

A Blueprint for Destruction: Eco-Activism in *Doctor Who* during the 1970s

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In 1972, the editors of a two-year old environmentalist magazine named *The Ecologist* published a special issue titled *A Blueprint for Survival*, which subsequently sold over 750,000 copies as a book. This manifesto of the early eco-activist movement lamented the unsustainable industrial way of life that had developed after WWII and proposed a new 'stable society' with minimal ecological destruction, conservation of materials and energy, zero population growth, and a social system that supported individual fulfillment under the first three conditions (Goldsmith et al. 30). *Blueprint* received tremendous attention in the British press and became a seminal text for the British Green movement (Veldman 227–236).

This environmental movement of the 1960s and 1970s was substantially different from traditional environmentalists of the early twentieth century who tended to be conservationists interested in wildlife and landscapes. The new environmentalists, whom Meredith Veldman labels eco-activists, "condemned not only environmental degradation but also the society that did the degrading" (210). They combined critiques against pollution with calls for limited population growth and refinement of social systems. Although the early eco-activist movement in Britain petered out politically in the late 1970s (it arose again in the mid-1980s), its radical environmental ideas had begun to permeate society.

At the same time that eco-activists were establishing their agenda, the BBC serial television drama *Doctor Who* was enjoying its successful establishment in British popular culture. The show is the longest running science-fiction television series in history, running 1963–1989 then 2005 to the present, with nearly 800 episodes.¹ The show revolves around a Time Lord known only as the Doctor from the planet Gallifrey who travels through time and space in his time machine, the TARDIS, often accompanied by a female companion. Eleven different actors have played the Doctor, who has the ability to regenerate if killed, over the years. The show features typical outer space sci-fi elements including aliens, robots, evil masterminds, and impending world destruction—which the Doctor conveniently thwarts in nearly every series.

Television has been labeled as a "cultural forum" that allows for issue raising and commentary (Newcomb and Hirsch). As an issues forum rather than a platform for one point of view, television often provides multiple and contradictory messages about a given issue, even within one particular show. Although one message may receive

¹ In *Doctor Who* during the 1970s, each serial has a name and is divided into multiple 25-minute episodes, typically four to six, which were shown in sequence once per week.

dominance in a given setting, it competes with other ways of seeing the issue at hand (Fiske and Hartley 5). The way that the characters in a television program resolve a problem is not as important as the raising of the issues (Newcomb and Hirsch 565). Fiske and Hartley have described television as “bardic,” in that central social concerns are translated into a specialized communication system that composes mythologies meeting the needs of the audience (64–67). In such a communication forum, the stories that are told are reflections of social values rather than social reality (Fiske and Hartley 10). This is particularly obvious in the case of a science-fiction program which already asks viewers to suspend disbelief as they are transported to new worlds, meet new creatures, and see new ways of living. The integration of social values may be the most critical element that allows science-fiction programming to resonate with its viewers.

Just as the contemporary late 1960s American television science-fiction show *Star Trek* integrated present social and even environmental issues into its storylines (Franklin, Jørgensen), *Doctor Who* has incorporated modern concerns into its plots, acting as a cultural forum for contemporary issues (Gregg). As a cultural forum, *Doctor Who* is particularly powerful because it is based on the current moment in time. From the very first episode aired in 1963 in which the action opens in 1963, *Doctor Who* can reference contemporary issues because the characters and storylines are identified as current. This contemporaneity becomes a key element in creating “realism” in the show to balance its “otherworldliness” (Tulloch and Alvarado 102–103). John Tulloch and Manual Alvarado argue that *Doctor Who* took on the BBC cultural directive to allow voices from all political angles to speak without standing for any of them (51–53). Although *Doctor Who* does not advocate a discernable left or right political stance in the traditional sense of politics, many viewers see the Doctor as a “moral hero” who intervenes during his travels because he sees injustice and reacts to it (McKee 207–210). Stories making ideological statements are thus not unusual in the *Doctor Who* corpus. Research shows that cultural commentaries in the scripts were not lost on the viewers: interviews with fans who had seen the 1974 series “Monster of Peladon” revealed that they were keenly aware of social commentary about class and gender in the serial (Tulloch). So while *Doctor Who* may not emphatically adopt a party line, it does promote particular cultural-political interpretations of the world. Considering that the show reached its pinnacle of popularity during the 1970s, can we find links between the eco-activist movement and narratives featured in *Doctor Who*?

This article looks at four serials from the eras of the Third Doctor (Jon Pertwee, 1970-74) and Fourth Doctor (Tom Baker, 1974-81), which aired during the 1970s during the first wave of eco-activism in the UK: “The Green Death” (1973), “Invasion of the Dinosaurs” (1974), “The Seeds of Doom” (1976), and “Nightmare of Eden” (1979).² Two environmentalist concerns— pollution and species conservation—put forward by the British 1970s eco-activist movement are evident in these serials. While affirming the validity of some elements of environmentalist concerns, each serial also proposes that the ends do not always justify the means. Rather than presenting viewers with a guide to

² In addition to viewing the serials on DVD, I have consulted the *Doctor Who* transcripts available online at <http://www.chakoteya.net/DoctorWho>

sustainability, these *Doctor Who* serials offer dystopian visions of future realities steeped in ecological transgressions—these are the blueprints for destruction.

Two tales of pollution

The first two serials under consideration here, “The Green Death” and “Invasion of the Dinosaurs,” take up the issue of pollution. Pollution had been mentioned in several earlier *Doctor Who* serials, but it was always mentioned in passing. The earliest pollution reference is in “The Dalek’s Master Plan” from 1966: the Doctor warns his companions not to go outside of the TARDIS when it lands in 1960s urban England because “the whole atmosphere is entirely poisonous.” He cautions, “Where you come from, in both places, the air is pure. Outside there is the worst kind of pollution I’ve met in years.” Atmospheric pollution is also blamed for mutating the residents of the planet Solos in “The Mutants” from 1972. With “The Green Death,” we get *Doctor Who*’s first extended critique of pollution.

Pollution is not the solution

In the six-episode serial “The Green Death,” the Doctor, the Brigadier from the United Nations Intelligence Task Force (UNIT), and the Doctor’s companion Jo Grant investigate several suspicious deaths at the Global Chemicals factory in South Wales, presumably in the present or near present time. Global Chemicals has begun processing crude oil with a secret process that supposedly generates negligible waste. As the investigation continues, the Doctor discovers that the procedure does in fact create highly toxic waste, which Global Chemicals has been dumping into an old coalmine in order to increase their profits (and eventually take over the world). The waste causes a lethal infection in humans and has mutated maggots to into giants, which must be destroyed before they terrorize the Earth.

The premise of Global Chemical’s rise is the need for more efficient energy production. In the opening scene, the plant’s director Stevens informs a crowd of former coal miners that the government has supported the expansion of Global Chemicals as an oil processing facility. Stevens explains later that his new process is much more efficient, therefore, he does not understand why a local activist group headed by Nobel-prize winning Professor Jones is protesting the expansion: “After all, he and the rest of the doom merchants never stop telling us that we’re using up the world’s supply of oil. We can now produce twenty five percent more petrol and diesel fuel from a given quantity of crude oil. If that isn’t conservation, I don’t know what is.” Stevens’ statement indeed reflected energy efficiency concerns of the early 1970s. Energy consumption and the increasing dependence on petroleum as an energy source attracted wide scholarship in 1970–1971 (Thomas), even before the 1973 oil crisis. For example, in September 1971, the popular magazine *Scientific American* ran an issue on energy highlighting the increasing energy use by the industrialized nations in spite of the finite energy resources available, including an article by M. King Hubbert, who developed the peak theory of

petroleum production. Rapid energy depletion was high on the list of environmental concerns in early 1973.

Stevens' position that Global Chemicals was meeting the demands for efficiency in the face of peak oil might appear to be an environmentalist one, yet the company is directly criticized by the eco-activist protagonist, Professor Jones. For Jones, the company is "still using up the oil and doubling the atmospheric pollution." Instead, he proposes that the industrial world develop wind and water energy. His environmentally friendly retreat, the Wholeweal, is heated via a heat pump which runs on electricity generated by a windmill. Jo Grant responds to the explanation of Wholeweal's energy set-up with a simple exclamation: "And no waste, no pollution!" This scene is immediately contrasted with a cutback to Stevens being questioned by the Brigadier, who asks "No waste? No pollution from an oil refinery?" to which Stevens replies that his process is "clean" with "negligible" waste production. The camera then jumps back to Jones explaining that Steven's process has to generate "thousands of gallons of waste. ... And what properties that would have, heaven alone knows." Thus the viewer knows from early on in Episode 1 that Steven's energy conversion process is not benign. In this dialog we see that the strongest critique does not target energy production or consumption itself, but the pollution that comes along with petroleum production.

The ill effects of chemical pollutants on the ecosystem had been a continuous concern of the early eco-activist movement. Echoing the work of Rachel Carson, who exposed the disastrous effects of the pesticide DDT, *Blueprint for Survival* criticized the ongoing use of pesticides in spite of increased pest resistance and identification as the cause of bird and fish population declines. Of particular concern to the *Blueprint for Survival* writers was our inability to "predict the behaviour or properties of the greater part of them [man-made chemicals] (either singly or in combination) once they are released into the environment" (Goldsmith et al. 20–21). This is the sentiment expressed by Jones as his critique of Global Chemicals. At the end of episode 2, Jones's fears are confirmed—the Doctor and Jo discover that the green goo generated by Global Chemicals has mutated thousands of maggots into giants. The ecological effect of pollution is unmistakable when facing giant maggots swarming through glowing green slime.

The destruction of the maggots turns out to be a difficult task, as their thick plates deflect conventional bullets and they appear to thrive on all synthetic pesticides. This plot twist reinforces the environmentalist concern about the overuse of synthetic pesticides and their ineffectiveness. Luckily, it turns out that a natural pesticide—a fungus being cultivated by Jones as a potential world food source—is available. Jones' black fungus is lethal to the maggots when eaten, and a pasty concoction from the fungus acts as a cure for humans exposed to the goo. Jones had been experimenting with high-protein fungus to take the place of meat, and was even planning a journey to the Amazon to investigate protein-containing mushrooms there. Such an endeavor to find eco-friendly food sources fits well with contemporary eco-activist concerns about food shortages, the lack of productive land, and overuse of fertilizers and pesticides (Goldsmith et al. 21–22). The final solution of a natural pesticide to combat the

unnatural pests exemplifies the environmentalist calls for natural alternatives to industrial agriculture.

The environmental protagonists in this story, Jones and the residents of Wholeweal, appear at first glance to be stereotypical counterculture hippies living in a solitary commune. The members have long hair and the sign outside of the commune is painted a psychedelic 1960s scheme. Local residents, in fact, refer to their community as the Nuthutch. Over the course of the serial, however, we discover that the commune members are not isolated, but rather do research for public benefit: one is a mathematician studying "probability factors in a projected future ecology", another designs windmills with his background in supersonic aircraft design, Jones works on protein-rich mushrooms. As Jones explains it, "we haven't set up this community just to drop out. I mean, let's face it, who does like the petrol stinking, plastic rat-trap life we all live? No, no. If we're going to make a success here at Wholeweal, we've got to do something that's going to help the entire world. So we're a biotechnic research unit as well as a Nuthutch." These environmentally-conscious heroes are shown to be working to save the world from corporate monsters like Global Chemical.

The ideological environmental message of "The Green Death" was intentional. According to producer Barry Letts and script-editor Terrance Dicks, the idea for the story came from Letts' worries about the present state of the world's ecosystems and their continuing degradation; the two decided that the best way to address Letts' concerns was to write a "an ecology story" to express his feelings (Dicks quoted in Tulloch and Alvarado 182). Jo Grant voices Letts' plea in the first episode: "It's time that the world awoke to the alarm bell of pollution." Although more efficient petrol production might address some environmentalist concerns, corporate greed raises other more serious problems. More pollution cannot be the solution.

Back to the Golden Age

The six-part serial "Invasion of the Dinosaurs," the second serial aired after "The Green Death," offered another tale of pollution, but with a different twist. The Doctor and his companion Sarah Jane Smith discover that dinosaurs are appearing randomly in London and work to identify the source with the help of UNIT. It turns out that the scientist and eco-activist Charles Grover is intentionally bringing dinosaurs to the present in order to depopulate London, a critical part of his plan in the destruction of all present life on Earth. Grover intends to reverse time on Earth to the distant past and recolonize Earth with a select few who would give humans a fresh start, a plan he calls Operation Golden Age. Of course, the plan is thwarted by the Doctor, who ends up sending Charles Grover and his accomplice back in time alone.

Operation Golden Age was prompted by concerns about Earth's pollution levels. The colonists selected to participate in Operation Golden Age are regularly reminded of the sad state of affairs on Earth by watching an indoctrination film about pollution. The *Doctor Who* audience gets to see three clips of this film, which is being viewed by Sarah Jane. In the first clip, black sludge is being dredged with the voice-over: "Ever since the

dawn of the Industrial Revolution, man has continued to pollute the planet which until now has been his only home. Chemical and industrial wastes have caused widespread poisoning of the air and the rivers.” The second clip shows a dead fish then soupy trash-filled water with the narrator saying: “Dangerous concentrations of cumulative poisons such as mercury are already being found in fish and when fish start to die, when the very seas where life began are now becoming lifeless and stinking.” The third clip highlights a different environmental problem: images of busy sidewalks and streets are overlaid with the narrator intoning, “Overcrowding in man, as in all other animal species, increases hostility and aggression, leading to the greatest crime of all, war. With the development of the atomic bomb, man now has the choice of destroying his planet quickly, through war, or slowly, through pollution.”

All three of these clips bring up concerns of environmentalist publications like *Blueprint for Survival*, and since this serial was produced by Letts, the movie likely reveals his own ideas about the Earth’s problems. As in “The Green Death,” industrial development and concomitant pollution are understood as radically harming life on Earth, but this film takes the argument even one step closer to the eco-activist stance by tying the degradation to human population growth in the third clip. The increasing human population in conjunction with rising per capita consumption was portrayed as the source of the world’s problems in *Blueprint for Survival* (Goldsmith et al. 15) and other seminal texts such as *The Population Bomb* (Ehrlich) and *Limits to Growth* (Meadows et al.). Ever increasing population and the failure to meet its growing demands would eventually lead to the breakdown of society as we know it, thus the calls for a new “stable society” in *Blueprint for Survival* (Goldsmith et al. 30–31). A Conservation Society membership drive advertisement from 1970 sums up the environmentalist linkage between pollution and population: “Pollution is only one head of the hydra. Others are disappearance of raw materials, extinction of wildlife, ruin of our heritage and countryside, urban sprawl, overcrowding, lack of essential services, pressure on individual freedom—the list is endless. The quality of life—indeed its very existence—is threatened.” To the 1970s eco-activist, burgeoning population and industrialization, pollution and resource misuse all go hand-in-hand.

The colonists—who believe that they will be settling on another planet called New Earth rather than a time-reversed version of their own Earth—have the task of leading New Earth along a different path. According to Lady Ruth Cullingford, one of the colonist elders who had previously introduced a Parliamentary bill against river pollution, New Earth is “still pure, undefiled by the evil of man’s technology. Air that is still clean to breathe.” The colonists will guide the inhabitants of New Earth—“simple pastoral people, innocent and unspoiled”—“to see that the evil developed on Earth will not be repeated.” This idea of primitive humans as more environmentally responsible, and thus role models for modern society, appears in environmentalist texts as well. Hunter-gatherers are held up as models of environmental adaption, not exceeding available resources and controlling population growth (Goldsmith et al. 95–96). It is this “Golden Age” that Grover and his colonists hope to recreate.

But the Doctor questions the interpretation of primitive man as having lived in a Golden Age. In a conversation with Mike Yates, one of the UNIT members in collusion with Grover, the Doctor asks Yates to explain Grover's plan. "They're going to roll back time. The world used to be a cleaner, simpler place. It's all become too complicated and corrupt. ... We shall find ourselves in the golden age," Yates replies. The Doctor counters, "There never was a golden age, Mike. It's all an illusion." To the Doctor, the solution is not to roll back time but to move forward. "Take the world that you've got and try and make something of it. It's not too late," he urges Yates. The message here is that instead of looking to the past, we need to actively deal with the present pollution problems. The clean slate, a utopian restart for mankind, is not an option.

When the Doctor first meets Grover, he recognizes him as an eco-activist, mentioning that Grover started the Save Planet Earth Society and authored the book *Last Chance for Man*, which presumably is an environmentalist tract. The Doctor says sincerely at this first meeting, "Oh, my dear Grover, I'm delighted to meet you. This planet needs people like you." The Doctor is genuinely concerned about environmental matters, which the Brigadier affirms in the conversation with his comment, "You two have a great deal in common. The Doctor's very keen on this anti-pollution business." Yet in this serial, the environmentally concerned Grover ends up being the villain rather than the hero as Professor Jones had been in "The Green Death". In the final scene, after Grover has been sent back in time, the Doctor calls Grover "mad" yet praises him because "he realised the dangers this planet of yours is in, Brigadier. The danger of it becoming one vast garbage dump inhabited only by rats." The Doctor recognizes that Grover had identified a very real environmental problem that needed to be addressed. The ends, however, cannot justify the means, in this case the destruction of all present life on Earth other than the chosen few.

At the very end of the serial, we are given a vision of the polluted Earth's polar opposite. The Doctor asks Sarah Jane to join him on a trip to the planet Florana, "one of the most beautiful planets in the universe." Florana is "always carpeted with perfumed flowers... And its seas are as warm milk and the sands as soft as swan's down... The streams flow with water that is clearer than the clearest crystal." These verbal images directly contrast with the indoctrination film's visual images of black goo and polluted waters on environmentally degraded Earth. They tell the viewer that there are places in the universe untouched by industrialization and pollution. Ongoing pollution will lead to Earth's destruction, whereas the clear, clean waters of Florana provide life.

We can read this serial, then, as both affirmation of environmental activists' warnings about pollution and as a critique of utopianism. Humans cannot go backward to some mystical past in harmony with nature. We have to move forward and address the concrete problems of industrial society without denying that society. There is a call to action in this serial: whereas "The Green Death" had simply urged humans to avoid expanding pollution, "Invasion of the Dinosaurs" asks them to work to reverse the pollution already present.

Two tales of conservation

The flip side of pollution in many ways is species conservation. Pollution harms the environment, whereas conservation seeks to protect it. Species conservation was a long-standing concern of environmentalists, and in the 1970s, eco-activists became increasingly aggressive in demanding species protection laws and in advocating animal rights. Two serials from the late 1970s, “The Seeds of Doom” and “Nightmare of Eden” enter into the fray with both support and critique of species conservation measures.

Green take-over

In the Doctor’s world, environmentalism taken to extremes is dangerous, as the events in “Invasion of the Dinosaurs” confirmed. When a radical plant conservationist gets his hands on an alien vegetative creature that devours animal flesh in “The Seeds of Doom” (1976), Earth as we know it is inevitably in danger. This serial features the impending destruction of all animal life by the krynoid, an intergalactic invasive weed species that takes over wherever it gets established.

The evil mastermind in this episode, Harrison Chase, is an avid plant collector who goes to great trouble to obtain the krynoid seed pod; as such, he is also an environmentalist very unlike the majority of conservationists in 1976. In the first episode, Chase confronts the Minister of the World Ecology Bureau about the Bureau’s priorities: “You are concerned about the fate of the blue whale, and the natterjack toad, but the loveliest, most defenseless part of creation, the great kingdom of plant life, receives no protection at all.” At this point in the serial, the viewer hears this statement as a true environmentalist question: why do the conservation organizations focus on the charismatic species while other species, perhaps even more ecologically important ones, are not protected?

A focus on large mammals and birds was very typical of the 1960s and 1970s environmental movement. In 1961, sixteen of the world’s leading conservations signed the Morges Manifesto, which became the foundational document for the World Wildlife Fund (now known as WWF). The Manifesto blamed modern civilization for the loss of animals worldwide: “All over the world today vast numbers of fine and harmless wild creatures are losing their lives, or their homes, in an orgy of thoughtless and needless destruction” (1). The creatures of concern for WWF in these early days were animals like the panda, which came to feature in the WWF logo; plants factored little into conservation efforts at the time. Whales, the first animals named by Chase, had indeed been primary beneficiaries of environmentalist fervor by 1976. The International Whaling Commission, a voluntary international organization founded in 1946 to review and revise whaling standards worldwide, had instituted a ban on all commercial hunting of humpback whale and blue whale in 1966. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an international agreement which took effect in 1975 to limit international trade in wild plants and animals, listed several species of whale, including humpback, blue and grey whale, as an endangered species.

Natterjack toads, which are also mentioned in Chase's statement, had received attention in Britain since 1970, including efforts to reintroduce toad populations to former habitats (Denton et al.). The Conservation of Wild Creatures Bill considered by the UK Parliament in 1974 and 1975 specifically named the natterjack toad as an object of protection (UK Parliament, House of Lords Debate).

Does this mean plants had been left out of conservation attempts? No. Interestingly, the Conservation of Wild Creatures Bill was combined with the Wild Plants Protection Bill for parliamentary consideration in 1974. That bill targeted the 20 rarest wild plants, making it illegal to purposefully uproot or destroy them, except on private agricultural land (UK Parliament, House of Lords Debate). Although the combined bill did not end up as law, its proposal shows that there was an interest in plant conservation in Britain as part of a larger environmentalist agenda by the time "The Seeds of Doom" aired.

One of the targets of the Wild Plants Protection Bill was unsustainable practices by collectors of rare plants—certain plants are rare, so collectors collect the few remaining specimens, which only leads to greater rarity and perhaps extinction (UK Parliament, House of Lords Debate). In discussing the Wild Plants Protection Bill in 1974, Lord Shackleton commented, "We have to take into account this extraordinary phenomenon of the immorality of certain collectors. One has seen this in the art world and one has certainly seen it in what may be called the natural history world" (UK Parliament, House of Lords Debate). The Doctor likewise criticizes the enthusiast who goes too far: "Do you realize that on this planet the pod is unique? I use the word with precision. Unique. And to some people, its uniqueness makes it valuable at any cost." Chase is this type of immoral collector, who brags about his collection: "In this house is assembled the greatest collection of rare plants in the world. When the pod flowers, I shall achieve the crowning glory of my life's work." Unscrupulous collectors like Chase are not true environmentalists because they damage what they say they protect, or they damage other things in order to ensure the targeted species' protection. Chase falls into the latter category. When the krynoid emerges from the pod and takes over the body of one of Chase's employees, Chase argues that the krynoid must not be harmed because it is unique, whereas "people are replaceable."

Chase's extreme position, a desire to turn ecology on its head so to speak, makes him the Doctor's antithesis. Chase wholeheartedly supports the krynoids' attempts to lead a global plant take-over. He welcomes the krynoids' new world order: "The world will be as it should have been from the beginning, a green paradise." According to him, animals are "parasites" that depend on plants for air to breathe and food to eat, and thus do not deserve continued existence. This view contrasts with the Doctor's. The Doctor works to maintain order, keep the ecological equilibrium. The krynoids are invasive, wiping out all animal life on planets where they become established. This invasive weed, no matter its uniqueness, has to be weeded out, thus the Doctor works to destroy it.

Although "The Seeds of Doom" is a very different kind of story than "The Green Death" and "Invasion of the Dinosaurs"—the former falling into the Gothic Horror category with Tom Baker's anti-establishment comic doctor and the latter two more

action-oriented serials with Jon Pertwee at the helm—it references contemporary environmental issues in much the same way, drawing upon current environmental discourse and critique to create character motivations. In Chase, we find the unscrupulous plants collector who threatens the life-giving ecological balance on Earth, a sure blueprint for disaster; in the Doctor, we see the desire for everything to be in its proper place, our only road to survival.

Conservation behind bars

The fourth serial under consideration here, “Nightmare of Eden” (1979) foregrounds the tension between animal rights and animal conservation. Unlike the other serials this article has considered, this one takes place away from Earth and in some future time. In this case, the Doctor and his assistant Romana land the TARDIS inside of a spaceship that has just collided with another ship. While attempting to separate the ships, the Doctor discovers that someone on board is smuggling Vraxoin, a highly addictive lethal drug. The smuggler turns out to be a zoologist, Tryst, who has invented a machine to collect zoological specimens. Tryst is a scientist with monstrous ambition—he wants “to become the first zoologist to qualify and quantify every species in our galaxy.” These lofty aspirations require financial support, driving him to smuggle vrax. In typical *Doctor Who* fashion, the smuggling plot is spoiled and the ships are restored.

Tryst’s invention is the focal point of the serial, since it turns out that it has enabled the smuggling, and it also serves as a focal point for a discourse about proper conservation. The Continuous Event Transmuter (CET) machine captures specimens by converting the lifeforms into electromagnetic signals which are then stored on a crystal. More than just images, the captured flora and fauna “go on living and evolving” inside of the crystal. To Tryst, “this is important scientific research. I am helping to conserve endangered species.” Tryst’s assistant Della likewise believed that capturing the species on the crystal was “a conservation exercise.”

Tryst defends his decision to smuggle vrax because of his conservation aims. When he is confronted by Della about the plot, Tryst argues that the ends justified his means:

TRYST: No, it started just as a little thing, just to help me over a slight financial difficulty. The cost of the expedition, that was bankrupting me!

DELLA: But Vrax is destroying people by the millions!

TRYST: I had to continue my research! Without me, many of those creatures would have become extinct!

DELLA: I think a few million people becoming extinct is rather more serious.

TRYST: Ah, but they had a choice. It was their own fault that they became addicted.

The helpless creatures Tryst is working to save deserve a higher priority than humans who make bad decisions. While this dialog certainly can be read as a commentary on drug addiction, it also makes a statement about extinction and a feeling of moral obligation to prevent it. This is certainly the tone of the Morges Manifesto, which argues that “feelings of guilt and shame will follow, and will haunt our children” because of our destruction of the world’s wildlife; therefore we need to financially support the activists and organizations “battling at this moment on many fronts” the threats of extinction (1). Tryst is clearly a conservationist in this mold.

But the Doctor looks at the CET differently. To him, the species in the crystal are conserved “in the same way a jam maker conserves raspberries.” The Doctor calls the CET a “private zoo” and “Tryst’s electric zoo” in a condescending voice. At the end of the serial, the Doctor calls for returning the animals to their natural habitats: “I think the best way of conserving the poor creatures trapped in these crystals is to project them back to their own planets, don't you?” The rights of the animals to exist in their own spaces trumps any benefits gained by holding them in captivity. With this viewpoint, the Doctor is acting as an animal rights activist. Publications such as Desmond Morris’ *The Human Zoo*, which pointed out the abnormal behavior shown by wild animals when confined in zoos, Peter Singer’s *Animal Liberation*, and the edited volume *Animals, Men and Morals: An Inquiry into the Maltreatment of Non-humans* (Godlovitch, Godlovitch, and Harris) set the stage for an active animal rights movement in Britain during the 1970s. These activists called for an end to animal exploitation and captivity, a sentiment the Doctor expresses in this serial. Once again, for the Doctor the environmental ends do not justify the means. In this case, both the smuggling of vrax to raise money for conservation projects and the capturing of animals as a conservation measure are unwarranted.

Hopeful dystopian environmentalism

Dystopias in science fiction demonstrate the dangers of attempting to create a perfect world. Three of the *Doctor Who* serials discussed above clearly fit into this category. Creating an energy source without waste, restarting Earth’s history without pollution, and setting up a haven for vegetation all sound like good ideas, but they turn out to be disastrous for humans. “Nightmare of Eden” is slightly different in that Tryst is not proposing to create a perfect world, but he does believe he has identified a perfect source of funding for his conservation efforts, so even in this storyline, a laudable goal turns out to pose a threat to humans.

The structure of the television serial broadcast as 25-minute episodes over six weeks means that the dystopian plot is split into components. We can see this in the example of “The Green Death.” The first episode sets up the story as we are told about Global Chemical’s utopian new energy source and introduced to the alternative Wholeweal approach. In the second episode, the problems of Global Chemical’s solution emerge as workers begin dying, and the dystopian world emerges. Episodes 3 to 5 focus on the mutated maggots, our heroes’ escape from imminent danger, and unsuccessful

attempts to kill the maggots and a maniacal computer; these are the action-adventure segments. In the final episode, the Doctor and his friends find a solution and bring down Global Chemicals and its unnatural creations, saving the Earth from destruction. The other serials are similar in design, with the utopian view often laid out in the first episode, the dystopian reality exposed in the second, the adventure section of escape from capture and/or death in the third through fifth, and the final solution in the sixth episode.³ As King and Krzywinska have observed for science fiction cinema, in the dystopian plot “the survival of humanity is under serious threat, but in most cases they negotiate an inventive way out of the gloomy fate” (18). In these *Doctor Who* serials, we see that the majority of the time is spent on saving the dystopian world from immediate destruction.

Because the Doctor must focus on thwarting the imminent crisis caused by ill-conceived plans, *Doctor Who* ends up foregrounding the immediate problems caused by radical activism rather than offering long-term solutions to environmental issues. The television serial format, which stresses the action-adventure storyline of finding a way of averting the impending destruction, is not conducive to lengthy discussions of how broader environmental issues should be tackled. “The Green Death” might be considered an anomaly in this case because the viewers are given a glimpse of Wholeweal’s wind-powered energy system and quest for potential high-protein food sources, but even this alternative way of life gets short airtime compared to the quest of ridding the world of Global Chemical’s toxic green goo and plans for world domination.

The episodic structure places the environmental message typically at the beginning and ending of each serial as a key element of the narrative, yet not as a primary objective of the action segments. Each serial exposes environmentalist thinking somewhere close to the beginning: the philosophy of Wholeweal in episode 1 (“The Green Death”), the pro-environmental activities of Grover in episode 2 (“Invasion of the Dinosaurs”), the statements of support for plant protection by Chase in episode 1 (“The Seeds of Doom”), and Tryst’s endangered species conservation plan in episode 1 (“Nightmare of Eden”). Then at the end of serial, these environmental values are revisited. In the three cases where the villain had put forward the environmental sentiment, the Doctor offers a commentary about “true” environmentalism in contrast to the action of the villain. In “The Green Death,” Professor Jones is rewarded with an unlimited funding grant to pursue his food for the world research. Environmentalism and the Doctor’s (re)interpretation of it become the take-away message of each serial because of its placement.

The Doctor’s environmental message is that we cannot adopt quick fixes (the means) to reach our long-term environmental goals (the ends). The Doctor consistently approves of the environmentalist ends put forward in these serials—increasing energy efficiency, fighting pollution and conserving species—but he disapproves of his

³ “Invasion of the Dinosaurs” has an extra twist as the first episode has the Doctor and his companion walking around deserted London trying to figure out what has happened until they see a dinosaur at the end of the first episode.

antagonists' means. He has to work very hard in each of these serials to prevent the potential disaster associated with well-intentioned means gone awry.

As an eco-activist, the Doctor links ecological and anthropological problems together and calls for change in the modern industrial society. He encourages humans to change their behavior in the pollution serials, advocating against corporate greed and for greater efforts to clean up pollution. With regard to species conservation discourse, he advocates intact ecologies, ones in which both plants and animals live in their natural habitats. The Doctor asks viewers to recognize the limits of humans' ability to bend nature to their collective will in much the same way that the editors of *Blueprint for Survival* urged:

Industrial man in the world today is like a bull in a china shop, with the single difference that a bull with half the information about the properties of china as we have about those of ecosystems would probably try and adapt its behaviour to its environment rather than the reverse. By contrast, *Homo sapiens industrialis* is determined that the china shop should adapt to him, and has therefore set himself the goal of reducing it to rubble in the shortest possible time. (Goldsmith et al. 4)

For the Doctor, living without recognizing these limits is a blueprint for disaster. But he advocates working within the system to clean up the mess—his is not a radical undertaking. He affirms the eco-activist concerns without espousing utopian alternatives, which are the “real” science fiction. A call for environmental stewardship is thus the underlying eco-activist message in these serials: it is about time that we realize the limits and live within them, ridding the world of pollution along the way.

Doctor Who urges viewers to be environmental stewards, but without providing a blueprint for what appropriate actions to take (we only know what *not* to do). This ambiguity might at first glance appear unsatisfactory for 1970s British eco-activists like the authors of the *Blueprint for Survival*, who focus on proposing solutions to contemporary environmental problems. Yet as Baccolini has argued, the open ending of a critical dystopian narrative can raise awareness and responsibility, potentially moving the reader (in this case viewer) to think critically about the world and possibly act to change it. Critical dystopian narratives provide hope because they do not in fact provide an easy solution (Baccolini 520). We get glimpses of possible institutions working for the eco-activist cause in several *Doctor Who* serials: the UK Minister of Ecology sits on the Prime Minister's cabinet (“The Green Death”), a World Ecology Bureau promotes scientific understanding of ecosystems (“The Seeds of Doom”), the Interstellar Ecology Commission regulates the transfer of life forms between planets (“Carnival of Monsters”), but there is no systematic exploration of these institutions and their roles within the show. *Doctor Who* offers no blueprint for environmental salvation, but it does ask us to consider drawing up our own.

The lack of a well-formulated plan for us to follow should come as no surprise. Lewis has observed that *Doctor Who* does not attempt to persuade viewers to adopt a particular viewpoint; instead, it offers opportunities to come to our own conclusions,

asking us to be “proactive in engaging the unknown” (377). The Doctor’s insistence on showing “authentic concern” toward all others—allowing others to make their own choices and live with the consequences of those choices—is one of his central traits (Altshuler 287–288): he thereby wants to provide us with choices instead of offering fixes to our environmental problems. In this vein, the show encourages its viewers to wake up “to the alarm bell of pollution” (“The Green Death”) and to “take the world that you’ve got and try and make something of it” (“Invasion of the Dinosaurs”) in order to find their own possible paths away from Earth’s destruction. That is, after all, what the Doctor is very good at preventing.

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