

PLANET OF THE YEAR

BY THOMAS A. SANCTON

In the first issue of the new year, TIME magazine publishes its Man of the Year (or Woman of the Year) issue. In its January 2, 1989 issue, instead of naming a Person of the Year, TIME designated our endangered earth as Planet of the Year. (Once before in 1982, TIME named the computer as the Machine of the Year.) Thomas A. Sancton's essay introduced a 33-page package, which included then other essays and a poem entitled "Magnitudes" by Howard Nemerov, commonly regarded as the current poet laureate of the United States. Each of the essays following Sancton's treated in some depth one aspect of the deterioration of our planet. Here is a partial list of the titles of the subsequent essays:

"The Death of Birth" ("Man is recklessly wiping out life on earth.")

"Deadly Danger in a Spray Can" ("Ozone-destroying CFCs {chlorofluorocarbons} should be banned.")

"A Sinking Mess" ("Throwaway societies befoul their land and seas.")

"Too Many Mouths" ("Swarms of People are running out of food and space.")

"Preparing for the Worst." ("If the sun turns killer and the well runs dry, how will humanity cope?")

In the February 13, 1989, issue of TIME, the editors reported that this Planet of the Year issue drew 1,687 letters, "the largest outpouring of mail for a Man of the Year issue since TIME selected the Ayatullah Khomeini in 1979." Judging by that volume of letters to the editor, we would be safe in saying that the topic dealt with in this special issue touched an unusually sensitive nerve in its readers.

"One generation passeth away, and another generation cometh: but the earth abideth forever." —(Ecclesiastes)
No, not forever. At the outside limit, the earth will probably last another 4 billion to 5 billion years. By that time, scientists predict, the sun will have burned up so much of its own hydrogen fuel that it will expand and incinerate the surrounding planets, including the earth. A nuclear cataclysm, on the other hand, could destroy the earth tomorrow. Somewhere within those extremes lies the life expectancy of this wondrous, swirling globe. How long it endures and the quality of life it can support do not depend alone on the immutable laws of physics. For man has reached a point in his evolution where he has the power to affect, for better or worse, the present and future state of the planet.

Through most of his 2 million years or so of existence, man has thrived in earth's environment—perhaps too well. By 1800 there were 1 billion humans bestriding the planet. That number had doubled by 1930 and doubled again by 1975. If current birthrates hold, the world's present population of 5.1 billion will double again in 40 more years. The frightening irony is that this exponential growth in the human population-- the very sign of homo sapiens' success as an organism--could doom the earth as a human habitat.

The reason is not so much the sheer numbers, though 40,000 babies die of starvation each day in Third World countries, but the reckless way in which humanity has treated its planetary host. Like the evil genies that flew from Pandora's Box, technological advances have provided the means of upsetting nature's equilibrium, that intricate set of biological, physical and chemical interactions that make up the web of life. Starting at the dawn of the Industrial Revolution, smokestacks have disgorged noxious gases into the atmosphere, factories have dumped toxic wastes into rivers and streams, automobiles have guzzled irreplaceable fossil fuels and fouled the air with their detritus. In the name of progress, forests have been denuded, lakes poisoned with pesticides, underground aquifers pumped dry. For decades, scientists have warned of the possible consequences of all this profligacy. No one paid much attention.

This year the earth spoke, like God warning Noah of the deluge. Its message was loud and clear, and suddenly people began to listen, to ponder what importance the message held. In the US, a three-month drought baked the soil from California to Georgia, reducing the country's grain harvest by 31% and killing thousands of head of livestock. A stubborn seven-week heat wave drove temperatures above 100 degrees F across much of the country, raising fears of the dreaded "greenhouse effect"--global warming as a result of the buildup of carbon dioxide and other gases in the atmosphere--might already be under way. Parched by the lack of rain, the Western forests of the US, including Yellowstone National Park, went up in flames, also igniting a bitter conservationist controversy. And on many of the country's beaches, garbage, raw sewage and medical wastes washed up to spoil the fun of bathers and confront them personally with the growing despoliation of the oceans.

Similar pollution closed beaches on the Mediterranean, the North Sea and the English Channel. Killer hurricanes ripped through the Caribbean and floods devastated Bangladesh, reminders of nature's raw power. In Soviet Armenia a monstrous earthquake killed some 55,000 people. That too was a natural disaster, but its high casualty count, owing largely to the construction of cheap high-rise apartment blocks over a well-known fault area, illustrated the carelessness that has become humanity's habit in dealing with nature.

There were other forebodings of environmental disaster. In the U.S. it was revealed that federal weapons-making plants had recklessly and secretly littered large areas with radioactive waste. The further depletion of the atmosphere's ozone layer, which helps block cancer-causing ultraviolet rays, testified to the continued overuse of atmosphere-destroying chlorofluorocarbons emanating from such sources as spray cans and air conditioners. Perhaps the most ominous of all, the destruction of the tropical forests, home to at least half the earth's plant and animal species, continues at a rate equal to one football field a second.

Most of these evils had been going on for a long time, and some of the worst disasters apparently had nothing to do with human behavior. Yet this year's bout of freakish weather and environmental horror stories seemed to act as a powerful catalyst for worldwide public opinion. Everyone suddenly sensed that this gyrating globe, this precious repository of all the life that we know of, was in danger. No single individual, no event, no movement captured imaginations or dominated headlines more than the clump of rock and soil and water and air that is our common home. Thus in a rare and unprecedented departure from its tradition of naming a Man of the Year, TIME has designated Endangered Earth as Planet of the Year for 1988.

To help focus its coverage, TIME invited 33 scientists, administrators and political leaders from ten countries to a three-day conference in Boulder in November. The group included experts in climate change, population, waste disposal and the preservation of species. In addition to explaining the complexities of these interlocking problems, the specialists advanced a wide range of practical ideas and suggestions that TIME has fashioned into an agenda for environmental action. That agenda, accompanied by stories on each major environmental problem, appears throughout the following pages.

What would happen if nothing were done about the earth's imperiled state? According to computer projections, the accumulation of CO₂ in the atmosphere could drive up the planet's average temperature 3 degrees F to nine degrees F by the middle of the next century. That could cause the oceans to rise by several feet, flooding coastal areas and ruining huge tracts of farmland through salinization. Changing weather patterns could make huge areas infertile or uninhabitable, touching off refugee movements unprecedented in history.

Toxic waste and radioactive contamination could lead to shortages of safe drinking water, the sine qua non of human existence. And in a world that could house between 8 billion and 14 billion people by the mid-21st century, there is a strong likelihood of mass starvation. It is even possible to envision the world so wryly and chillingly prophesied by the typewriting cockroach in Donald Marquis' *archy and mehitabel*: "man is making deserts of the earth/ it won't be long now/ before man will have used it up/ so that nothing but ants/ and centipedes and scorpions/ can find a living on it."

There are those who believe the worst scenarios are alarming and ill founded. Some scientists contest the global-warming theory or predict that natural processes will counter its effects. Kenneth E. F. Watt, professor of environmental studies at the University of California at Davis, has gone so far as to call the greenhouse effect "the laugh of the century." S. Fred Singer, a geophysicist working for the US Department of Transportation, predicts that any greenhouse warming will be balanced by an increase in heat-reflecting clouds. The skeptics could be right, but it is far too risky to do nothing while awaiting absolute proof of disaster.

Whatever the validity of this or that theory, the earth will not remain as it is now. From its beginnings as a chunk of molten rock some 4.5 billion years ago, the planet has seen continents form, move together and drift apart like jigsaw-puzzle pieces. Successive ice ages have sent glaciers creeping down from the polar caps. Mountain ranges have juttred up from ocean beds, and landmasses have disappeared beneath the waves.

Previous shifts in the earth's climate or topology have been accompanied by waves of extinctions. The most spectacular example is the dying off of the great dinosaurs during the Cretaceous period (136 million to 65 million years ago). No one knows exactly what killed the dinosaurs, although a radical change in environmental conditions seems a likely answer. One popular theory is that a huge meteor crashed to earth and kicked up such vast clouds of dust that sunlight was obscured and plants destroyed. Result: the dinosaurs starved to death.

Whether or not that theory is correct, an event of no less magnitude is taking place at this very moment, but this time its agent is man. The wholesale burning and cutting of forests in Brazil and other countries, as one major example, are destroying irreplaceable species every day. Says Harvard

biologist E.O. Wilson: "The extinctions ongoing worldwide promise to be at least as great as the mass extinction that occurred at the end of the age of dinosaurs."

- 15 Humanity's current predatory relationship with nature reflects a man-centered worldview that has evolved over the ages. Almost every society has had its myths about the earth and its origins. The ancient Chinese depicted Chaos as an enormous egg who separated into earth and sky, yin and yang. The Greeks believed Gaia, the earth, was created immediately after Chaos and gave birth to the gods. In many pagan societies, the earth was seen as a mother, a fertile giver of life. Nature--the soil, forest, sea--was endowed with divinity, and mortals were subordinate to it.
- 16 The Judeo-Christian tradition introduced a radically different concept. The earth was the creation of a monotheistic God, who, after shaping it, ordered its inhabitants, in the words of *Genesis*. "Be fruitful and multiply, and replenish the earth and subdue it; and have dominion over the fish of the sea and over the fowl of the air and over every living thing that moveth upon the earth." The idea of dominion could be interpreted as an invitation to use nature as a convenience. Thus, the spread of Christianity, which is generally considered to have paved the way for technology, may at the same time have carried the seeds of the wanton exploitation of nature that often accompanied technical progress.
- 17 Those tendencies were compounded by the Enlightenment notion of a mechanistic universe that man could shape to his own ends through science. The exuberant optimism of that world view was behind some of the greatest achievements of modern times: the invention of laborsaving machines, the discovery of aesthetics and vaccines, the development of efficient transportation and communication systems. But, increasingly, technology has come up against the law of unexpected consequences. Advances in health care have lengthened life spans, lowered infant-mortality rates and, thus, aggravated the population problem. The use of pesticides has increased crop yields but polluted water supplies. The invention of automobiles and jet planes has revolutionized travel but sullied the atmosphere.
- 18 Yet the advance of technology has never destroyed man's wonder and awe at the beauty of the earth. The coming of England's Industrial Revolution, with its "dark Satanic mills," coincided with the extraordinary flowering of Romantic poetry, much of it about the glory of nature. Many people in this century voiced the same tender feelings on seeing the first images of the earth as seen from the moon. The sight of that shimmering, luminescent ball set against the black void inspired even normally prosaic astronauts to flights of eloquence. Edgar Mitchell, who flew to the moon aboard Apollo 14 in 1971, described the planet as "a sparkling blue-and-white jewel...laced with swirling veils of white...like a small pearl in a thick sea of black mystery." Photos of the earth from space prompted geologist Preston Cloud to write, "Mother Earth will never seem the same again. No more can thinking people take this little planet...as an infinite theater of action and provider of resources for man, yielding new largesse to every demand without limit." That conclusion seems all the more imperative in the wake of the environmental shocks of 1988.
- 19 Let there be no illusions. Taking effective action to halt the massive injury to the earth's environment will require a mobilization of political will, international cooperation and sacrifice unknown except in wartime. Yet humanity is in a war right now, and it is not too Draconian to call it a war for survival. It is a war in which all nations must be allies. Both the causes and effects of the problems

that threaten the earth are global, and they must be attacked globally. "All nations are tied together as to their common fate," observes Peter Raven, director of the Missouri Botanical Garden. "We are all facing a common problem, which is, How are we going to keep this single resource we have, namely the world, viable?"

As man heads into the last decade of the 20th century, he finds himself at a crucial turning point: the actions of those now living will determine the future, and possibly the very survival, of the species. "We do not have generations, we only have years, in which to attempt to turn things around," warns Lester Brown, president of the Washington-based Worldwatch Institute. Every individual on the planet must be made aware of its vulnerability and of the urgent need to preserve it. No attempt to protect the environment will be successful in the long run unless the ordinary people--the California housewife, the Mexican peasant, the Soviet factory worker, the Chinese farmer--are willing to adjust their life-styles. Our wasteful, careless ways must become a thing of the past. We must recycle more, procreate less, turn off lights, use mass transit, do a thousand things differently in our everyday lives. We owe this not only to ourselves and our children but also to the unborn generations who will one day inherit the earth. 20

Mobilizing that sort of mass commitment will take extraordinary leadership, of the kind that has appeared before in times of crisis: Churchill's eloquence, galvanizing his embattled countrymen to live "their finest hour," F.D.R.'s pragmatic idealism giving hope and jobs to Depression-ridden Americans. Now, more than ever, the world needs leaders who can inspire their fellow citizens with a fiery sense of mission, not a nationalistic or military campaign but a universal crusade to save the planet. Unless mankind embraces that cause totally, and without delay, it may have no alternative to the bang of nuclear holocaust or the whimper of slow extinction. 21

Reprinted with permission from Time magazine. Introduction to this discourse is reprinted with permission from Edward P.J. Corbett, Classical Rhetoric for the Modern Student.