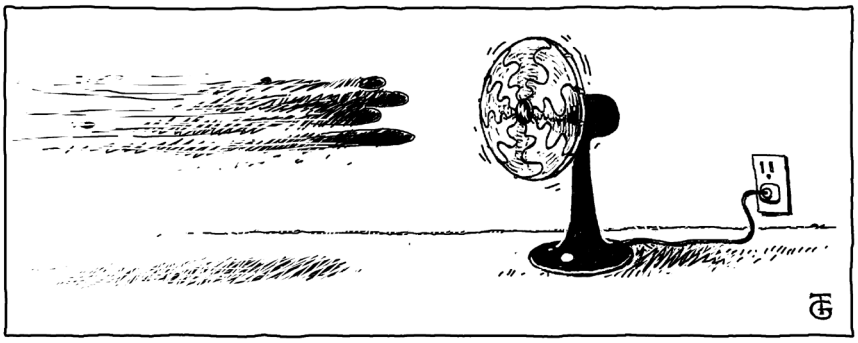


CRAP HAPPENS

Something's About to Hit the Fan

"Human beings and the natural world are on a collision course . . . No more than one or a few decades remain before the chance to avert the threats we now confront will be lost and the prospects for humanity immeasurably diminished."
1,600 Senior Scientists, November 18, 1992 — World Scientists Warning to Humanity

There is a disturbing theory about the human species that has begun to take on an alarming level of reality. It seems that the behavior of the human race is displaying uncanny parallels to the behavior of pathogenic, or disease-causing, organisms.

When viewed at the next quantum level of perspective, from which the Earth is seen as an organism and humans are seen as microorganisms, the human species looks like a menace to the planet. In fact, the human race is looking a lot like a disease — comprised of organisms excessively multiplying, mindlessly consuming, and generating waste with little regard for the health and well-being of its host — planet Earth.

Pathogenic organisms are a nasty quirk of nature, although they do have their constructive purposes, namely killing off the weak and infirm and ensuring the survival only of the fittest. They do this by overwhelming their host, by sucking the vitality out of it and leaving poison in their wake. Pathogens don't give a damn about their own source of life — their host — and they often kill it outright.

This may seem like a silly way for a species to maintain its own existence; afterall, if you kill the host upon which your life depends, then you must also die. But pathogens have developed a special survival tactic that allows them to carry on their existence even

after their host has died. They simply travel to a new host, sending out envoys to seek out and infect another organism even as their own population dies en masse along with the original host.

A man dying of tuberculosis coughs on his deathbed, an act instigated by the infecting pathogen, ensuring that the disease has a chance to spread to others. A child defecates on the dirt outside her home, unwittingly satisfying the needs of the parasites inhabiting her intestines, which require time in the soil as part of their life cycle. A person stricken with cholera defecates in an outhouse which leaches tainted water into the ground, contaminating the village well-water and allowing the disease to spread to other unsuspecting villagers.

In the case of pathogenic organisms that kill their host, the behavior is predictable: multiply without regard for any limits to growth, consume senselessly and excrete levels of waste that grievously harm the host. When this is translated into human terms, it rings with a disquieting familiarity, especially when we equate human success with growth, consumption and material wealth.

Suppose we humans are, as a species, exhibiting disease behavior: we're multiplying with no regard for limits, consuming natural resources as if there will be no future generations, and producing waste products that are distressing the planet upon which our very survival depends. There are two factors which we, as a species, are not taking into consideration. First is the survival tactic of pathogens, which requires additional hosts to infect. We do not have the luxury of that option, at least not yet. If we are successful at continuing our dangerous behavior, then we will also succeed in marching straight toward our own demise. In the process, we can also drag many other species down with us, a dreadful syndrome that is already underway. This is evident by the threat of extinction that hangs, like the sword of Damocles, over an alarming number of the Earth's species.

There is a second consideration: infected host organisms fight back. As humans become an increasing menace, can the Earth try to defend itself? When a disease organism infects a human, the human body elevates its own temperature in order to defend itself. This rise in temperature not only inhibits the growth of the infecting pathogen, but also greatly enhances the disease fighting capability within the body. Global warming may be the Earth's way of inducing a global "fever" as a reaction to human pollution of the atmosphere and human over-consumption of fossil fuels.

When the internal human body temperature rises, the micro-

climate of the body changes, allowing for the sudden and rapid proliferation of antibodies, T-cells, white blood cells and other defenders against disease. As the *Earth's* climate changes and as the natural environment chokes with pollution, we humans already have an idea of what sort of organisms nature can and will suddenly unleash to confront us. They're beginning to show themselves as insect pests and new strains of deadly bacteria, viruses and algae particularly toxic to humans.

As the planet's temperature rises, it gains a momentum that cannot be stopped or even stalled, no matter how desperate or repentant we humans may eventually become. The Earth's "fever," like a spinning flywheel, will only subside in *its* own time. We may be creating a Frankenstein's monster of astronomical proportions, unless, of course, we *are* pathogenic organisms. If so, then we really don't care, do we?

Pathogens can often dwell for quite some time within the host organism without causing disease symptoms. Then something happens to spark their growth — they gain a sudden foothold and begin proliferating rapidly. It is at this point that undeniable disease effects begin to show themselves.

Humans began to show their pathogenic potential toward the planet during the 1950s, ravenously devouring natural resources and discarding waste into the environment with utter carelessness. From 1990 to 1997, human global consumption grew as much as it did from the beginning of civilization until 1950. In fact, the global economy grew more in 1997 alone than during the entire 17th century.[1]

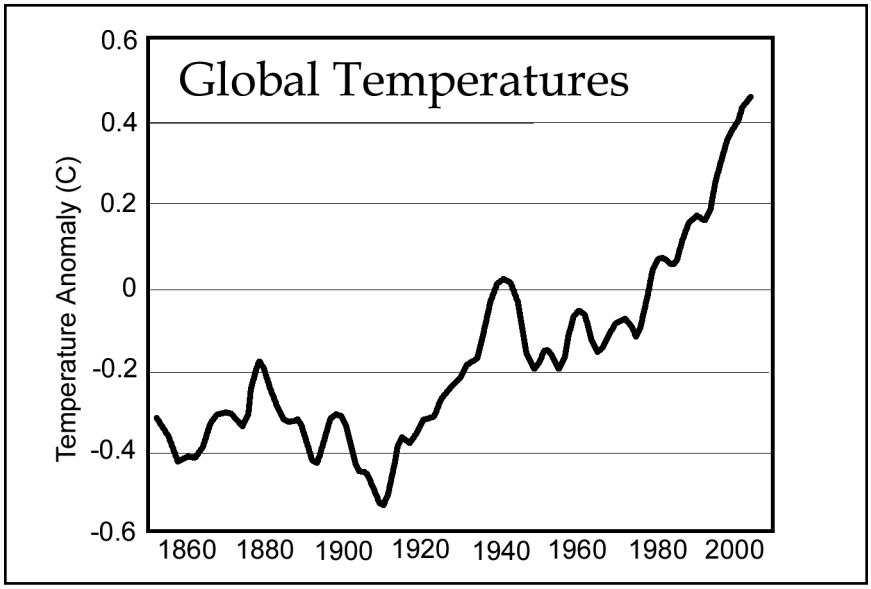
By the end of the 20th century, our consumptive and wasteful lifestyles had painted a bleak global picture. Almost half of the world's forests are gone. Between 1980 and 1995, we lost areas of forest larger than the size of Mexico, and we're still losing forests at a rate of millions of acres a year.[2] Water tables are falling on every continent. Fisheries are collapsing, farmland is eroding, rivers are drying, wetlands are disappearing and species are becoming extinct.[3] Furthermore, the human population is now increasing by 80 million each year (roughly the population of ten Swedens). Population growth without foresight, management and respect for the environment virtually guarantees increased consumption and waste with each passing year.[4]

The natural background rate of extinctions is estimated to be about one to ten species per year. Currently, it's estimated that we're instead losing 1,000 species per year. More than 10% of all bird

species, 25% of all mammals, and 50% of all primates are threatened with extinction.[5] Of 242,000 plant species surveyed by the World Conservation Union in 1997, one out of every eight (33,000 species) was threatened with extinction.[6]

What would drive humanity to damage its life support system in this way? Why would we disregard our host organism, the Earth, as if we were nothing more than a disease intent upon its destruction? One answer, as we have seen, is consumption. We embrace the idea that more is better, measuring success with the yardstick of material wealth. Some startling statistics bear this out: the 225 richest people in the world (0.000003% of the world's population) have as much acquired wealth as the poorest *half* of the entire human race. The wealth of the world's three richest people is equivalent to the total output of the poorest 48 countries. We in the United States certainly can raise our hands and be counted when it comes to consumption — our intake of energy, grain and materials is the highest on the planet. Americans can admit to using three tons of materials per month, each of us, and that's not counting food and fuel. Despite the fact that we are only 1/20th of the globe's population, we use 1/3 of its resources. We would require no less than three planet Earths to sustain the entire world at this level of consumption.[7]

There are those who scoff at the idea that a tiny organism such as the human species could mortally affect such an ancient and immense being as Mother Earth. The notion that we can be powerful



Pathogen Alert!

•15,589 species are now considered at risk of extinction, including one in three amphibians, almost half of turtles and tortoises, one in four mammals, one in five sharks and rays, and one in eight birds. Habitat destruction and degradation by humans are the leading cause.[16]

• Since the 1950s, more than 750 million tons of toxic chemical wastes have been dumped into the environment.[8]

• By the end of the 1980s, production of human-made synthetic organic chemicals linked to cancer had exceeded 200 billion pounds per year, a hundred-fold increase in only two generations.[9]

• By 1992, in the U.S. alone, over 435 billion pounds of carbon-based synthetic chemicals were being produced.[10]

• In 1994, well over a million tons of toxic chemicals were released into the environment. Of these, 177 million pounds were known or suspected carcinogens.[11]

• There are now about 75,000 chemicals in commercial use, and 3,750 to 7,500 are estimated to be cancer-causing to humans.

• There are 1,231 "priority" Superfund sites, with 40 million people (one in every six Americans) living within four miles of one.[12]

• 40% of Americans can expect to contract cancer in their lifetimes.

• 80% of all cancer is attributed to environmental influences.

• Breast cancer rates are thirty times higher in the United States than in parts of Africa.

• Childhood cancers have risen by one third since 1950 and now one in every four hundred Americans can expect to develop cancer before the age of fifteen.

• The U.S. EPA projects that tens of thousands of additional fatal skin cancers will result from the ozone depletion that has already occurred over North America.[13]

• Male fish are being found with female egg sacs, male alligators with shriveled penises, and human male sperm counts are plummeting.

• The average person can now expect to find at least 250 chemical contaminants in his or her body fat.[14]

• Fifty new diseases have emerged since 1950, including Ebola, Lyme's Disease, Hantavirus, and HIV.[15]

• Earth's atmospheric concentrations of CO2 have climbed to the highest level in 150,000 years.

enough to inflict illness on a planetary being is nothing more than egotism. Where is there any evidence that a planet can get sick and die? Well, how about Mars?

What did happen to Mars, anyway? Our next door neighbor, the Red Planet, apparently was once covered with flowing rivers. What happened to them? Rivers suggest an atmosphere. Where is it? Was Mars once a vital, thriving planet? If so, why does it now appear dead? Could a lifeform on its surface have proliferated so abundantly and so recklessly that it altered the planet's atmosphere, thereby knocking it off-kilter and destroying it? Is that what's happening to our own planet? Will it be our legacy in this solar system to leave behind another lonely, dead rock to revolve around the sun? Or will we simply destroy ourselves while the Earth, stronger than her Martian brother, overcomes our influence and survives to flourish another billion years — without us?

The answer, if I may wildly speculate, is neither — we will destroy neither the Earth nor ourselves. Instead, we will learn to live in a symbiotic relationship with our planet. To put it simply, the human species has reached a fork in the road of its evolution. We can continue to follow the way of disease-causing pathogens, or we can chart a new course as dependent and respectful inhabitants on this galactic speck of dust we call Earth. The former requires only an egocentric lack of concern for anything but ourselves, living as if there will be no future human generations. The latter, on the other hand, requires an awareness of ourselves as a dependent part of a Greater Being. This may require a hefty dose of humility, which we can either muster up ourselves, or wait until it's meted out to us, however tragically, by the greater world around us. Either way, time is running out.

It is ironic that humans have ignored one waste issue that all of us contribute to each and every day — an environmental problem that has stalked our species from our genesis, and which will accompany us to our extinction. Perhaps one reason we have taken such a head-in-the-sand approach to the recycling of human excrement is because we can't even talk about it. If there is one thing that the human consumer culture refuses to deal with maturely and constructively, it's bodily excretions. This is the taboo topic, the unthinkable issue. It's also the one we are about to dive headlong into. For waste is not found in nature — except in human nature. It's up to us humans to unlock the secret to its elimination. Nature herself provides a key and she has held it out to us for eons.