

## Collapse

Michael Hanlon is a British journalist and author. Here is a condensed version of his science fiction story: "The Day the World Ends."

"Isaac Newton believed the world would end in 2060.

The end came, not with a bang, but with a whimper. Hardly anyone saw it coming, and those who did were dismissed as either nutters or Luddites, enemies of the new technological nirvana which, since a series of breakthroughs in the late 2010s, seemed to promise a glittering new dawn for humanity.

For centuries, mankind had fantasised about the end of the world - when it would come and what form it would take. The Hindus and Buddhists took a decidedly sanguine, long-term view, assuming that the endless cycles of creation and reincarnation would persist for millennia, even aeons.

Christians, however, had traditionally been more alarmist. Built into their religion was the concept of "end of days," a Biblical Armageddon which would see Satan's last stand on Earth defeated by the return of Christ in a blaze of glory. .... This was the view taken by Isaac Newton, perhaps the world's greatest scientist. A letter, in which he gave the date of Armageddon as 2060, has now gone on display in a museum in Israel.

But, since Newton, science has dismissed such superstitions. In the past couple of hundred years, the end of the world has been discussed in terms of science, technology and biology. One very plausible scenario was nuclear war. Others worried that the end would come when Earth was hit by a huge asteroid. ...

With the rise of genetic engineering, some speculated that we would all be wiped out by a ... superbug. Perhaps acid rain would get us. Finally, of course, there was global warming.

**Well, it turned out that they were all wrong.**

The end came not at the hands of Dr Strangelove, nor thanks to our insatiable desire for fossil fuels. ... What finally destroyed mankind was a threat, which, back in the early 2000s, was merely a harmless tool found in every office and inside most people's pockets....

The consensus was that artificial intelligence (AI) would save mankind and deliver us into a New Jerusalem, founded not upon the return of Christ, but on the power of silicon....

No one knew when the first computers became sentient and started to pose a threat to their makers. Consciousness, a tricky property never fully understood in biological systems like the human brain, just seemed to "emerge." ...

By 2020, the internet had mutated into an omnipresent electronic virtual world, into which eight in ten humans were plugged. By now, the internet was practically running the planet: ... Many feared that such dependence on an electronic system could lead to ruin, but, in fact, the internet - by now humanity's life-support - brought a new era of peace and prosperity....

On Friday, March 13, 2065, the beginning of the end arrived. Over the space of just three hours, artificial intelligence literally evolved itself, creating ever more sophisticated programmes that turned the Earth into the

home of a new lifeform - a huge, powerful global electronic super-intelligence.

By the time humans realised the danger, it was too late. ... The machines were the masters now.... By 2100, humans were once again living in caves.... Newton was right, but for the wrong reasons. He was also five years out. But that was little consolation.”

Obviously, peoples and religions, past and present, have contemplated the end of the world and so has Judaism. But on Rosh Hashanah, our focus is on the **beginning**, not the end. *Hayom harat olam*, today the world was created. Rosh Hashanah is the birthday of the world and we are now celebrating 5769; five thousand, seven hundred and sixty nine years removed from the moment the world came into being. For some Jews, as well as practitioners of other religious traditions, this is an historical truth. But I think they are completely wrong. The story of the birth of the world in Genesis is, in my opinion, neither history nor a science lesson. I think its message is far more powerful and teaches us critical life lessons that link the beginning with the end. For if we do not learn from Genesis, then Michael Hanlon’s story may well turn out to be a prophecy, instead of a piece of science fiction, even if like Newton, Hanlon chose the wrong reasons for the end.

The story of creation shows that there is knowledge and purpose and value that go beyond individual or group human comprehension and limitations. Otherwise, we humans may be nothing more than the random, evolutionary result of a large explosion. According to the commentary in the *Etz Hayim* on the first verse of the Torah, “The Hebrew stem of the word translated as ‘create’ is used in the Bible only for divine creativity. It signifies that the created object is unique, depends solely on God for its

coming into existence, and is beyond the ability of humans to reproduce.”

The implication of the commentary and the story is that every created object, human beings, animal life, sea life, plant life, water, air, soil, the sun and the moon and the stars has an element of sanctity; they are the result of divine inspiration. Clearly, it is worth celebrating that aspect of our reality and thus this birthday of the world should remind us of the value of all that exists as a result of divine creation. And if we appreciate this value, we will also recognize that when we wantonly destroy any or all of these objects, we diminish the world in which we live. And if we diminish enough, we will surely lose this worldly paradise for our descendants, just as Adam and Eve lost the paradise of the Garden of Eden not only for themselves, but for their descendants as well.

During the year, many people suggest books for me to read. I cannot possibly read them all, but I do try to look at some. Several months ago, Gary Miller suggested I read Collapse: How Societies Choose to Fail or Succeed by Jared Diamond. “Jared Diamond is an American evolutionary biologist, physiologist, biogeographer, lecturer, and nonfiction author.... He earned an A.B. degree from Harvard College ... and his Ph.D. in physiology and membrane biophysics from Cambridge University.... He became a professor of physiology at UCLA Medical School in 1966. While in his twenties, he ... developed a second ... career in the ecology and evolution of New Guinea birds, ... In his fifties, Diamond gradually developed a third career in environmental history, becoming a professor of geography and of environmental health sciences at UCLA, his current position.” (Wikipedia)

All of this shows that Jared Diamond is a pretty smart guy.

Collapse is a dense, five hundred page book, filled with facts as well as insights into why various societies disappeared or have continued to

survive. I never knew that one could learn so much from studying the remains of body waste and skeletons from hundreds of years ago. But the past will speak to us if we are prepared to listen! And what does Dr. Diamond hear from the past? “The processes through which past societies have undermined themselves by damaging their environments fall into eight categories, whose relative importance differs from case to case: deforestation and habitat destruction, soil problems [such as]: erosion, salinization and soil fertility losses, water management problems, overhunting, overfishing, effects of introduced species on native species, human population growth and increased per capita impact of people. ... The environmental problems facing us today include the same eight that undermined past societies, plus four new ones: human-caused climate change, buildup of toxic chemicals in the environment, energy shortages, and full human utilization of the Earth’s photosynthetic capacity.” Do you hear the echoes of creation from Genesis? Deforestation – God created trees on the third day. And in Deuteronomy, (20:19) the Torah teaches us that even in time of war, one may not destroy trees, because trees are a source of food and cannot flee to safety. Soil problems – God not only created soil, but He created human beings *afar min ha-adamah*, from the soil. (Genesis 2:7). Soil is a precious entity if human beings are to grow their food. Soil is a source of life. Water management begins with “a wind from God sweeping over the waters” in the third verse of the Torah. From there, we know that Abraham digs wells, water is necessary for ritual purification and Moses strikes rocks to produce water. Overhunting – overfishing: God creates the animals and fish on the fifth day and then teaches us in Leviticus that we may not eat every kind of animal and fish. If you find a bird’s nest, (Deuteronomy 22:6) you may not kill a mother and its young. And, of course, until Noah’s flood and the obvious weakness of humanity for meat, we were supposed to be vegetarians.

Judaism is an advocate for the wise interaction of human beings and our environment.

Why did the Maya disappear? Dr. Diamond identifies five strands that contributed to the collapse of their civilization. (pg. 176-177) “One strand consisted of population growth outstripping available resources:... Compounding the mismatch between population and resources was the second strand: the effects of deforestation and hillside erosion, which caused a decrease in the amount of useable farmland at a time when more rather than less farmland was needed.... The third strand consisted of increased fighting, as more and more people fought over fewer and fewer resources. Bringing matters to a head was the strand of climate change. The drought at the time of the Classic collapse was not the first drought that the Maya had lived through, but it was the most severe. ... As our fifth strand, we have to wonder why the kings and nobles failed to recognize and solve these seemingly obvious problems undermining their society. Their attention was evidently focused on their short-term concerns of enriching themselves, waging wars, erecting monuments, competing with each other, and extracting enough food from the peasants to support all those activities. Like most leaders throughout human history, the Maya kings and nobles did not heed long-term problems, insofar as they perceived them.”

Does it strike any of you that these problems were not only an issue for ancient peoples?

There may have been past catastrophes where we did not even realize the full impact of environmental issues. Certainly, Dr. Diamond has an enlightening perspective on the events in Rwanda which I suspect all of us saw only in terms of ethnic conflict. Ethnic conflicts were surely a major factor, but there were other problems as well. As Dr. Diamond points out (pg. 313-

328) “Rwanda and neighboring Burundi ... are the two most densely populated countries in Africa, and among the most densely populated in the world:... The populations of both countries consist of only two major groups, called the Hutu (originally about 85% of the population) and the Tutsi (about 15%).....” Starting in 1973, Rwanda prospered for 15 years.... “Unfortunately, Rwanda’s economic improvement became halted by drought and accumulating environmental problems [especially deforestation, soil erosion, and soil fertility losses] capped in 1989 by a steep decline in world prices for Rwanda’s principal exports of coffee and tea, austerity measures imposed by the World Bank, and a drought in the south.” The usual accounts of the genocides in Rwanda and Burundi portray them as the result of pre-existing ethnic hatreds fanned by cynical politicians for their own ends. [But] Rwanda contained a third ethnic group, ... pygmies, who numbered only 1% of the population, [and] who were at the bottom of the social scale and power structure, ... yet most of them, too, were massacred in the 1994 killings....[Moreover], about one-quarter of all Rwandans have both Hutu and Tutsi among their great-grandparents. ... Especially puzzling ... are events in northwestern Rwanda. There, in a community where virtually everybody was Hutu ... mass killings took place – of Hutu by other Hutu.” Dr. Diamond persuasively shows that the need for food in Rwanda was far greater than traditional agricultural methods could produce. “By the late 1980s famines began to reappear.. In 1989 there were more severe food shortages resulting from a drought,...” People were impoverished, hungry and desperate. “It is not rare, even today, to hear Rwandans argue that a war is necessary to wipe out an excess of population and to bring numbers into line with the available resources.” Population pressures on the food supply and available land for the younger generation exacerbated ethnic tensions. Is it any wonder that the Torah returned land to its original owners during

the fifty year Jubilee? Doesn't the Torah teach us that we must take care of the stranger, the orphan the widow and the poor? Judaism emphasizes that because God created everything, it ultimately belongs to Him, not us, and that lesson is also worth celebrating on the birthday of the world!

Lest you think such dangers are only from long ago or far away, let me share a few of Dr. Diamond's thoughts about the Big Sky state of Montana. (pg. 35-37 ) Mining started in Montana in the 1860s. Toxicity problems that resulted from the mining were evident by the early twentieth century. But the copper mines made money and the gold mines did too, even though the gold mining process leached cyanide into the ground. Some Montanans now say: "In retrospect, when we compare the multi-billion-dollar mine cleanup costs borne by us taxpayers with Montana's own meager past earnings from its mines, ... we realize that Montana would have been better off in the long run if it had never mined copper at all...." This, of course, is not Montana's only problem. There are issues with logging, overfishing and the illegal introduction by enthusiastic fisherman of Northern Pike into lakes where they have virtually eliminated the native fish. Perhaps someone should have looked at the Torah and learned something from the passages where it says that the mixing of species is not a good idea.

Collapse is a book worth reading. You may be amazed that in ancient times peoples who were dependent on large trees to make sailing vessels in order to conduct vital trade, completely used up these trees without a plan for replacing them. Or you may be surprised what damage has been brought to countries' agriculture by the accidental introduction of weeds or the deliberate introduction of foreign animals. Or you may be shocked to learn that: (pg.415) The carbon dioxide emissions from Australian agriculture exceed those produced by motor vehicles and all the rest of the transport

industry. Even worse are cows, whose digestion produces methane, 20 times more potent than carbon dioxide.” Surely, even if we have forgotten the details of the summer Olympics, we are all aware of China’s pollution problems. (pg. 358-359) “China is already the largest contributor of sulfur oxides, chlorofluorocarbons, other ozone-depleting substances, and [soon] carbon dioxide to the atmosphere; its dust and aerial pollution are transported eastwards in the atmosphere to neighboring countries and even to North America;...”

Even if you think that everything Al Gore has been preaching is cyclical or nonsense, do you really want to take a chance that we are exacerbating natural phenomena that are a problem?

Successful societies depend on leaders and people facing their problems and a willingness to sacrifice to correct them. On behalf of future generations, I plead with all of us to become informed, or more informed, about ways in which we, and other nations, are endangering not only our lifestyle, but also, quite possibly, human existence as we know it. God created human beings as the crown of creation, because He expects more of us. We cannot afford to fail, or before long, no one will be celebrating the birthday of the world.

Why do I talk about these issues on Rosh Hashanah? I think Lee Iaccoca in his recent book, Where Have All the Leaders Gone? has hit on the balance between concern and action. Mr. Iaccoca wrote: “I have news for the gang in Congress. We didn't elect you to sit on your [behinds] (asses) and do nothing and remain silent while our democracy is being hijacked and our greatness is being replaced with mediocrity. ... Why don't you guys show some spine for a change?... Hey, I'm not trying to be the voice of gloom and doom here. I'm trying to

light a fire. I'm speaking out because I have hope. I believe in America. In my lifetime I've had the privilege of living through some of America's greatest moments. I've also experienced some of our worst crises, ... If I've learned one thing, it's this: You don't get anywhere by standing on the sidelines waiting for somebody else to take action. Whether it's building a better car or building a better future for our children, we all have a role to play. That's the challenge I'm raising in this book. It's a call to action for people who, like me, believe in America. It's not too late, but it's getting pretty close. So let's shake off the [horse spittle] (horseshit) and go to work.” I have hope not only for America, but for humanity as well. I am also trying to light a fire, one that sheds light, not destruction, one that shows the glass half full, not half empty. Let’s celebrate creation this year by recapturing the divinity of creation, so that our descendents have a more beautiful world in which to live.

AMEN