INTRODUCTION

The Aliens Are Coming, the Aliens Are Coming!

The heading above might startle the reader. I want to assure you immediately that this is not a warning about extraterrestrial beings that I've spotted with a home telescope, or about desperately poor potential immigrants seeking to cross the border from Mexico into Arizona; nor is it an advisory to California Department of Agriculture personnel that some earnest plant lover will attempt to smuggle across the state line an exotic ornamental species that will become invasive and threaten the survival of food crops. Rather, the title implies to some extent all of the above. (I must confess, however, that I have no telescope, am sympathetic to diverse people attempting to escape pervasive poverty and political persecution, and support government warnings against transporting potentially invasive plant species, and state government interdiction of these alien invaders at state borders.)

The title should not be taken to suggest, either, that most or even many astronomers, astrobiologists, or astrophysicists think that Contact with intelligent extraterrestrials is imminent. Most scientists theorize that Earth inhabitants' exploratory ventures into space (with or without personnel and passports aboard) will encounter very primitive, microbial forms of life; they'll be in the early stages of evolution, assuming that planetary conditions allow for evolution to occur at all (a possibility which, given recent astronomical discoveries of planets in distant places in space, is becoming ever more likely).

If you're in academia (as I have been for more than forty years), you probably bought this book online or surreptitiously in your local (or out of town) bookstore. You might be secretly reading it late at night, in a

closet, with a flashlight. My sympathies. I recognize, as you do, that the U.S. government is unhappy about those who speak about UFOs publicly and thereby contradict its continuing claims that there's no such thing as UFOs, that there was no debris from the crash of an "alien disk" at Roswell, New Mexico in 1947, and that there's no need for an independent, objective scientific investigation into UFO incidents reported by credible witnesses. I recognize, too, that academic institutions have fallen in line with U.S. government propaganda, and punish faculty professionally if they even mention casually that they think serious scientific research should be undertaken on UFOs (unidentified flying objects) and ETI (extraterrestrial intelligence). Finally, I understand that even family members, friends in your social circle, and professional colleagues will dismiss your interest and ridicule you for even mentioning it. (Imagine your quandary if you've actually seen a UFO whose presence, location, and maneuvers—flying horizontally at extreme speeds and then, without pausing or banking, shooting straight up at the same extreme speed, following a vertical trajectory perpendicular to the horizontal one—don't correspond to any natural phenomena, including meteors, the moon, Venus, and nations' satellites).

Relax a bit. Keep fresh batteries with you, and keep reading. We'll try to make this a pleasant excursion into the cosmos—or, at least into what people like you, your next door neighbor who's a pilot, the clerk at the supermarket, and scientists and radar operators—military and civilian—around the globe have reported. There are thousands of them!

When I've spoken about my interest in the topic at faculty meetings or informal gatherings, people roll their eyes or remain silent, among other reactions. I know the eye rollers might be either genuine skeptics or people who have seen UFOs who are afraid that others might detect this and attack them; the silent ones are people willing to think about UFO narratives but dare not say so—even if they, too, have seen one or more. My experience has been that one or several people in the second group will quietly approach me discreetly and tell me about a UFO experience that they have had or someone they know who is trustworthy and truthful has had. I wonder how many people there are who have similar experiences and are similarly afraid to mention or acknowledge them.

The cover story of the July 2013 issue of *Scientific American* might help your cause when people say there is no extraterrestrial life. You can point out that if that were the case, private industry, scientific research organizations, and even the U.S. government would not spend billions of dollars to

search the distant skies. The magazine's cover reads, "To Seek Out New Life: Watching exoplanet skies for signs that something is out there"; the story's title reinforces the cover: "The Dawn of Distant Skies—The galaxy is teeming with planets. Scientists are straining to peer into their atmospheres to seek signs of extraterrestrial life." The article provides examples of scientists around the world participating in the hunt, and of the papers they have presented at professional conferences, and notes how advanced technologies have enabled scientists in just under two decades to locate planetary candidates that might have water and to detect atmospheric biosignatures that indicate the presence of life.

What's an "Alien"?

The term *alien*, as seen in the preceding paragraphs, has a variety of meanings: biological/ecological, ethnic/class/political, and extraterrestrial. *Encountering ETI* explores diverse aspects of distinct issues relevant to all of the above, noting a consistency in meaning of *alien* as "outsider," an individual or species not native to a place; and, a corresponding consistency of complementary impacts of diverse types of actual or potential "aliens" in Earth contexts. For purposes of this book, a working definition of *alien* is as follows:

> *Alien* describes an individual, species, or ethnic group that enters a territory not native to it, which is inhabited already by members of the same or a similar species or group that currently utilizes subsistence natural goods and habitable space of their current place in a biotic niche to which they have adapted; that some or all of the goods and part or all of the territory will be sought or affected by the immigrant species, in competition or collaboration with the natives; and that the natives' space and subsistence goods, and therefore their likelihood of survival or wellbeing, could be adversely impacted or beneficially enhanced by the nonnative biotic immigrants.

In the pages that follow, we'll ponder ecological, economic, ethical, and ecclesial theoretical and actual engagement with aliens, employing a long-term eonic lens. We will view and review the evolutionary past, evolving present, and ponder potential evolutionary futures. We will analyze species' coadaptive and integrated—or conflictive and divisive—relationships with Earth and with each other. We will discuss real, or posit

potential, results of alien migration—on Earth, to Earth, and in the far reaches of the universe.

You'll Do All That in One Little Book?!

The task, of course, is enormous; it requires several limitations. Geographically, we'll focus on U.S. settings; there's certainly enough going on here to merit substantial on-planet exploration. We'll look at several issues in summary fashion, in hopes that the reader and others will expand consideration of these issues, and also extrapolate data and insights from what is presented here to reflect on related or even apparently unrelated issues. We'll use the word *Contact*, capitalized as in scientific circles, to signify encounters between terrestrial intelligent beings (TI) and extraterrestrial intelligent beings (ETI), which has often been shortened inaccurately to ET (which means "extraterrestrial," and could refer to exoEarth life that is simple—such as microbes—or complex—such as dolphins or their intelligent equivalents on other worlds).

Natural Goods and Natural "Resources"

An important distinction needs to be made between "natural goods" and "natural resources" and how we relate to each. A *natural good* is something that has a place and serves a purpose in its native setting; it may be altered or moved when this is necessary to provide some benefit. It might remain where it is (not in its entirety, necessarily: think of river water that is drunk immediately by a hiker to satisfy thirst, or is used to fill a canteen to be drunk later; or is partially diverted by an agriculturalist—farmer or rancher—into a canal to provide irrigation for crops or sustenance for livestock, both of which people will consume later), or it might be diverted elsewhere to flow from a home faucet—after it has been purified in a municipal water plant in a nearby community—to wash vegetables produced by the farmer, or when added to dehydrated vegetables to make soup or stew.

A *resource*, by contrast, is something that is regarded as awaiting alteration, extraction, diversion, or other re-use by human ingenuity, labor, and technology. While a "natural good" is respected for what it is, even when altered or removed, a "resource" is regarded as something to be changed at human whim or will: what it will become is valued over what it is now.

A "natural good" is understood to have *intrinsic value*, worth in itself, and is worthy of respect; its existence is primary, and complementary to or even prioritized above human needs and wants when it provides for other biota (living beings, members of the biotic community, the community of all life), or has purposes in nature only partially known at present. A "resource" is believed to have *instrumental value*, a worth assigned to it by those who want to use it; its existence is secondary and subordinate to human needs and wants. A being's intrinsic value might come to be displaced in the eyes of others to become instrumental value when, in their view, they need benefits it can provide—whether to satisfy their needs or desires—to sustain their own intrinsic value. A thirsty and hungry grizzly bear or golden eagle on a river in the Pacific Northwest, for example, depends on water to slake its thirst and to be host and habitat for salmon to satisfy its need for food. The salmon, for its part, has intrinsic species and individual value, eats insects on or above the water's surface because they have instrumental nutritional value for the salmon, and has instrumental value for the bear and eagle as food. A similar intrinsic value–instrumental value relationship exists between the salmon and insects that it eats, some of which might eat the salmon's decaying remains after it spawns and dies.

Throughout *Encountering ETI*, I will use "natural goods" rather than "natural resources" to refer to what exists integrally in place, sustaining abiotic geodynamics or providing benefits for resident nonhuman biota, but might be needed and used by human beings. The use of "natural goods" to refer to Earth benefits that humans use can promote respect for Earth and the biotic community, and responsible use and distribution of Earth's geophysical places and their fruits.

Intrinsic Value and Instrumental Value

In ethics, as noted, both biota and abiotic places can be acknowledged to have intrinsic value (value inherent in themselves), or assigned instrumental value (value that benefits in some way the one doing the valuing). Note that in the first case a person who thinks ethically acknowledges an inherent value, but does not decide that the biota or abiota has it; rather, they understand intrinsic value to be something that is internal to and part of the being (which might have been imparted by their common Creator) of the other, not something to be granted by others; in the second case, the

one valuing assumes that they have the right to do so, to benefit themselves, their species, or their community.

Environment in these pages refers to places and spaces that are the common ground (and common air and water) where geophysical forces (such as tectonic shifts, climate, and storms) exist and interplay. *Ecology* describes the relationships that exist or should exist in Earth and cosmic environments: among humankind, among all biota, between humans and other biota, between humans and Earth, between other biota and Earth, and between humans and other biota, related together to Earth.

Earth: Home, Hearth, and Habitat

In *Encountering ETI*, as is customary today in contemporary scientific, ecological, and spiritual writings, I capitalize our home planet, Earth. The uppercase *E* distinguishes Earth from the soil, earth; reinforces its status as a planet—all other planets are capitalized; and promotes respect and care for Earth's environment and for other beings on Earth, and stimulates cooperative and collaborative ecological relationships with abiotic (nonliving) and biotic (living) existents. (In some indigenous cultures Earth, rocks, and other beings that research scientists consider nonliving beings are understood in native thought and spirituality to be living beings.)

Earth is *home* to diverse species. It is, for humans and other biota, our residence, the place in which we live and from which we provide for our life and wellbeing—as individuals, families, and communities. As our home, Earth is our nurturer, too, the place we find needed food, water, and shelter, among other goods. It is the world with which we are familiar and in which we have roots. It has a welcoming familiarity that comforts us or puts us at ease and enables us to feel secure (to the extent possible: it's always a cautious security when you're prey for a lurking or tracking predator) when we return to a particular place from which we have traveled.

Earth is *hearth* to a particular species, humankind. We have a particular sense of place here, an experience that seems to go beyond other species' affinity for an established territory. We can be territorial—witness international boundaries and borders between nations—but we can go beyond that to recognize our kinship not only with others of our kind, but other members of the extensive biotic community, the community of all life.

Earth is *habitat* for all species. It is the planet from which, and place in which, we grow and gather nutrition for our sustenance, attire to protect us

against diverse elements, material to construct our residences and places of employment, and medicinal plants (or replicas thereof) whose properties provide for our health.

As our home, hearth, and habitat, Earth is the place where we hope to live intergenerationally as a species, where abundant natural goods will enable us to live harmoniously and well. On Earth, we recognize that we are interrelated, interdependent, and integrated members of the *biotic community*, the community of all life.

Interdimensional Ecological Existence

In *Encountering ETI* interdimensional ecological aspects of existence are elaborated: *materiality* (relationships with Earth, other humans, other biota); *sociality* (relationships between diverse human individuals and distinct human communities, and between humans and other intelligent beings); and *spirituality* (relationship with the Spirit).

In the cosmic context, these diverse types of *relationality* are well expressed in the Hindi salutation *namasté*, which has multiple, intertwined, and integrated meanings: "the Spirit in me greets the Spirit in you" (that is, divine being is present in each of us, permeates all beings and every aspect of existence, and is self-communicating in and to all); the spirit in me greets the spirit in you (our individual materiality shares a common spiritual aspect of and relationship in our being); the Spirit in me greets the spirit in you (the sacred Presence in me embraces your spirit); the Spirit in you greets greets the spirit in me (the sacred Presence in you embraces my spirit). Those familiar with the theology of the early Christian scholar-abbot-mystic Saint Maximus (580–662; highly regarded in both Eastern and Western Christianity) would note the complementarity of his core ideas and *namasté*. Maximus wrote and spoke about the dialogic relationship between *Logos* (the eternal Creator) and *logoi* (all being and beings, which have a common origin in divine creative power).

Science, for its part, expresses—in theories and data about the origins of the existing and inflating universe in a singular event called the "Big Bang" in popular thought—a similar concept of how all that exists is related. The holistic understanding of the interrelationship of biota and abiota is present in the Genesis 2 creation story, which describes an original garden paradise. This theme is captured in the 1960s song "Woodstock," written by

Joni Mitchell and popularized by Crosby, Stills, Nash, and Young: "We are stardust, we are golden / and we've got to get ourselves back to the garden."

In Lakota ("Sioux") and other native cultures, *namasté* is expressed in a complementary greeting, *mitakuye oyasin*: "We are all related." In its extended form, Indian elders pray, "Greetings, all my relations. Greetings to all the two-legged people. Greetings to all the four-legged people. Greetings to all the winged people. Greetings to all the finned people. Greetings to all the rooted people." All of these greetings are voiced with the understanding that all creatures exist in the presence of the Creator Spirit. In a different way, relationality is described, too, in science in quantum physics, and in the social sciences of sociology, anthropology, and psychology.

We living beings are all stardust become material, interrelated, interdependent, and globally and cosmically integrated beings and being.

Stephen Hawking's *Deus ex machina*

The catalyst for me to write *Encountering ETI* and its related book, *Cosmic Commons*, was statements made in Hong Kong (2006) and Cape Canaveral (2007) by eminent British scientist Stephen Hawking. Reflecting on deteriorating ecological conditions on Earth, Hawking declared that human survival required development of a moon base and a Mars colony within decades. Earth, he said, might be destroyed by disasters such as "sudden global warming, nuclear war, [or] a genetically engineered virus," and some humans should be resettled: "I think that getting a portion of the human race permanently off the planet is imperative for our future as a species." It struck me immediately as I read his words: *It's the same people!* Those who would be involved in such human settlements elsewhere would be members of the species that is wreaking havoc on Earth. Why would they do anything different on the moon or, more importantly, on Mars and on other "celestial bodies" (a United Nations term, from the 1966 Outer Space Treaty, that refers to the moon and other places in the universe)?

Most journeys of exploration are funded not for solely scientific purposes, but with a commercial or military intent. The Spanish monarchs funded the 1492 voyage of Christopher Columbus that led to the "discovery" (native peoples were already here) in 1492 of what came to be called the "Americas" not as a scientific journey (unlike, by contrast, the case centuries later when science was an important part of the voyage of HMS *Beagle*, with naturalist Charles Darwin aboard) or an anthropological

quest to seek or understand human life in foreign countries. Columbus was funded to seek new, economically profitable oceanic trade routes, to expand Spanish territory, extend the influence of the emerging Spanish empire across the globe, and to acquire through all of this additional wealth for Spain. When explorers such as Columbus encounter territory where they find "resources" useful for them and their patrons to meet domestic needs and wants or for trade and commercial profit, substantial military personnel accompany subsequent voyages to "discovered" places to ensure security for colonial expansion and control. The imperial set of political, economic, military, and even religious forces will strive to secure access to and control over regional planetary goods, and to subjugate "uncivilized" peoples ("uncivilized" in the perspective of expansionists who define "civilization" strictly in terms of their own culture) to the colonizers' imperial needs, aims, and domination.

Exploration and attempts to conquer are rarely (if ever) accomplished while bearing in mind any respect for or accommodation to existing populations, or concern for ecosystem integrity, which leads to the question: How would human settlement on the moon, Mars, or elsewhere in the solar system, galaxy, or vast cosmos differ in intent or practice from prior human practices during Europeans' (and other cultures') Earthly expansion? Would—or could—Hawking's projected settlements be refreshingly different from current human conduct in the new milieus in which they will, literally, *take* place? Human explorers and settlers might well take the places of—replace—existing biota; take the territory of existing intelligent biota; and take and diminish the natural goods of their newly settled place(s) to satisfy their needs and wants via commercial, industrial, and social exploitation (the 2009 film *Avatar* illustrates well the human potential to follow this course of action on other celestial bodies).

Will Hawking's seeming confidence (that on distant worlds human thought and actions will evidence greater consciousness of the potential double effect of technology, its use for good or for ill) be justified in the human future? He advocated technology's use to save our species from its abuse in the past and present. But he did not mention humans' technological development of nuclear weapons, massive strip-mining machines that rip apart Earth's mountains and plains and harm biotic habitats and ground water, utilities' power plants that poison the skies with emissions, and manufacturing plants that pollute water with toxic effluents. Other than on Earth, Hawking seems to believe, humans will use technology responsibly,

even though on Earth it is destroying the planet, disrupting the social order, and catalyzing celestial colonization. Ironically, Hawking's litany of reasons for resettlement provides dramatic examples of how technological innovations have had catastrophic consequences. (This is not an attack on or indictment of technology *per se*, but on technology's abuse and misuse. In engineering, computers, household appliances, aviation, and medicine, among other areas of human inventiveness and endeavors, technology has enhanced our lives. I much prefer my word processor to my typewriter of decades past; on occasion, I remind my daughter, son, and students that it is much easier for them to write essays and papers than it was for me.)

Hawking proposes a new kind of *deus ex machina*: today's gods will be technological marvels that will save the species as they ship settlers to contained colonies, bringing salvation to a selected few, the elect members of our species (without designating who among us will be chosen, and by what criteria) from what we have wrought on Earth.

Those Not Left Behind

Hawking's scenario is eerily reminiscent of the *Left Behind* novels authored by evangelicals Tim LaHaye and Jerry B. Jenkins (this is especially ironic, since Hawking is an atheist). They believe that a *deus* sans *machina* will whisk true believers "up" to heaven, away from a soon-to-be-destroyed or drastically altered Earth. A popular (among true believers) bumper sticker stated, when the novels were written (and still seen on some bumpers, despite the failure of that then-latest "end of the world" prophecy), that "When the rapture occurs, this car will be empty," which left one wondering about consequences of empty cars careening down highways and crashing into unrepentant sinners' still-occupied vehicles.

In Hawking and the novels a select few are transported into space to escape from Earth's ecological and social destruction. Who are these few? In the novels, the "saved" are those whose particular religious ideology claims that all they needed was faith in Jesus and additionally, for some, close attention and obedience to the Bible. In Hawking's proposal, no criteria are elaborated. The saved few in his scenario are likely quite distinct from the novels' raptured few: they might, for example, be atheist scientists, or people whose sexual morality would be called into question, for one reason or another, by Christian fundamentalists; their social morality might be equally or more questionable by others: they might be characterized

by greed for wealth or a lust for power, to be satisfied by whatever means possible.

Those Left Behind

The end of the world stories by Christian fundamentalists were complemented by a different type of "end of the world."

As the year 2000 approached, in response to "end of the world" predictions and "prophecies," the "true believers" in the dogmas expressed in the LaHaye-Jenkins novels anxiously or ecstatically awaited midnight's aftermath. Simultaneously, reacting to Y2K fears anticipating computer clock failures, computer systems users who were "true believers" in technology convinced similarly thinking individuals, governments, and businesses to expend substantial funds to save their data and operating systems; as midnight approached they huddled around individual or corporate monitors nervously drinking massive quantities of caffeinated liquids while wondering, would the "fixes" work or not?

The Christian and computer predictions and concerns were followed in turn a few years later by a New Age prediction: that a "Maya calendar" foretold the end of the world on December 12, 2012 (12/12/12)—which also fizzled, this time leaving New Age true believers and others relieved. Instead of predicting anew, they focused on an aspect of the prophecy upon which others had focused: a revolutionary change in global human consciousness would be catalyzed, in the thought of some fans of ancient Maya culture, by the arrival and teachings of benevolent extraterrestrial intelligent beings.

In the dramas of ancient Greece, when the hero-protagonist had been cornered in some confined space and no escape seemed possible, the *deus ex machina*, the "god of the machine," was lowered by ropes and pulleys to rescue him. In the play then, the simple machine carried the god who rescued the hero; in real life today, the machine *is* the god: technology will ensure human survival. However, even if the new machine-god carries arbitrarily selected people away to safety, a necessary spiritual and social conversion in human consciousness, conscience, and conduct will not miraculously emerge and accompany Earth's survivors in space. Minds and hearts need to be transformed *before* departure; change will not develop *ad hoc* during extraterrestrial extension. *Avatar* illustrates in parabolic fiction a perspective that contrasts sharply with Hawking's. It presents dramatically the kind

of human-caused social disintegration and ecological destruction that will occur on distant celestial bodies if humankind continues with its current mindset and the kind of behavior that expresses it.

Hardin and Hawking: "Lifeboat" and "Lifeship" Ethics

Biologist, human ecologist, and professor at the University of California-Santa Barbara Garrett Hardin became very concerned about the impacts of human overpopulation on an imperiled planet. He sought to diminish and then eliminate the pollution problems and natural goods scarcities that were beginning to develop on Earth. He reasoned that other than by strict planetary birth control practices or, that being unfeasible, strict national immigration policies coupled with birth control requirements (expressed through maximum allowable offspring limits) humankind in the near future would suffer from polluted air, land, and water, lack of life's necessities, and ongoing conflict. He had a bias in favor of the "haves," whom he did not take to task for their consumerism, and blamed the "have nots" for their irresponsible birth control practices and for their poverty. He did not blame wealthy nations, corporations, and individuals for their role in causing Earth's problems and in keeping the poor, poor. (The latter phrase is taken from something Brazilian Archbishop Hélder Câmara said some years ago: "When I fed the poor, they called me a saint. When I asked, 'Why are the poor, poor?' they called me a communist." The upper class and its controlling government did not like socioeconomic structural questions to be raised.)

In the article "The Tragedy of the Commons," Hardin used the idea of an agricultural commons wherein different farmers grazed their livestock to illustrate that while this worked fine with a small farming community, as the number of farmers and their family members grew the commons would be strained beyond capacity to sustain them. Two factors caused this: the increased number of farmers, and the desire of each farmer to graze increasing numbers of cattle to attain additional income to satisfy needs or wants. Hardin rightly dismissed Adam Smith's "invisible hand" economics, declaring that it must be "explicitly exorcized." But then, after narrating the cattle herdsman story to show how this "invisible hand" does not promote community economic stability the way Smith theorized (and which, it should be noted, has been used for centuries as a mantra by ultra-conservative economists and politicians to reject minimum wage

and public health laws, and oppose social programs that benefit the poor), he limits his dismissal solely to population issues. He asserts, based on the herdsmen story, an inevitable opposition between freedom and the concept and practice of a "commons," because "as a rational being each individual herdsman seeks to maximize his gain." Hardin states as an absolute, based on the story: "freedom in a commons brings ruin to all."

The foundation of Hardin's blanket assertion is flawed in its universal declaration of an inherent human selfishness, disguised as self-interest. Hardin's "rational herdsman" might learn as an individual or through a community's shared consciousness that the wellbeing of all is a community value, and the implied or active social pressure that results from this view would prevent the individual herdsman from either continuing or even initiating such anti-social action. The herdsman's "freedom" in such a context might then be a conscious or subconscious "responsible freedom," not the irresponsible license assumed by Hardin and his source, William Forster Lloyd (1794–1852). In his responsible freedom as a member of a community whose other responsible members are committed to community and a commons for all, the herdsmen as individuals and as a group would note, if not foresee, potential disastrous consequences of each seeking to maximize individual financial benefit at the expense of their commons and their community relationships and wellbeing. There is not then, contrary to Hardin, an inevitable contradiction between "freedom" and "commons," and an inevitable conflict when rational people consider how best to provide for their livelihood in community. The Basque Country in Spain has a marvelous example of a seventy-year-old cooperative, the Mondragón Movement, which integrates agricultural, industrial, trades, service, and other member cooperatives to benefit each cooperative and all individual members of all cooperatives—and Basque society, as a whole. The people-based, -owned, and -operated Mondragón embodies "responsible freedom," "community," and "commons" concepts, values, and practices. In an individualistic economic ideology such as capitalism that uses Smith's image as its idol and where greed is transformed from vice to virtue, there might indeed be conflict between "freedom" and "commons," to the eventual detriment of both communities and individuals.

In human population issues, the principal area of Hardin's scholarly expertise that is the focus of this and the next chapter, Hardin's assertions about (irresponsible) freedom of offspring choices and its resulting social consequences would be welcomed by China, human population limits

organizations, and individuals concerned about adverse social and environmental impacts of geometrically progressing human population growth: he states that governments must intervene to limit individual/family freedom of choice on the number of children they would be permitted to have. In Hardin's words, "To couple the concept of freedom to breed with the belief that everyone born has an equal right to the commons is to lock the world into a tragic course of action." He deplores the United Nations' Universal Declaration of Human Rights statement that "any choice and decision with regard to the size of the family must irrevocably rest with the family itself, and cannot be made by anyone else." Hardin proceeds from his disapproval of that statement to proclaim that "if we love the truth we must openly deny the validity of the Universal Declaration of Human Rights." As with his own declaration that "freedom" and "commons" are incompatible, based on one fictitious story by someone Hardin labels an "amateur economist," Hardin extrapolates from his interpretation of one phrase of the U.N. Declaration to reject the entire document, a document accepted in principle if not so much in practice by the nations of the world; Hardin thereby presents a logically indefensible and questionable leap to make in any statement or argument. He concludes his essay advocating government coercion to enforce population control. People (in reality, the dominant culture and dominating social class, which he affirms and celebrates) must acknowledge "the necessity of abandoning the commons in breeding. . . . Freedom to breed will bring ruin to all."

In his provocative article "Living on a Lifeboat," Garrett Hardin continues his consideration of the consequences of unrestricted human population growth. His ideas have been denounced by churches and other faith bodies that teach that human sexual intercourse is solely or primarily for procreation, and is not to be used with a primary or sole purpose of expressing love—even between a husband and wife who already have several children. Unrestricted intercourse for procreation would, however, augment current human overpopulation, would strain and eventually break Earth's ability to provide for human (and other biota's) needs for natural goods even for survival, and would exacerbate Earth's environmental crisis through pollution, water loss, and soil depletion; the foregoing factors, working together, would catalyze a scarcity of essential natural goods and would imperil humans' survival. Hardin proposed that humankind—or, rather, those humans who are in a nation the majority of whose members are secure in their financial wellbeing and have sufficient natural goods

available within their national borders—needed to develop a "lifeboat ethics" in order that select members of the species could survive; newcomers would be excluded—immigrants and unregulated offspring from either native citizens or specialized and limited categories of "aliens." If the poor at home and abroad continue to increase and multiply, there will be a continuing drain of necessities for all people because the excessive numbers of poor people will make demands on Earth's and humans' goods within their own and others' countries (Hardin's solution: severely limit foreign aid, particularly in the form of food). "Metaphorically," Hardin states, while in actuality expressing socioeconomic realities throughout the planet, "each rich nation amounts to a lifeboat full of comparatively rich people. The poor of the world are in other, much more crowded lifeboats." He continues: "each lifeboat is effectively limited in capacity. The land of every nation has a limited carrying capacity." Hardin blames the poor themselves for their poverty, and wants no part in looking for past and present economic injustices that forced them into poverty and to be at the economic disposal of the rich at home and abroad: "The concepts of blame and punishment are irrelevant." As a confident member of the dominant culture, individually satisfied as a member of an economically well off social class in the richest country in the world, Hardin avoids considering the important relevant question, "Why are the poor, poor?" and its corollary, "How did the rich become rich?" The lifeboat—a First World nation—should be reserved for those on board at this moment in history, no questions asked about how they came to be on board while others are vainly trying to stay afloat in the ocean around them. Human overpopulation, he asserts, is an Earth-endangering problem; those who do not restrict their own contribution to it should not have others' sympathy or receive help to survive.

Biologist Garrett Hardin and mathematical physicist Stephen Hawking are in agreement on overpopulation. Hawking cites it as an issue that imperils Earth today and will destroy Earth in the next two decades. It is part of Hawking's rationale for rescuing some humans from humans' self-destruction and Earth-destruction.

Stephen Hawking's "rescue plan" for a human species confronted by ecological catastrophe catalyzed by past and present human consciousness and conduct is to select some members of humanity (he does not cite criteria for selection, who might be selected according to these criteria, or who would do the selecting) and to transport them as expeditiously as possible to the moon and Mars. His contemporary version of a *deus ex machina*

would be a technological savior whose occupants likely would be designated and guided by politicians, the financially well-off who support them, generals, and scientists. His proposal is similar to Hardin's "lifeboat ethics." The "lifeboat," however, has been enlarged to a "life(space)ship." The different sized and differently purposed vessels serve the same philosophical and ideological agenda and voyage purposes and proposals: to carry (some, select) humans to safety, safeguarding sustenance supplies from, and negating security for, those who were not fortunate enough to be selected or to self-select to be protected from planetary perils. "Lifeboat ethics" in one case, and "lifeship ethics" in the other, enable the few who are economically and politically advantaged over others on Earth in some way—by dint of force or supposed fortuitousness, or even a type of Darwinian "natural selection" or of Spencerian social selection—to escape from life-threatening danger. The lifeboat-become-lifeship will enable them to resettle in a more hospitable environment on another planet or similar setting. Historically, a similar selection process occurred when the ocean liner *Titanic* struck an iceberg and began to sink, and when selection was made of which passengers would be allowed in the limited number of lifeboats, each with its recommended and maximum seating capacity. Who was allowed on the lifeboats, and who was prevented from boarding them—what criteria were used? Was anyone from the lower decks, and thereby the lower socioeconomic class, allowed among the privileged?

Hardin's proposals for saving people on Earth and Hawking's proposals for saving people off Earth share in common selection of an elite group to be saved to a better natural environment. LaHaye-Jenkins share their belief that an elite group should be saved, but the similarity stops there: LaHaye-Jenkins state that the group will be selected by God to be "raptured" away from a condemned Earth to dwell with God in heaven, a supernatural exoEarth and exoCosmos place.

In contrast to the preceding proposals and projects, what Earth and the extended and expanding cosmic creation need for the future is not for threatened and traumatized people to be dis-placed to new worlds, but the transformation of human ideals and ideas prior to, during, and at the end of extraterrestrial exploratory voyages, colonization and settlement, and entrepreneurial ventures.

Stephen Hawking's more recent comments regarding extraterrestrials and human space colonization, voiced in his 2010 BBC documentary series *Into the Universe with Stephen Hawking*, expand on his earlier statements

about humans' space voyages. Pessimistically, he wonders if an inevitable result of life's evolution into intelligent beings, wherever it occurs in the cosmos, is that evolved life destroys its home world. On a realistic and historical note, Hawking compares impacts of possible twentieth century intrusive and invasive arrivals on Earth by extraterrestrial intelligent beings to impacts of Europeans in the fifteenth century. He notes that Columbus' arrival in what would become the Americas "didn't turn out very well for the Native Americans." Ironically, here, he still doesn't warn that humans, whom he has said are destroying *their* planet, might destroy the other worlds into which he wants to send them to save the human species—a warning that, by contrast, is made very strongly by the film *Avatar*. Neither does Hawking consider the essential (Christian) Doctrine of Discovery that provided the ideological foundation for European exploration, expansion, invasion, colonization, and ongoing imperialist seizure of native peoples' territory and natural goods.

The concept and impacts of Discovery will be noted periodically throughout *Encountering ETI*. The ideology continues and if not eliminated will govern, as in *Avatar*, human explorers' and colonizers' attitudes toward and actions against indigenous species—including intelligent species—on other worlds as it did on what Europeans called the "New World" of the Americas, where native peoples had lived, farmed, and fished for tens of thousands of years.

Hawking's admonition about what aliens might do on Earth should be taken seriously, but also extended to include what humans might do to settle on and acquire the natural goods of other worlds. We should take his words to heart as we explore the events—and their implications—discussed in these pages, and as we reflect seriously on, and think creatively about, what we envision as Earth peoples to be our role and responsibility on all the common ground we now or will call "home"—on Earth or elsewhere in space.

A corrective for Earth's human-caused or human-exacerbated ecological catastrophes and human-caused social problems would be to integrate technological development and moral commitments in an innovative cosmic consciousness; to express compassionate concern for the extended cosmic community; and to concretize commitment to cosmic care. Prior to departure for the stars, people need to integrate technology and socio-ecological (eco-justice) ethics. They should be concerned, too, with the social, cultural, and physical wellbeing of Earth's biotic community (the

community of all life) in its diverse forms—and then act to avert harm to extraterrestrial locales and life when in space.

A dialogic relationship could be established, in that case, between present Earth and projected future planetary settlements. Reflection on and repentance for what humans have done to Earth and, particularly in the case of European colonization of the Americas and Africa, to indigenous populations and to ecosystems, might lead to an ecological (if not spiritual) conversion—native populations on other worlds will not, in the future, be subjugated and oppressed as indigenous populations have been on Earth; natural ecologies on other worlds will be conserved, not contaminated. Humankind, as it considers the extreme ecological destruction it has wrought on Earth, can do better on other worlds—an implied hope of Stephen Hawking.

A "Far-Out" Topic for Our Time?

Today we live on a planet plagued with poverty, pollution, and political strife. In the United States, the economic gap between rich and poor, and the income gap between corporate owners and managers and working people, are at their widest in history. Factories spew toxic chemical effluents into our waters, power plants send toxic emissions into our skies, and agribusiness corporations spray harmful chemical "-ides" (pesticides, which include herbicides and insecticides) and artificial fertilizer onto crops that provide our vegetables, and sift harmful additives, including animal parts, into the feed that is given to cattle, pigs, chickens, and other sources of meat. An undeclared class war promotes poverty and racism (including eco-racism) somewhat more subtly than in past eras. In such a social and ecological setting, why should we consider—how could we possibly take the time to consider—something as apparently "esoteric" or "otherworldly" as Contact between terrestrial and extraterrestrial intelligent life?

Thinking about space can stimulate us to consider more seriously what is happening on Earth, and how we might redress and rectify humans' most egregious violations of human, biotic, and planetary rights and wellbeing. As we think about what we would do differently on other celestial bodies and to biota inhabiting them so that we would not replicate in the heavens what we've done on and to Earth, we might have one of those "Aha!" moments when we wonder why we don't just start changing our consciousness and conduct here and now. Similarly to how, for some

Christians, consideration of afterlife possibilities might prompt them to live more morally responsible lives in the here-and-now (whether they act from fear of punishment or from love of God and neighbor), so, too, pondering exoplanetary possibilities might prompt us all to do better at the present moment.

We are part of an amazing and awesome universe. The Hubble, Kepler, and other NASA telescopes have taken photographs of parts of the cosmos whose complexity and grandeur were inconceivable not only to our ancestors, whose religious stories and myths could not have conceived such a wondrous universe ("the world" was, for them, a self-contained reality, all of which was visible from Earth with the naked eye), but to ourselves, even as recently as the mid-twentieth century. If, as some suggest, humans are the only intelligent life in the entire universe, then we have an even greater responsibility to live life related well to each other in our human family, to the biotic community as a whole, and to our Earth home. If we are not the only intelligent life in the universe, we should consider well how we are to relate consocially and collaboratively, constructively and congenially, with other intelligent beings whom we encounter.

When we link the preceding with the challenging and deteriorating ecological and social conditions of our Earth home, we realize that by considering terrestrial-extraterrestrial interaction we might feel impelled to better Earth and our human communities. We see, too, that reflecting on this is not as "far out" from the demands of our time as it might have seemed to be once upon a time. We want a better homeland; we want peace; we want people to have at least a minimum of what they need nutritionally to survive, and financially to have security. ETI considerations could be, for some, the impetus that pushes them to work harder to make all of these hopes and aspirations a reality, at least for their descendants if not for themselves.

The Descent and Ascent of Humans

While in the Genesis 1 creation story God creates humans last of all biota and abiotic being, and "male and female God created them," Genesis 2, by contrast, relates how God created the male human first, followed by all other animals, and then the female human. There are then, two contradictions presented in the first two chapters of the first book of the Bible. In his theory of evolution, Charles Darwin stated that humankind evolved

from previously present biota who themselves were the result of a diversifying and complexifying evolutionary process: humans are descendants of primates. Humans are also ascendant: they have evolved as an intelligent species, and the gap between their intellectual ability and that of their ape ancestors and contemporaries has continued to widen.

In the vastness of space and over its eons of cosmic time, life on other worlds, too, might have evolved to be intelligent life. Extraterrestrial intelligent life (ETI) might be billions of years older than terrestrial intelligent life (TI)—and considerably more advanced biologically, intellectually, socially, and spiritually. Humankind should be aware of and prepared for such a possibility, not only if Contact occurs on Earth but if it happens on other worlds in near or distant places in the cosmos.

Original Sin and Original Sinners

Genesis 2 presents a mythical garden of Eden populated by two humans who live among the other biota with a relational responsibility regarding them (caring for the garden). "Adam" and "Eve" as they have come to be named in translation from the original Genesis Hebrew, live in a bucolic world. They are almost "angelic" in their goodness and in the biblical writer's regard for them. They commit the first and therefore original sin—they do not fulfill their God-given responsibilities in the garden; they do violate God's commandments for their conduct in the garden—and are sent forth into a less hospitable world. Contemporary evolutionary data and theory, by contrast, evidences and suggests that humans are not "fallen angels," as might be metaphorically extrapolated from the Genesis story, but rather "risen apes," in the sense of being primates who evolved to become a more complex and intelligent species. In traditional Christian doctrine, itself evolved from some of the earliest dogmas formulated in the first several Christian centuries, this original sin required that God become enfleshed in human form to save humankind from its original and subsequent sins. In early Christian centuries, theological speculation about God's incarnation in Jesus suggested several ways that God's intent to "save" humans might be fulfilled, such as solely by being born as a human being, and thereby sanctifying humanity as a whole; by making correct moral choices—good rather than evil—whenever the possibilities arose: the very first choice along these lines would atone for Adam's and Eve's choice of evil, and therefore "save" all humankind; by being, effectively, a human sacrifice that would, as in

temple animal sacrifices, atone for human sins; or by leading an exemplary life that would stimulate others to do likewise, and then departing physically from Earth. The dominant perspective came to be the sacrificial one, now the subject of increasing debate among Christian scholars, clergy, and laity.

As currently constituted, some biblical and Christian belief implies either *anthropocentrically* (a human-centered way of thinking) that the entire cosmos was affected and infected by the sinful acts of two original humans on one planet in one of its galaxies, or *anthropomorphically* (a process of projecting human characteristics onto another living being, in this case believing that human conduct is symptomatic of all intelligent life conduct) that there was a fall everywhere in the cosmos where intelligent life evolved or was specifically created, and that consequentially (and again anthropocentrically) the Creator God chose to "redeem" or "save" the entire universe of intelligent life by being born in human form on one small planet in the vast creation.

A religious or theological interpretation of available scientific data, in terms of the biblical creation narratives, would be that humans are "rising apes" rather than "fallen angels": in contrast to the story of emergence in an Earth paradise, a "garden of Eden," and falling from grace, humans have evolved from and are descendants of apes, and are an ascendant species. We are "stardust," then, and we "have to get back to the garden": not to a mythical paradise in which our ancestors lived long ago, but to the ideal that the story indicates and toward which it invites us. As we heed the invitation, we will over time build this place continually as we evolve culturally, biologically, and materially-spiritually. Someday our descendants might experience and enjoy it as their home, hearth, and habitat.

Terrestrial and Extraterrestrial

Ordinarily, the pairing of the words *terrestrial* and *extraterrestrial* has come to mean, in our time, a distinction between who or what is from Earth (*terra*) and who or what is from beyond or external to (*extra*) Earth. However, an analysis of the words and the world reveals that if we regard our part of Earth, our shared territory, as "terrestrial," then what is outside of our part of *terra* is "*extra*terrestrial." So, for example, whether our territory be an isolated island or a country contiguous with other countries, we who

reside there are the terrestrials and those who cross the boundaries that we have established as our territorial parameters are the extraterrestrials.

In this sense, then, native plants are native species and terrestrial; nonnative plants encroaching on their territory are nonnative species and *extraterrestrial*; they are *alien* to the natives' territory, and become *invasive* species when they begin to displace the natives and take over their habitat and the natural goods (such as soil and water) that they need and are using for their sustenance, survival, and wellbeing. Similarly with human populations: dwelling in our territory, we are native and *terrestrial*; incoming nonnative peoples are *extraterrestrial*, and *alien* to our territory; they become *invasive* people when they begin to displace us or even when they just seek to displace us, to acquire our home and habitat and the natural goods we need for our sustenance, survival, and security. Aliens, if they and native biota do not adapt to each other, will disrupt lives (and, for humans, livelihoods) and be life-threatening for native biota, and ecologically and environmentally disastrous for native places.

When humanity departs from *terra firma* (Earth's "firm ground") into space, to a certain extent voyagers immediately become extraterrestrial: they are *extra terra*, beyond Earth. If humanity were to construct a space vehicle designed and destined to travel among the stars through generations of human occupants, eventually its original inhabitants, and then their descendants, would become accustomed and accommodated to their voyaging "planet." If they were to return to Earth after generations, or, more so, after eons, they would certainly experience being extraterrestrial: they might have some ancient pictorial record of their original home planet, but it would have altered—or been altered—to such an extent that what was familiar to their initially journeying ancestors might scarcely or no longer exist. To the Earth inhabitants of that distant time, these arriving cosmonauts and unanticipated intruders would truly be, even though distant cousins, "extraterrestrials." Similarly, when these space voyagers approached or encroached upon other planets, and if these planets' intelligent inhabitants are acknowledged to be, in whatever language they speak, the "terrestrials" of their home place, there, too, the once-Earthlings would be regarded as "extraterrestrials" and "aliens," and viewed with at least initial suspicion, no matter how honorable their intentions.

All this being said, *Encountering ETI* will explore the meanings of *extraterrestrial*, *alien*, and *invasive* relative to life and living on Earth. Life that enters native inhabitants' territory, after existing "extra" territorially,

outside—whether that life be flora or fauna, microbial or mammal—will be, to those native, terrestrial inhabitants—whether flora or fauna, microbial or mammal—extraterrestrial immigrants.

Encountering ETI will use an *eonic* view to explore the ecological, economic, ethical, and ecclesial implications of terrestrial-extraterrestrial intelligent life Contact. An eon is an extensively long period of time; where it denotes a specific number of years (in geology, for example) it means one billion years. Whether we consider the past histories of Earth and the cosmos, or the immense period of time between the singular exploding point when the universe began and when Earth was formed, there have been multiple eons of one billion years each; we anticipate additional eons in the future of the cosmos.

Coercive Conduct and Academic Apprehension

Discussion of whether or not intelligent extraterrestrials' existence, let alone of Earth experiences of Contact, is risky for faculty to explore who are theology schools and religion department scholars or university science and social science researchers. Some scientists, humanist academics, and members of the general public smile in amusement when serious discussions take place regarding possible Contact between terrestrial intelligent life and extraterrestrial intelligent life, in past, present, or future times. Others react strongly against the suggestion that such life exists, greeting it with the same sort of hostility or derision that they express when peoples of faith traditions affirm their belief in a transcendent Spirit. In their mind, neither divine Being nor extraterrestrial beings exist—after all, "Where's the material proof?" Others recoil from considering the possibility that intelligent life evolved or was created elsewhere: humans are supposed to be atop the created order; some would state, in fact, that all creation exists to benefit "man" (yes, they would use the masculine noun, and they would do so, too, when referring to a divine Being).

In academic circles in the United States, some faculty claim that no intelligent person can believe in God, or that in order to do so they must "leave their brains at the church house door" when they enter to worship; and, similarly, that truly intelligent people do not believe that there are indications that extraterrestrial intelligent beings exist—they vehemently object to suggestions that Contact has occurred in places like Roswell, New Mexico, or the Hudson River Valley, New York (let alone in other contexts,

where less documentation exists)—when, obviously, this cannot have occurred. Once again they will say, "Where's the concrete evidence?" There's a certain security in declaring that materiality trumps both spirituality and extraterrestriality: only the visible or scientifically and technologically detected material world is real and matters. It can be understood through those of its aspects that can be quantified, qualified, or falsified. There is, too, in some higher education institutions and scholarly circles, the fear of losing research funding if such topics are broached, or of not getting tenure or an expected promotion or salary increase. Such attitudes and fears have been assisted by ongoing government suppression of purported ETI evidence, ridicule of those who want to study it (including using the theories and tools of science), and rejection of claims about ETI experiences; this has helped to legitimate and enforce academic coercion and academics' censorship, even their self-censorship.

Encountering ETI questions the doctrine of a universal or cosmic "fall," and consequently questions aspects of some current understandings of the meaning of the life and ministry of Jesus. In my view, we humans are part of an evolutionary process that is an expression of divine creativity gradually and freely unfolding in the cosmos. Consequently, I think that God did not require a human-divine sacrifice. I think, too, that humans are called by the Spirit to strive to replicate, in their own lives and to the extent possible, the ideas and ideals presented by Jesus (and other messengers of God in all religions).

I hope that for believers or agnostics or anyone on a spiritual or humanist quest my personal religious-theological-spiritual (reader's choice) reflection and discussion on these topics (explored more extensively in *Cosmic Commons*) catalyze an enhanced understanding of the Spirit's words, works, and relationship to creation. This would be true, too, in the Spirit's engagement with intelligent extraterrestrials. Their existence would indicate that the Creator can converse with a variety of evolved beings who have an active and often reflective consciousness, and ETI would appreciate humans' openness to learning about their experiences and spiritual development relative to what I have expressed. For Christians in particular, ideas expressed here can provide an enhanced yet focused view of Jesus, and a greater appreciation for the Creator Spirit's universal (literally!) love for all being. The Spirit's communication with—and even incarnation or inspiriting with, in some way—beings other-than-human would indicate that expressions of divine love are not limited to engagement with a single

species on a single celestial orb, but expansively embrace, and evince solicitude for, life throughout the universe. An essential doctrine of traditional Christianity that God became part of God's creation on Earth need not be changed at all; what should change are some religions' perspectives and doctrines limiting that possibility solely to Earth and to only one person's unique relationship with divinity.

The creative reflection proposed for evaluating parts of the Bible and traditional Christian beliefs in light of possible Contact will, no doubt, occasion a backlash from some believers. However, it is intended to accommodate, if not reconcile, theories and findings of contemporary science and society. This is not new: Christian churches over the centuries have sought to incorporate the ideas from Copernicus and Galileo that, despite once-believed biblical verses to the contrary, the sun and other stars do not circle Earth. In the twentieth century, too, Christians have tried to creatively reconcile their religious dogmas with theories of evolution formulated by Charles Darwin and his successors, including biblical stories and Christian doctrine that literally and literarily express beliefs that are contrary to scientific facts.

Despite concerns or apparent constraints, your intrepid author has decided to make a "leap of faith" and consider diverse implications of Contact. This will be done particularly in order to reinforce the efforts of communities of faith, scientists, environmental organizations, and the general public to, quite literally, "save the world," the Earth on which we live, and to "save the worlds," the other celestial settings to which humankind will journey (and perhaps devastate in a manner similar to what human consciousness and conduct have done on and to Earth). This is, certainly, a different kind of "salvation" than that taught by traditional Christian doctrine, expressed at its worst by LaHaye-Jenkins, and not a limitation of religious beliefs.

Very helpful words for this discussion are provided by Harvard biologist (and secular humanist) Edward O. Wilson. In his book *The Creation: An Appeal to Save Life on Earth*, he suggests that secular scientists and religious believers "meet on the near side of metaphysics," and states further that science and religion, working together, are the best hope for saving the planet. This thought and proposal can be extended: science and religion should collaborate to save this world and also, preemptively and then on-site, save future worlds that will experience the human presence.

A Twenty-First-Century ETI "Thought Experiment": Exploring Near and Far Frontiers

Considerations of the possible existence of and Contact with extraterrestrial intelligent life (ETI) will be undertaken in *Encountering ETI* as a "thought experiment": a discussion of Contact "as if" it has already occurred or will occur in the near future. Deliberations along these lines will complement (and might to some extent overlap) what I wrote previously in *Cosmic Commons: Spirit, Science, and Space*, published in 2013. Through such a thought experiment, we are stimulated to take seriously the impacts and implications of Contact—on Earth or in the heavens, the places outside of Earth in the vast cosmos.

The chapters that follow will not assume that Contact between intelligent beings from different parts of the cosmos has already taken place. No "pro" or "con" position will be taken when presenting data or narratives related to asserted Contact events. However, in order to focus our consideration of the implications and impacts of Contact in the present moment, in order to help humankind adapt later (physically, psychologically, and psychic-spiritually) as a species if universally undeniable proof is presented, and in order to prompt us to care for our Earth home, each other, and our biotic kin, we will "assume for argument's sake" that the stories are history, that is, factually accurate. Then the narratives will be able more fully to stimulate us to imagine how we would react, on Earth or among the stars, if Contact were definitely made. But, while I will not seek to prove definitively that Contact has occurred, I will use the "as if" to catalyze not just speculative considerations but also concrete changes in our current limited consciousness, and consequent changes in our current and future conduct—on Earth and among distant stars.

So, brace yourself. We'll objectively analyze possible ETI phenomena in *Encountering ETI*. This intended objectivity extends to considering seriously and presenting positively evidence of various kinds of "close encounters" expressed in testimony about such events by credible witnesses (as in a court of law, a "credible witness" included here is someone who is "believable" because of their honesty, clarity, direct and coherent narrative, confidence in relating what they have seen, and education—formal and informal—and life experience background—in general and as related to a particular incident).

As a corollary to the preceding, as people ponder how they could be a threat to extraterrestrial life and worlds if they were to export current Earth

ecological and social crises and community conflicts during extraterrestrial colonization, they should consider in their current historical and terrestrial context what socioecological (social and ecological) vision they have as an ideal for colonies in extraterrestrial contexts. Dissatisfied with what humankind has been doing on Earth, they should hope to do better elsewhere in the cosmos *and* on Earth (surmounting Stephen Hawking's pessimism about humanity's survival chances on Earth). Such thinking might result in the establishment of a dialogic relationship between present and future. As people reflect on current harmful human impacts on Earth, consider alternative ethical principles and conduct and an altered consciousness that might prevent similar harm in space, and as they consequently envision a better world on an extraterrestrial site, they might consider: "Why doesn't Earth fit our ideal?" They might, then, envision a renewed Earth, and imagine what kind of interactive relationship might be established between future and present contexts such that the envisioned extraterrestrial ideal and the envisioned Earth ideal inform action on present Earth, and prompt humanity to alter human consciousness and conduct on Earth to *real*ize—make real—the envisioned Earth. An ongoing and mutually enhancing dialogue could result: in time, between present and future; in place and space, between peoples on Earth and people or other intelligent beings elsewhere in the cosmos.

Considering Contact, Pondering Possibilities

In the following pages, as we explore together through our eonic lens the implications of terrestrial-extraterrestrial intelligent life Contact, we will envision how we should act in such a situation, explore how our envisioning of the possible future should expand our cosmic consciousness and conduct, and reflect on how we might be prompted in the present era to evaluate our current conduct on our Earth home, and change it conscientiously and creatively. Our "as if" thought experiment will be fruitful, then, in the present present and coming presents—whether or not Contact has occurred or will occur.

I acknowledge at the outset that I am a human rights, biota rights, and Earth rights advocate and activist. I have a particular focus on human communities living in beneficial ecological relationships with other biota in diverse and integrated Earth contexts: a socioecological perspective. I write *from* context, *for* context—and contexts. In *Encountering ETI* and its

predecessor, *Cosmic Commons*, I have expressed my increasing interest in extending my thinking beyond Earth to exoEarth contexts. My research and reflections have indicated to me that human anthropocentric consciousness and misconduct on Earth will become their cosmic misconduct or that, alternatively, a socially (and spiritually) transformed humanity's consciousness and conduct will promote both Earth and cosmos wellbeing. We will tend to do in the heavens what we have done and are doing on Earth. I continue to hope for and work toward human transformation.

Chapter 1, "Aliens and other Others," discusses the origins of diverse types of aliens, including places, plants, people, pets, and planetary voyagers, and their actual or potential impacts on native species populations and on themselves as they migrate. Chapter 2, "Extraterrestrials: Theirs and Ours," shows how humans are or become "extraterrestrials" on Earth and in the cosmos, and how all space travelers become especially "extraterrestrial" when away from their home planet. Chapter 3, "ETI: Roswell, Riverine, and Rendlesham Encounters," will explore events in the Roswell-Corona area of New Mexico, the Hudson River Valley area of New York, and the Rendlesham Forest area in England using the "as if" thought experiment described earlier to promote serious, in-depth evaluation of credible witnesses' reports, and of potential impacts of Contact on-site and beyond. Chapter 4, "Xenophilia and Xenophobia," will analyze people's contrasting preconceptions of extraterrestrials, as present in the public mind and in science fiction writings and film: *benevolent* beings who will shower us with technological knowledge and medical wonders, or *malevolent* misanthropes (to stretch the term somewhat) who will try to conquer humankind in order to acquire our planet with its natural goods, and annihilate or enslave humanity; we would tend to "love our neighbor"—practice xenophilia—in the first instance, and fear our neighbor—practice xenophobia—in the second. Chapter 5, "ETI Encounters: State, Academia, Church, and Science," discusses how humans' social institutions have reacted to reports of UFO sightings or ETI Contact, including the U.S. government's denial that UFOs exist, religions' resistance to UFO stories (because such narratives would call into question specific religious dogmas), academic institutions that fall in line with government assertions, and scientist faculty and researchers who reject *a priori* such narratives, requiring physical evidence of their presence. Chapter 6, "ETI: *Avatar* and *District 9*," analyzes the meaning of "alien" in exoEarth milieus and discusses human and other aliens' possible conduct when they land on worlds other than their own and abuse resident

intelligent beings, and human conduct when aliens land on Earth and humans abuse them; contrasting principles and practices for human conduct which have been detailed in international documents are presented for consideration. Chapter 7, "Spirit, Science, and Space," will explore the relationship between religion and science as expressed particularly in the lives and writings of creative scholars who walk comfortably in both fields; some contemporary thinkers seek to bridge Spirit and science in space, using ETI reports to provide data to develop a common intercelestial community consciousness. In the Conclusion, "We Aliens Are Going! We Aliens Are Coming!" believe it or not, all of the preceding will be nicely integrated and wrapped up . . . or will it?

Immediately before I began to write *Encountering ETI*, I finished writing the now-published *Cosmic Commons: Spirit, Science, and Space*. *CC* is a more in-depth study of issues in the current book but, at the same time, an extensive exploration of other issues. As it looks at the implications and impacts of Contact between humankind and extraterrestrials, it examines the social and ecological links between what we're doing on Earth now, and what we might do when roaming the stars. It approaches cosmic exploration and possible impacts and implications of Contact between Earth humans and cosmic extraterrestrials from four angles: *ecology* (*inter*species and *intra*species relationships among biota, and between biota and their planetary environment, on Earth and on celestial bodies); *economics* (human utilization of Earth's and celestial bodies' natural goods, as is or as altered; distribution of natural goods; and intergenerational use and sharing of natural goods); *ethics* (humans' right consciousness and right conduct in their relationships among themselves, between themselves and the biotic community on Earth and in the heavens, and between themselves and their Earth home); and *ecclesia* (Christian churches' and other religions' perspectives on interaction with other-than-human intelligent species, other biota in an evolutionary state, and Earth and cosmos as a divine creation-in-process). *Cosmic Commons* is a scholarly book with appropriate footnotes, citations of relevant thinkers in the field and of page references for quotes used, a bibliography, etc. *Encountering ETI* is more accessible for a wider audience: people who are interested in approaches to the UFO/ETI topic, and not concerned about academic citations, only essential content. In their interest, to keep them interested, I have dispensed with academic customs to make the book read more easily and flow more smoothly.

Terrestrial intelligent beings (TI) on Earth who say "the aliens are coming!" refer, in cosmic terms, to the arrival of extraterrestrial intelligent beings (ETIs) on Earth. Terrestrial intelligent beings on other worlds who express the same excitement will refer, in future times, to human extraterrestrial intelligent beings arriving on their home world. We become, in space, extraterrestrials—those who have left their origin world and are not native to other worlds. If we and they have become transformed to a social and spatial consciousness that is socioecologically responsible, recognizes in the "Other" something of ourselves, and is open to what the Other has to offer, then all of us, as TI or ETI in different planetary settings, will have a foundation for a fruitful relationship.

As we go forth on our exploratory interstellar journeys, conscious of our extended analysis of and engagement with the biota and abiotic setting of our Earth home, we should bear in mind our ecological, economic, and ethical responsibilities. Our shared hope as a human species should be that in so doing we will be better prepared both to respond responsibly to whatever biota we encounter on other worlds and also, on our home world, to relate responsibly to other Earth species (all of whom are our genetic kin in the biotic community), and to our Earth home and habitat, our shared common ground.