) in a non-direct way.

According to this consensus, Godzilla's nuclear message had to be non-direct because the post-war American occupation in Japan forbade any public discussion of the negative impact of the 1945 atomic bombings and of the Pacific nuclear tests (Hendrix, 2010; Yam, 2020). This is not really the case, though, since when the occupying forces left in 1952,

so did the censors. Indeed, as reviewed by Broderick (2014), there was a bunch of early 1950s Japanese 'atomic bomb movies' that commented upon Hiroshima and Nagasaki before Godzilla; for example, The Bells of Nagasaki (1950), I'll Never Forget the Song of Nagasaki (1952), Children of Hiroshima (1952) and Hiroshima (1953). If Godzilla was skirting around a direct reference to Hiroshima or Nagasaki, it was the choice of the filmmakers who chose this manner of storytelling for artistic and commercial reasons.

Whether reviewed in Japan or elsewhere, though, the general message that critics identified within Godzilla is that nuclear bombs are monstrous; and that messing about with them will invite catastrophe upon both nature and humanity. For fifty odd years, every time a new Godzilla movie is released, film reviewers reprised this message—a pattern still ongoing and one which promotes an undeserved progressivist view of Godzilla. Through these exaggerated retellings of the antinuclear message, Godzilla has become known as an 'anti-nuclear' movie par excellence, comparable to Dr Strangelove or The China Syndrome.

Indeed, further to that, movies in the Godzilla franchise now made in America are now being sold as hard-hitting 'environmental tales', as though they are documentaries in sustainable reptilian form (see for, example: Haglund, 2013, Lee, 2019; Oberhaus, 2017). My quibble, in this paper, is that the claim that Godzilla is a forceful anti-nuclear and proenvironmental movie are much overstated and I intend to look at three recent Godzilla movies (the American-made trilogy of 2014, 2019 and 2021) to explicate this. Before getting to them, though, let me recap on the birth of the original Godzilla movie so as to cast a critical light on the anti-nuclear mythology that has grown up around it.

In 1954, Toho Company producer Tomoyuki Tanaka was put in charge of a planned big budget Japanese / Indonesian coproduction called In the Shadow of Glory (Myrtdi, 2013). This movie was supposed to tell the tale of the way Japan fostered or fomented rebellion against European colonial rule in Indonesia during World War II--often via the usage of Pan-Asian ideas (a project which Japan undertook in the 1930s and 40s not for altruistic purposes but as propaganda for their own strategic advantage in South East Asia; see Cribb, 1991; Kahin, 1995). This 'fostering' of Indonesian rebellion

happened whilst the Imperial Japanese Army was occupying the Indonesian archipelago and so this proposed Japanese wartime cinematic tale was designed by the Toho Company as a way to make a commercial successful movie for the Asian market that would simultaneously redeem Japan's reputation in the region. If successful, the Japanese military would come out smelling like roses via Glory for its wartime effort to 'liberate' Asia.

However, in 1954, memories of Japan's war-time occupation were hardly rosy for many members of the Indonesia's newly-decolonized government (and even more so for indigenous tribes and the large Chinese minority who suffered cruel injustice at the hands of the Imperial Army). Because of arguments over wartime reparations and the ideology of Pan-Asianism (Coast, 2015), there were ongoing diplomatic spats between Japan Indonesia. Indonesia put a halt to the Glory project by revoking visas to some of the Japanese actors cast in the movie (Brophy, 2000). Many of these actors had actually previously starred in nationalistic -- indeed imperialistic -- Japanese movies (pre-war, during the war, and post-war).

If the Toho Company was seeking to capitalize on public desire in Japan to turn the Pacific War into a good memory of sorts, this Glory setback seemed to show it was not going to work by roping in and exploiting the people and places that Japan had invaded. Thus, Toho learnt they would have to confine their memorialization of Japan's wartime experiences just to the domestic market.

So, on his way back to Japan from Indonesia, Tanaka was in desperate need to quickly put together a new big-budget film. Casting an eye over the cinematic successes currently doing the rounds in global theatres, he saw the big hit of the moment was the USmade movie The Beast from 20,000 Fathoms: about a gigantic slumbering dinosaur that emerges from the Arctic icescapes after being woken by nuclear tests. The reinvigorated dinosaur then rampages across the cities of the US. The similarities between The Beast (1953) and Godzilla (1954) are startling and the creators of The Beast, most especially the monster-maker Ray Harryhausen, were long vexed about how the Toho Company had just plain stolen their idea (Webber, 2012). Literary theorists might call this a form of intertextuality but Harryhausen would call it plagiarism.

Though a massive hit at the time, few film buffs today know of The Beast from

20,000 Fathoms. Some have pointed out that the staying power of Godzilla, compared to Harryhausen's the Beast, indicates that Godzilla staked out a far deeper place in the cultural mind than The Beast did (see Solomon, 2017; Tustsui, 2004). Really, though, Godzilla's long life in popular culture is just the result of the Toho's stubborn attachment to a commercially successful formula and its resistance to explore new concepts. Whether they needed it or not, global audiences were going to get Godzilla on their screens year after year for seven decades of corporate self-copying and inter-(or intra-textuality); all done with minimal character change as the Toho Company desperately sought to extract more profits from their well-known brand.

Back in the beginning, though, in March 1954, as Toho's writers were preparing the first Godzilla script, a Japanese fishing boat called Lucky Dragon 5 was caught up in the fallout of the American Navy's Castle Bravo H-Bomb test near the Marshall Islands. Castle Bravo was a major technological mess-up. It exploded at more than two times its anticipated force and the wind changed direction mid-way through to confound the Navy scientists (Rowbury, 2014). Fallout from the test rained down on Marshall Islanders, American servicemen (Barker, 2004), and also on the hapless crew of Lucky Dragon 5; making all the later very sick within hours and eventually killing one of them a few weeks later (Brothers, 2009).

After global publicity, which Japan's nationalist media promoted to the hilt (news headlines stated "The Second Atomic Bombing of Mankind," see Myrtdi, 2013), there was world-wide public criticism of the American nuclear testing (Oishi, 2017; Rowbury, 2014). This backlash brought forth a rather strange idea for the mid-20th century: Japan was an innocent victim in the face of American militarism and its program of nuclear colonialism in the Pacific. According to this idea, which the Japanese public readily ate-up and regurgitated, Japan was just peacefully going about is business – fishing in the seas much like other Pacific Islanders, the monstrous and unnecessary appearance of America's cataclysmic H-Bomb. The writers of Godzilla would have immediately noticed how the Lucky Dragon 5 media attention deflected and obscured Japan's World War II guilt since it suggested that America is – and always had been -- an irresponsible and overbearing commander of the ocean it shares with other nations.

The finished Godzilla (1954) film visually references the Lucky Dragon 5 with fishing boats being attacked by Godzilla (as explained by Swenson, 2013). Later Godzilla films, including American versions, have similar visual references to the event in homage to the original (Broderick, 2014; Pflugfelder, 2015; Rhoads & McCorkie, 2018). Film critics looking back from the 21st century read within and accept Godzilla's strong moral lesson which Japan (as a whole nation) had learnt so harshly via its nuclear destruction. Thus, according to favorable or uncritical Godzilla reviewers nowadays, because Japan is the only nation to suffer wartime use of the bomb, there is a certain unique moral viewpoint that Japan can offer the world about nuclear weapons – and one of the ways it does so is through Godzilla.

If Godzilla is a movie about the morals taught by Hiroshima and Nagasaki (and also Lucky Dragon 5) then--quite clearly--it is also a movie that is pointedly wagging its finger at the USA. Indeed, a small group of modern-day critics think the Godzilla monster does not stand for the atomic bomb / H-Bomb as much as it stands for America. As Noriega (1987) explains, the idea that the Godzilla creature is the monstrous embodiment of the USA makes sense if we regard the film as being a cinematic recreation of the final year of a world war where Japan was facing defeat at the hands of a monster lurching slowly across the ocean.

Yet, even if the Godzilla creature is not a personification of a monstrous America rampaging all irradiated and imperious over Asia-Pacific, and is instead personification of nuclear disaster. prevailing idea within Godzilla (1954) is that America is the one responsible for the worst tragedies of World War II (which in the Japanese mindset are the dual catastrophes of Hiroshima and Nagasaki). Like so many other Japanese cultural reflections of the war, Godzilla acts to highlight the 1945 atomic bombings over and above a plethora of other Asia-Pacific war tragedies; say the Nanking massacre, the Parit Sulong massacre, the Shinyo Maru incident, the Sandakan Death March, the Jesselton – Suluk massacre, the Bataan Death March; the Sook Ching massacre; the Changjiao Massacre, the Manilla massacre, Pearl Harbor, and the Burma slave rail project, let alone the invasion of virtually

every nation in eastern Asia where some 25 million civilians were killed – six million of them through democide (that is, state-managed mass murder, see Rees, 2002; Rummel, 1997; Tanaka, 1996). These tragedies were for a long time buried in the memory gaps of Japan – certainly during the 1950s and 1960s (Hicks, 2019; Szczepanska, 2014) and maybe even today. Thusly, Japan's original Godzilla movie was a therapeutic experiment for the Japanese social mind, salving the national conscience-whilst asking Americans to do what Japan itself had never really done, to admit guilt for heinous mass death. Given Godzilla's reliance on patriotism, its dependence on demonizing a foreign nation, and its celebration of a unique or higher Japanese wisdom--old and new--(plus its reliance on battle scene action and submission to technological expertise), Godzilla makes for deeply conservative science fiction.

Another strident aspect of Godzilla's conservatism is its attachment to the military. Godzilla films, from the get-go, engage in grandiose military spectacle again and again; a battle between a righteous Japanese defensive force against a strange oceanic invader. Tanks and jeeps and jets and guns and dozens of hapless soldiers--valiantly fighting, but ultimately failing, to protect the nation. We might also note that the Japanese military were also involved in the making of Godzilla (1954), loaning the producers both equipment and land to have it made in a realistic fashion as well as supplying footage of Army machine gun drills and Navy scuba operations for the final cut (see Carozza et al., 2020; Hawker, 2014).

All this conservatism and militarism could be forgiven if, somehow, Godzilla's cultural legacy transformed the Pacific Ocean into a safer place regarding the dangers and risks of the Nuclear Age. However, after Godzilla (1954), nuclear bomb tests carried on in the Pacific. Worse, though, as Godzilla sequels came and went -- one after the other in the 50s, 60s and 70s -- Japan began a nuclear energy program which soon transformed the nation into a potential break-out nuclear bombmaker (Samuels & Schoff, 2015). This meant that Japan's vast technical capabilities across the nuclear cycle could be turned to the task of atomic bomb production in rapid time. (For the links between nuclear energy and nuclear bombs, see Caldicott, 1994; Lovins, Lovins, & Ross, 1980; May, 1987; Miller, & Sagan, 2009; Powaski, 2000; Rubinson, 2017). As Romei (2015:20) points out:

"Japan possesses a high degree of nuclear latency: roughly seventy years after Hiroshima and Nagasaki, Japan has a stockpile of over 48 metric tons of separated plutonium, enough to make 6,000 warheads like the one used for Nagasaki."

Not only that, a series of government statements since the 1950s declares Japan's right to develop nuclear weapons if it so wishes (Alexis-Martin, 2019).

For all the professed or inferred antinuclear sentiments within the Godzilla franchise, these sentiments are of little value, and perhaps even disingenuous, given Japan's subsequent commitment to the nuclear cycle and flirtations with nuclear bomb-making. Despite Godzilla's popular success as a film and despite the ongoing restatements that it is an anti-nuclear movie for the Cold War era and beyond -- Japan failed to learn the supposed deep lesson professed to reside within it. Perhaps the film never really contained this deep lesson, anyhow. Or perhaps the nuclear horror and danger portrayed within it can only be recognized as "horror" and "danger" if it came from (comes from) America. Certainly, the many selfinflicted Japanese nuclear horrors seem to be ignored both within Godzilla filmmaking community, within Godzilla fandom, and within the large array of film critics who rereview the movie anew every year.

Some students of post-war Japanese culture have the idea that nuclear energy was foisted upon Japan by the American militaryindustrial complex of the 1950s and 1960s but this evades the central role and keen uptake of the technology by Japan's engineering community and by the Japanese government - who showcased it as an entry into a brave new world in all sectors of society, from primary schools to the 1964 Olympics (Alexis-Martin, 2019; Low, 2020). At the time, there was an obsession in Japan to align the nation's prestige and measure its success through technological projects. One notion to emerge in post-war Japan was that Japan only lost the war because they were slightly behind America in terms of technology. Japanese post-war development policy therefore embraced technology as a pathway to a bright national future. (of course, this notion obscures the many other causes of Japan's defeat).

Here we might observe that one of the reasons Godzilla failed to stop nuclear power (and the development of nuclear break-out potential) in Japan is that the Godzilla movie, and its descendants, seem to portray a lot of trust in authority figures--including those charged with (state-sponsored) scientific investigation, those charged with (statesponsored) technological innovation, those charged with the capacity of violent force like the Army and Navy, and those charged with law and order roles granted by national law (like nuclear regulators). In the mindset of the Godzilla-makers, these institutions are the only ones capable of managing a disaster or defending Japan. The subsequent Godzilla movies of the 20th century keep reinforcing the idea that the Japanese military and the Japanese government can be trusted to speak the truth, uphold Japanese traditions, and act with honor and bravery -- even if they occasionally make mistakes or cannot actually physically defend the homeland against superior invading monsters.

For Japan to have lived up to the professed anti-nuclear status of Godzilla, the Godzilla movies would have had to be more anti-authoritarian, more pro-democratic, and more questioning of conservative traditions than they were. I say this since the nuclear cycle thrives most in authoritarian settings. It also profits from state secrets and cover-ups, prospers when mixed with nationalist values, and is highly dependent upon the concentration of unaccountable, undemocratic techno-cryptic expertise, and upon invisible policymaking (on this, see May, 1987; Marshall, 2006, Rubinson, 2017). The entire Godzilla series of movies never made a strike at any of this sociopolitical background to any significant extent until a new counter-culture Godzilla director, Yoshimitsu Banno, came along in 1971 and made Godzilla Vs the Smog Monster. This edition of Godzilla ignored or undermined much of the Godzilla canon, promoted antiestablishment ideals, and made a critique of Japan's own home-grown domestic industries and their contribution to the nation's huge chemical pollution problem (Rhoads & McCorkie, 2018). For this short dive into progressivism, Banno was told by his Toho producer, Tomoyuki Tanaka (the same producer that tried to rope Indonesia into a positive filmic portrayal of Japan's war efforts) that he had "ruined Godzilla" (Oberhaus, 2017; Rhoads & McCorkie). To the disbenefit of world cinema, Banno was never allowed to direct a Godzilla movie again.

Godzilla (2014): Nuclear-powered Godzilla

In the early 2010s, Legendary Entertainment, based in Burbank, California, struck up a deal with the Toho Company to make a series of new American Godzilla films. So far, three such movies have been produced; what I call the American trilogy: Godzilla (2014), Godzilla II (2019) and Godzilla Vs Kong (2021). The first of these is offered up to audiences as a reboot of the classic Godzilla (1954).

In a case of intertextuality carefully contrived by the producers, Godzilla (2014) stakes out a genealogical connection with prior Godzilla films by opening with images of radioactive fallout and faded maps of Pacific Islands. In stretches, this Hollywood-made Godzilla is as dark as the Japanese Godzilla of 1954. There are plenty of disaster scenes in it; broken cities, wrecked infrastructure, and ravaged landscapes, along with a gloomaffected musical score. Many of the ruined city scenes feature no monster at all, as though we are just wading--documentary-style--through the aftermath of a natural disaster. There is a lot of death, too, but all of it seems to happen just offscreen.

An obvious difference between the visual darkness of Godzilla (1954) and the expansive patches of emotive darkness in Godzilla (2014) is that the Hollywood production is in color and set primarily in daytime. Of course, any Hollywood production wishing to be a blockbuster would be ill-advised to shoot in monochrome. Yet, Legendary Entertainment utilizes its vast resources to successfully dramatize awful disaster in full color daytime settings. Smaller studios, or less ambitious producers, might have chosen to set their intertextualized Godzilla films at nighttime to easily convey eeriness and danger without any visual flaws on full show. In this remake, though, Legendary obviously invested money to make sure there are no such flaws.

Along with the disaster scenes and the Pacific Ocean nuclear origin story, the purported anti-nuclear theme of the original Japanese Godzilla movies also seems to be reprised--at least on first glance. The first and second Acts of Godzilla (2014) portray a nuclear plant suffering a Fukushima-type meltdown along with an abandoned city that resembles a Fukushima-type ghost town. These allusions to Fukushima, however, are merely transitory and only visual since their significance and stated origins do not mimic

the 2011 Fukushima event at all. And, actually, American audiences probably weren't specifically reminded of Fukushima in the abandoned city scenes of Godzilla (2014) since urban abandonment is a wellworn trope within Sci Fi cinema. For Japanese audiences, though, the urban abandonment would probably bring the Fukushima event to mind, just as the monster-made tsunamis in the film might invoke the tsunamis which lead to the Fukushima meltdowns. These signs and symbols might, perhaps, be seen as legendary attempt to focus on contemporary social issues but it's far more likely that the filmmakers are just exploiting contemporary fears of nuclear and seismic events to make an immediate emotional impact. Not far into the movie, we learn the disaster scenes are not caused by some nuclear bomb experiment or by some Fukushima-like meltdown but by a series of gigantic radiation-eating mutants (called MUTOs).

Much worse, perhaps, Godzilla (2014) seems to go all out and declare that radiation is both good and natural. The first MUTO in Godzilla (2014) dwells within a Philippines uranium mine; feeding off the radiation of this nutritious 'natural element' of the Earth. Later, we learn that this first MUTO is in partnership with the film's main antagonist; a giant she-MUTO (which we later understand is maybe alien to the Earth).

The Godzilla character eventually makes an entry into proceedings as a savior; rescuing humanity from the two breeding MUTOs just as their massive brood of babies are hatching in the city of San Francisco (whilst their parents prepare to feed them plutonium stolen from a nuclear warhead). To energize and empower himself to overcome the MUTOs, Godzilla also needs nuclear energy. In his final battle with the MUTOs, he also utilizes his glowing atomic breath to finally defeat them. The city is saved. Hooray for nuclear power!

Thus, the lesson this reboot of Godzilla conveys about the Nuclear Age is that the nuclear cycle is natural, manageable, and beneficial (even plutonium and plutonium bombs). This is the same message presented by 21st century pro-nuclear lobbyists (but is unanimously rejected by 21st century antinuclear groups, see, for example Marshall, 2006). Godzilla (2014) also acknowledges that the nuclear cycle will probably cause some damage but that this is acceptable since nuclear technology keeps us safe from alien outsiders and it keeps industrial civilization up-and-

running. Thus, the anti-nuclear message of Godzilla (2014) is not just warped (as in Godzilla, 1954), it is just about completely broken apart.

Of course, as Godzilla stomps around trying to save humanity, he does destroy a few cities in the process, Honolulu and San Francisco among them, including via a succession of tsunamis when he emerges more than once from sea to shore. By movies' end, we are made to believe Godzilla's urban destruction is a necessary evil; a side effect of his inherent nuclear-powered benevolence like the collateral loss of civilians in a war zone.

As well as being devoid of an antinuclear message, another obvious absence from Godzilla (2014) compared to the original, is any kind of anti-Americanism. The obvious reason for this is because it is an American production, tempered by Toho's involvement. However, even if Godzilla (2014) was financed and filmed entirely by the Toho Company within Japan, it is highly unlikely that the USA would be cast as an (offscreen) Pacific military ogre as it was in the 1954 movie. America is nowadays much respected by the Japanese public. Indeed, Japanese citizens living through the Fukushima nuclear meltdowns turned to American sources of information about the disaster because they distrusted the information coming from their own government or their own national media (where collusion, secrecy, self-censorship, and face-saving, hid the true extent/costs of the disaster, see Caldicott, 2014; Mahaffey, 2014; Matsumoto, 2012).

Godzilla filmmakers--over the years-have traditionally honored and celebrated the monster as the real star of Godzilla movies. Yet the monster's story and emotional draw depends on a cast of human characters. Two of the main protagonists in Godzilla (2014) are a father and son team consisting of a retired nuclear engineer (played by Bryan Cranston) and young American navy lieutenant (played by Aaron Taylor-Johnson). Though the father/engineer is an American, he has been longtime resident in Japan. Years ago, a nuclear disaster killed his wife and shutdown his workplace. Now he's obsessively investigating strange escalating radiation events around Japan which he thinks may soon cause a massive catastrophe and "Send us back to the Stone Age!". In the second Act, the Navy son is called to Japan to rescue his engineer Dad from jail because the latter was trespassing on a forbidden nuclear site.

The use of an American engineer working on nuclear sites in Japan could signal the historical entanglement of US / Japan nuclear relations; for instance, Fukushima's reactor systems were designed by General Electric. However, in this movie, and I would say in real life, America is not acting as a nuclear energy hegemon vis-à-vis Japan. Indeed, if Matsumato (2012) is correct, and the Japanese public trust American sources of information over domestic sources, then an American investigator of 21st century Japanese nuclear problems might not be regarded with much suspicion at all.

Another main character in Godzilla (2014) is a Japanese scientist, Dr. Serizawa (played by Ken Watanabe), who is also investigating nuclear events in Japan but from within a secretive international governmental organization called Monarch. This organization has supposedly been studying 'bio-nuclear creatures' since 1946. As the movie proceeds, Godzilla (2014) tries hard to personify this scientist as representing classical Japanese wisdom; spouting about 'balance' 'harmony', plus the dangers of human hubris and the need to honor the greatness and timelessness of the 'god-like' Godzilla. Through Dr. Serizawa, the audience is also supposed to feel some sort of unique and poignant Japanese wisdom, obtained through his nation's sad historical experience at the hands of nuclear folly and techno-hubris.

When Dr Serizawa, a biologist, talks of 'balance' in Godzilla (2014), we're supposed to believe he is referring to the 'balance of nature' in ecology (itself a dubious notion, as discussed in Marshall, 2002) but really Godzilla (2014) is more a story about the 'balance of power' concept used in geopolitics (where nations and empires attempt to control the territory they have interests in). To undertake his biological work, and to maintain the appropriate 'balance' in the world, Dr. Serizawa's Monarch organization is displayed as an agency working for the good of the planet; made up of well-intentioned wonks and nerds - though working in constant conversation with national governments and the military. Monarch scientists do all their work below the public radar but in service of all humanity. The fact that the filmmakers think their audience should trust such a secret organization as inherently good and honest just because it is, after all, a group of disinterested scientists seems to be at odds with the great mistrust of the nuclear agencies and nuclear scientists throughout the world (especially in America and in post-Fukushima Japan). Somehow, Godzilla (2014) also miscalculates that scientists are only ever involved in the wholesome pursuit of truth, even under the cover of secrecy, and are just backed-up by, but not controlled by, national security forces. Perhaps the executives at the Toho Company trust and believe this representation of Dr. Serizawa since they are quite conservative and very deferent to organized Japanese science. However, the anti-nuclear activists in the Western World have a long history of trying to hold nuclear scientists accountable.

The Japanese wisdom of the philosophically-inclined Dr. Serizawa reaches a crescendo when he intones that Godzilla is a like God compared to the humans who share his world. The unfortunate corollary of this, is that the power which spawns and energizes Godzilla, i.e. nuclear energy, is the lifeforce of this divine monster – thusly raising the status of nuclear material and radioactivity to such a high level that it should be honored and revered. If so, real world environmental activists have been greatly mistaken to demonize nuclear materials over the past fifty years.

Another way that Godzilla (2014) flirts with Asian concepts of the divine comes up when Monarch's scientists are discussing Godzilla's 'dragon-like' image. The Euro-American scientists in Monarch suggest that those who want to kill Godzilla are acting like heroic dragon-slayers of old. The Asian scientists battling for Godzilla's right to be respected then declare that within Asian cultures dragons are celebrated as great spiritual creatures. This may be true but it leaves unsaid the fact that the dragon was most often held to be a sacred warrior companion to emperors and generals, thus obscuring the way Godzilla -- if he is a dragon -- is all tied up with the divine right of rulers to dominate their own people and wage war on enemies (Bates, 2007).

Notwithstanding Godzilla's possible divinity, the predominant nuclear stance of Godzilla (2014) seems to strike a line similar to that held regarding nuclear deterrence during the Cold War. Those who championed the nuclear bomb as an agent of world peace often admitted to the dangers and downsides of the Nuclear Age and of the nuclear cycle but adamantly claimed that we need "Nukes" to stabilize the modern world and to deter an all-out nuclear war. Godzilla (2014) follows this line of thinking with its (semi-spoken)

adherence to the 'balance of power' notion. Thusly, Godzilla (2014) implicitly suggests as well that nuclear material and nuclear technology is messy and difficult to manage but we live in the Nuclear Age already, and we need to master the nuclear cycle as best we can to make sure our enemies do not overrun the planet.

As with the original Godzilla (1954), the military aesthetics of Godzilla (2014) are fully on stage throughout much of the film. As Godzilla crashes through the Pacific Ocean to confront the MUTOs, he is flanked by with escort ships from the US Navy. These are bigbudget shots portraying the US military as Godzilla's partner. Along with Monarch, the movie suggests the US Navy are undertaking honorable, though very secretive, work for the good of humanity (which is something standing in stark contrast to their real-world activities regarding America's nuclear colonialism in the Pacific, see Maclellan, 2005).

As is often the case in Godzilla movies, young and old, the shots of the Navy are romantically backdropped against beautiful landscapes and seascapes. And just as the original Godzilla (1954) was helped-out by the Japanese military, so to in the 2014 reboot, the US military provides assistance via both editorial support as well as the lending of military hardware--which was digitally-scanned then animated for on screen action (Vergun, 2014).

For all their impressive technological presence in the movie, the US Navy is portrayed as humble, moral, and human. In one scene, the Navy lieutenant character is travelling on a Honolulu monorail when a fellow passenger, a young Asian child, is accidentally separated from his parents. The lieutenant shelters the child when things start to get dangerous, then he re-unites the child with his parents, receiving no thanks for it. Still, the lieutenant smiles and gets on to the next task at hand, saving the world using nuclear weapons.

In Godzilla (2014), the titular character also receives the hero treatment. You might think that with all the massive urban destruction wrought by the monster, that he should be presented as an ambiguous character; neither good nor bad, just a disinterested force of nature, like an Earthquake or tsunami. Yet by the film's end, he is clearly celebrated as a savior. In the last Act, set in a ravaged San Francisco, Godzilla lies lifeless on the ground having dispatched

the enemy MUTOs in a final exhausting encounter. All the residents of the city seemed relieved that the carnage has finished and they also appear thankful to Godzilla for his role in taking down the enemy. Panning out from Godzilla's motionless head, eyes closed, the scene transforms from one of despair into one of hope, with supporting hopeful music, as bedraggled citizens survey their city to contemplate how to clear-up and rebuild the mess left behind.

The final uplifting scene is set in the recovery zone of a football stadium – a setting that looks as though the filmmakers are trying to wash away the stadium hell associated with America's Hurricane Katrina disaster. Within the stadium, there are tens of thousands of survivors and evacuees, all of whom simultaneously focus their attention on upon the huge TV screens. On the screens, live news coverage of Godzilla is being shown, as he slowly opens his eyes--one at a time. He then snorts out a smokey breath, lumbers to his feet, and staggers his way through the debrisridden streets of San Francisco. The stadium crowd erupts in applause and cheers as Godzilla is seen diving into the harbor and swimming toward the Golden Gate. Powered by nuclear energy, he lives to fight another day.

Godzilla Ii (2019): How the King of the Monsters Uses Nuclear Energy to Save Humanity

Despite it is tightly-bounded intertextuality, the Godzilla series sometimes tends not to worry all that much about continuity even when the films follow each other back-to-back. So, in Godzilla II (2019), the MUTO characters and the MUTO tag are both ditched, and all the new monsters are now generically called Titans. We also find out the world is riddled with them, that they are homegrown on Earth -- from a time when the planet was more radioactive. We also learn that Godzilla was once their King.

The plot of Godzilla II (2019) is rather complicated (or in the words of various reviewers, it is "messy," "ramshackle" and "ridiculous," see Lee, 2019; Lemay, 2020; MacNab, 2019). Basically, though, Godzilla battles a three-headed alien monster named Ghidora in order to remain the undisputed Titan champion of the world. To give the movie a naturalistic / ecological sensibility, Godzilla's fight to remain King is usually phrased throughout the film with references to

Alpha dominance lifted from the science of ethology. Though ethology only uses Alpha dominance when studying (non-human) social animals, Godzilla II (2019) refers to it across human and non-human worlds as it seamlessly flows from visual stories about wolf packs to hierarchical military groups to the social collection of monsters headed by Godzilla (then headed by Ghidorah then headed by Godzilla again).

Many themes from prior Godzilla outings emerge intertextually once more in Godzilla II. The military again works as Godzilla's ally and military hardware is fetishized once more with great spectacles of warships crashing through waves, armed choppers flying into open blue skies, and fighter jets rippling and whizzing through the clouds. There is also a central role for the secretive Monarch organization, though this time, we see it as subservient to the needs of the military as both seek to urgently track down the growing global list of Titansresiding mostly in the Asia Pacific.

What is new in Godzilla II is that the military forces and Monarch are joined by a third institutional protagonist; an independent ecomilitia that is supposed to represent environmentalism. This group, fashioned superloosely as an extreme version of organizations like Earth First! or Extinction Rebellion, aims to unleash the monsters of the world so they might take control of our ecologically-imperiled planet. In the process, modern industrial society, and probably a lot of humans too, will be destroyed, yet the 'balance of nature' will return once again (yet again). The message here, whether earnest or token, is that environmentalists are misanthropes and that is why they like disasters and catastrophes so much and keep talking about them -- since disasters and catastrophes can cleanse the world of humans.

In the real world, it is easy to find a few environmentalists making off-hand comments about how evil humanity is but I would contend it is impossible to find any group of environmentalists who are actively organizing to violently rid the world of the human species. Unless you are part of a community that actively demonizes environmentalists, the Godzilla II ecomilitia seem like a hopelessly unrealistic social form – and a biased misrepresentation.

Interestingly, the language used by all three organizations in Godzilla II--the US Navy, Monarch, and the ecomilitia -- invokes 'essential balance' and 'Alpha dominance' to describe the presence of Titans on the Earth

and in deference to the supposed natural order of things. As examined in the likes of Marshall (2002) and Kaufman (2014), this is also the language that naturalizes and normalizes social hierarchy, conservative values, toxic masculinity, and the essential need for violence and intimidation against subordinates. The whole 'Monsterverse' of Godzilla, then, seems at heart to be repressive and regressive.

Another recurring intertextual pattern within the Godzilla series that is followed in Godzilla II, is the exploitation of public worries about current disasters and catastrophe. In 1954, the disaster on the (Japanese) public mind was Hiroshima, Nagasaki, and the Lucky Dragon 5. In 2014, the disasters most apparent in the moment were the tsunamis and nuclear meltdowns of 2011, so in Godzilla (2014) both tsunamis and meltdowns are shown or signaled.

In 2019, the eco-disaster most in the public mind was climate change and mass extinction, in part because protesters from Extinction Rebellion were occupying the streets of the world's cities in their hundreds of thousands. Therefore, in Godzilla II, and its promotional trailers, these are the disasters and catastrophes that are highlighted as a cynically calculated way to draw in public attention. Just to be accurate though, Godzilla II is not a climate change movie, nor one which says anything substantial about the collapse of the Earth's biodiversity. It just references these catastrophes visually -- and a few times in words (from the mouths of the ecomilitia leaders) -- to make the story seem more socially realistic and current.

Another theme which re-emerges from Godzilla (2014) in Godzilla II (2019) is the idea that nuclear radiation is natural and beneficial. Radiation is Godzilla's 'lifeforce'. In one scene of Godzilla II, the wise Japanese biologist, Dr. Serizawa, detonates a nuclear bomb near a weakened and exhausted Godzilla's so as to shock and energize him into life once more; as though a nuclear bomb is some monstrous life-saving defibrillator. Like most other scenes of nuclear destruction in just about all Godzilla movies, this scene suggests that atomic radiation is more or less like electricity; a kind if useful energy with a very limited spatial and temporal range and no lingering after-effects. Compare this to Fukushima's meltdown or the Marshall Islands bomb tests whose escaped radiation lapped at the shores of Californian beaches thousands of miles away and whose legacies meant some towns and islands will be offlimits for thousands of years.

Godzilla vs. Kong: Natural Nuclear Techno-Monsters (2021)

Jumping into the third outing of the 21st century American Trilogy, the usual themes found in earlier Godzilla movies are there but often in diminished form. The Lucky Dragon 5 is visually referenced when a junk in Hong Kong harbor is almost capsized as Godzilla lurches unannounced out of the ocean. The wise Japanese scientist speaking from harsh personal experience makes a small appearance, too, when the son of Dr. Serizawa (played by Shun Oguri) warns his boss that the Godzilla-inspired technology they are developing together is sure to go wrong if it is used without great care.

The Alpha dominance notion makes a much bigger return; the whole premise of the movie is that Godzilla is an alpha male bowing to no one and King Kong is an alpha male bowing to no one, so a trans-Pacific war--on land and on sea--erupts between them. In the first Act, we see that Godzilla has transformed from being the hero he was in Godzilla II to being the villain of Godzilla Vs Kong. For no discernable reason, he is rampaging across Asian-Pacific cities and causing massive destruction. Indeed, he is making such a nuisance of himself that the scientists from Monarch and the US Navy have to be friend another monster, King Kong, to reign in and rid the world of Godzilla.

The veneration of nuclear power enters the story, again, since King Kong needs to be empowered with the lifeforce of radiation hidden deep within the Earth. Utilizing this radiation, Kong energizes an archaic axe weapon with which he can take on the similarly nuclear-powered atomic breath of Godzilla. As in previous Godzilla episodes, when the monsters clash, cities get flattened. Fortunately – but unrealistically – nobody seems to suffer from any adverse health impacts from the radiation emanating from the two nuclear-charged monsters.

What is new in this film, compared to those discussed above, is that a billionaire industrialist (played by Demián Bichir) takes it into his own hands to create an anti-monster weapon that will get rid of the dangerous and unpredictable Godzilla, once and for all, and get rid of the dangerous and unpredictable King Kong, too. The industrialist does this by making "Mechagodzilla" a gigantic Godzilla-like robot, complete with artificial nuclear-powered breath. However, as predicted by the Dr. Serazawa's son, something does go

wrong. Mechagodzilla stomps on his industrialist creator before some alpha-type software program kicks in and the huge robot crashes through Hong Kong to pick a fight with the real Godzilla.

Just as Godzilla looks like he is going to be slain by Mechagodzilla, King Kong arrives on the scene and the two monsters cooperate in a mighty battle to take out the titanic machine together. After their victory, Godzilla and King Kong seem to make a truce then head their separate ways across the Pacific.

Although there is no let-up in the central role played by nuclear energy in being useful, beneficent, and manageable; "a lifeforce at the center of the world", there are some glimmers of an environmental sympathy shining through in Godzilla Vs Kong. Firstly, the organic beings Godzilla and King Kong — though nuclear powered and armed with nuclear weapons—are presented as heroes over a deranged artificial robot monster built by a megalomaniacal industrialist. At least "nature" seems to trump "industry" here, both in story and in moral value.

The other slight environmental message, more a beleaguered acceptance of the role environmentalists has taken in stopping deranged industrial projects, is that when a few of Godzilla's human friends turn up to shut down the Mechagodzilla project, the billionaire industrialist mistakes them for Greenpeace activists. It is a funny scene but also encouraging considering the previous film, Godzilla II (2019), showed environmentalists as misanthropic terrorists. Of course, the historical problem here for the Godzilla filmmakers is that Greenpeace got its start in life campaigning strongly against nuclear bombs and nuclear power. Alas, if Godzilla Vs Kong is going to ignore its own anti-nuclear history, then I guess I should not expect it to honor the history of antinuclear activism.

Conclusion

Nuclear bombs and nuclear energy are potentially the gravest environmental hazards that the world faces. An exchange of just a small smattering of the world's massive nuclear arsenal could kill hundreds of millions of people and irradiate the entire biosphere – leading to the collapse of cities, countries, regions; and maybe the whole of modern industrial society (Powaski, 2000). If there is full-out nuclear war; the future of humanity as a species may be in jeopardy (Caldicott, 1994). Even without nuclear war, disastrous

events at nuclear plants could quite easily depopulate cities to the point of abandonment, as was the case in Chernobyl and Fukushima (Caldicott, 2014; May, 1989). Artistic and cultural representations of such nuclear destruction, and of the various elements of the nuclear cycle, have the capacity to critically reflect upon and fight against this global nuclear destruction and radioactive pollution. Sadly, although Godzilla has battled myriad foes on screen, he has never really been capable of battling against nuclear expansion in the real world, and indeed, he very much seems like an excuse for it now. The fact that Godzilla renders invisible the construction of the Nuclear Age (and renders benign the environmental impact of something so staggeringly destructive as a nuclear bomb) presents him in stark contrast to the series' reliance on visual spectacle and visible violence.

Drawing a comparison between the original film and the modern American trilogy, I would like to make the following claim; a claim that contradicts just about every spot of press coverage that Godzilla and its American trilogy has garnered in the 21st century. We must note that the anti-nuclearism of Godzilla (1954) was encumbered with conservatism, militarism, xenophobia and hypocrisy. Yet, when Godzilla migrated to America in the 21st century, it transformed into something even worse, perhaps, a series of pro-nuclear movies that are just as militaristic as Japan's yet also avidly anti-environmental.

A certain number of modern-day Godzilla fans might explain the difference between the anti-nuclearism of Godzilla (1954) and the pro-nuclearism of the American Trilogy in the following manner. Japan's unique wisdom regarding the dangers of nuclear technology was born from its suffering at the hands of past horrors. But because the USA never suffered such horrors (indeed, it may have benefitted from them), Americans therefore do not possess such wisdom and therefore they may yet unleash more such horrors. From this point of view, American filmmakers and audiences cannot see how truly terrible nuclear bombs really are and how truly terrible the nuclear cycle really is, so that is why they have normalized the nuclear cycle within their Godzilla movies and promoted the benefits of the nuclear age – bombs included. Alas, this explanation falls apart when we note the massive investment Japan has made in the nuclear cycle over many decades and how they have become a major pro-nuclear producer of the nuclear age.

This explanation is also blind to the way that militarism has played a big part of both the original Godzilla movie and the 21st century American trilogy; a blind spot that relinquishes a cultural critique of a major sector that pushes for nuclear development in both nations and which fosters a certain social acceptance of hierarchy, secrecy, and the threat of violence; all of which make for a fertile ground for the nuclear cycle to expand and for nuclear bomb projects to prosper. Certainly, a critical reflection upon the American trilogy would resist the idea championed within it that nuclear bombs, nuclear energy, and the military can serve as any kind of savior of the Earth; especially given their acknowledged capacity to destroy it.

Instead of constantly working with military forces to make their stories and visuals more 'realistic,' future Godzilla filmmakers might do better to work with conservationists and ecologists as they strive to undermine the Nuclear Age and envision Godzilla as a properly ecological being. So, if I was giving advice to the Hollywood and Tokyo film producers of today, I would suggest they

emulate the courageous ecological approach pursued by Yoshimitsu Banno in the early 1970s when Japanese artists were waking-up to and addressing the environmental crises. New Godzilla producers should thusly aim to "ruin" Godzilla in exuberant self-criticism so as to undermine the Godzilla brand's long intertextual history of pro-militarism and nationalism. This might be asking too much of big commercial producers, like Toho and Legendary, but 'independent' movie companies might take up the cause with great impact. It is true that the Godzilla trademark is jealously protected by Toho. However, given that Godzilla is a plagiarized version of the Beast from 20000 Fathoms, they will likely one day lose the legal right to control the use of citydestroying dinosaurs that emerge from the Pacific. Thence, a space for a non-militaristic and truly anti-nuclear monster might open up.

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