Covid-19 Is a Crisis of Ecology

—Is It Also a Crisis of (Biblical) Hermeneutics?

By Sigve Tonstad

Søren Kierkegaard (1813-1855), in my view the most influential Scandinavian in history, imagines the following scene.

In a theater, it happened that a fire started offstage. The clown came out to tell the audience. They thought it was a joke and applauded. He told them again, and they became still more hilarious. This is the way, I suppose, that the world will be destroyed—amid the universal hilarity of wits and wags who think it is all a joke.[[1]](#footnote-1)

Today, it is possible to be more specific and less hypothetical. The scenario now is not fire in a theater but global warming—the earth on fire—with the Camp Fire that destroyed Paradise, California on November 8, 2018, as an apocalyptic case in point. The clown coming on stage to inform the audience might now be Greta Thunberg, the most famous Scandinavian currently alive. She, too, is a person wishing to inform of danger, and some think she is a clown. When she was named Person of the Year by *Time* two years ago, the then-president of the United States tweeted that “Greta must work on her Anger Management problem, then go to a good old-fashioned movie with a friend! Chill Greta, Chill!” The tweeter has in common with the audience in Kierkegaard’s scenario that they consider the clown’s message to be a joke.

Within a reality of worsening global temperatures, melting glaciers and polar caps, deforestation, desertification, loss of biodiversity, factory farming, oceanic overfishing, and extreme weather gyrations, all of them features of a crisis of ecology, within this worsening reality the world received another jolt in 2019 in the form of the rapid spread of the SARS-CoV-2 virus. Although this is less well recognized, it, too, is a crisis of ecology. Indeed, the Covid-19 is magnifying and fast-tracking an ecology crisis that in other areas travel in the slower lanes.

Covid-19 as a Crisis of Ecology

In what way is Covid-19 ecological? The first response to this question is generic: everything in our lives is ecological. ‘Ecology’ is the science of relationships, the study of how things and beings are interrelated and interdependent.[[2]](#footnote-2) Viruses are by this criterion Ecology 101: they are an assortment of protein-wrapped nucleic acids that are entirely dependent on others for their survival and replication. Viruses are obligate intracellular biologic entities—it is not even certain that we should call them ‘organisms’ or say that they are ‘alive.’ If not for ecology—if not for relatedness and dependence—viruses would not exist. The transmission and life cycle of viruses are a doorway to the study of ecology and ecological awareness.

In what other way is Covid-19 ecological? The second answer is that this virus—as a disease—is a *zoonotic* disease. This qualifier is essential to understanding its ecological character. A *zoonosis* describes an infectious disease that humans have in common with animals. A *viral zoonosis* is a disease in humans caused by a virus that can also infect other species, that is, species that are not human. A zoonotic virus has an animal *reservoir* where it can live and thrive without killing the host. This is the ideal, the Edenic state, a do-no-harm scenario. The immune system of the host animal does not bother the virus to kill it, and the virus does not afflict the host so as to kill him or her. Ecology applies, nevertheless, because the virus cannot exist without the host. At this stage of knowledge, bats are the most likely *reservoir* host for Covid-19 and several other corona viruses.

Then, as the next step, the virus may jump to an *intermediate* host. For this to happen, there must be contact, and the virus may need to acquire new abilities. This is not difficult because, with viral replication, comes the certainty of mutations. The virus has now begun to travel. In this phase, geography matters: the intermediate host may also be a traveler, an animal that enters spaces where contact with humans is more likely. It has been thought that the pangolin, the most trafficked wild animal in the world today, could be an intermediate host for Covid-19, but this is not settled. The identity of the intermediate, amplifying host is settled in relation to SARS-Cov-1, the SARS epidemic that began in China in 2003 and petered out after claiming 8,098 lives. For this virus, it seems settled (1) that there was an identifiable intermediate host and (2) that the host was the masked palm civet, a cat-like animal living in the wild that is also farmed and sold for food in markets in southern China. The virus travels, I said, from the reservoir host to the intermediate host, but this is not the most ominous part of the equation.

The third and most sinister ecological feature of the Covid-19 pandemic is that humans travel, too. I do not have in mind casual global travel only, the travel that brought Covid-19 from Wuhan to Washington, Warsaw, and Wellington in record time. When I graduated from medical school in 1979, it was thought that we had left behind the Era of Infectious Disease and were for the foreseeable future working in the Era of Lifestyle Disease: heart disease, lung disease like COPD, diabetes, and cancer. In retrospect, that era was short-lived. In April, 1980, ten months after my graduation, the first case of the Acquired Immunodeficiency Syndrome (AIDS) was diagnosed in San Francisco. AIDS is a zoonotic viral disease and a consequence of traveling humans. This is not casual but invasive human travel, into the interior of Africa and contact with AIDS infected primates. Thus, in the rear-view mirror, began a new era of infectious disease and now, in 2021, with the Covid-19 pandemic wreaking havoc in the world, we should not hesitate to recognize it as an *era* and that there is a name for it, the *Era of Zoonotic Viral Disease*.

The human ‘travel’ of interest includes cutting our way through Congo, the Amazon, Borneo, Madagascar, and New Guinea, as David Quammen puts it.[[3]](#footnote-3) It includes *invasive* travel and exposure to ecological habitats previously untouched by humans. It includes decimation of the rain forests of Brazil and Borneo and ever-advancing encroachment on areas previously left alone in China. It includes ‘travel’ in search of wild animals for food and the selling of such animals in a global market. It includes the capture and breeding of exotic wild animals in captivity, such as the masked palm civet and the pangolin, and then selling them at the wet markets in Wuhan and in cities of ten million and above in southern China. SARS-CoV-2 is the seventh coronavirus known to infect humans. Three, SARS-CoV, MERS-CoV and SARS-CoV-2, can cause severe disease, whereas the other four (with less auspicious names, HKU1, NL63, OC43 and 229E) are associated with only mild symptoms. The incursion of humans into previously sequestered areas counts as an ecological breaking point, a civilizational landmark that is more ominous because it may be irreversible. And the main point is this: the virus did not come to us; we came to the virus.

In his prescient book *Spillover: Animal Infections and the Next Human Pandemic*, published in 2012, David Quammen describes the ecological character of the new pathogens succinctly. “Human-caused ecological pressures and disruptions are bringing animal pathogens ever more into contact with human populations, while human technology and behavior are spreading those pathogens ever more widely and quickly,” he says.[[4]](#footnote-4) We face a scenario where “the disruption of natural ecosystems seems more and more to be unloosing such microbes into a wider world.” [[5]](#footnote-5) Quammen’s first chapter is entitled, “Pale Horse.” You can probably guess which pale horse he has in mind. On closer thought, you probably can’t. The first chapter describes real horses and one human casualty near Brisbane, Australia, in 1994. It is an important chapter in the detective story of viral zoonoses. The horses and the human owner who died had been infected with the Hendra virus. This will be it for the pale horse you didn’t know. And then to the pale horse you know: Quammen borrows the luster of a text about horses in Revelation for his entire book. We are by this criterion not only in the Era of Zoonotic Viral Disease but in the Era of the Pale Horse. Here is the text, as I have translated it in my commentary on Revelation.

And I looked, and wow! there was a sickly green horse! And the one sitting on it bears the name Death, and Hades followed in his train. And these were permitted [*edothē*] to have power to kill a fourth of the earth—with sword, with famine, and with death, and by the wild animals of the earth (6:8).[[6]](#footnote-6)

Readers of Revelation are likely to think that killing “by the wild animals of the earth” must be lions and tigers and poisonous snakes. Today those animals are only found in zoos, and they hardly kill humans anymore. But there is another pathway, the zoonotic pathway, the pathway of ecology, with a potential for victims vastly exceeding anything tigers and lions can inflict, the pathway of wild animals serving as the amplifying intermediate host in the transmission of a zoonotic virus. This must be what Quammen has in mind when resorting to this text. (Let me digress here for a point on translation and theology: I oscillate between an option that says that “these were *permitted* to have power to kill” and “these were *commissioned* to have power to kill.” The first option represents a theology of permission with God doing the permitting. The second assumes demonic agency and demonic commission. Demonic agency is common to both option, but it is more explicit in the second).

And now back to Quammen and his bottom line. “We should recognize that they [the viral zoonoses] reflect things we’re *doing*, not just things that are *happening* to us. We should understand that, although some of the human-caused factors may seem virtually inexorable, others are within our control.” [[7]](#footnote-7) *Spillover* happens because of intrusive contact initiated by humans.

Quammen’s book, as noted, was published in 2012. Midway through the book he says the following: “The much darker story remains to be told, probably not about this virus, but about another. When the Next Big One comes, we can guess, it will likely conform to the same perverse pattern, high infectivity preceding notable symptoms. That will help it to move through cities and airports like an angel of death.”[[8]](#footnote-8) Is Covid-19 “the Next Big One” that Quammen refers to more than once? It is a virus with “high infectivity preceding notable symptoms.” Is the present pandemic a case of prophecy fulfilled, or is “the Next Big One” still an unfulfilled prophecy?

Crisis of Hermeneutics

Is the pandemic also a crisis of hermeneutics?

I shall not surprise anyone when I say that the answer is yes. My reflection will have two parts, one a general, flyover mode, the other more specific, detailed, and closer to home.

I mentioned the year of my graduation from medical school at Loma Linda University. That year I became the grateful owner of a book I have treasured ever since, a book to which I often return for new gems, as I did while preparing this presentation. I am referring to Wendell Berry’s profoundly ecological book, *The Unsettling of America: Culture and Agriculture*.[[9]](#footnote-9)

In my view, Berry pinpoints the crisis of hermeneutics precisely, incisively, and comprehensively, almost as though nothing more needs to be said. I have pondered the statement I will read many times. Today, I read it as a statement that is as much about ecology as about anthropology.

This separation of the soul from the body and from the world is no disease of the fringe, no aberration, but a fracture that runs through the mentality of institutional religion like a geologic fault. And this rift in religion continues to characterize the modern mind, no matter how secular or worldly it becomes. [[10]](#footnote-10)

Berry’s passage “through the mentality of institutional religion” finds a fracture as big as a geologic fault. The fracture covers the dualism that runs from Plato to Descartes or, in the Christianized version, from Origen and the Alexandrian fathers who had been schooled by Philo to adopt a Platonic view of the material world, after-effects of which are felt all the way to our time. It covers the withdrawal from the world by Christians in the second century, a withdrawal that Robert Markus calls an “ascetic invasion” if we think of it as conquest of territory or as an “epistemological excision” if we think of it as territory deemed to be of no interest. The excision of tissue judged to be redundant,[[11]](#footnote-11) less we miss his point, is known as the material world. The fracture might even cover the most prestigious readers of Paul’s Letter to the Romans, including Origen, Augustine, Luther, Wesley and even Karl Barth, as I intimate in my Romans commentary.[[12]](#footnote-12) All of them were anthropological dualists and all of them, with John Wesley as the exception, had little or nothing to say about ecology. Their silence, Wesley excepted, persists even in relation to the passage where Paul turns the volume to a higher decibel to allow readers to listen to the excruciating groan of non-human creation (Rom. 8:18-23).

The geologic fault spotted by Berry dissociated the human self from materiality and the body by locating it in a non-material, non-physical soul. It dissociated humans from other creatures by positing that humans, substance-wise, are constituted differently than other creatures. It disassociated humans from the earth by positing an eschatological horizon that leaves the earth behind with heaven as the destination at journey’s end. And the fracture persists because, when the tide turned with the Age of Enlightenment and the Industrial Revolution, neglect of the material world gave way to domination.[[13]](#footnote-13) If, in the first iteration of the fracture, the “epistemological excision” marginalized the body and the earth, the second iteration failed to heal the wound. It is with this problem in mind that Berry can say that the fracture “continues to characterize the modern mind, no matter how secular or worldly it becomes.”

The rest of Berry’s statement should not be left out.

But I have not stated my point exactly enough. This rift is not *like* a geologic fault; it *is* a geologic fault. It is a flaw in the mind that runs inevitably into the earth. Thought affects or afflicts substance neither by intention nor by accident, but because, occurring in the Creation that is unified and whole, it must; there is no help for it.[[14]](#footnote-14)

When we begin with such a deep conceptual fracture, he says, we should not be surprised at the result. His terms are telling—*a flaw in the mind that runs inevitably into the earth*. The conceptions are shattering, and so are the consequences. And then, to make sure that the hermeneutic we are discussing has something to do with the Bible, Berry proceeds to name the contrast.

The Bible’s aim, as I read it, is not the freeing of the spirit from the world. It is the handbook of their interaction. It says that they cannot be divided; that their mutuality, their unity, is inescapable; that they are not reconciled in division, but in harmony. What else can be meant by the resurrection of the body?[[15]](#footnote-15)

A Crisis in Seventh-day Adventist Hermeneutics?

I found Berry’s sentiments bracing when I read them forty years ago, and I still find them timely and hard to surpass. They appealed to the Seventh-day Adventist in me; indeed, they seemed to express a Seventh-day Adventist sentiment better than I could express it myself. And yet, as much as I wish to affirm these sentiments and imagine them to be affirmed in the conceptions and commitments of my faith community, I sense that the crisis of hermeneutics hits closer to home than I like to admit. If Wendell Berry expresses a view of the world that has a home in Adventist theology, he may also express sentiments that are homeless—that remain homeless—even when they come knocking on my Adventist door.

Consider *the earth*.

Seventh-day Adventists are interested in the earth, but has the interest brought benefits to ecology? Our focus has been whether the earth was created, when it was created, and how long it took to create it. These are worthwhile interests, but do they benefit the earth? The *age* of the earth has in the Adventist community mattered more than the *ache* of the earth, and the priority persists even as the groaning of non-human creation gets louder and more insistent. It persists, I say, even though the Bible does not specify precisely when the earth was created. What it does, by contrast, is to prescribe our duty to care for the earth. “The Lord God took the man and put him in the garden of Eden to till it (*‘ābad*) and keep it (*shāmar*),” we read (Gen. 2.15). These are terms broadly describing the human vocation. The terms do not only apply to agricultural pursuits, as livelihood. They are also ecological, assigning to humans the task of protecting and preserving the earth.[[16]](#footnote-16) If this is correct, will it count as a crisis of hermeneutics, at least a crisis of hermeneutic priorities?

Consider *materiality*.

Seventh-day Adventists are no longer alone with respect to saying that existence is constituted materially and that there is no immortal soul. Substance-wise, humans are not different from other created beings. We have used this insight to teach the world about the state of the dead, but we have paid less attention to the state of the living. We have asked whether the dead can talk to us (they can’t), but the living can talk, and they do, as Paul perceives non-human creation groaning in Romans (Rom. 8:18-23). Richard Bauckham says that we belong to “the community of creation,” a community consisting of human and non-human members and thus an ecological conception.[[17]](#footnote-17) Again, the ecological benefit of the Adventist insight has been small.

Consider *the Sabbath*:

We have taught the world which day to keep, when it begins and when it ends, and what not to do on the Sabbath, but we have said very little about its communal and ecological character. The communal prescription for the Sabbath includes benefit to animals (Exod. 20:8-11; 23:12; Deut. 5:12-15), and the prescription for the Sabbath Year promises relief to animals and the earth (Exod. 23:10-11; Lev. 25:2-3).[[18]](#footnote-18) If the Covid-19 pandemic is what we get in a civilization that relentlessly advances and invades without ever pausing and retreating, as the Sabbath Year stipulates, we have work to do to recalibrate the meaning of the Sabbath to make it eco-transformative the way it is in the Bible.

Consider *eschatology*.

Seventh-day Adventists see themselves called to preach the messages of the three angels in Revelation. The first message calls on the inhabitants of the earth to “be in awe of God and speak well of him, for his hour has come—the critical moment [*hē hōra tēs kriseōs autou*]—and worship him who made heaven and earth, the sea and *the springs of water*” (Rev. 14:7, translation mine). Notice “the springs of water” in the text. Notice, too, that water and *springs of water* are a priceless ecological treasure in the world today. And then notice this, in the message of the third trumpet: “The third angel blew his trumpet, and an enormous star fell from heaven, burning like a torch. And it fell on a third of the rivers and on *the springs of water*. The name of the star is Wormwood. A third of the waters became wormwood, and many died from the water, because it was made toxic” (Rev. 8:10-11, translation mine). “Springs of water” are common to these texts, one of them in the trumpet sequence, the other in the first angel’s message. We have a contrast, the contrast between the one who *created* “the springs of water” and the one who poisons and *destroys* them. The contrast is theological, but the theological contrast works from an ecological substrate. Have we, purveyors of the three angels’ message, seen this? Our traditional reading finds in these messages a call to choose sides, to take a stand. Have we, now with the ecological tenor of the message factored in, stumbled upon a hermeneutic pothole with implications for what it means to choose sides?[[19]](#footnote-19)

And then the ultimate eschatological horizon—the destination at journey’s end: It isn’t *heaven*, as in the traditional Christian narrative, and it is not a *replacement* earth, as not a few fatalistic believers in the Adventist community seem to believe. It is the earth *renewed*, and the earth that is renewed is this earth (Rev, 21:1-4; 22:1-4).[[20]](#footnote-20)

Consider *the health message*.

Food choices have a role in Adventist theology and practice, ranging from observance of Old Testament dietary laws to preference for plant-based food, the former an ethical obligation for Adventists all over the world, the latter optional and the choice of a minority. The hermeneutic grounding these choices is either obedience to a still-binding prescription or personal health advantages. The reason, conspicuously, is not ecological. Should it be? Or rather, shouldn’t it be? Food production and food choices are possibly the most important determinant for global warming. This is so much the case that Jonathan Safran Foer’s most recent book on the subject has the title, *We Are the Weather: Saving the Planet Begins at Breakfast*.[[21]](#footnote-21) Shouldn’t it be, indeed, when the texts at our disposal anchor food choices in realities that are profoundly ethical and ecological (Gen. 1:20-28)?

Conclusion

Covid-19, rightly understood, is a crisis of ecology. It is also a crisis of hermeneutics, much of it traceable to the fracture, the geologic fault that Wendell Berry claims to see in “the mentality of institutional religion.” Does this crisis, the crisis of hermeneutics, also apply to Seventh-day Adventist hermeneutics and its priorities? Has the time come to rethink and rebrand our most distinctive teachings, acknowledging that they are rendered limp and ineffectual by conspicuous omissions? Could these distinctives be like the five loaves and two fishes brought to Jesus (Mark 6:35-44), for him to transform them into food for a hungry and needy multitude and relief for an aching world?

I began my talk with Kierkegaard and his account of how the world is likely to end. I will end with a story told by Jonathan Safran Foer in his book *We Are the Weather*. Foer is a descendant of Jewish Holocaust survivors from Poland. I would not use this story here if not for the fact that he does, that is, he makes the calamitous consequences to the Jews for disbelieving the truth about the Nazis serve as an analogy to where we are in relation to the ecology crisis. Foer tells how Jan Karski, a Polish man of twenty-eight, a Roman Catholic and a member of the Polish underground, managed to get to the United States in 1943 to tell US leaders what the Nazis were doing to the Jews. Among the people he met was Supreme Court Justice Felix Frankfurter, himself Jewish. After hearing Karski’s report of what had happened in the Warsaw Ghetto and the still ongoing extermination of 330,000 Jews at Treblinka, it is Frankfurter’s turn to respond. And now I quote,

Frankfurter paced the room in silence, then took his seat and said, “Mr. Karski, a man like me talking to a man like you must be totally frank. So I must say that I am unable to believe what you told me.” When Karski’s colleague pleaded with Frankfurter to accept Karski’s account, Frankfurter responded, “I didn’t say that the young man is lying. I said I am unable to believe him. My mind, my heart, they are made in such a way that I cannot accept it.”[[22]](#footnote-22)

Covid-19 as a crisis of ecology. I have tried to show that it is also a crisis of hermeneutics and hermeneutic priorities. In closing, the question that remains is whether we, as academics or citizens or believers, will be the clown who informs or the audience that cheers; whether we, like Jan Karski, will the messenger who shares or the person who disbelieves the messenger.

1. Søren Kierkegaard, *Either/Or*, edited and translated by Howard V. Hong and Edna H. Hong (Princeton: Princeton University Press, 1987), 30. [↑](#footnote-ref-1)
2. Aldo Leopold, ‘Natural History,’ in *A Sand County Almanac: With Essays on Conservation from Round River* (New York: Ballantine, 1970), 209-10. [↑](#footnote-ref-2)
3. David Quammen, *Spillover: Animal Infections and the Next Human Pandemic* (New York: Norton, 2012), 515. [↑](#footnote-ref-3)
4. Quammen, *Spillover*, 40. [↑](#footnote-ref-4)
5. Quammen, *Spillover*, 41. [↑](#footnote-ref-5)
6. Sigve K. Tonstad, *Paideia New Testament Commentary on Revelation* (Grand Rapids: Eerdmans, 2019), 125-126. [↑](#footnote-ref-6)
7. Quammen, *Spillover*, 515. [↑](#footnote-ref-7)
8. Quammen, *Spillover*, 208. [↑](#footnote-ref-8)
9. Wendell Berry, *The Unsettling of America: Culture and Agriculture*, 3rd ed. (Berkely: Counterpoint, 1997, orig. 1977). [↑](#footnote-ref-9)
10. Berry, *The Unsettling of America*, 112-113. [↑](#footnote-ref-10)
11. Robert H. Markus, *The End of Ancient Christianity* (Cambridge: Cambridge University Press, 1990), 225-226. For other sources describing Christian retreat from the secular world into a world dominated by the sacred, see

    Peter Brown, *The Body and Society: Men, Women, and Sexual Renunciation in Early Christianity* (New York: Columbia University Press, 1988); *Authority and the Sacred: Aspects of the Christianisation of the Roman World* (Cambridge: Cambridge University Press, 1995); *Through the Eye of A Needle: Wealth, the Fall of Rome, and the Making of the Christian West, 350-550 AD* (Princeton: Princeton University Press, 2012); *The Ransom of the Soul: Afterlife and Wealth in Early Western Christianity* (Cambridge: Harvard University Press, 2015); *The Cult of the Saints: Its Rise and Function in Latin Christianity* (Chicago: Chicago University Press, 2015); *Treasure in Heaven: The Holy Poor in Early Christianity* (Charlottesville: University of Virginia Press, 2016); *Augustine of Hippo: A Biography* (London: Faber and Faber, 1967; New edition Berkeley: University of California Press, 2000). [↑](#footnote-ref-11)
12. Sigve K. Tonstad, *The Letter to the Romans: Paul among the Ecologists* (Sheffield: Sheffield Phoenix, 2017), [↑](#footnote-ref-12)
13. William Leiss, *The Domination of Nature* (Montreal: McGill-Queen’s University Press, 1994). [↑](#footnote-ref-13)
14. Berry, *The Unsettling of America*, 113. [↑](#footnote-ref-14)
15. Berry, *The Unsettling of America*, 113. [↑](#footnote-ref-15)
16. Tonstad, *Romans*, 191-192; 300-301. [↑](#footnote-ref-16)
17. Richard Bauckham, *The Bible and Ecology Rediscovering the Community of Creation* (Waco: Baylor University Press, 2010), 64. [↑](#footnote-ref-17)
18. Sigve K. Tonstad, *The Lost Meaning of the Seventh Day* (Berrien Springs, MI: Andrews University Press, 2009), 387-401. [↑](#footnote-ref-18)
19. Sigve K. Tonstad, *Paideia New Testament Commentary on Revelation* (Grand Rapids: Baker Academic, 2019), 149-151, 202-205. [↑](#footnote-ref-19)
20. Tonstad, *Revelation*, 302-310. [↑](#footnote-ref-20)
21. Jonathan Safran Foer, *We Are the Weather: Saving the Planet Begins at Breakfast* (New York: Farrar, Straus and Giroux, 2019). [↑](#footnote-ref-21)
22. Foer, *We Are the Weather*, 18. [↑](#footnote-ref-22)