Lioi, Anthony. "Stellar Cosmopolitans: Star *Trek* and a Federation of Species." *Nerd Ecology: Defending the Earth with Unpopular Culture*. London: Bloomsbury Academic, 2016. 65–96. Environmental Cultures. *Bloomsbury Collections*. Web. 26 Apr. 2023. <<http://dx.doi.org/10.5040/9781474219730.ch-003>>.

Downloaded from Bloomsbury Collections, www.bloomsburycollections.com, 26 April 2023, 13:59 UTC.

Copyright © Anthony Lioi 2016. Released under a CC BY-NC-ND licence (<https://creativecommons.org/licenses/by-nc-nd/3.0/>). You may share this work for non-commercial purposes only, provided you give attribution to the copyright holder and the publisher, and provide a link to the Creative Commons licence.

Stellar Cosmopolitans: *Star Trek* and a Federation of Species

*In which I trace the plot of alliance in Star Trek through the figure of Mr. Spock, the nerd protagonist of a stellar cosmopolis. The movement from **Loser** to **Alliance** constitutes a metanarrative endemic to nerd culture. As the “alien half-breed” of the original series, Spock inhabits the paradoxical role of the superior **degenerate**, a corruption of pure blood from an advanced civilization. At the same time, he is the **machine**, the personification of mathematical accuracy, redeemed from his isolation by friendship with the crew of the Enterprise. The ship thereby becomes a microcosm of the United Federation of Planets, a galactic and democratic state. Spock serves as the lynchpin of Trek’s cosmopolitan project, revaluing the nerd as the hero of trans-species **friendship**. By virtue of this trajectory, Spock invites resistance from the proponents of **eugenics**, whose **avatar** is Khan Noonian Singh, the mortal foe of the Enterprise. Khan stands for the tyranny of pure blood, and by rejecting him, Trek grounds its cosmopolitics in egalitarian pluralism, which gradually extends to Horta and whales, Klingons and **cyborgs**. Threatened from without by Khan, the Federation is threatened from within by a metaphysical error, the idea that evolution points beyond material bodies and planetary ecosystems to a realm of pure mind that negates “cosmos.” Trek serves as a proving ground for nerd narratives that affirm material existence in a multi-species democracy against the urge to evolve away from a prison house of matter.*

In 1976, I attended my first *Star Trek* convention at Madison Square Garden in New York City. I was eight years old. My older sister, Maria, had brought me to the convention after promising my mother she would watch my every move.

Nevertheless, as an experienced younger brother, I escaped onto the floor of the exhibit hall, where I was surrounded by beings of all races, including Klingons, Vulcans, and the occasional Romulan. In anticipation of such meetings, I had practiced my Vulcan salute for several months: I could now split my fingers into the iconic V-shape and intone “Live long and prosper” with a gravity exceeding my years. It helped that I had an unfashionable bowl cut, which made me look like a young Spock rather than a mop-headed child of disco, as was the fashion in the suburbs of that era. Despite my earnest preparation, I failed in my mission to contact new life and new civilizations. I had been transfixed by the stuffed Tribbles that littered the floor of the hall. Tribbles (as citizens of the United Federation of Planets understand) are the cute, invasive species at the center of a legendary episode of farce, “The Trouble with Tribbles.” In that episode, the small, round, cooing balls of fur are transported to a space station by an unscrupulous merchant. There they charm the *Enterprise* crew, antagonize the Klingons, and eat through the supply of grain that was destined to save a planet from famine. The appearance of Tribbles in American space fascinated and horrified me. What if they got out and ate New Jersey? I found them impossible to resist, and before my sister could find me, I had pocketed a small, brown specimen. Unfortunately, this attracted the attention of a Klingon commander, who was wearing so much eyeshadow that even a child of the 1970s was intimidated. She glared and demanded that I put it back. I learned from later histories of the Federation that Klingons were so incensed by these adorable creatures that they destroyed the Tribble home planet in a fit of pique. It was my first lesson in the trials of eco-cosmopolitanism.

In *Sense of Place and Sense of Planet*, Ursula Heise defines eco-cosmopolitanism as “an attempt to envision individuals and groups as part of planetary ‘imagined communities’ of both human and nonhuman kinds” (61). Benedict Anderson’s idea of the nation as imagined community, one in which most members will never meet face-to-face, posits the tools of imagination—narrative, rhetoric, poetry—as the threads of democracy, suspending a nation from a silk strand. If the nation is a structure held together by culture, then cosmopolis may be as well. Earth as a cosmopolis of species, a world-city of more-than-human citizens, may also be promoted and sustained by acts of culture. This much is clear from Heise’s crucial sentence. However, she goes on to caution: “ecocriticism has only begun to explore the cultural means by

which ties to the natural world are produced and perpetuated, and how the perception of such ties fosters or impedes regional, national, and transnational forms of identification” (61). She blames this belated attention on the tendency of American environmentalists to privilege the local over the national and the global on the assumption that attachment to the local is natural while attachment to imagined communities is constructed. If we take Heise’s emphasis on *culture* seriously, if we take culture to mean not just literature, but all the tools by which peoples fashion their common lives, we are forced to conclude that the concept of eco-cosmopolitanism urges us toward an analysis of *Star Trek*.

Star Trek occupies the intersection between eco-cosmopolitanism and nerd culture. *Trek*’s association with nerd culture was lampooned by William Shatner himself in a skit on *Saturday Night Live* broadcast on December 20, 1986. In the infamous skit, Shatner addresses a group of bespectacled fanboys at a convention, exhorting them to “Get a life” and “move out of your parents’ basements” because “it’s just a TV show!” (“SNL’s Greatest Moment #71”). This satire of fans as victims of arrested development fits the negative stereotype of the nerd as loser, of course. More importantly, however, it posits *Star Trek* as a means to avoid the responsibilities of middle-class suburban manhood, a force that makes people smaller, more confined, and less knowledgeable about the world. *Trek* itself, however, is one long meditation on the possibilities of alliances between humans and nonhumans. The original series, which ran between 1966 and 1969, took for granted that the geopolitics of World War II and the Cold War had been overcome centuries before the action, such that Japanese, Russian, and American crew members worked with only occasional moments of ethnic rivalry. Earth itself is united by a world government that formed in response to the discovery of warp drive and the encounter with alien life. *Star Trek: The Next Generation* continues the globalist utopianism of creator Gene Roddenberry, such that a Klingon—one of the enemies of the United Federation of Planets in the first series—now serves as security officer on the bridge. *Star Trek: Deep Space 9* relativized all vertebrate differences through a deliquescent enemy, the Founders, who possess no true form, and view “solids” with disgust. In keeping with its role as the first *Trek* to be made after the fall of the Berlin Wall in 1989, DS9 also explored the cracks in the Federation’s shiny exterior, mirroring the disenchantment with

American exceptionalism after the Vietnam War. *Star Trek: Voyager* took on the Cold War tropes of *Next Generation* by adding a Borg—the totalitarian enemy—to the regular crew. Finally, *Star Trek: Enterprise* took as its subject matter humanity's difficult transition to a multispecies polity, culminating in a post-9/11 terrorism plot featuring an enemy, the Xindi, that originated on a planet where six species reached sapience together. Such eco-cosmopolitan preoccupations of *Trek* stand in tension with fans as isolated, atavistic losers, uninterested in the world beyond their adolescent preoccupations. In this chapter, I will trace the shape of imagined, interspecies communities in *Star Trek* series, films, and novels, beginning with the archetypal nerd and alien, Mr. Spock.

Spock as trans-species mediator

Spoiler alert: Vulcan is dead. J. J. Abrams rebooted the Paramount film franchise with *Star Trek* (2009), a film in which Romulans from the future seek revenge on Mr. Spock for his failure to save their homeworld from a supernova. Nero, the Romulan captain, follows Spock into the past through a wormhole in order to force him to witness the destruction of Vulcan, his planet of birth. In fact, there is a double witness, and the death of three key figures. As the older Spock from the future watches Vulcan die, the young Spock of the present seeks to rescue his people on the surface. Though several thousand Vulcans survive, Amanda, Spock's mother, does not. The end of Vulcan includes the death of mother, culture, and planet, creating an existential dread the young Spock expresses in ecological language: "I must come to terms with the fact that I am now a member of an endangered species." Critics should consider this triple destruction, the reason so many fans were traumatized by it, and its roots in contemporary environmental crises. Though some condemned Abrams for making a glossy action movie that was short on ethical content, his reboot of *Star Trek* connects real planetary threats, such as climate disruption and mineral extraction, with a political threat to the United Federation of Planets. As one of the founding members of *Trek's* utopia, Vulcan is the friend of Earth, a more advanced civilization that realizes the Enlightenment dreams of reason, prosperity, and perpetual peace. Embodied in the friendship of Spock and the

bridge crew, the Vulcan-Earth alliance becomes the heart of the Federation, on which its stability depends. By destroying Vulcan, the 2009 *Star Trek* calls that stability into question. The destruction of Spock's mother, the culture of his homeworld, and that world itself threatens the utopia of *Star Trek*. It also provides an opportunity to consider how *Trek* represents the challenge of multicultural democracy and the limits of "humanity" as a principle of cosmopolitics. This chapter will explore *Trek's* representation of the nerd as the foundation of cosmopolitan order by tracing the limits of interspecies understanding. To what extent is it possible to befriend other species, especially species that are not human, vertebrate, and carbon-based? What does this strategy offer to the project of a cosmopolitanism that seeks to save the earth from ecocide? The answer to these questions begins with a search for Spock.

Spock plays a foundational role in the plot of cosmopolitan friendship central to *Star Trek* in all its incarnations. It is commonplace to note that the Enterprise bridge crew represents a vision of racial harmony and cultural pluralism that constituted the "aftermath of the sixties" and its radical counterculture (DeKoven 3–21). The crew does not, however, constitute an undifferentiated group of individuals but a spectrum of otherness in which all the characters but Spock occupy a stable position. At one end of the spectrum lie Kirk and Dr. McCoy, white men from the American Midwest and South. As captain and ship's doctor, they embody classic types of adventurer inherited from the European tradition of imperial fiction via the space epics of Asimov and Heinlein. As American types, they descend from eighteenth- and nineteenth-century narratives of wilderness exploration and colonial settlement. On the other end of the spectrum lie crew members who represent formerly subordinate or enemy groups. Sulu, though Japanese American, evokes the imperial Pacific enemy of World War II. Chekhov, a Russian, stands for the Cold War enemy extant at the original moment of broadcast. Scotty is a Celt from the Fringe whose binge-drinking is played for laughs. Uhura does double-duty as the representative of insurgent African Americans and women liberated into the public sphere. In this company, Spock oscillates between the normative commanders and their former political subordinates. While he resembles McCoy and Kirk in gender and skin color, he is not a white American, but a human-Vulcan hybrid raised on another world. As a Vulcan,

he is more Orientalized than Sulu and more intimidating than Chekhov. He most resembles Uhura in his multiple identities. As the chief scientist and paragon of logic, he is also the most machine-like, and his pointed ears, elvish and satanic, become a target of McCoy's wrath. Semiotically, Spock is the most mobile of the main characters, simultaneously inside and outside, lovable and threatening. As the most othered Other, he normalizes the human, earthly diversity among the crew. He is a stellar cosmopolitan and, with his tell-tale bowl cut, a paragon of nerds: the nerd as mediator and ambassador, the vector boson of friendship.

Spock is the locus of the nerd plot of friendship in the original series and the films starring its crew. His story serves as the paradigm for *Trek's* faith that political alliance is possible across radical difference, including species difference. He sets the stage for Data, Odo, Dax, Tuvok, Seven of Nine, and T'Pol, among others. When viewers arrive at these characters, we know, because of Spock, that their task is to negotiate alliance across difference by establishing bonds of friendship with normative humans and others. In nerd terms, this plot traces the movement from Loser to Alliance by moving past the moment when the nerd is thrown away as garbage by normative peers. Spock's hybridity is crucial to this plot because it fosters an alienation from Vulcan itself. Spock's mother is from Earth, and his father is the Vulcan ambassador to Earth, so, from the vantage point of Vulcan "pure-bloods," he carries a tainted lineage of human emotional chaos that threatens the sovereignty of paternal logic. In this way, Spock is gender-queer, an embodiment of intellectual-emotional unity from a culture that pathologizes affect. Spock's struggle to reconcile his Vulcan and human heritage is one of *Trek's* great themes, but until the 2009 reboot, we had not seen Spock's childhood represented on screen (though it had been explored in novelizations and fan fiction). In a scene of origin, we see the adolescent Spock excelling at school on Vulcan. As he emerges from a testing chamber, he is verbally assaulted by a group of his male peers, who taunt him for his mixed heritage and call his mother a "whore." The young Spock flies into a rage, pummeling his tormentors in a fit of nerd fury. The rage beneath the stoic exterior is a canonical aspect of the character, and in this sense, the scene adds nothing new. Understood as a trope of origin, however, the resistance to bullying at school frames Spock's conflict as a nerd dilemma, the

problem of intellectual precocity paired with social alienation, reinforced in a moment of peer rejection amplified by racism, misogyny, and xenophobic violence. Spock's resentment of Vulcan hypocrisy—the pretension to logic masking ethical corruption—leads to his refusal to attend the Vulcan Science Academy, the elite training ground. Staring up at a quorum of Vulcan patriarchs, he announces that he will attend Starfleet Academy in defiance of his father's wishes. This decision sets him on the path to the *Enterprise*, but it represents a larger trajectory within nerd culture: the escape to cosmopolis, to the community of aliens, staged in science fiction as a flight to the stars. The path from Loser to Alliance leads to the cosmos itself, to a broadening of scale that redeems garbage as treasure. But why the stars?

Liberation as a flight to the stars has a long history in European philosophy. In the *Phaedrus*, Socrates tells the story of the soul's attempt to regain its wings and peer beyond heaven alongside the gods. In the Charioteer allegory, Socrates describes the soul as tripartite: the charioteer attempts to drive a chariot pulled by the horse of reason and good impulses and its companion, the horse of appetites, passions, and disordered impulses. While the gods have only the first kind of horse, human souls struggle with both, impeding their ascent to the stars. Socrates, who is trying to convince the young protagonist, Phaedrus, to embrace love as a divine madness, claims that love helps the soul get its wings back, hastening its ascent. Later, in late antiquity, the Christian theologian Augustine of Hippo will recount a similar ascent in his *Confessions*. Sitting with his mother in a garden, Augustine has a vision in which they rise through the planetary spheres of the Ptolemaic cosmos, past the sphere of the fixed stars, to behold the empyreal flame of heaven itself. Like Socrates, who claims, in the *Symposium*, to have been taught the nature of divine love by Diotima, an older woman, Augustine's vision is sponsored by his mother, who was his first catechist. The spiritual drama of cosmic ascent, which produces true vision of the world and a love for all creatures, reaches its medieval climax in Dante's *Comedy*, where the stars appear as the sign of the soul's goal as it escapes the pains of hell and purifies itself on the Mount of Purgatory. The final canticle, *Paradise*, consists of an ascent through the circles of heavenly bliss into the full light of God, figured as the greatest star, the sun. Dante's quest is summed up in the last canto as an effortless movement toward God like "the love that moves the sun and the other stars." All of these canonical stories of

enlightenment as ascent inform Spock's trajectory from rejected half-breed to beloved friend and hero of the galaxy.

However, the classical school that most informs Spock's narrative is Stoicism, a philosophy that links cosmopolitanism with the ascent to the stars. *Cosmopolitan* is usually translated as "citizen of the world," but the Greek idea of *cosmos* implies much more than the English term *world*. In Homeric Greek, a *cosmos* is any beautiful arrangement of elements in a whole, where beauty is understood to imply harmony and cooperation among the parts. Rowers in a ship, Hera's jewels arranged for a seduction, an eloquent line of poetry are all *cosmic* in this sense (Wright 2–6). Only later, with the rise of the pre-Socratics, does *cosmos* come to mean the universe, and it carries its connotations of beauty, harmony, and cooperation with it. When Diogenes the Cynic claims to be a citizen of the world during the Golden Age of Athens, he claims to belong to a whole that is greater and more beautiful than any city-state. This whole is not just "other nations" or even the Earth itself, but the entire universe. When the sociologist Bruno Latour criticizes Ulrich Beck by saying there is "no *cosmos* in his cosmopolitanism," it is this difference in scale to which he points (Latour 450). Scale is critical to the Stoic conception of cosmopolitanism, from the Greek Chrysippus to the Romans Seneca, Cicero, and the emperor Marcus Aurelius. To be a world-citizen in their terms is to participate in the "sympathy of the whole," the compassion for humanity that is spawned from a perspective equal to the stars themselves. The stellar perspective allows the rational soul to understand the true place of humanity in the whole, and to supplant parochial loyalties to family and clan, *polis* and nation. As Martha Nussbaum explains, the Stoics did not want to abolish loyalty to these more immediate groups. They advocated something more radical:

that we should give our first allegiance to *no* mere form of government, no temporal power, but to the moral community made up by the humanity of all human beings. The idea of the world citizen is in this way the ancestor and source of Kant's idea of the "kingdom of ends," and has a similar function in inspiring and regulating a certain mode of political and personal conduct. One should always behave so as to treat with respect the dignity of reason and moral choice in every human being no matter where that person was born, no matter what that person's rank or gender or status may be. It is less

a political idea than a moral idea that constrained and regulated political life. (Cultivating Humanity 59)

The Stoics believed that such conduct was possible because human rationality reflected divine reason expressed in the harmony of the cosmos; the stars represent the farthest reaches of universal reason, and inspire the cosmopolitan ethos of the practicing Stoic. Though Nussbaum highlights the role of Stoicism in the evolution of Immanuel Kant's plan for universal peace, she neglects Kant's own love of the stars, expressed in his *Universal Natural History and Theory of the Heavens* (1755). Kant speculates that "most of the planets are certainly inhabited, and those that are not will be in the future. Now, what sort of interconnections will be brought about among the different types of these inhabitants through the relationship between their place in the cosmic structure and the central point from which the warmth which gives life to everything extends outwards?" (Kant 133) To the student of *Star Trek*, this sounds like nothing other than the founding question of the United Federation of Planets, which should be used to frame the dilemma of Spock as a neo-Stoic citizen of that cosmos.

The stellar dimension of cosmopolitanism should encourage us to view the destruction of Vulcan in a different light. It is not simply a spectacle suited to the visual logic of the Hollywood blockbuster, but an opportunity to practice the sympathy of the whole, the overcoming of parochial loyalties with universal charity. *Star Trek* invites us to bridge the local and the cosmic through the alien-world-as-foreign-nation, a trope that structures American science fiction from Asimov's *Foundation* and Herbert's *Dune* to Le Guin's *Ekumene* and Lucas's *Star Wars*. In this trope, nation is to planet as world is to galaxy, such that "America" is signified by "Earth" and "Earth" by "Milky Way." This trope operates through the very parochialism it tries to overcome. The *Enterprise's* mission "to seek out new life and new civilizations" revises the history of imperial European exploration, and the adventure fiction it produced, with a more democratic and scientific end. Finding a new planet is like finding a new culture and a new nation, which explains the tendency for each planet to stand for one, or at most several, cultures, despite Earth's cultural multitude. At one level, *Star Trek's* is a Cold War allegory at its core, with the Federation standing for the United States, the Klingons for Russia, and the Romulans for China and Japan. In this allegory, Vulcan is an alter-ego of Earth. As a desert planet,

it nods to the nineteenth-century British fixation with Arabia; at the level of culture, Vulcan is both a scientific utopia and an exoticized East for Kirk as Iowa farm boy. It is more technologically and spiritually advanced, expressing the American hope for a Promised Land that is also technopolis. At the same time, Vulcan possesses immense sentimental value for the fan: we have been here again and again, from Spock's ill-fated wedding in "Amok Time" to his telepathic resurrection in *Star Trek III*. The relationship between Earth and Vulcan is also the relationship between the *Enterprise* crew and Spock writ large: Vulcan is the planet of the beloved other, the alien world that guarantees the stellar cosmopolis.

When Vulcan is destroyed by Romulans, then, it is as if Spock has died (again), as if Earth has died, as if the Federation itself is unraveling. Kirk recognizes the ship as the same one that killed his father on the day of his birth, anchoring the threat to Earth in a prior attack on a human lineage. Using this set of equivalences as a guide to interpretation, we can understand the death of Vulcan at the hands of an alien mining technology as a reference to the threat posed to Earth by hydraulic fracturing, oil spills, strip mining, and other technologies of the carbon economy. A review of the scenes leading to death of Vulcan confirms this interpretation. First, the Romulan ship drills into the core of Vulcan using a massive energy beam. Then, a substance is injected into the core to create a singularity that will consume the planet. Its first visible effects include an earthquake that destroys the cultural archive where Amanda and Sarek, Spock's parents, have taken refuge. When Spock transports to the surface to rescue them, he is faced with a scene like a mining disaster, which threatens his parents and other elders with a cave-in. Before she can transport safely away, Amanda falls into a crevasse opened up by the collapse of a cliff-face. Young Spock watches from the *Enterprise* and old Spock watches from a neighboring planet as Vulcan is swallowed by the singularity. If eco-cosmopolitanism is a cultural practice, mediated by art, of imagining national communities, the scene of Vulcan's destruction is a staging of cosmopolitical grief at the death of another Earth.

Though *Star Trek* (2009) has been criticized for abandoning the morality tales of the early series, it has abandoned neither morality nor politics. Being made to watch the death of a planet destroyed by extractive technology provides a sentimental education for earthly cosmopolites in what the death of

a planet-nation *feels* like. It produces a moment of ecoglobalist affect, defined by Lawrence Buell as an “emotion-laden” bond with a local and a global environment, “that specific site and a context of planetary reach” (Buell 232). In the case of Vulcan, however, the local place and the planet coincide because of the nation-planet allegory. Vulcan is at once Spock’s home town and his world, both another world and another Earth. As a biracial character, Spock manifests this link between the local and the global, a nexus of ecoglobalist affect. Following Spock through his encounters with other species is one path in *Trek* for learning how to become an eco-cosmopolitan subject, how to mediate the local to the global, to discover a community so large it is hard to imagine, even for superior intellects. In this movement from the oikos to the stars, Spock becomes a stellar cosmopolitan.

Before we explore the particulars of Spock as eco-cosmopolitan agent, it is necessary to clarify his function as the Mary Sue of nerds in *Trek*. The narrative of the flight to the stars as the founding of cosmopolis reflects a nerd imperative to leave the local community that has coded one as loser, effluvium, and machine in order to discover the alliance that transfigures social dysfunction into community. Spock enacts the nerd version of the American myth of “lighting out for the territories,” the escape from the strictures of small town life into the larger field of possibility represented by “space, the final frontier,” as *Trek* announced from the beginning. Spock is implicated in *Trek*’s desire to redeem imperial tropes of wilderness exploration and narratives of first contact with the natives through the matrix of American nerd culture, centered on democracy, science, and a spirituality liberated from institutional constraints. *Trek*’s success in revising stories of conquest depends, in part, on Spock’s ability to transform modes of domination into modes of mutuality. Nerd culture has not always succeeded in its utopian goal of building a refuge that is safe from anti-nerd violence: nerd-on-nerd aggression, misogyny, and racism sometimes disrupt this dream in practice, as the “Gamergate” scandal demonstrates. If Spock is one of *Trek*’s ultimate Mary Sues, a character through which fans project themselves into a desired future, he is also a story of contending stories, a typological conflict between the nerd will to power and the nerd arc of redemption. In order to function as a true inter-species mediator, Spock cannot ignore the impulse to inflict the violence of rejection upon other creatures; rather, he must recognize the

danger in the projection of past trauma into future relations, the repetition of violence even after liberation and agency are attained. These dynamics will be tested in three cases: the episode “Devil in the Dark,” in which Spock encounters a silicon-based life-form; his encounter with Khan Noonian Singh, the dictator who appears repeatedly as his personal nemesis; and his part in *Star Trek IV* and the rescue of humpback whales. The test of stellar cosmopolitanism begins in a tunnel beneath another earth, Janus VI.

Horta

In “Devil in the Dark,” the *Enterprise* is summoned to a mining colony on Janus VI, where several miners have died under mysterious circumstances. The planet is named after Janus, the Roman god of doors and passageways, who is usually depicted with two faces that gaze at the past and the future. The name suggests the problem of murder in tunnels, and also the question of traditional versus progressive behavior toward aliens. Unlike some episodes, in which the camera follows the main characters and the audience is limited to their perspective, this episode includes the perspective of the unknown agent responsible for the killings: we see what the crew arrives too late to see, the terror of the victims’ final moments, so the audience knows that the deaths are not accidental. This technique is borrowed from slasher films in which the audience shares the killer’s gaze, suggesting that the unknown agent is malevolent. However, in the course of his investigation, Spock realizes that the deaths began when the miners broke into lower levels that contained hundreds of “silicon nodules” whose spherical shape recalls an egg, suggesting a motive for the killing. When a circulation pump is stolen by the assailant, threatening to shut down the mine permanently, Kirk and Spock investigate and encounter the creature, which looks like a pile of molten rock. It attacks them, and they hit it with a phaser blast, knocking a piece off. The creature retreats, and Spock is able to confirm that it is, as he had suspected, a silicon-based life form. Science fiction had already developed the idea that it might be possible to base the complex molecules required by the chemistry of life on silicon rather than carbon. Silicon, in the form of silicon dioxide, is the basis of sand and quartz, so the idea of silicon-based life moves easily to

the conceit of living creatures made of rock, one of the tropes science fiction borrowed from fairy tales and mythology. As in these earlier sources, the human protagonists face an antagonist far more alien than humanoid Vulcans, Romulans, or Klingons, more alien than any carbon-based fauna of other worlds. Silicon-based life raises the basic problem of stellar cosmopolitanism: at what point does life become alien enough to prevent communication and, therefore, politics itself?

The solution to the incompatibility of carbon and silicon-based life forms is the trope of mind-to-mind contact, manifested as the “Vulcan mind meld,” a telepathic power that makes its first appearance here. Though the production budget of the original *Trek* may make this trope appear ridiculous at first glance—Leonard Nimoy making dramatic gestures at a cheap rock-puppet—the trope of direct contact between minds has a venerable history, especially in the literature of love and friendship. Michel de Montaigne’s theory of friends as two bodies with one soul, John Donne’s “Valediction Forbidding Mourning,” and several Bronte heroines enact this trope. Most importantly, mind-to-mind contact can be understood as a consequence of the Stoic sympathy of the whole, an ontology of connection between bodies through shared spirit. Spock’s first contact with the mind of the Horta reveals that it has a name, is an intelligent being, and is in great pain because of the phaser wound. This discovery goads McCoy into treating the wound, establishing trust between species for the first time. Once the wound starts to heal, Spock establishes a stable telepathic bond with the Horta, who is revealed as a brood mother protecting the next generation of eggs from human mining activity. The “devil” resorted to violence as a last resort to protect her children. This was difficult to see, from the human perspective, because the Horta appeared both violent and monstrous. Spock, as the inside-outsider, understood from experience what it is like to be demonized for being different. His telepathy is an extension of his greater sympathy for an other, a sympathy that creates the possibility of peaceful coexistence. As the episode ends, the miners have partnered with the Horta to explore the planet to the benefit of both species.

The end of the episode leaves open a number of eco-cosmopolitan questions. Can the new trade relationship between human and Horta evolve into political affiliation? Is the Federation an alliance of humanoid species, a figure of internationalist cosmopolitics, or can it include radically different

creatures as a figure of ecological polity beyond the human? Though there were hopes of including the Horta in later series and films, they never appeared again in canonical *Trek*. However, they appear many times in noncanonical fiction, which does address certain unanswered questions. Tony Daniel's novel *Devil's Bargain* depicts the moment the Horta make the leap into space. In this plot, Spock's role as mediator is radicalized and queered: as a group of young Horta accompany the Enterprise on a mission to prevent an asteroid from destroying a planet, Spock serves as the telepathic focus of the group, a role played formerly by the All Mother, the Horta from "Devil in the Dark." A number of nerdopolitan tropes come together here: the queer nerd as mediator of the monstrous; the transformational journey to the stars; and the rise of a eugenic opposition. The Horta are called into space because an asteroid threatens the planet Vesbius, where former Federation colonists have used genetic engineering to make their children and the native flora and fauna more compatible with one another. Because this action, which saved the colony, violated the prohibition against genetic engineering in the Federation Charter, the Vesbians were forced to withdraw from the Federation, and are no longer its citizens. This setting evokes one of the most famous conflicts in *Trek*, the story of the *Enterprise* and its conflict with Khan Noonian Singh, a despot from the twentieth century whose genetically engineered allies, the "Augments," tried to take over the world in Earth's Eugenetic Wars at the turn of the twenty-first century. The original episode, "Space Seed," led to *Star Trek II: The Wrath of Khan*, *Star Trek III* and *IV*—and now the 2013 reboot *Star Trek: Into Darkness*. It may be fairly claimed that the political evils of eugenics are one of *Trek's* great themes. Because eugenics is linked to genocide and tyranny in the alternate history of the *Trek* universe, fans have been encouraged to understand all genetic engineering as eugenics, and all eugenics as a continuation of the Nazi project of fascism and genocide. Into this overdetermined history step the Horta, who are asked to save a colony of post-humans who may be even more likely than the ship's crew to see them as monsters.

The novel opens with a spirited defense of genetic engineering as adaptation, not eugenics. Kirk, Spock, and McCoy speak with the Vesbian leader, Hannah Faber—a name that evokes first a barren matriarch of the New Testament and then the Latin verb of making. To the Federation's

rhetoric of eugenics-as-fascism, Faber responds with a rhetoric of biospheric wholeness through evolution: “the Vesbian settlers became more and less than human ... we became one with the planet. There is native Vesbian DNA in my genetic makeup. I am part of the planet’s biosphere, and the planet is part of me” (Daniel 42). Though this talk does not mollify McCoy, neither does it prevent Spock from conceiving a plan to save Vesbius. The *Enterprise* is too weak to deflect the asteroid that will create an extinction event on Vesbius, but Spock realizes that the Horta could burrow through the asteroid, leaving it vulnerable to explosives. In this way, the Horta get involved in a narrative that challenges the basic structure of Federation polity and ethics: a nonhumanoid, silicon-based species undertakes interstellar travel in the name of a world that has violated one of the Federation’s most basic biopolitical imperatives. This plot reenacts Hannah Faber’s history at a stellar, cosmopolitan level. Like the Vesbians themselves, the Federation must become more and less than human by successfully guiding the Horta through an ascent to the stars by which an apocalyptic disaster is averted. As before, Spock mediates the nonhuman presence among humanoids, and in this role is addressed as “Speaker from the Stars” and “All Mother to Be” by the leader of the spacefaring Horta (174), who exhorts his fellows by saying that they must go “where none of the people have gone before” (196), an echo of the *Enterprise*’s mission to “seek out new life and new civilizations, to boldly go where no one has gone before.” This intention is opposed and enabled by a eugenic enemy, Merling, a veteran of galactic water wars who believes that Vesbians are superior to baseline humans and their Federation allies. In conversation with Sulu, Merling displays the rhetoric of the Augments before him: humans have been subjugated, made weak by their “pointy-eared computer” masters (157), the Vulcans; he calls Sulu *hinomoto oniko*, a “son of a devil” (159), conjuring the cant of the Yellow Peril; and he arranges to blow the Horta out of a shuttle bay and into deep space. His eugenic ideology unites three devils in a line of progress away from white, Terran humanity: a Japanese American, a Vulcan, and nonhumanoid. Though he succeeds in blowing certain Horta into space, those very individuals become a new “Star Clan,” who discover, because of his attempted murder, a love for space the Horta did not possess before. The Horta ascent to the stars succeeds because of their eugenic antagonist, an instance of the *Trek* principle that insularity, racism, and speciesism, driven by the urge to master nature, are

ultimately self-defeating. *Devil's Bargain* turns a previously anthropocentric plot eco-cosmopolitan by allowing the plot to pivot on an event—a classic explosive decompression gambit—that would have destroyed the protagonists, had they been humanoid. The eugenic antagonist was necessary to teach the Horta their love of space, which leads, at the end of the novel, to their wish to enter Starfleet Academy and to Kirk's determination to sponsor Janus VI as a new member of the Federation. Here, as in other forms of *Trek*, the mistake of eugenics constitutes a *felix culpa*, a necessary error that leads to galactic citizenship.

All the elements of this pattern come together in the final speech of Hannah Faber, who condemns the eugenic terrorists even as other Vesbians call the Horta, who have saved their planet, “alien scum” (Daniel 265). “These criminals’ greatest victim was *you*, the citizens of this colony,” Faber says. “In attempting to destroy the Horta, they were attempting to murder Vesbius—our beloved planet—for all time” (266). This speech conforms to the stellar-cosmopolitan version of the redemption of the garbage world, accomplished here through an alliance of Spock, the nerd hero, with the uncanny rock monsters whose ability to destroy one world, the killer asteroid, saves another. This action preserves the Vesbian polis and extends the polity of the Federation beyond the humanoid to creatures that are nearly elemental, though they share the love of the stars that signifies cosmic sympathy-in-difference. The extension of cosmopolis to “alien scum” necessarily evokes the eugenic enemy that ideology of purity, superiority, and sameness haunts the narrative of nerd redemption, as it haunts the modern project of egalitarian democracy through the specter of Jim Crow, the Soviet gulag, and Nazi genocide. Inside the *Trek* canon itself, this haunting is epitomized by the figure of Khan Noonian Singh, the eugenic tyrant from the twentieth century who rises out of sleep to stalk the twenty-third, first in “Space Seed,” then in *Star Trek II: The Wrath of Khan* (1982) and finally in *Star Trek: Into Darkness* (2013). *Devil's Bargain* appeared in the same year as *Into Darkness*, and Tony Daniel expects readers to connect the Vesbian eugenicists with the Khan plots, though the events of *Star Trek II* have not occurred yet, as demonstrated by Sulu's recollection of “Space Seed” during his conversation with Merling (160). To an inhabitant of *Trek*, Merling is an echo of the greater villain, Khan, who represents the logic of eugenic purity taken to its ultimate end. He is the greatest *Trek* villain, however, because he is powerful

enough to deconstruct the Enterprise crew as nerd alliance; hateful enough to destroy the friend at its core; and intelligent enough to attack these structures intentionally, as a conqueror of utopia. In this way, Khan is a meta-villain whose actions and ideology threaten the project of stellar cosmopolitanism inside the heart of the viewer as in the story world. To understand this function, we must examine his origin in “Space Seed.”

Khan!

Khan Noonian Singh is *Trek*’s best-known villain, and nerd ecology explains why his narrative is inevitable. Khan first appears in “Space Seed,” an episode of TOS in which the *Enterprise* discovers a 200-year-old ship in deep space. The *Botany Bay*—a nod to Darwin, and Australian penal colonies—does not appear in Federation records for good reason: it contains dozens of genetically engineered tyrants, refugees from Earth’s Eugenic Wars of the 1990s. Khan, the *primus inter pares*, is the first to awaken. He quickly recovers, assesses the *Enterprise*, and takes over the ship with the help of a crew member, Lt. Marla McGivers, a historian who succumbs to the charismatic fascist in a manner that reveals a great deal about television’s idea of the liberated woman circa 1966. Khan’s appeal as romantic *übermensch* extends to McCoy, Scotty, and even Kirk, who spares Khan’s life after retaking the ship, depositing him and his people on a rugged planet, Ceti Alpha V, to provide a challenge to superior intellects. Spock is horrified by the fear and admiration Khan provokes, and he questions the wisdom of ceding a planet to such a person. The Nerd Triangle explains the structural reasons the plot develops in this way. Khan, a eugenic villain, represents the social order that turns nerds into losers. “You are, quite honestly, inferior,” he tells Kirk. Because Khan embodies the forces that stigmatize, isolate, and threaten to destroy nerds before they can form an alliance, he is also a threat to the narrative of stellar cosmopolitanism. Inferior beings deserve to die or to serve their superiors: they are not allowed to govern themselves on any scale, not to speak of the Federation. “We offered the world order!” Khan explains, not self-determination, the chaos of which led Plato to doubt the wisdom of the democracy at the height of classical Athens. Because he endangers the nerd redemption plot, Khan must be subdued. That he is

rewarded, rather than destroyed, reveals the ambivalence of nerd narration to the claims of superior intellect and physique. At least for nerd boys, Khan embodies the fantasy of revenge against the order of subordination. He is a dream of what it would mean to accept society on its own corrupt terms—might makes right—and assert dominion over that world. Khan's compensatory function assures that he can only be defeated and exiled, but not killed. Thrust to the margins by the crew's cosmopolitan ethos, he lurks at the edge of known space, waiting to reappear at moments of social unrest.

Khan returns in *Star Trek II: The Wrath of Khan*, a film that addresses the threat posed to cosmopolitanism by fascism. It does not begin with Khan, but with a test of Spock's new protegee, Lt. Saavik, in an officer training scenario called the *Kobayashi Maru*, after a simulated Federation ship that calls for help during a Klingon attack. It is designed to be a no-win scenario: no matter what Saavik does, the scenario ends with the death of the crew and the destruction of the ship. It is meant to prepare future captains for the reality of death in space. This scene, along with several comic vignettes, frames the original bridge crew as older and perhaps unfit for the rigors of service. The film then cuts to Pavel Chekhov, now assigned to the science vessel *Reliant*, which investigates a planet in the Ceti Alpha system as a possible staging ground for a grand scientific experiment. When he and his captain, Tyrell, beam to the surface, they discover Khan waiting for them with a remnant of his people. In a nod to Frank Herbert's *Dune* and *Lawrence of Arabia*, Khan appears out of a sandstorm, and quickly overwhelms the officers. He explains that the planet he and his people were left on at the end of "Space Seed" was blown out of orbit by the destruction of a neighboring world, creating the hellish conditions they now experience. Seizing the opportunity for escape, he mentally dominates Chekhov and Tyrell using a brain parasite that survived the planetary catastrophe. Khan has faced the *Kobayashi Maru* scenario and survived. Now, using *Reliant*, he will seek vengeance through the weaponization of the experiment called *Project Genesis*.

Genesis is the brainchild of Dr. Carol Marcus, who designed a device to make "life from nonlife" at a planetary scale. In a grand trope of nerd alchemy, Genesis reorganizes matter at the quantum level, making barren rocks into Earth-like planets ready for colonization. This radical terraforming is intended to address the problem of population and food supply, continuing the concern

taken up by “A Trouble with Tribbles” and informed by the debate in the environmental community about “overpopulation” versus “overconsumption.” McCoy, the pessimist, immediately understands the potential to weaponize this technology by deploying it on inhabited worlds, and Khan plans to use it once he has taken revenge on Kirk. A weaponized Genesis Device would function as a eugenics machine on a planetary scale, destroying prior biospheres and replacing them with biota favored by the eugenic villain. Therefore, the violence intended for Kirk finds its way to Spock instead. “Wrath of Khan” is notorious as the film that killed Spock, who dies repairing the warp engines of the *Enterprise* at the cost of his own life. Dying of radiation poisoning, he delivers the most famous lines in *Trek*: “You are my captain. You are also my friend. I have been, and always shall be, yours.” Spock’s sacrifice saves the ship and defeats Khan, who dies by his own hand when he activates Genesis inside *Reliant*. The detonation consumes that ship and the Mutara Nebula, creating a new world as Spock dies. Kirk wins the no-win scenario at the cost of his best friend, the keystone of *Trek*’s stellar alliance, which survives in grief. The aesthetics of Spock’s death will provide a means to understand the way *Trek* is altered by the death of the beloved other.

When Spock enters the warp chamber and removes the cap on the engine core, a blinding light floods the chamber, obscuring his figure. This is a trope of revelation: he has unleashed a cosmic power, as in the opening of the Ark of the Covenant in *Raiders of the Lost Ark*. Spock is not consumed, but transfigured, revealed as a stellar cosmopolitan by the matter/antimatter reaction. This is also the case dramatically: Spock and Khan are particle and antiparticle destroyed by their meeting in space. Once the core is repaired, the *Enterprise* escapes the Genesis detonation, flying faster than let-there-be-light, trailing rainbows. This version of the ship, the collective body of the crew, is also transfigured. The filmic version of the ship was already sleeker than the original, a Brancusi bird sculpture or an angel flying out of a moment of creation. The biblical references are not subtle: Khan stabs at Kirk “from hell’s heart,” and Spock’s death suggests a resurrection. When Spock’s casket shoots out of the ship toward the new “Genesis planet,” the song “Amazing Grace” is played diagetically and extra-diagetically, the music of the crew taken up by the soundtrack as Spock is taken up by the universe. As a final rebuke to the eugenic villain, Kirk says: “Of my friend, I have only this to say: Of all the

souls I have met in my travels, his was the most... human.” He affirms the cosmopolitical alliance at the heart of *Trek* by claiming the sacred nerd figure of friend as victor over the forces of ecocide. This figure is narratively and visually aligned with cosmic forces coded as agents of revelation. The great machine of the *Enterprise* becomes the avatar of the Federation as a messenger of Enlightenment sailing away from the death of fascism. *Star Trek III: The Search for Spock* cements this alchemical event by resurrecting Spock on the Genesis planet and uniting it to his soul, or *katra*, which took refuge in McCoy via telepathic touch. Through the quest to reunite body and soul through the heroic actions of the crew, Spock’s indispensable role is affirmed through a reversal of the logic of his sacrifice: *the needs of the one sometimes outweigh the needs of the many*. This anti-Utilitarian plot reverses Spock’s death as an expression of nerd alienation. The prey returns as victor; the alliance triumphs, and the monster of eugenics dies having lost the argument.

Khan survives memetically, however. He asserts a presence in subsequent *Trek* films through the subtext of *Moby-Dick*. As he triggered the Genesis Device, Khan quoted the final words of Captain Ahab before he is dragged with the whale into the deep: “From hell’s heart I stab at thee; for hate’s sake I spit my last breath at thee” (Melville 623). By giving voice to Ahab with his last act, Khan admits that his mind has been tainted by madness and grief. Moments before, his son died in his arms while mocking him: “Yours is the superior [intellect].” This is the ultimate repudiation of the eugenic ideology that drove Khan from the beginning: his people and progeny die, victims of his desire to seek vengeance against “inferior” persons. This is a bittersweet moment for nerd ecology. The defeat of the eugenic fascist at his own hands signals a decisive victory for democratic cosmopolity: the biosphere formed by Carol Marcus’s genius must not be contained by the metanarrative of control of nature. But Khan’s desire to dominate other lives is, in the end, only an augmented form of the human desire to dominate others and the world. Khan’s defeat is not a final victory for stellar cosmopolitanism, because the Federation is still blind to the way it offers friendship and equality to humanoid species, while still encountering nonhumanoids as uncanny monsters or mindless machines. Once Spock is restored by *Star Trek III*, there is still the problem of nonhumanoid intelligence and its status in cosmopolis. *Star Trek IV: The Voyage Home* brings this dynamic of stellar cosmopolitanism back to Earth as

the inability of humanoid cosmopolis to hear the songs of intelligent life that sounded in the deep all along.

Whales

According to Herman Melville, the problem of humanity is its inability to read other species. In a passage of *Moby-Dick* dedicated to prophecy, the narrator asks: “[H]ow may unlettered Ishmael hope to read the awful Chaldee of the Sperm Whale’s brow? I but put that brow before you. Read it if you can” (Melville 363). This is the task Ahab cannot accomplish: he can only read his own madness. Ishmael is a different matter. Though the passage calls him unlettered, the brow of the whale is not a text, though it is a sign, a prophetic sign. As a proxy for Job, whose job was to be instructed by the fish of the sea in the ways of God, Ishmael must learn to interpret the prophecy of the whale’s face, as Ahab could not. In *Trek IV*, this is exactly what Spock does, and this task of interspecies communication is framed, at first, as a fish out of water story. A mysterious Probe has entered the Solar system and drained the power from the Federation, starships, and cities alike. The Probe enters orbit and directs a strange sound at the oceans. The Universal Translator cannot decode it, and the Probe ignores all attempts at contact. The ocean sends no reply, and the Probe begins to dry up the seas, sending tons of moisture into the air, creating catastrophic storms that threaten San Francisco, the capitol of the Federation. When the Enterprise crew realizes what is happening, they depart from Vulcan in a stolen Klingon ship to investigate. When Spock and Uhura listen to the Probe’s signal and adjust for the density of salt water, Spock realizes that the signal is meant for Humpback whales, which are extinct in the twenty-third century. With no other hope for saving Earth, the crew uses a “slingshot maneuver” around the sun to catapult the ship back in time, a conceit that had not been seen since the Original Series. Arriving on Earth of the late twentieth century, they locate a pair of Humpbacks living in an aquarium in San Francisco Bay. While the rest of the crew fans out across the city to gain the materials necessary to transport the whales through time, Kirk and Spock approach the director of the aquarium, Dr. Gillian Taylor, a cetacean biologist with a fierce devotion to the Humpbacks, George and Gracie,

named after the famous comedy couple of Burns and Allen. The crew stumbles through San Francisco like Connecticut Yankees in King Arthur's court, while the whales gaze placidly at the audience, as if to say *Read us if you can*.

Trek IV is a whale hunt replayed as farce after the tragedy of Melville's epic. Moby-Dick fractures in *Trek IV* into the individual whales, George and Gracie, and the sublime whale, the Probe from beyond the *oikos*. George and Gracie are synecdochal but not symbolic: they stand for Humpbacks as an endangered species, but not for some virtue or vice of the universe. The Probe, which resembles a whale drawn by a Futurist, stands for the sea of space and all the dangers it contains that we cannot comprehend. It seeks to make contact with the Humpbacks of Earth in an interstellar communication to which homo sapiens is apparently irrelevant. When the Probe fails to make contact with Humpbacks in the twenty-third century, the crew of the Enterprise must retrieve them from the twentieth century in order to restart the dialogue and stop the Probe's attack on a whaleless Earth. The end of the plot is the reunion of Probe with Humpbacks in the twenty-third century, a partial healing of the assemblage that saves Earth. This event is represented differently in the film and the novel adapted by Vonda McIntyre from the script. In the film, George and Gracie communicate with the Probe once they arrive in the future. This communication is represented visually when the whales and the Probe move from horizontal to vertical standing position at the same time. It is represented audially by a call and response between whale song and Probe sound. The film leaves the communication untranslated: the audience sees the result only as the Probe departs. Without the semantic content of the exchange, we are left to infer what has happened, an absence that reinforces human irrelevance. The Probe was not interested in us to begin with, and it remains uninterested. In the novel, however, the dialogue is rendered for us as an interrogation: the Probe demands to know why the whales took so long to respond, and what has happened to the rest of their species. George and Gracie reply that they do not understand what has happened. The Probe accuses them of singing a young and underdeveloped song, implying a musical canon that has been lost to extinction. The whales affirm that they will continue to sing, and promise to make new songs for the Probe's next return. By parsing the conversation, the novel emphasizes extinction as genocide: George and Gracie will have to reinvent Humpback culture in the twenty-third century.

The Probe's dissatisfaction with their answer suggests a stellar cosmopolitanism beyond the Federation. This galactic civilization had included Humpbacks and their singing in the past, an absence noted by an artificial intelligence too powerful for the Federation to counter. The interaction between Probe and whales disrupts the tropes of nerd ecology by disrupting the anthropocentric standard of *Trek's* civilizations. *Star Trek IV* constitutes an important break with the humanoid fixations of *Wrath of Khan*. *The Voyage Home* also changes Spock's role as stellar cosmopolitan: at first the center of the plot to defeat the eugenic villain, he becomes a mediator between the Federation's humanism and the transhuman reality of galactic intelligence. *Trek III* reverses the structure of the Horta episodes: instead of integrating an inhuman species into a humanoid polity, it represents a machine-animal alliance that resists inclusion in humanoid politics.

The film also disrupts the patriarchal structure of nerd narrative through its refusal of the marriage plot. As the Probe recedes, so does Gillian Taylor. Despite her sympathy toward Kirk and his mission, Dr. Taylor wastes no time joining the crew of a research vessel headed for a water planet to seek aid for George and Gracie. As she points out, she is the only person in the twenty-third century with any knowledge of Humpbacks, and their survival may depend on her ability to marshal Federation resources to support species restoration. When Kirk protests, Taylor replies with blunt affection: "See you around the galaxy." Though *Trek* had already represented many temporary or failed relationships between Kirk and any number of women, his charms had never before been overcome by endangered charismatic megafauna. Given his other conquests, this result is numerically insignificant, but it disrupts Kirk's function as a Gary Stu for male nerds, the hero whose sexual prowess is part of the promise of metamorphosis. If it momentarily occludes the path from zero to hero, it does so without a lapse back into the discourse of monstrosity, swarm, or nerd-machine. Like the Probe, Taylor knows more about whales than Kirk. She delights in the twenty-third century, and does not cling to Kirk as a guide to the galaxy. Like the Probe, she has no need of the main characters, and no desire to subordinate herself to the gender dynamics that produce inequality among the bridge crew. By allying herself with whales, Federation scientists, and the interests of the Probe, she fulfills the mission of the *Enterprise* to seek out new life and new civilizations, boldly going where

no man has gone before. This combination of female science hero, animal intelligence, and alien avatar displaces Spock as well. *Star Trek IV* heralds the arrival of a nerd-girl to rival the nerd-boy as mediator of the more-than-human world, though it is more accurate to say that Gillian and Spock drive the plot together.

The need for alliance between Spock and Gillian becomes clear when Spock breaks the limits of the aquatic theme park by communicating with the whales in their tank through telepathic touch. The visual comedy of the dignified Spock floating in a terrycloth bathrobe gives way to a xenophobic backlash. "What the hell are you doing with my whales?" Gillian demands. Spock replies: "They like you very much, but they are not the hell your whales." The comedy of Spock's inelegant use of expletives sweetens an otherwise bitter moment. Even the biologist thinks of whales as property. Even she does not believe they are capable of self-possession. Spock's reading of the whales is the first break with the comedy that informs the first part of the film, which capitalizes on the crew's discomfort with twentieth-century primitivism in medicine, politics, and art. That discomfort becomes pointed at the appearance of the ideology of ownership directed at other species. Though the crew's quips about smog, surgery, and militarism have a post-hippie joviality to them, the reality of human violence becomes serious when Chekhov's life is threatened during a mission to gather energy for the ship. His injury, though mild by McCoy's standards, becomes life-threatening in a contemporary San Francisco hospital whose methods McCoy calls "medieval." Chekhov becomes the human foil to the Humpbacks, demonstrating a fault in the progress of cultural and ethical evolution. As Spock contradicts Taylor's ownership language, Chekhov—the avatar of the Russian machine during the Cold War—indicts the capitalist humanism of cetacean biology allied to corporate profit. Taylor is figured thereby as a distinctly American scientist whose feminism has not yet allied itself to the Federation's utopian economy. When Spock reveals that Gracie is pregnant, Gillian realizes that his contact with the whales was real, and quickly revises her understanding of the human relationship to whales and other stellar cosmopolitans. She stands as the model for the audience in terms of the film's didactic goals. Confronted with uncanny proof of whale intelligence and extra-human perception, she revises her worldview in time to fulfill her duty to foil species and planetary

extinction. Her dynamic relationship with whales allows the audience to “to re-vision the planet as a cosmos of multi-species communities existing in intimate, entangled relations” (Adamson, “Whale” 44).

Though cinematic *Trek* never approaches this level of posthumanism again, the legacy of Taylor and Spock’s relationship to the whales carries over into the structure of the television series. *Star Trek: The Next Generation* does not incorporate nonhumanoids as members of the bridge crew, but it injects the posthumanist dynamic into individual episodes. At the avatar vertex, “The Measure of a Man” requires Captain Picard and Commander Riker to defend the personhood of Lt. Commander Data, an android, when Starfleet Command attempts to seize him as property. Like the Probe, Data possesses a formidable artificial intelligence; like the whales, his inhuman nature collapses into property under certain conditions of human culture. The problem of his identity is posed as a problem of citizenship, not just personhood; in this sense, Data’s identity is racialized as well as alienated as machine. He is human-shaped, and desires to become more human, and this helps his case as Federation citizen. In another early episode, “Home Soil,” TNG underlines the problem of recognition of difference by revising the Horta plot: the *Enterprise* visits a science station whose colonists are being killed by a mysterious agent, revealed to be a crystalline intelligence that lives in the soil. The scientists were destroying their habitat without being aware that they were injuring another species. Bereft of Data’s sentimental attachments, the crystal protagonist returns the favor, calling humans “ugly bags of mostly water.” This displacement of normal perspective is internalized in *Star Trek: Deep Space 9*, in which a regular member of the cast, Jadzia Dax, represents a symbiotic people called the Trill, humanoids who unite with long-lived symbiotes to form minds that last hundreds of years. Though the current host, Jadzia, is female, the Dax symbiote has bonded with male and female hosts, producing a character whose identity is queered across species. This is not a minor aspect of the character, but a basic unit of plot. Curzon, a male Dax host, was the mentor of the station’s captain, Benjamin Sisko. Sisko routinely addresses Dax as “old man,” a joke about gender, species, and sexuality voiced by an African American Starfleet officer. The Dax symbiote functions as a sign that aggregates and disrupts identity at the same time, becoming a species of polysemy.

The political potential of these multiple meanings is realized in the later series, *Star Trek: Voyager* and *Star Trek: Enterprise*. The problem of the human-machine as citizen is explored by the character of Seven of Nine, discussed above. Her identity as a former member of a totalitarian cyborg polity never truly resolves. Though Seven is accepted by the crew in a classic nerd alliance—“You are my mentor, we are as one” says a drunk Seven to the holographic doctor—the show takes place across the galaxy from the Federation, so it is never clear that Seven will be able to participate in the Federation beyond *Voyager*. Like Data, her citizenship remains partial and anomalous. Not until *Enterprise* does *Trek* encounter a civilization made of multiple intelligent species: the Xindi, comprised of primate, reptilian, insectoid, aquatic, and arboreal subpolities, including an extinct avian species. Though presented at first as a terrorist threat to Earth, the *Enterprise* eventually allies with them to overthrow a transdimensional race that manipulated the Xindi into attacking Earth for their own purposes. *Enterprise* makes it very clear: the more transcendent people are, the more of a problem they pose for a material cosmopolitanism.

A transcendent threat

It would seem that *Trek* moves across decades and media in a halting but consistently posthuman and ecological direction. The complexity of cosmopolis, within and beyond the Federation, increases with time. Old enemies become friends, strangers become allies, and if the shapes of intelligent life are misperceived at first, there is still progress in recognizing the progress that needs to be made. *Trek* expands the notion of cosmopolitics in a manner consonant with developments in earthly governments in the present. As Joni Adamson and Salma Monani point out, the advent of *cosmopolitics* as a critical term “implies that we are entering a moment in politics that takes as its goal, to use the words of Ecuador’s recently revised constitution, the intergenerational, evolutionary space and time required not just for the survival of all species, but for the ‘rights’ of all life, human and nonhuman” (Adamson and Monani 10). This narrative of epochal shift and political transformation serves as a foundational myth for nerd ecology. Historically, the building blocks of the

story of planetary defense through self-transformation are provided by *Trek*. *Trek*'s status as keystone of the arch of nerd ecology means that nerd culture conserves *Trek* no matter how tedious or ridiculous it became. *Trek* contains the space-seed of its own demise, however: the desire to transcend material existence through an evolution of the species into pure mind or "energy." Though the trope of the superior being made of pure mind occurs in every *Trek* television series, it is foundational to the Original Series, the Next Generation, and Deep Space 9. In the Original Series, the clearest manifestation of the trope occurs in "Errand of Mercy," an episode that introduces the Organians, who appear to be a preindustrial culture seized by arrested development. Organia lies in a territory disputed by the Federation and the Klingon Empire, and the Organians appear to Kirk as "the innocents who are always caught [between warring powers]." When they are threatened by the Klingons, they remain unmoved, much to Kirk's dismay. They taunt Klingons and Starfleet by claiming that their empires are not so different, and in the future they will work together in peace. Their cheery pluralism and apparent cultural stasis depend on a secret: they are beings of pure energy that have taken on bodies again to communicate with humanoids. Like Saul on the road to Damascus, Kirk and his Klingon rival witness their medieval hosts transfigure into beings of blinding light who put away the childish things of galactic politics in the name of a transcendent pacifism.

The Organians could be dismissed as yet another relic of *Trek*'s utopian impulse but for the fact that the next two series are premised on Starfleet's relationship with disembodied beings. The Next Generation's premiere, "Encounter at Farpoint," sees Captain Picard put on trial as proxy for humanity itself by the Q, a member of the immortal and omnipotent "Continuum." Q takes the form of a human judge from the era of World War III to indict humanity as a barbaric child race unprepared for and unworthy of cosmopolitics. The entire series is framed as a test of humanity's capacity to evolve into something better, and Q reappears at the end of the series to render judgment. The religious function of Q as god of judgment frames Deep Space 9 as well. The titular space station orbits the planet Bajor, whose people recognize the inhabitants of a nearby wormhole as their "Prophets," transcendent beings who communicate with Bajor through a series of Grail-shaped "orbs." Though Benjamin Sisko, the Starfleet officer in charge of DS9,

refers to the prophets as “wormhole aliens” at first, his secularism is to no avail. He is the Emissary of the Prophets, and the half-human child of one that took human form in order to give birth to him. This identity, which combines Jewish, Christian, and Muslim tropes of religious leadership, shapes the fate of the station, Bajor, and the galaxy itself. These examples make clear the central role played by superior, immaterial beings in the narrative fabric of the *Trek* universe.

The threat posed by these beings to stellar cosmopolitanism is hinted at by the language Spock uses to describe the Organians: “Pure energy. Pure thought. Completely incorporeal.” Speaking *ex cathedra* as a science officer, he calls them “as far above us on the evolutionary scale as we are above the amoeba.” This dialogue unites the Platonic flight to the stars with the Darwinian discourse of evolution, doing violence to Darwin and cosmopolitics in the process. For Darwin, evolution through natural selection has no fixed direction, only adaptation to current conditions. The “evolutionary scale” in Spock’s dialogue is a version of the medieval *scala naturae*, which ranked creatures as farther from or closer to God based on an Aristotelian measure of organismal complexity. Combine this taxonomy with the Neoplatonic-Christian ascent to the One and the result is Dante, not Darwin. Surrounded by Christological special effects, the Organians are ascended souls for a science-fictional era. But the rhetoric of ascent tied to an ontology of superior form injects eugenic thinking into cosmic evolution. Spock yokes a version of the *Timaeus* and its account of matter’s inferiority to a pseudo-Darwinian narrative of evolution beyond material existence. Humans will be superior when they no longer need bodies, and evolution is the process of attaining that superiority. If the point of evolution is to leave matter behind, a politics of planetary defense can only be a proximate, not an ultimate good. Earth and Vulcan begin to seem like incubators for creatures that will finally transcend ecology itself. This is bad news for nerd ecology. At best, material existence—human, whale, or otherwise—serves as an intermediate step toward disembodiment. Material organisms that stay material are losers; matter is a temporary matrix of mind, to be discarded in the future; and bodies are machines for the ghosts we will become. The old pattern reasserts itself, undermining the nascent story of nerd metamorphosis in and for the world. It refigures the nerd quest as a journey toward superior intellect, ultimate power, and absolute control as a

means of revenge disguised as benevolent rule of inferiors. Khan starts to win by other means.

The case of the Organians presents further difficulties for the idea of the world as *oikos*, as household, biospheric system, and planetary home. When Kirk asks why the Organians would build a village, a stronghold, and other trappings of medieval civilization if they are beings of pure thought, Spock replies that the Organian environment is a set of “conventionalizations” designed to make embodied beings more comfortable in familiar surroundings. Unlike Sargon, Thalassa, and Henoah, the advanced minds encountered in “Return to Tomorrow,” the Organians do not need bodies, the sensorium of embodied beings, or a functioning biosphere. Organia itself is superfluous, as much a convention as the human bodies and villages. In contemporary terms, Organia is a virtual world made of matter, not computer code. It is material, but simulated, a Disneyland for pure thought on vacation. Humanoid society, planetary ecosystems, and organic life are inferior, tools to be discarded at the end of use, like a styrofoam cup. We are afforded a glimpse at the origin of this strategy decades later, in the *Star Trek: Enterprise* episode “Observer Effect.” The Organians appear here a full century before first contact with Kirk and Spock, and they appear in more threatening form. They infect the *Enterprise* NX-01 crew with a disease that is beyond the Federation’s capacity to cure. Two Organians possess the bodies of Lt. Reed and Ensign Mayweather in order to observe the progress of the crew’s response; their affect is clinical and detached, suggesting the Tuskegee experiments and Nazi medical atrocities. Though the crew is saved when Captain Archer appeals to their compassion, the encounter makes clear that sympathy is a function of embodiment. The Organians cannot suffer with the crew and regret their experiment without the “guts” that come with real bodies. By the end of the episode, the Organians realize that they must prepare an intermediate space for more ethical interactions with material beings, a decision that leads to the scenario in “Errand of Mercy.” This experience of donning and doffing human bodies suggests an analogy to “cosplay,” costume play at science fiction conventions, in which fans dress up as their favorite characters and learn something about themselves by impersonating a fictional being. This analogy suggests that, for truly disembodied beings, material existence and embodied citizenship are like costumes and role-play, but not a serious form of political life. When

the Organians impose the Treaty of Organia on the Klingons and Federation, they resemble players of games like *Sim City* and *Civilization* attempting to optimize a virtual world. Even after the medical disaster of “Observer Effect,” the Organians remain bemused by the pain of lesser beings. *Trek*’s insistence that such beings represent an evolutionary *telos* for humanoids presents a real challenge to stellar cosmopolitanism as a workable ethos.

The Next Generation’s fascination with Q presents a similar set of concerns. Played by John de Lancie as an arch aristocrat and puerile trickster who admires and despises humanity by turns, the Q archetype appears early in the Original Series in “The Squire of Gothos,” in which a picaresque bon vivant makes the crew his playthings on an abandoned world. “Squire” resolves through a *deus ex machina* when a disembodied, female voice apologizes to the crew for the behavior of her child. The squire is scolded for treating inferior beings like toys, and his heavenly mother sends him to a disembodied time-out. There is no such solution for Q, who occasionally becomes human in order to learn the error of his ways, but always returns to the Continuum with his omnipotence restored. Whether taunting lesser energy beings like the Calamarain, teleporting the crew across galactic space, or hectoring Picard about human frailty, Q suggests that transcendence leads inevitably to domination. The domination of nature is the ethos that environmental cultures are designed to supplant, the core ideology of capitalist humanism and communist collectivism. De Lancie’s performance as the apotheosis of the unbearable white guy who remains dangerously unaware of his privilege may be intended to warn the audience away from the norms of patriarchy, but Q appears as much for comic effect as didactic moralizing. As the foil of Picard’s noble explorer, Q raises the problem of a being whose metaphysical evolution was not accompanied by ethical advancement. There is something ridiculous about the sheer repetitiveness of the problem. Q never learns. Picard is a better person than he is; he models the personal restraint, moral seriousness, and comfort with uncertainty that escapes Q. Q serves as a warning about the corruptions of power, but TNG could not rid itself of him. He remains a Feuerbachian projection of the spirit of domination into the story of egalitarian utopia. It is only with the Prophets of DS9 that *Trek* depicts immaterial, godlike beings with a proven record of helping a humanoid race. This benevolence is controversial among fans that remain wedded to a radical Enlightenment critique of religion as a web of lies meant to ensnare

the ignorant and vulnerable. DS9 did portray immaterial beings that fulfilled this function: the Pa-wraiths, who were expelled from the Prophet's polity for their malevolent work against the Bajorans. DS9 portrays this failure as failure, however: unlike Q, the wraiths have no benevolent side, and manifest as flames of wrath around the individuals they possess. They are demons to the Prophets' angels, and their presence produces the apocalyptic narrative that frames the final season of the show. To avert the Bajoran apocalypse, Captain Sisko must take sides in the conflict, an action that disrupts his loyalty to Starfleet and his personal desire for a marriage plot with Kassydy Yates. Ironically, the presence of unambiguously good disembodied beings catapults DS9 into an apocalyptic narrative that undermines the stellar cosmopolitanism of Bajor as it enters the Federation. Narratively speaking, neither the ambiguity of Q nor the polarity of the Prophets serves to reconcile the goal of transcendence with the project of stellar cosmopolitanism. The universe of *Trek* cannot be rid of "superior beings," but it has not integrated them into the structure of cosmopolis.

As a narrative continuum, *Trek* embodies the contradiction between the good life within the limits of embodiment and the desire to transcend the material world, the dream of the good city versus the impulse to abandon politics altogether. A critic once described the poet Robinson Jeffers's inner conflict as the need to "escape but not to love" and the desire "to love but not to escape," and *Trek* seems caught in this dialectic as well (Carrithers 222). The temptation to escape and not to love the world entails the confusion of a particular political order with cosmopolis itself. It denies the possibility that there might be a polity that escapes the limitations of one's own cultural history. This way of thinking is a failure of cosmopolitanism itself, an insistence that particular histories constitute History itself, that the zeitgeist is Geist. Spock's trajectory as a character through the iterations of *Trek* represents one solution to this problem that points toward an integration of nonhuman species into cosmopolis, and an awareness of cosmopolitical orders not based on humans at all. Stellar cosmopolitanism of this sort requires an embrace of reason, emotion, and sensation as aspects of embodiment that cannot be repudiated without descending into the Q-conundrum: intellect without ground and power without purpose. In this order, one cries for Vulcan in its destruction as the logical thing to do. Worlds cannot be threatened without cost to all the species of the alliance. It is this ethos of vulnerability that informs

Spock's answer to the question his mother posed to him at the beginning of *The Voyage Home*. "How do you feel?" she asks through a computer. At the end of the film, with the future of the Federation restored, Spock turns to his father and says, "Tell my mother, I feel fine." This feeling was produced by a plot of nerd transmogrification through the repudiation of eugenics, the practice of friendship, and alliance with inhuman species across time. But the suspicion persists at the heart of *Trek* that feelings are not to be trusted, bodies are not necessary, and a truly advanced race no longer needs a material world. This idea that the material world is a bug and not a defining feature of the cosmos threatens the project of stellar cosmopolitanism and its metanarrative of planetary defense. The desire to transcend the fate of prey and garbage, the status of soulless machine, evokes the possibility of absolute transcendence. Perhaps it is better to abandon the world than to defend it.