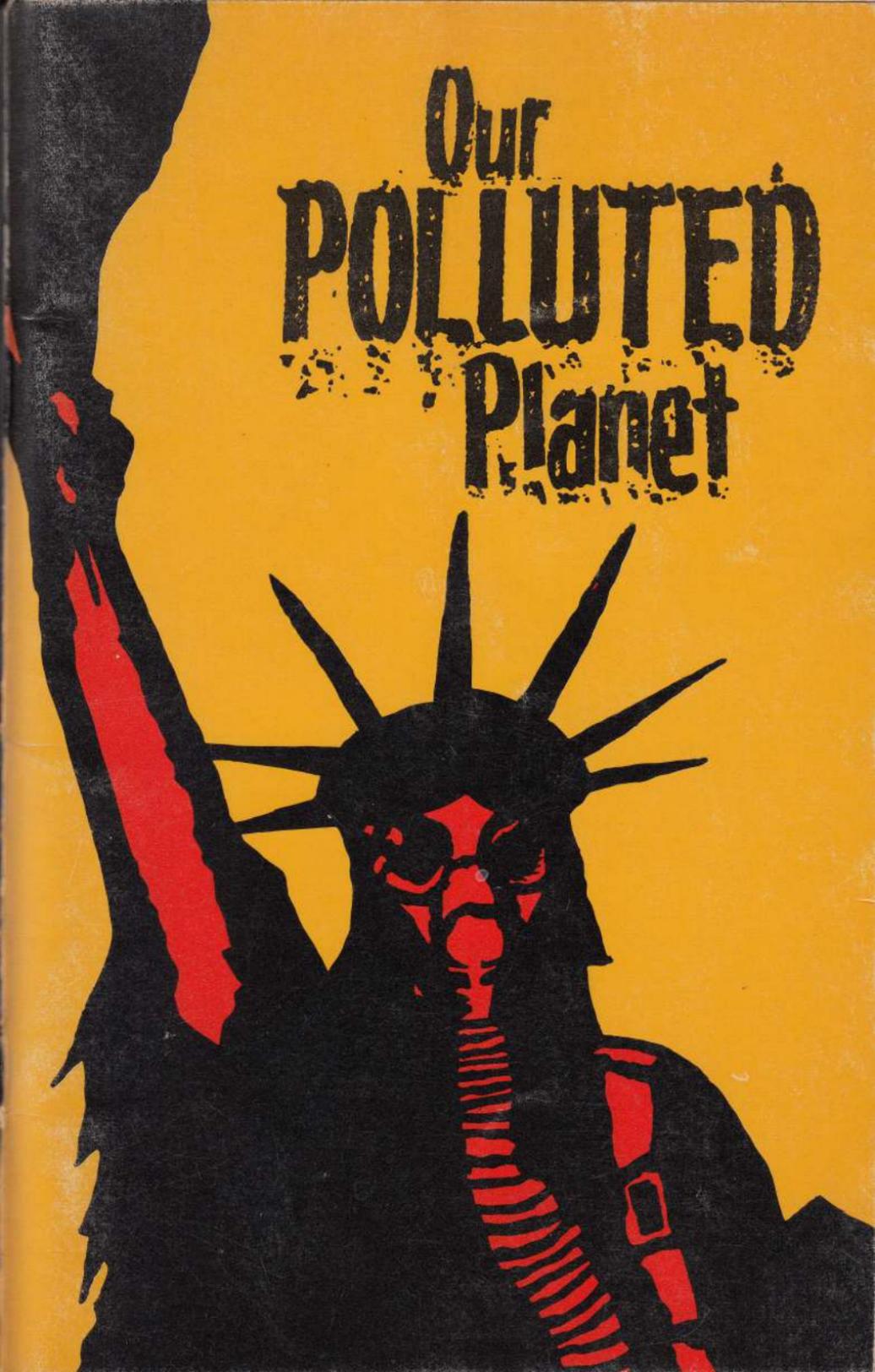
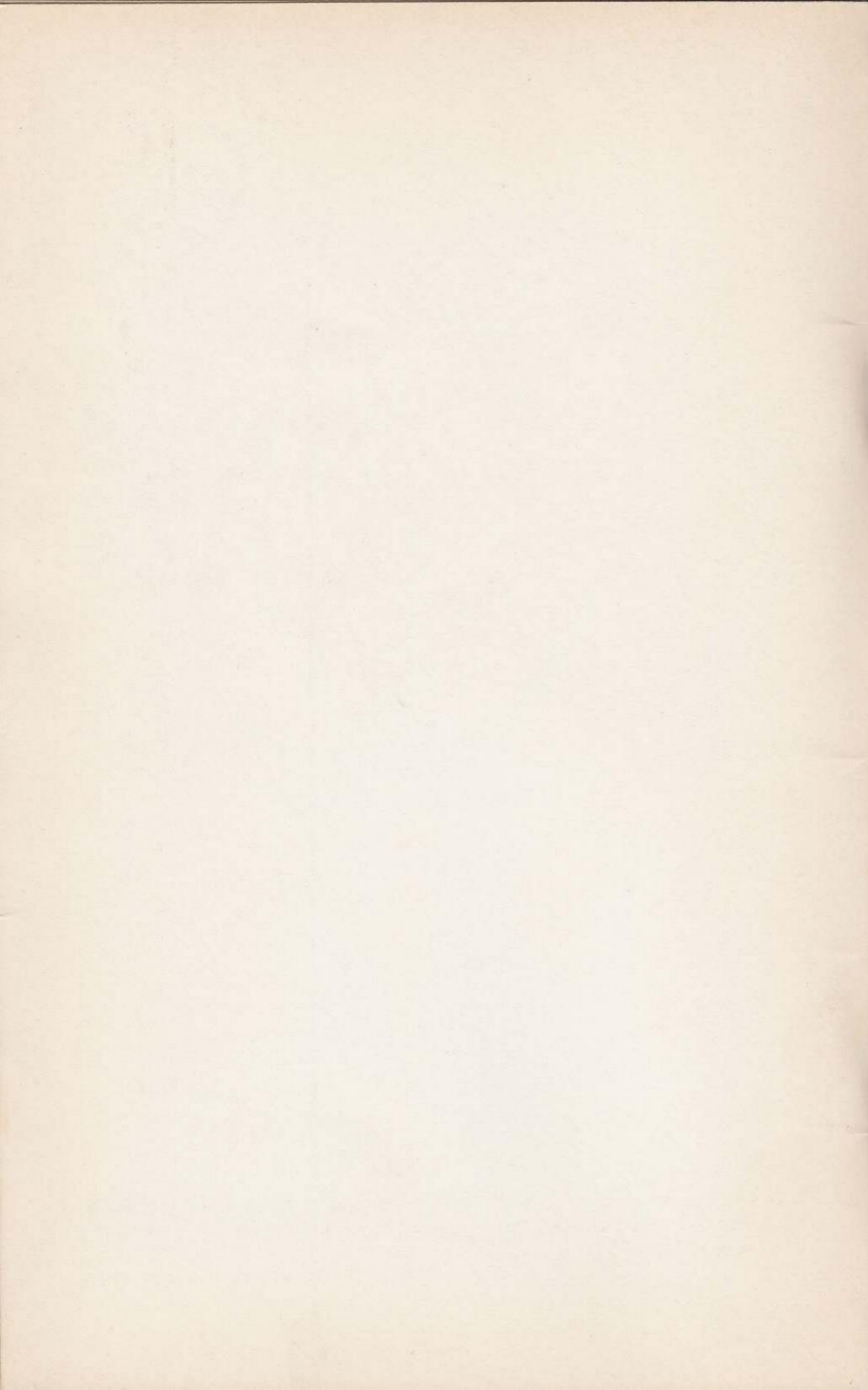
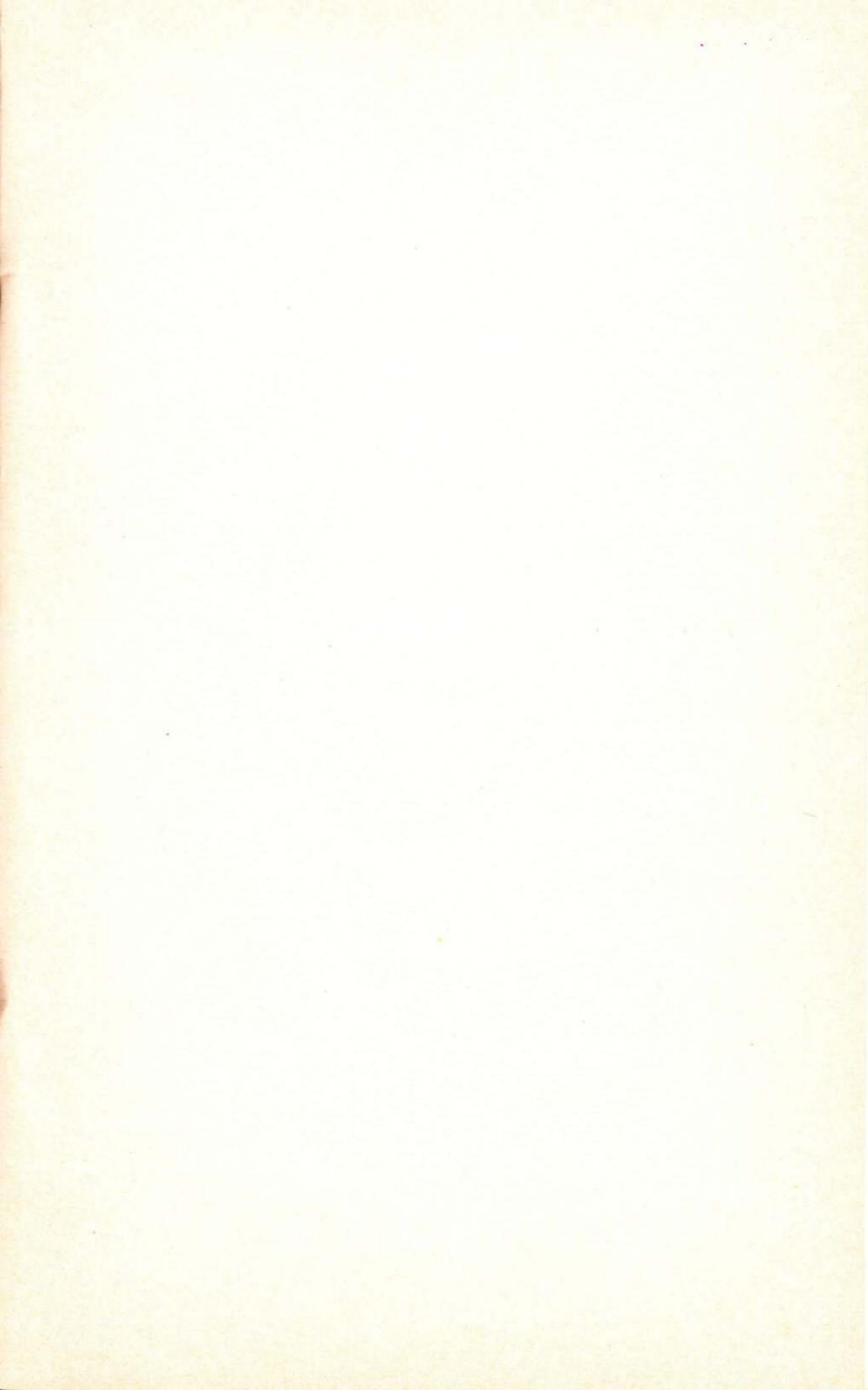


Our
POLLUTED
Planet







Our *Polluted* Planet

Ambassador College Research Department



AMBASSADOR COLLEGE PRESS
Pasadena, California

Printed in U.S.A.



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Chapter One

“Racing Against Time”



Gentry — Ambassador College

Photo shows an “automobile graveyard” full of skeletons of old cars and other scrap steel. Used cars and junk constitute a major aspect of the land pollution problem in highly industrial nations.

Polluted air! Polluted water! Polluted earth!

Experts worldwide are frightened. Smog is no longer a joke — it's a killer!

Water is unfit for human consumption. Rubbish is burying the civilization that produced it.

Sweden is asking the UN to lay plans for an UNPRECEDENTED world parlay on pollution in 1972. Top scientists, technicians and molders of public opinion will try to solve the problem of planetary contamination before it reaches the point of no return!

This giant problem affects YOUR life daily. YOU need to grasp the gravity of this crisis — learn what the solution will be!

“WE SHALL NEVER have, on a nationwide basis, absolutely clean air or pristine pure water. There is a *necessary* and *acceptable* amount of each pollutant that society will tolerate.”

This blunt and rather shocking admission by a leading U. S. Senator was only one of many alarming facts and conclusions presented at the recent National Pollution Control Exposition and Conference in Houston, Texas.

Addressing the 2,000 conference delegates from all across the nation were well-known U. S. Senators and Representatives, top spokesmen from the U. S. Public Health Service, leading state and municipal pollution control officials, plus top-level representatives from private industry. A full-range industrial exhibit with the very latest in pollution control equipment was on display. Ninety-two manufacturers and distributors were represented.

Never before had such a broad-based conference on pollution control ever convened. Ambassador College correspondents were on hand to report not only the facts, but the *real meaning behind those facts!* It's time you discovered what the *causes* of pollution are, and most important of all, what the "solution to pollution" is—because THERE IS A SOLUTION! We present it to you in this booklet.

Nuisances — or Perils to Life?

The facts presented at this conference should shake the last ounce of complacency out of anyone, anywhere in the world, who still naively believes that dirty air, polluted water and all other types of environmental contamination are mere "nuisances" which can be passively tolerated.

Ten or twenty years ago, perhaps. But not today!

"Our physical environment, sad to say, is being contaminated faster than nature and man's present efforts can cleanse it. *We must reverse this process of deterioration before it is too late.* We must cease degrading our environment and start to improve it." (Emphasis ours throughout booklet.) These were the words of Dr. Samuel Lehner, a vice-president and director of the world-famous Du Pont Company. Dr. Lehner delivered the conference's opening-day keynote address.

Echoing Dr. Lehner's words, Senator Jennings Randolph of West Virginia told the audience at the conference's banquet: "Only recently have we become acutely aware of the fact that we are *exceeding nature's ability and capacity to reprocess the kinds and quantities of wastes which are being produced.*"

The overall *public unawareness* of what man is doing to his environment alarmed many of the experts. The Assistant Surgeon General of the United States, Dr. Richard A. Prindle



Duncan — Ambassador College

Dr. Richard A. Prindle, Assistant Surgeon General of the United States, spelled out in recent speech all the unwanted by-products of our "mechanized, industrialized and urbanized environment"—pollution of all types, noise, lack of space, physical and emotional stress, frustration, hypertension, plus loss of time-honored values. Together, he said, they comprise the "urban condition" which affects so many today.

drove this point home: "The deterioration of our environment is a problem *so vast and urgent* that anxiety about it must not be confined to elected officials, professional health workers and conservationists. *Every level and facet of citizenry is affected and must be concerned.*"

Are you?

Chances are, not nearly as much as you should be. Most people in the modern, industrialized world have become accustomed to *living with pollution*, accepting it as a "necessary



evil" of our Twentieth Century way of life. This passive acceptance has blinded the vast majority to the real danger of what mankind is doing to himself.

Pollution Foe Tells Ugly Facts

During the conference, our correspondents — Gene H. Hogberg, Eugene M. Walter and William F. Dankenbring — talked personally to one of the world's leading "pollution fighters," U. S. Congressman John Blatnik of Minnesota. Mr. Blatnik is a pioneer in water quality control legislation. He is the author of the Federal Water Pollution Control Act.

In his capacity as Chairman of the House Rivers and Harbors Subcommittee, Representative Blatnik has toured every major harbor and inland waterway in America. Wherever he went, he told our men, he found the conditions of the nation's waters "simply horrible." Asked whether every major river system in the United States is plagued with pollution Mr. Blatnik replied:

"Practically, yes. The Mississippi River [for example] is already bad by the time it reaches Minneapolis. . . . By the time it gets down to Iowa . . . it is getting quite serious, and south of that, by the time all the petro-chemicals and other industrial oils, chemicals, and slaughterhouse wastes along the way are dumped into it — from St. Louis on, *it is impossible.*"

From that point southward, he said, the Mississippi is so bad that state health departments and the Federal Public Health Service have posted signs *forbidding people to even eat lunches along the banks of it*, let alone go wading in the water, or to water ski. The concentration of infectious bacteria *in just the spray* from the river, when deposited on a person's face or lips, can cause typhoid, colitis, hepatitis, diarrhea, or infections in the bloodstream.

"In fact," said Representative Blatnik, "in plain, simple but honest language, it is rapidly becoming an *open, running*

FWPCA (top), Koshallek — Milwaukee Journal (bottom)

RIVERS OF DEATH — Top photo shows ditch carrying industrial wastes — mostly from meat packing plants and stockyards — to Missouri River, which ultimately flows into the Mississippi. Bottom photo reveals ugly scene on Wisconsin River. The pollutant is paper mill waste.

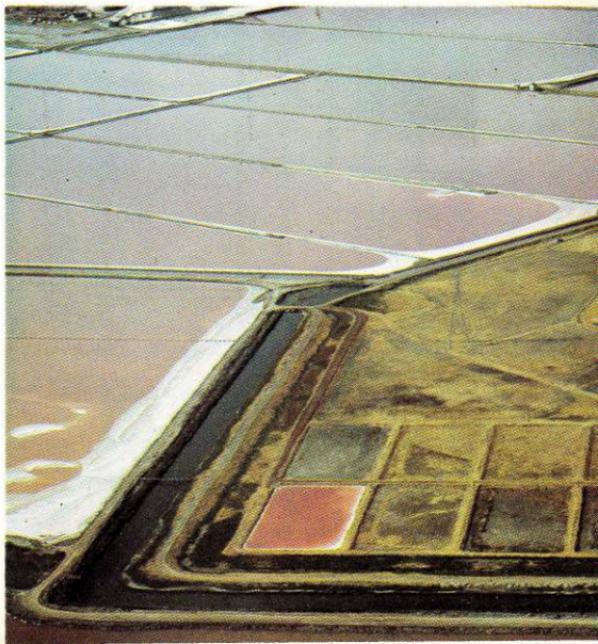




NO! THESE AREN'T SPEED BOATS

— Left, underwater pipes emit partially treated waste from Wisconsin towns. Another town, downstream, drinks this same water. The Fox River, here pictured, eventually empties into Green Bay and finally into Lake Michigan. Above and bottom right, photos show polluted waste in San Francisco Bay area. Although waste is diked in, some escapes into surrounding bay, making area "a dead sea."

*Milwaukee Journal Photo,
Gentry — Ambassador College*



sewer. [Others have called it the "colon of mid-America."] This is the great Mississippi River which splits the United States right down the center. . . . This is true of the Ohio River, large rivers, small rivers — *just name it.*"

"Punch a Hole in the Bottom of Lake Erie??"

Representative Blatnik then was asked to comment on the conditions in some of North America's large lakes — specifically Lake Erie.

Lake Erie, he replied, suffers from an extremely heavy concentration of industrial wastes. Into the lake from the areas around Detroit and Cleveland flow complex concoctions of acids, sulphides, gases, and petro-chemicals.

This complex "gook" doesn't break up by being aerated. It settles to the bottom of the lake, similar to the way the watery part of milk settles to the bottom while the cream goes to the top. When fresh water flows in from Lake Huron it merely slithers across the top of this denser material and flows on into Lake Ontario. *There is no flushing action* as there would be with organic or human wastes.

Scientists and engineers who are working on Lake Erie are fearful that the pollution process in the lake may well have already passed the point of being reversed. Biologically, Lake Erie is already approximately half dead, its waters, especially in the western part of the lake, robbed of life-supporting oxygen.

"What then can be done — if anything — to save Lake Erie?" Mr. Blatnik was asked.

"This is merely a preliminary, speculative thinking on engineering lines," he answered; "but what you may have to do is *punch a hole in the bottom of the eastern end of Lake Erie*. It would be like cutting in underneath and boring a hole into a bathtub . . . and having all this heavy stuff drain out."

Just where you would dump all the "gook," of course,

FWPCA Photos

AMERICA'S "DEAD SEAS" — Because of increasing pollution and destruction of biological life, the Great Lakes are coming to be known as "Dead Seas." Pictured above is polluted water pouring into Lake Erie at Cleveland. Below, sign warns would-be bathers not to venture into contaminated beach waters on Lake Michigan by Hammond, Indiana.



is a monumental problem in itself. Just to *begin* the complex task of restoring Lake Erie (if indeed it is now possible at all) would involve an outlay of *500 million dollars!*

Cost of Cleanup Enormous

Our reporters then asked Mr. Blatnik what are the major obstacles in the way of cleaning up our polluted environment.

"Oh, the major obstacle is very obvious," he replied. "It is the *magnitude* of the problem and the *complexity* of the problem."

How much would an all-out assault on pollution in just the United States cost?

Hold on to your chair! If all forms of pollution were to be tackled, the combined municipal, state, federal, industrial and private expenditures could rise as high as ten billion dollars a year for 20 years — or a total of *200 billion dollars!* And that's just in the United States! (*Whether* such enormous sums of money will ever be allocated is a different story. Costly anti-pollution measures have never been politically popular.)

"*We are racing against time*" concluded Mr. Blatnik seriously. "Time is bringing us *more people*, and more people will bring us *much more* industry... and more competition and demand for water."

Here Representative Blatnik hit on some of the immediate causes of pollution. To the factors of more people and more industry we can add more motor vehicles, larger cities, the affluent society and the skyrocketing use of synthetic materials.

And underlying these *immediate* causes are the most basic causes of all — HUMAN NATURE plus a WRONG, unbalanced WAY OF LIFE!

Pollution a Worldwide Curse

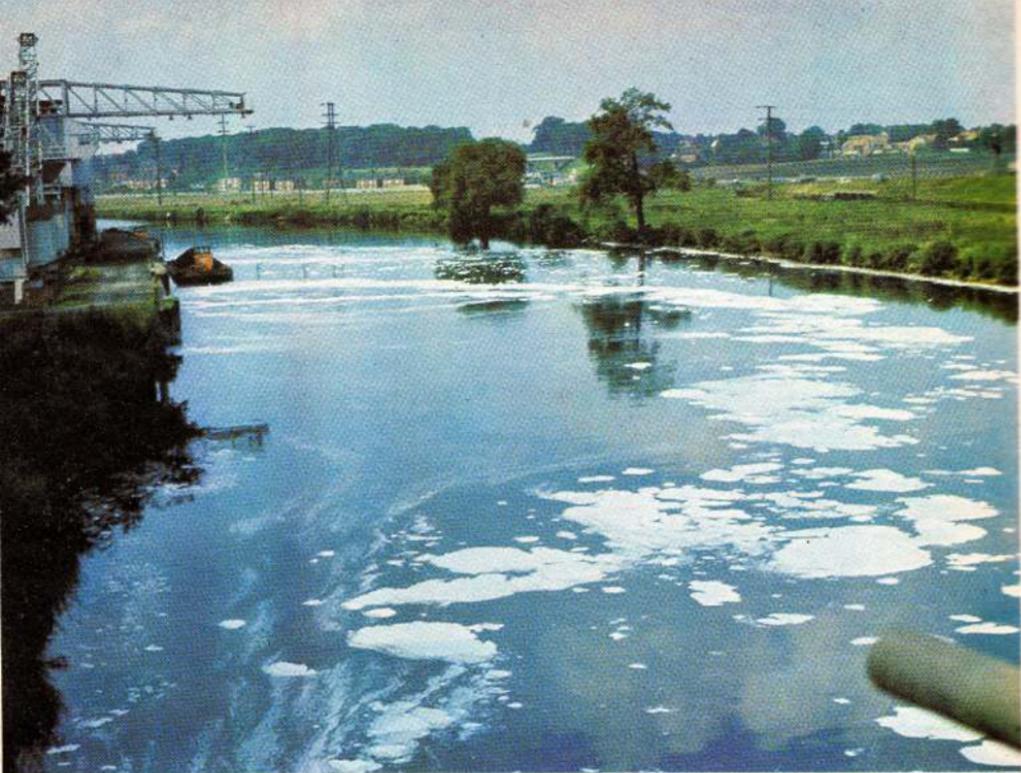
Pollution is by no means limited to the United States. Most of the western world is experiencing the curse of contamination to some degree or another. Furthermore, emerging nations within the underdeveloped world are displaying a similarly reckless attitude toward their environment in their haste to develop a large industrial base for their economies. Pollution is, in a sense, being exported.

Now most ominous of all, many scientists, biologists and ecologists have divulged grave fears about the effects of *global*

POLLUTED SKY ABOVE, SCARRED EARTH BENEATH — Photos show steel mills in Germany's Ruhr industrial area. Because of vast industries, Germany has a high incidence of air and water pollution.

Crandall — Ambassador College (top), Stachelscheid Photo (bottom)

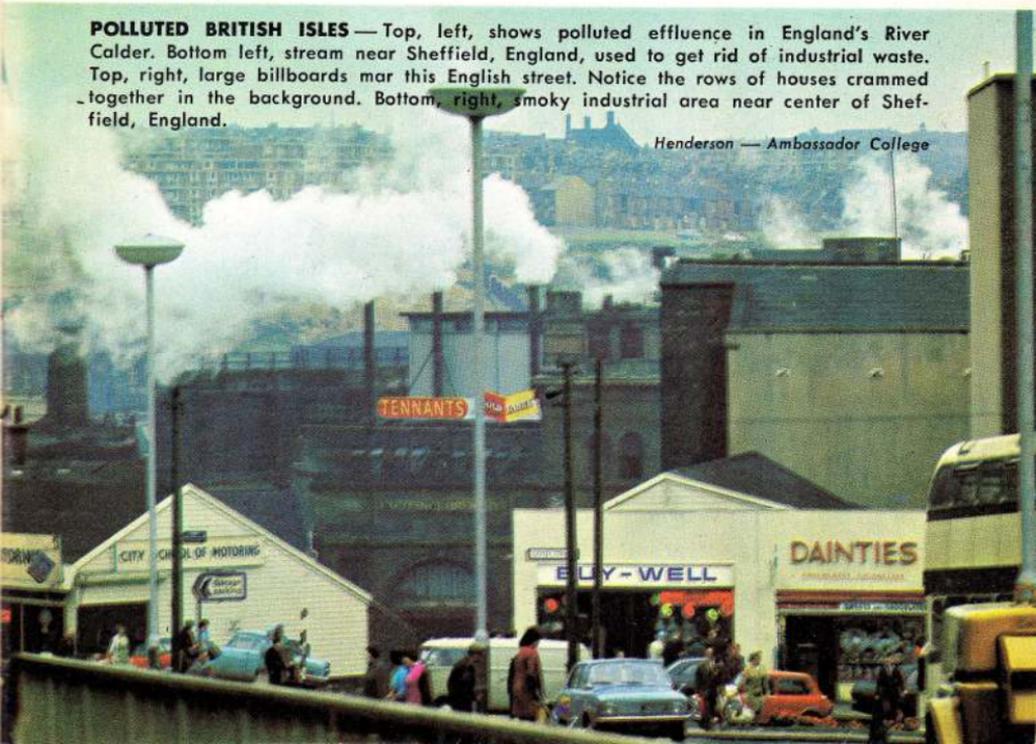






POLLUTED BRITISH ISLES—Top, left, shows polluted effluence in England's River Calder. Bottom left, stream near Sheffield, England, used to get rid of industrial waste. Top, right, large billboards mar this English street. Notice the rows of houses crammed together in the background. Bottom, right, smoky industrial area near center of Sheffield, England.

Henderson — Ambassador College





pollution. DDT and related pesticides now pervade the most intricate and far-reaching of earth's food chains. Some experts contend that the balance of nature is being so upset that the very survival of humanity is at stake!

Why has environmental pollution become — *and rather suddenly so* — such a critical issue, rivaling in importance such crises as the population explosion, the growing specter of worldwide famine, and the ever-increasing proliferation of nuclear weapons?

What are the true facts about pollution? How bad has it really become? What — or who — *causes* pollution? Is there a cure for Our Polluted Planet, a solution to the tragic conditions man has inflicted upon his once-beautiful world?



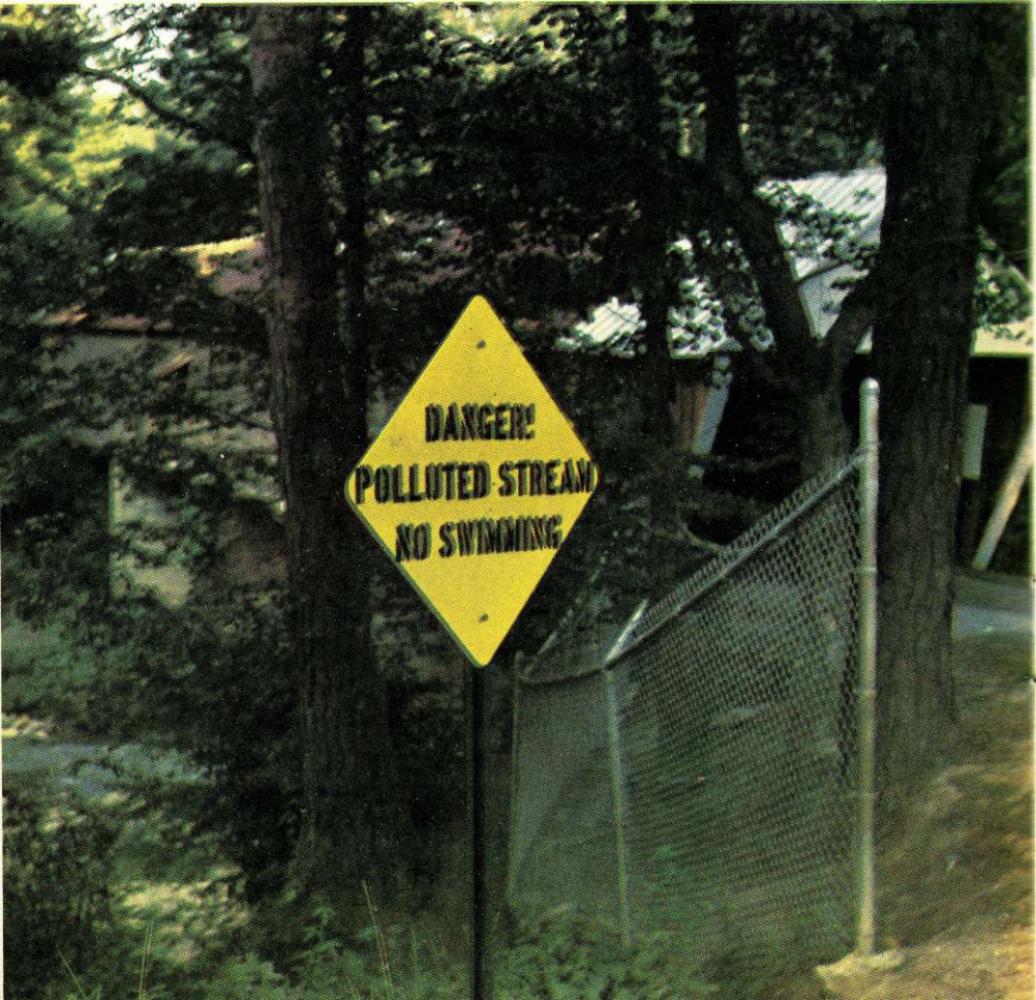
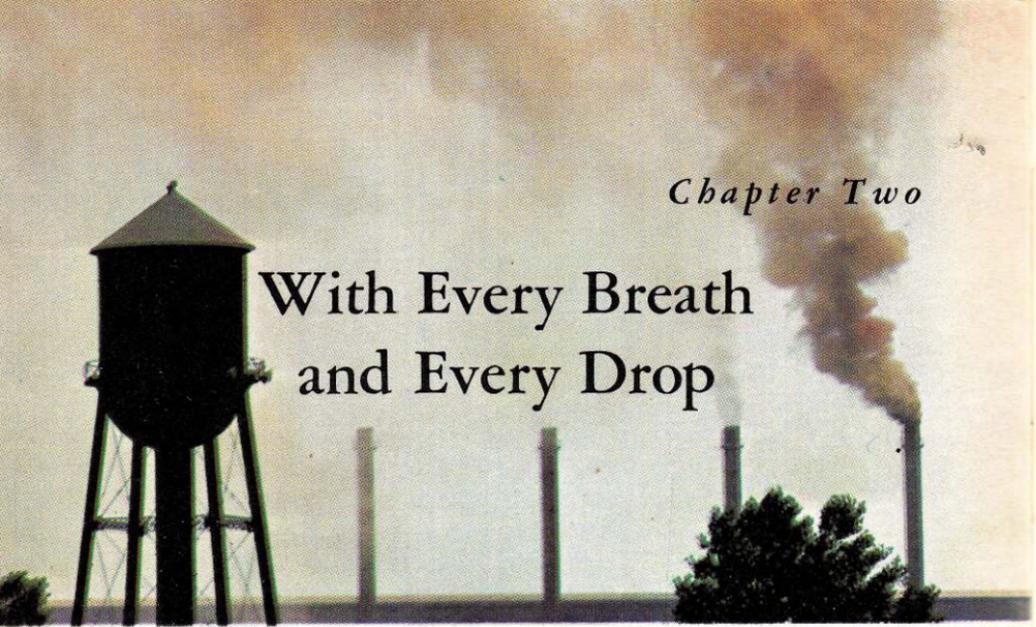
Gotoh (left), Nishimura (right) — Ambassador College

JAPAN'S TWIN PROBLEMS — POPULATION AND POLLUTION

Photo on left shows a part of Japan's attempt to overcome its space and population problem. Roads pictured lead to underground parking. Underneath is a sprawling, underground shopping center. Presently, six percent of Tokyo's 784 square miles is underground with restaurants, department stores, night clubs, and even a subterranean hotel! Some are three and four stories in depth below the ground. In the left, center of the photo you can see a huge, conical ventilation flue. Giant fans keep the air in these subterranean caverns fresh and smog-free. Science fiction stories of men living in underground caverns are coming to pass in Japan. Photo on right shows a smog alert in the highly industrialized area of Tokyo.

Chapter Two

With Every Breath
and Every Drop



YOU ARE PROBABLY breathing polluted air this very minute! If you aren't you ought to be very thankful. You are in a blessed, and rapidly shrinking minority.

And when you took your first drink of water this morning, chances are it, too, was far from fresh. To be sure, it had probably been "purified" and officially approved as "safe." But did its chemical, medicinal taste make you wonder where it came from? Did you have uneasy thoughts about who might have used it just a few hours before — and for what purpose?

"Invisible" Pollution

Reflecting the relentless rise of urbanization, over 43 million Americans live in 300 cities described by the U. S. Public Health Service as suffering from "major" air pollution. The PHS also reports that every community of over 50,000 population has an air pollution problem to some degree.

Contaminated air today differs considerably from the smoke, soot and grime problems of years past. (Remember when Pittsburgh was known as the "Smoky City"?) Thanks to stringent code enforcement, as well as less dependence upon coal, the prevalence of airborne particulate matter has diminished significantly in some large cities. Yet, paradoxically, air pollution is now a more serious problem than ever before. Why?

Simply this. Most air pollutants today are of the far more subtle, *invisible* variety. It is now believed that between 85 to 90 percent of U. S. air pollution consists of largely invisible, yet potentially deadly, and often highly corrosive gases. Visible

Launois — Black Star (top), Ambassador College Photo (bottom)

DEATH ABOVE AND DEATH BELOW — Top photo, industrial pollution — colorful but deadly. Bottom photo, sign in Sope Creek, Georgia. Not even country villages are spared from pollution blight.





National Center for Air Pollution Control
(left), Launois — Black Star (top)

POISON IN OUR AIR — Photo at left shows dramatic evidence that air pollution corrodes metal. What does it do to our lungs? Photo above renders the time-honored statement of "fresh as a daisy" as rather an ironic twist on our "good life." This daisy in New York isn't too fresh after rain deposited industrial grime all over it.

smoke, which *looks* bad, but often is not nearly so hazardous, now accounts for only 10 to 15% of atmospheric pollution.

The internal combustion engine is the single greatest air pollution villain today. Motor vehicles alone contribute about 60% of existing air pollution, in the form of carbon monoxide, unburned hydro-carbons and nitrogen oxides. Industry, next largest polluter, accounts for about 30%.

"Invisible pollution" is destined to increase greatly in the near future and for a very logical reason. Projections on the increases of population and ballooning growth of cities, number of automobiles, electrical power to be generated, and other industrial activity indicate that the sheer weight of numbers can be expected to make things worse before they ever get better. For example, auto industry statisticians in Detroit calculate that America's streets will contain twice as many cars by the turn of the century as now!

For Britain, the forecast is the same. According to Dr. A. Parker, chairman of Britain's National Society for Clean Air, there are approximately 13 million motor vehicles on British roads — half the total expected by 1980.

The auto industry has invested millions of dollars in research toward reduction of carbon monoxide and unburned hydrocarbons. Unfortunately the early benefits of smog elimination devices have largely been diminished by the sheer, never-ending increase in motor vehicle usage.

The U. S. Government's overall goal is a 25% reduction in motor-vehicle pollution by 1975 and 40% by 1985. *But during this same period, the number of autos is expected to increase by 50%.* Therefore many officials and engineers are looking for an alternative to the internal-combustion engine. Yet, despite the recent publicity given to electric and steam-powered automobiles most experts concede that the internal combustion engine is here to stay — at least into the foreseeable future.

Viewing all of these facts, it is not hard to understand why a recent study concluded that American industry will spend 10 to 20 billion dollars over the next decade in an effort — admittedly a very difficult (if not impossible) one — just to hold air pollution at *present levels*.

For Underdeveloped World — "Benefits" of Industrialization

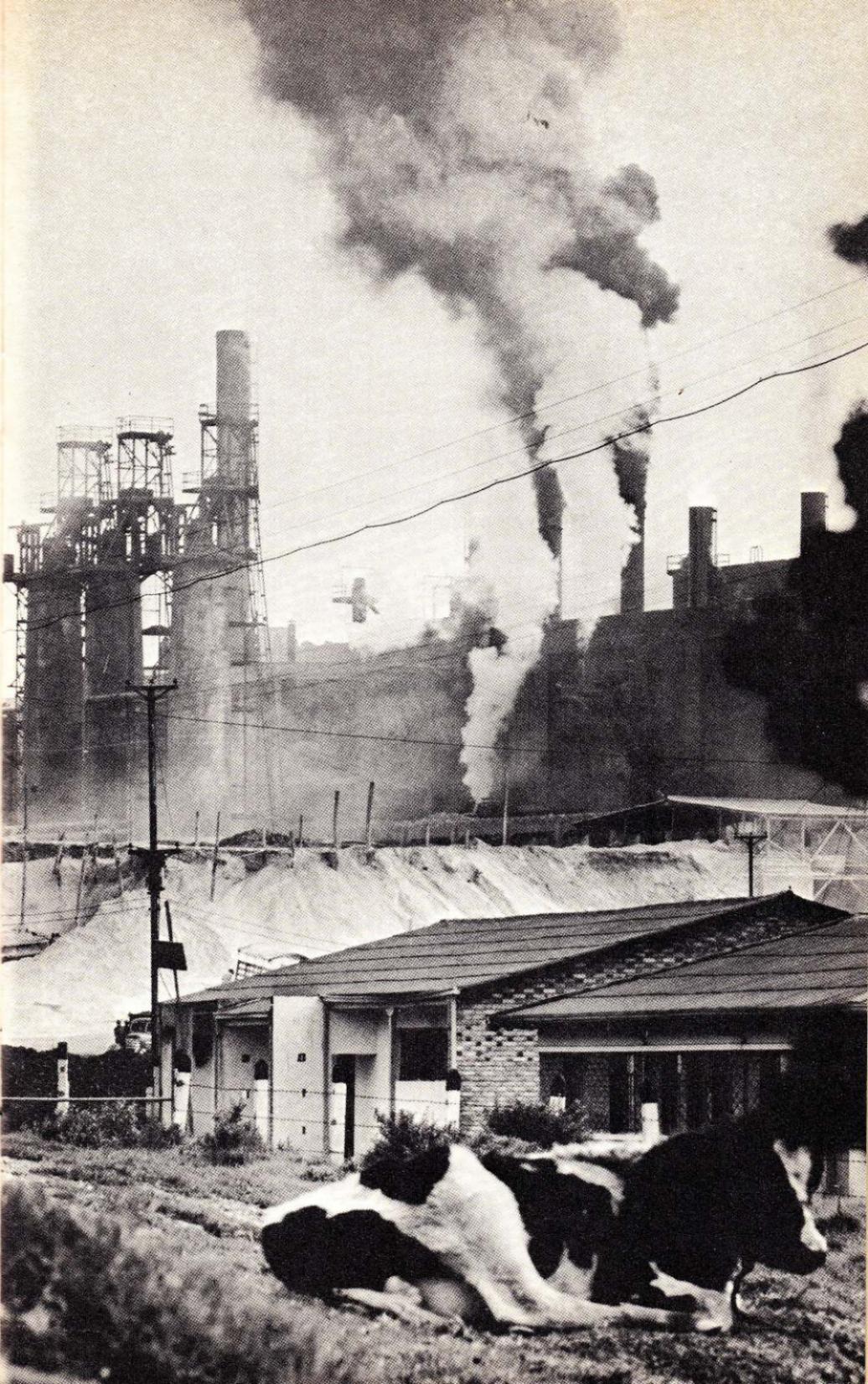
Nations in the so-called underdeveloped world, in their over-eager quest for industrialization, give indication of repeating the mistakes of the Western world. A dispatch in *The Los Angeles Times* for June 6, 1968, reported:

"The choking, gray problem of smog is creeping across the sunny major cities of Latin America. Slowly, but inevitably, as industry has expanded in and around these cities in the last 20 years, air pollution has increased.

"At many points it's still only a coughing, shirt-soiling nuisance — and an economic problem — rather than a major

Almasy — UNESCO Photo

EVEN UNDERDEVELOPED NATIONS SUFFER — A chemical factory complex in Colombia spews forth pollutants into the air.



health hazard, according to Ricardo Haddad, regional consultant for the Pan American Health Organization.

“‘But it’s already a worrisome matter,’ he said, ‘in places like Sao Paulo, Brazil, where industries began multiplying in 1950 and where the *death rate from bronchitis today is seven times higher than it was in 1952*. We can’t prove contaminated air is to blame, but the inference is clear.’ . . .

“Haddad is resigned to what he considers the inevitability that Latin America will continue its headlong drive to industrialize without taking simultaneous measures to control air pollution.”

The prospects for Latin America could be multiplied many times over for the rest of the underdeveloped world. As one American publication asked recently: “What will it be like in future generations when billions of Chinese, Indians, Africans, Latin Americans, and other peoples have achieved our standard of living? . . . Will the atmosphere become supersaturated with pollutants so there will be no place on earth where a human can go for a lungful of fresh air?”

Indeed! This *would* be the common fate of humanity should conditions be allowed to degenerate as rapidly as they have in the past several years.

Cause of Death: Smog

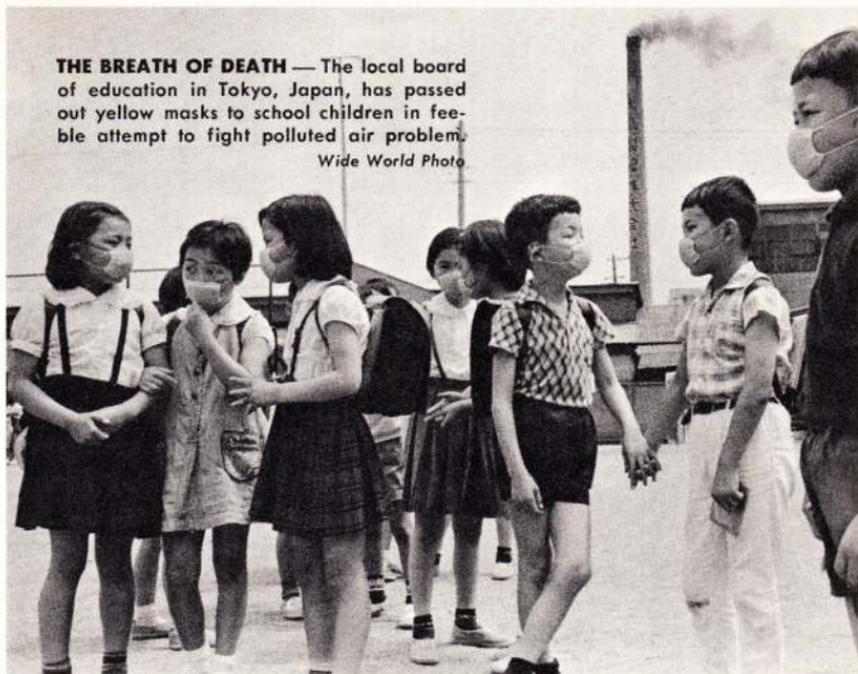
No death certificates have ever cited polluted air as a cause of death. Yet U. S. Surgeon General William H. Stewart reported on April 19, 1967, there is “compelling evidence” that air pollution is killing and disabling Americans in every area of the nation.

The lung cancer rate in large metropolitan areas is twice as great as the rate in rural areas, even after full allowance is made for differences in cigarette smoking habits. The serious pulmonary disease, emphysema, has shot up *eightfold* in the last ten years.

Halfway around the globe, a smog-aggravated respiratory ailment, “Tokyo-Yokohama asthma,” affects thousands in that giant Japanese megalopolis. Oxygen tanks have been installed at ten busy Tokyo intersections for use of traffic policemen who

THE BREATH OF DEATH — The local board of education in Tokyo, Japan, has passed out yellow masks to school children in feeble attempt to fight polluted air problem.

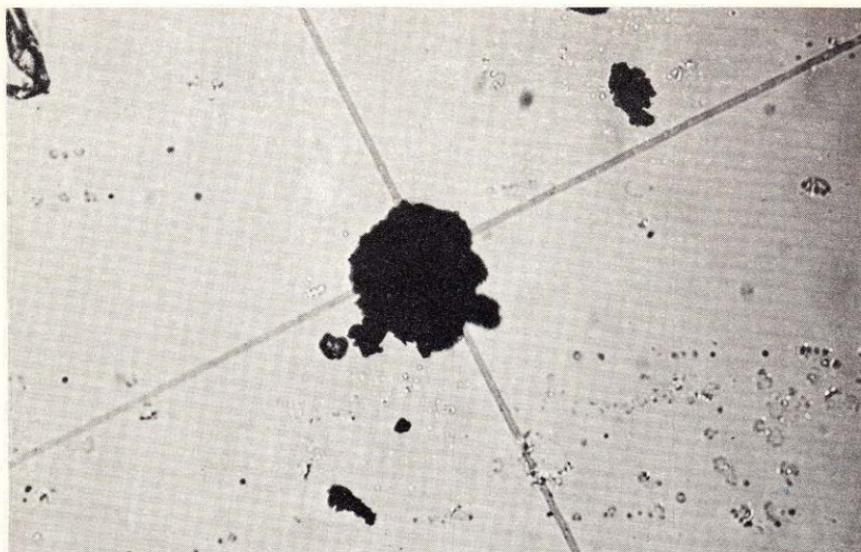
Wide World Photo



must stand for hours in the swirl of auto exhaust fumes. Every half hour the men have to take an "oxygen break."

An official publication of the U. S. Department of Health, Education and Welfare entitled "Air Pollution and Respiratory Disease," summarizes seventeen pages of documented material with the following statement: "Air pollution, as it exists in some of our communities, contributes significantly as a cause or aggravating factor for the following medical conditions: acute respiratory infections, chronic bronchitis, chronic constrictive ventilatory disease, pulmonary emphysema, bronchial asthma, and lung cancer."

Other health hazards, too are being found. According to Dr. C. C. Patterson, a geochemist, the average American is already close to the threshold of "classical lead poisoning." Most of this is attributable, he says, to the burning of lead tetraethyl in gasoline. Commuters on crowded freeways are frequently subjected to dosages of lead poisoning *many times higher* than the rate in urban areas as a whole.



St. Louis Post Dispatch Photo

WHAT YOU MAY BE BREATHING — A microscopic view of particle of solid pollution, magnified forty times.

“Ten thousand people a day will die of air pollution within the next 10 years, unless immediate steps are taken to eliminate the internal combustion engine or vastly improve it,” warns William Penn Mott, California director of parks and recreation. Mr. Mott said repeated warnings from physicists and air pollution experts seem to have had little effect on the public and *predicted it will take a major disaster to elicit action.*

It's a sad trait of human nature to wait until it's either too late or too costly to forestall an impending catastrophe.

Crops Suffocating Too

Bad air has joined the ranks of such traditional villains as bad weather and harmful insects as a plunderer of crops. Agricultural losses in the U. S. are estimated at \$325 million annually.

In the Garden State of New Jersey, air pollution injury to vegetation has been observed in every single county. Damage has been reported to at least 36 commercial crops, including spinach, endive, romaine, table beets and chicory.

In Southern California farmers no longer can grow about a dozen varieties of broad-leaved vegetables. Smog also afflicts the state's flowers. It is death to petunias and ruins the commercial value of orchids and carnations. But the most sickening damage has been done to the beautiful forest areas in and around Los Angeles County.

Some of the best stands of Ponderosa pines in Southern California are located about 60 miles east of Los Angeles in the Lake Arrowhead-Crestline district of the San Bernardino National Forest. But multiple thousands of these magnificent trees, sick and dying from smog, are in danger of being wiped out completely. In the last five years alone about 10% of the Ponderosas in the area have died from the smog which is blown in from the Los Angeles basin.

The smog in the area often reaches up to the 5,000-foot altitude. At times the ozone count in the air (ozone is the chief enemy of the Ponderosa) has reached almost that of a first stage "red alert."

"If the pollutants in the air go unchecked," says Dr. O. C. Taylor of the University of California, "*it won't be many years before agriculture in certain parts of America ceases to exist.*"

Even Metal and Stone

Polluted air is not a threat only to living things, however. *It even destroys metal and stone!*

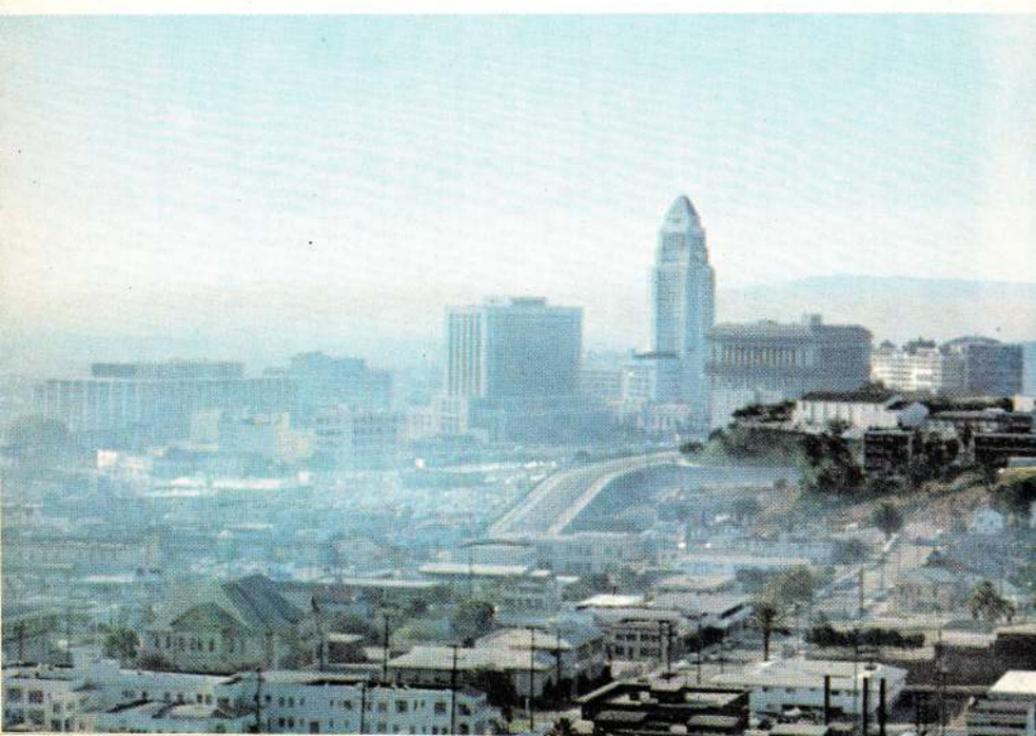
In West Germany, workmen have been waging a battle since 1959 to save the historic Cologne Cathedral. Pollutants in the city's air have been crumbling the building's sandstone.

In Italy, four ancient Greek bronze horses in Venice's St. Mark's Square are being eaten away by polluted air. Likewise, the famed "Cleopatra's Needle" in New York City. This monument successfully withstood more than three thousand years of wind-driven desert sand in Egypt. But New York's air is simply more than it can take.

Paint discoloration, metal corrosion, discoloration of building stone, discoloration, fading and weakening of fabric and dyes, weakening and embrittlement of leather and paper, crack-

"OH, BEAUTIFUL FOR SPACIOUS SKIES . . ." The dirty air strangling our cities has sadly perverted this past truth. Left, top, photo from about the 5,500-ft. level near Arrowhead-Crestline area, overlooking the smog slowly creeping up to strangle the Ponderosa pines. Bottom left, inversion layer over Los Angeles during a fairly "clear day." Series on right-hand page shows successive views of Boston, Massachusetts, during progressively more smoggy days.

Krall — Ambassador College; Los Angeles Pollution Control District; Massachusetts Audubon Society Photos





ing of rubber — these are some of the other visible effects of polluted air.

Yes, neither animal, vegetable nor mineral — to use the terminology of the old "Twenty Questions" game — can escape the polluting hand of man.

"Fresh Water" — or Filthy Water?

Enough for air pollution. What about mankind's next most vital natural resource — fresh water?

By *fresh* water, we mean the opposite of salt water. Today, "fresh" water is anything but fresh in the true sense of the word.

Take the Netherlands, for example.

Holland is suffering from the pangs of European prosperity. For centuries the Dutch have successfully battled against both the North Sea and internal fresh water flooding.

Now a new problem has arisen. The Rhine River flows out through Holland. The Dutch desperately need diversions from the Rhine's giant volume to flush salt out of reclaimed sea land areas. But the Rhine has become so polluted (from wastes picked up in France and West Germany) that its value for this cleansing purpose is seriously questioned.

"Holland's twin problem," says a Dutch official, "is invasion by the salt sea and pollution from the dirty Rhine — *Europe's filthiest and most contaminated river.*"

In West Germany, polluted rivers and lakes are a growing menace. Only the Ruhr River has been successfully cleaned up. Even beautiful Lake Constance along the German-Swiss border is reported to be accumulating waste materials at a dangerous rate.

Today, over 90 million Americans drink water that is either below Federal standards or is of unknown quality. Yet water demands throughout the U. S. are predicted to double by 1980.

More significant than this is the fact that the amount and variety of *waste materials* dumped into America's waters are destined to increase at an *even faster rate* than the water demand. By 1980 the nation will be producing enough sewage and

industrial water-borne wastes to deplete the oxygen supply in *all 22 river basins* in the dry season!

Municipal sewage systems and industry are the two biggest water polluters. One fourth of the towns and cities of the United States have *no sewage treatment plants of any kind*. HALF of the treatment facilities in use are obsolete, outdated, and outmoded. Merely to modernize old plants and build new ones will cost an estimated 20 billion dollars.

The sheer, burgeoning growth of industry with all of the resultant by-products is an even more challenging problem. Very little is known yet about the potential hazards from the 500,000 to 600,000 synthetic chemicals and other compounds in use today. Many of these in some form, in some combination, enter our waters as effluence. By the end of the century — as things are going now — it is predicted there will be a *seven-fold* increase in purely industrial wastes produced by large water-using industries.

2,464-Mile Sewer

“Just about every stream in this country is polluted to some degree,” says Dr. Jack Bregman, assistant deputy for water pollution control in the U. S. Department of Interior. “Some now are beyond their capacity to handle wastes. And so are numerous lakes.”

The giant Missouri River, a glowing, flowing example of pollution, is being given up for dead.

Water pollution control experts in the state of Missouri recently prepared a bold report urging that the second longest river in the U. S. be used for one purpose only — removing city and industrial wastes.

Imagine — the Missouri to become a 2,464-mile sewer!

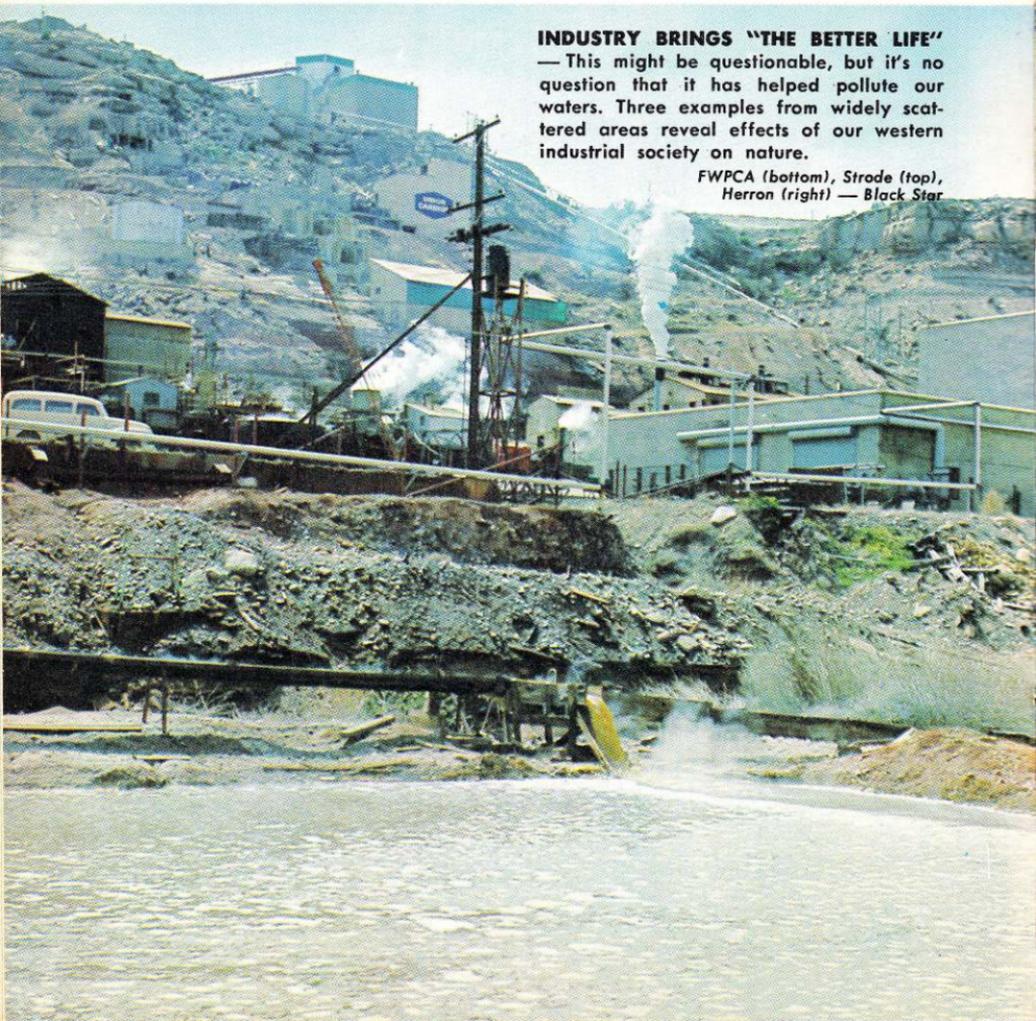
What the frank report admitted is that the overburdened Missouri can no longer be expected to perform a dual role, that of removing sewage and providing a source of clean water at the same time. A choice has to be made, said the panel of experts. Use of the Missouri for waste removal, they concluded, “has *economic value* far greater than does use of the river as a source



INDUSTRY BRINGS "THE BETTER LIFE"

— This might be questionable, but it's no question that it has helped pollute our waters. Three examples from widely scattered areas reveal effects of our western industrial society on nature.

*FWPCA (bottom), Strade (top),
Herron (right) — Black Star*





of municipal and industrial water supply." The control board expressed fear that failure to allow the Missouri and other streams within the state to assimilate wastes to greater capacity, would "lower standards of living . . . and decrease employment."

The Mighty Missouri, then, is being abandoned to the polluters.

"Colon of Mid-America"

The once-beautiful Mississippi of Huck Finn days is now referred to by some as "the colon of mid-America."

In the fall of 1966 a group of conservationists inspected the Mississippi by boat in the vicinity of St. Louis. The men were shocked to see more than 100 pipes pouring untreated sewage directly into the Mississippi. Water samples taken from the river below St. Louis were found to be so toxic that even when diluted *ten times* with clear water, fish placed in the mixture died in less than one minute! When the samples were diluted 100 times, the test fish still perished within 24 hours. Fortunately, the people living south of St. Louis have more rugged constitutions than do fish.

Further east, the Potomac River is the shame of the nation's capital, by which it flows. Congressman John Blatnik of Minnesota, quoted near the beginning of this booklet, has graphically described the Potomac River during cherry blossom time as being "the best dressed cesspool in America."

Disease Carriers

Our sick waters are also dangerous to health!

Harry P. Kramer, Director of the Taft Sanitary Engineering Center in Cincinnati reports: "A few years ago the only water-borne virus diseases were hepatitis and poliomyelitis. TODAY THERE ARE OVER ONE HUNDRED!"

The diagnosis of one river — the Connecticut — reveals how foul our "fresh" waters have become. One random sample of the Connecticut disclosed disease bacteria such as typhoid, paratyphoid, cholera, salmonella, tuberculosis, polio, anthrax, tetanus, plus countless viruses.

And that's not all. Repulsive parasitic life forms such as tapeworm, roundworm, hookworm, pinworm, and blood flukes were also present in abundance.

Similar conditions exist on the other side of the globe. Disease organisms abound in the beautiful natural harbor in Sydney, Australia.

"Name your disease," reports the *Australian International News Review*. "With very little effort you can catch it merely by going swimming anywhere inside the harbour itself or almost anywhere along the coast for 20 miles above and below the city." Reports of typhoid and paratyphoid organisms have made headlines in Sydney newspapers.

America's "Dead Seas"

Standing bodies of water are no more immune to pollution than are rivers and streams. Consider North America's fabulous natural wonder, the Great Lakes.

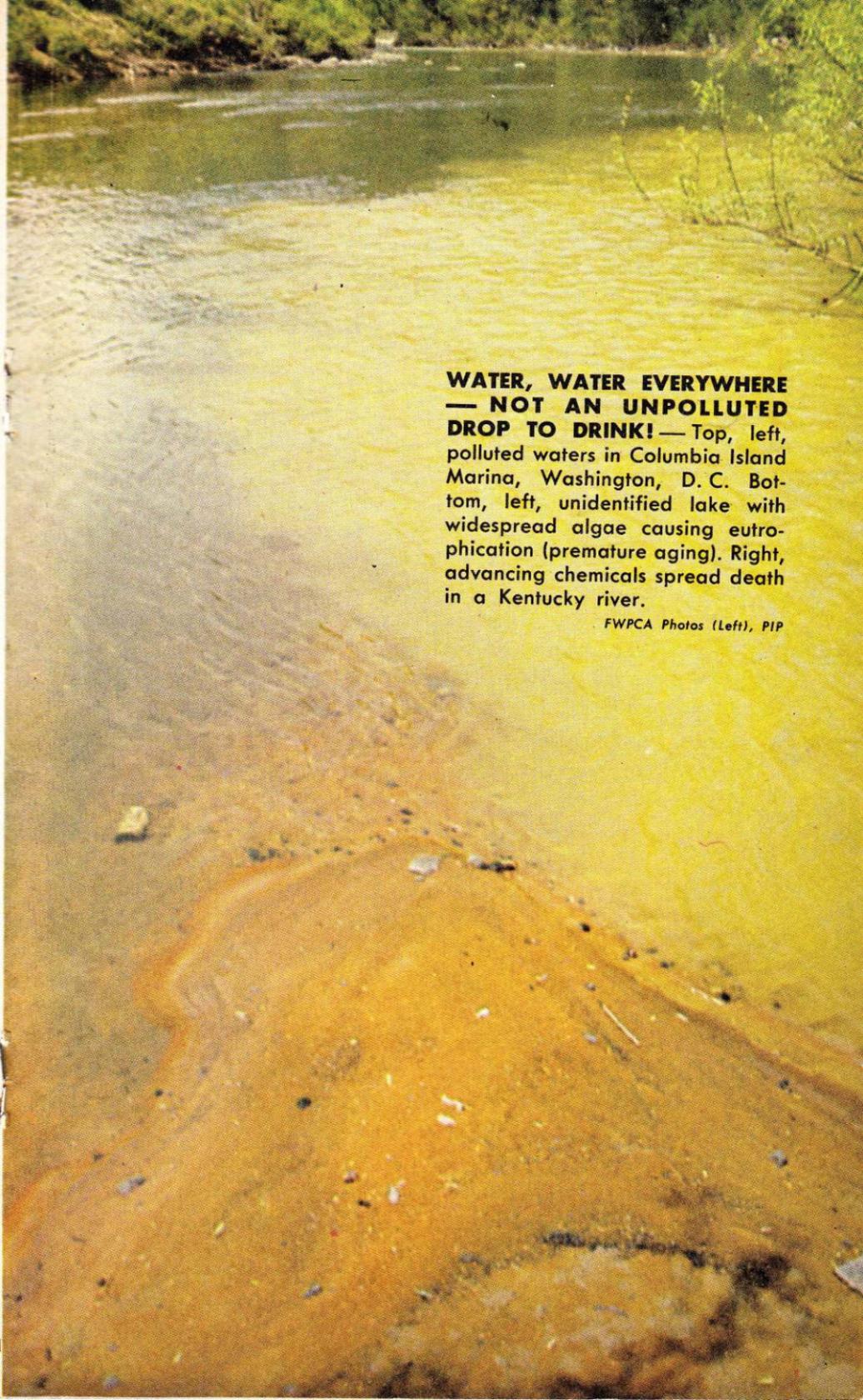
The western end of Lake Erie is almost biologically dead, its diminished oxygen supply incapable of supporting higher life forms. One of the lakes' last commercial fishermen, his boat equipped with a sonar device to detect fish, told one reporter: "You can go miles in the lake now and nothing is moving down there. It's eerie!"

In addition to sewage from shoreline cities, Lake Erie ingests *over a ton* of industrial chemicals a minute from industrial plants. The Cuyahoga River, which flows into it at Cleveland, is so bloated with debris, including oil slick, it has been declared by some to be a fire hazard! Residents of Cleveland have to drive 20 miles from downtown to find a beach safe for swimming.

"To fly over Lake Erie and look down into the cloudy mess of murderous pollution is like reading the flyleaf of a book on the end of civilization," Secretary of the Interior Stewart L. Udall has remarked.

The demise of Lake Erie, discussed in Chapter I, is probably irreversible. Now the same fear is being expressed concerning beautiful Lake Michigan. .





**WATER, WATER EVERYWHERE
— NOT AN UNPOLLUTED
DROP TO DRINK!** — Top, left,
polluted waters in Columbia Island
Marina, Washington, D. C. Bot-
tom, left, unidentified lake with
widespread algae causing eutro-
phication (premature aging). Right,
advancing chemicals spread death
in a Kentucky river.

FWPCA Photos (Left), PIP

A Detroit newspaper revealed in December, 1967, evidence that Lake Michigan's open waters are becoming polluted much faster than many had thought. It said: "University of Michigan scientists report that water samplings over the last two summers indicate *a dramatic deterioration in water quality*. The severe pollution thought to exist only along the shore, especially in the Chicago area, has now spread to the middle of the lake, where it threatens fish life."

In the last two summers biologists have found vast areas of algae-clouded water in the lake's middle regions. These waters, formerly a clear blue-green, are now milky blue-green. The change has come from *an enormous population explosion among plankton*, the microscopic plants and animals that drift in the water. They thrive on the phosphates and nitrogen that constitute a large portion of municipal and industrial wastes.

These wastes act like fertilizer, encouraging the growth of the tiny organisms. The danger to fish comes when they die and settle to the bottom. The decay process uses up tremendous amounts of dissolved oxygen that is essential to fish eggs. Without sufficient oxygen, the eggs will not hatch.

"The new findings," reported the newspaper, "mean that Lake Michigan is going through an accelerated eutrophication, or premature aging, that could cause the lake to deteriorate far sooner than it would naturally. This means that *without new attacks on water pollution, Lake Michigan could join Lake Erie as a dying lake*."

What a tragedy to befall one of the most awesome natural wonders in the world.

"No country in the history of the world," says Senator Gaylord Nelson of Wisconsin, "has destroyed its natural resources at a rate comparable to the destruction now going on in the United States. *In the last 100 years this country has destroyed more of its resources than the entire world has in the past 1,000 years*. We destroyed the forests, the rivers — there is not one watershed in the United States that is now unpolluted — *and we are rapidly destroying the lakes*."

But here again, the United States is by no means unique. The relentless push of urbanization and industrialization

threatens to overwhelm nature in areas of the earth once considered safe from the hand of man.

In Remote Siberia — World's Deepest Lake in Danger

The Soviets have their pollution problems too.

Beautiful Lake Baikal in remote Siberia is the largest fresh water lake in the world. Reaching a depth of about a mile, Lake Baikal nearly equals the *total volume* of *all five* of the Great Lakes.

Baikal's transparent blue water is reputedly the purest in the world. The lake is not only a scenic wonder. It is an ecological paradise due to its peculiarly cold and mineral-free environment. The lake and its shores harbor about 1,000 species of animals and plants found nowhere else — including a fresh water seal!

Yet here, too, tragically, industrial "progress" threatens to wreak havoc with nature. Despite the impassioned outcries of conservationists, pulp and paper-making plants are being built on or near the giant body of water. Already, yellow, smelly waste water is flowing into the lake from a huge wood-pulp plant with an incomplete purification system.

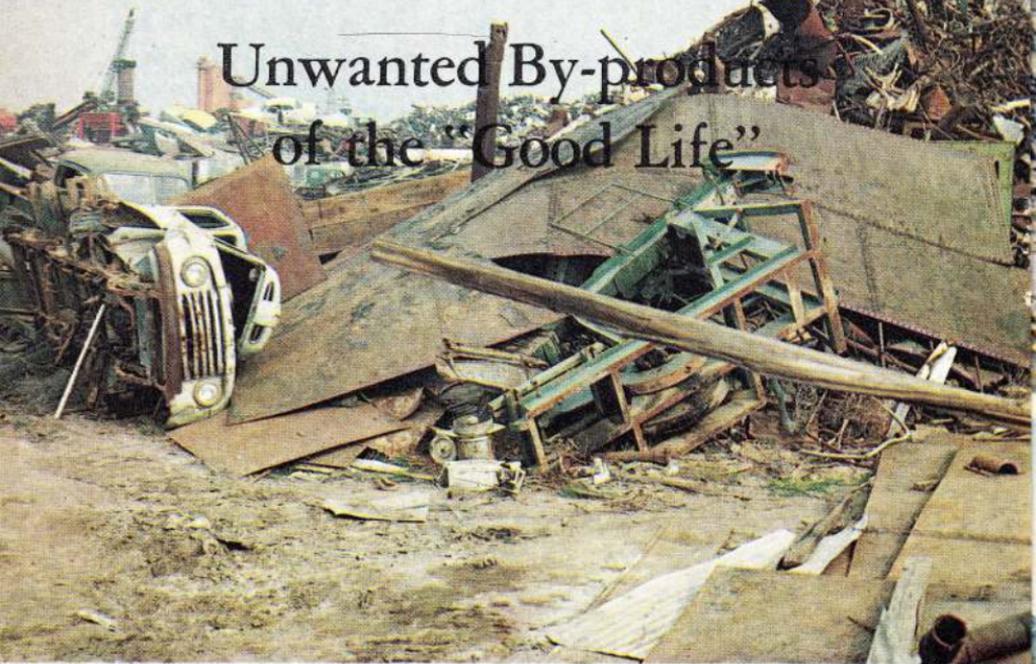
The Soviet Academy of Science admits that in the heavily industrialized Ural Mountains area, separating European and Asiatic Russia, there is not a single unpolluted river! Many large rivers and lakes in European Russia, claim Soviet conservationists, are dead or dying because of the careless manner in which factories have disposed of their wastes.

Yes, even the authoritarian Communist system is failing to cope with the pollution problem. As Du Pont's Dr. Samuel Lehner told the National Pollution Control Exposition and Conference in Houston: "In its broadest dimensions, we all know that pollution is a by-product of industrial civilization, *whether the system be capitalism or communism.*"

Everywhere one looks, not only in the United States, but around the world — even in Communist countries — demands of industry threaten to *completely overwhelm* all efforts to keep pollution in check.

Chapter Th

Unwanted By-products
of the "Good Life"



NEVER BEFORE have so many had so much. The average American home is a pushbutton electronic marvel of ease, luxury and convenience.

For many Britons, too, as well as Canadians, South Africans, Australians and New Zealanders, the "good life" (as commonly conceived) is at last here, or at least within easy reach. Unfortunately, this "good life" on the individual level is often achieved at the expense of the national good.

The seemingly boundless desire for more and more goods and services is leading to ominous new forms of pollution. "Thermal pollution," or heat pollution, is one of these newer villains. The thermal pollution problem, often overlooked in the concentration on more familiar forms of pollution, is coming on unexpectedly fast.

One of the principal thermal pollution culprits today is the electrical power industry. Power plants gulp enormous quantities of water for cooling purposes. When the heated water is returned to the river, lake or estuary, the water's dissolved oxygen is reduced, the growth of slimy green algae and undesirable plant life is stimulated, fish languish and die, mating stops, eggs fail to hatch. *Just a few degrees* of additional heat can upset the entire plant and animal life of a waterway!

Yet because of the tremendous thirst for electrical power, heat pollution is expected to increase greatly in the next few years. It has been calculated that power production — and therefore waste heat — will double by 1980!

Gentry, Wells — Ambassador College

A CEMETERY FOR OLD AUTOS — "I will build a motor car for the great multitude . . . so low in price that no man . . . will be unable to own one — and enjoy with his family the blessing of hours of pleasure in God's great open spaces," said Henry Ford. Unfortunately, no one seemed to be concerned about the pollution from those cars. Planned obsolescence has caused veritable skyscrapers of car hulks. There is precious little open space in which to enjoy those autos today.

"Everyone thought thermal pollution wouldn't be a problem for five to ten years, so we've been grappling with the more obvious aspects of water pollution," says one Interior Department official. "But all of a sudden there's been an explosion of nuclear plant construction, and we find ourselves fighting a whole new series of pollution brush fires."

Another aspect of thermal pollution is its effect upon the air. Our big cities with their myriads of burning processes, heated air from air conditioners, plus their sheer bulk, generate enormous amounts of heat. This escaping heat helps create thermal inversions (warm air layered on top of cold) which can trap pollutants for days (hence smog). Often the air in and over an urban area is several degrees warmer than in the nearby countryside.

At the Houston conference, Assistant Surgeon General Richard A. Prindle commented off the cuff about thermal pollution during his formal address. The time may come, he said, when the excess heat our society generates may even begin to melt the polar icecaps. But, he said with a chuckle, we don't need to fear drowning — we'll all be saved atop our growing heaps of garbage.

Which brings us to the next point.

Mountains of Refuse

The disposing of solid wastes — plain old garbage, if you please — has become an enormous headache to sanitation engineers. The third largest municipal budgetary expenditure in America now goes for waste disposal. The "garbage bill" for all of America last year came to three billion dollars!

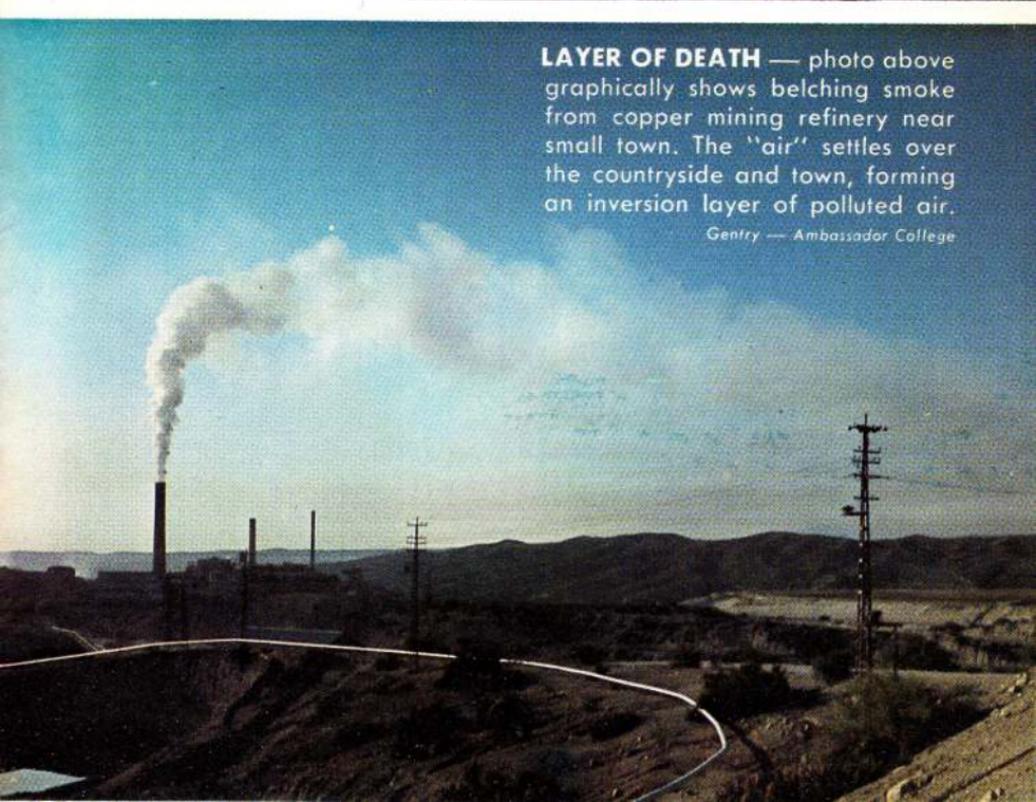
"Every large community is in a corner where it must do something about the garbage that threatens its very environment" warns a specialist on solid waste disposal, Karl Wolf. "We're running in front of an avalanche and it's already beginning to bury us."

A *Wall Street Journal* article, dated February 16, 1968, revealed that sanitary land filling, one of the most common disposal procedures, has consumed nearly all the accessible open acreage around many major cities. Within five to ten years a



LAYER OF DEATH — photo above graphically shows belching smoke from copper mining refinery near small town. The "air" settles over the countryside and town, forming an inversion layer of polluted air.

Gentry — Ambassador College



large city without a shortage of land-fill area will be a rarity! New York City's sanitation department is already squeezing trash into odd corners of existing land-fill sites trying to get by for the next several years until some perfected (and probably *very* costly) incineration system is constructed.

The "User" Society

There has been a constant and spiraling increase in the per capita production of wastes.

"Modern packaging practices, countless magazines and newspapers, *almost instant obsolescence* of an endless variety of material acquisitions and the enormous growth of industry have combined to increase the daily per capita production of solid wastes in this country from 2.7 pounds in 1920 to more than 4.5 pounds now. This will increase to 5 pounds per capita per day within two years." (UPI release, June 16, 1968.)

What do today's overburdened sanitation men have to deal with (when they are not on strike)? Listen to these staggering statistics:

Every year, affluent (or rather, effluent) Americans throw away over 30 million tons of paper, 4 million tons of plastics, 48 billion cans, and 26 billion bottles! The container industry is unwittingly adding to this total every year with the increased trend toward "throw-away" bottles, cans and cartons. But there will soon be precious little "away" into which we can heedlessly throw our throw-away products.

Greatly compounding the miseries of our solid waste engineers are these facts:

(1) Americans are no longer consumers. They are mere *users* of products. They buy, they use, they dispose — in greater and greater quantities (4% more each year). "Our whole economy is based on taking natural resources, converting them into things that are consumer products, selling them to the consumer, *and then forgetting about them*. But there are no consumers — only USERS. The user does not consume [the product] — he just discards it." (A recent report of the National Academy of Sciences-National Research Council).



WHEN GARBAGE WORKERS STRIKE —

Top, Paris, France, street with garbage piled up due to strike. Bottom, garbage litters a New York City street when garbage collectors went on strike. Our "user" society compounds the pollution crisis by producing enormous quantities of solid waste.

Ambassador College Photos



One very serious and rapidly growing burden to both city and countryside alike is what to do with the estimated six million automobiles abandoned in America every year!

(2) In our "plastic" society, industry is producing enormous quantities of synthetic substances that almost totally resist the processes of natural decay. That handy plastic bottle that won't shatter when you drop it on the bathroom tile won't break down via natural decay processes at the city dump either. And the aluminum beer or soda pop can "just sits there" unperturbed, a virtual King of the Dump. The old tin (mostly steel) cans at least rusted away. Yet industry, blinded by profits and uneducated consumer demands and seemingly oblivious to the overall problems and needs of our environment continues to produce and sell prodigious amounts of non-degradable items.

What lack of foresight and overall perspective!

Someone has suggested man's eras should be summarized as the Stone Age, then the Bronze Age, the Iron Age, the Space Age... and now the Garbage.

Noise Pollution

Air, water, and solid waste pollution are not the only hazards to contemporary living. There are many pressures and tensions which add stress to the individual's life.

Sheer noise is a mounting problem in our burgeoning megalopolises. The clatter, the honking, the noise at work, the jangling sounds (rarely good music) on the radio and television, ringing telephones, roaring diesels thundering down the highways, thundering jet engines overhead — all these combine into an *incessant din* in our cities, contributing to the stress, frustration, hypertension, and anxiety of modern urban living.

Noise, say some experts, is a major contributing factor in several health problems. Dr. Vern O. Knudsen of the University of California has found that exposure to over 90 decibels can flush the skin, constrict the stomach muscles, and shorten tempers. (A decibel is a unit of sound-pressure named after Alexander Graham Bell.) Other doctors suspect that noise may

A DAY AT THE DUMP — Huge mounds of solid waste — or plain garbage — at Los Angeles dump. It illustrates the massive problem of getting rid of partially consumed items.

Kilburn — Ambassador College



THE NOISY BIRD WITH THE TAIL OF POLLUTION — Screaming jets, belching vast quantities of polluted air, make living in certain areas almost unbearable.

Gentry — Ambassador College



be a hidden factor in heart disease, high blood pressure, allergy, nervousness, and even mental health.

It has been demonstrated that a food blender whirls up 93 decibels of sound; a pneumatic jackhammer pounds out 94; a subway train screeches around a curve at 104; a loud power mower, 107; a jet plane takes off at 150. "Ninety decibels bombarding several hours a day can cause an irreversible hearing loss," says Dr. Knudsen. In New York City, ordinary street noises *regularly* exceed 100 decibels.

Street noises alone are bad enough. But the booming sounds of the future worry experts even more. The next major step in commercial aviation will be the supersonic transport (SST).

"The boom of the SST due to fly in the mid-1970s will be equivalent to, or worse than the noise experienced by those currently living near a large airport at which four-engined turbofan aircraft land and take off . . . As the SST will probably fly overland — *and its sonic boom will cover enormous tracts of land* — the noise environment of these regions seems destined to be reduced to something similar to areas near large airports now" (a British publication, *SCIENCE JOURNAL*, June, 1968).

Think of it — "airport noise" wherever you happen to live! Not a cheery prospect.

Viewing all this is it any wonder so many "city-ites" today flock to the countryside on weekends for two days of peace and quiet? Unfortunately, most try to leave the city and arrive back at approximately the same time. One of the surest ways to get stuck in a traffic jam is to drive into Los Angeles on a Sunday evening. Seeing the miles upon miles of slow-moving cars one wonders seriously if the quiet weekend was really worth it.

Heat, garbage, noise — all these are unpleasant enough. Yet, far more ominous forms of pollution are drawing the attention of biologists and ecologists.

Universal Pollution

Bollworm Insecticide Perils Bee Industry and Wildlife

Doctors Urged to Wage War on Air Pollution

KILLING AND CRIPPLING?

A branch of the medical profession has called on doctors to be aggressive in their fight against air pollution because it is not only a physical but a mental and spiritual disease. It is a disease that is killing and crippling. It is a disease that is making life a living hell. It is a disease that is making life a living hell. It is a disease that is making life a living hell.

Another Smog Danger

The shifting of nitrogen from which is present in smog produces chemical changes in the body.

Great Lakes Pollution Goes On, Despite Peril

Great Lakes are getting fouled as admitted it is a prime of pollution problems that the leader. State will soon be no pollution.

Nuclear Ships Leave Harbor Radioactivity

Low-Level Concentrations Discovered

Public Warned: Clean Up Air or Live Like Moles

The change for Moog says sure will be clean up the air. Moog's industry and the like a mole in the air. Moog's industry and the like a mole in the air. Moog's industry and the like a mole in the air.

Reshaping of Environment Blamed

Scientist Warns of Threat to Oxygen Supply

Experts Warn on Public's Indifference

Food production can be increased by governmental action. Keep up with the growing population.

Smog May Doom Humanity

By the Sea, By the Polluted Sea

Uncharted inlet along the California coastline has finally "sworn" by governmental agencies. The dumping of industrial city on the Venice beach.

MAN - THE DESPOILER

Is Human Neglect, Abuse Destroying This Planet?

As the earth becomes more crowded, there is no longer room for man.

DDT found in eggs of sea-dwelling birds

Probably have contaminated the entire ecosystem of the world.

Heat Pollution From Power Plants Studied

Danger to Fresh Water Streams Mounts With Growing Need for Electrical Energy

Washington

Noise joins list of pollution hazards

Special to The Christian Science Monitor

Conservation has added a new list of pollution hazards.

East Farmers Report Smog Damage to Crops

NEW YORK—A Connecticut farmer complained that an acute kind of smog was invading his farm.

Blue Waters of Tahoe May Change Into Pea-Soup Green

Expert Says That Unless Present Contamination Is Halted, Clear Lake Will Become Turbid and Polluted

Lake Tahoe, Northern California's serene gem of crystal-clear blue water may turn into a pea-soup green body of turbid, polluted water unless present contamination of the lake is brought under control.

World Pollution Is Serious Menace

NEW YORK (UPI)—Ever-increasing use of gasoline and oil, coupled with the progressive elimination of plants of the world's oceans as dumps.

Any form of combustion... including the process of oil... the professor said (UPI) and... the professor said (UPI) and... the professor said (UPI) and...

Effects on Tobacco

Last week, at the annual... the tobacco industry... the tobacco industry... the tobacco industry...

Writing in the winter issue of the magazine, Dr. Callahan... the tobacco industry... the tobacco industry... the tobacco industry...

Now, however, record one... the professor said (UPI) and... the professor said (UPI) and... the professor said (UPI) and...

H EADLINES in newspapers and scientific journals alike — “Can the World Be Saved?” “Pollution of Ocean — Universal,” “Use of DDT Called Threat to All Life,” “Scientist Warns of Threat to Oxygen Supply,” “Will Man Destroy Nature’s Cycle?” — all these dramatically reveal the shocking extent of damage already inflicted upon our polluted planet.

Nature is reeling under the blows of man’s misguided and misdirected technology. But nature is fighting back, so to speak. In the end only man can lose, if he persists in building a society *out of harmony* with God’s physical laws. Modern man in his frantic rush to produce more, accumulate more, and even throw away more, is seemingly ignorant of the fact he is *part of*, not independent of, nature — and specifically that part of nature known as the *biosphere*. The biosphere is that vast, intricate web of organisms and processes that comprise the marvelous stairstep food chain in which one life form feeds on another.

Man’s wastes are now disrupting this finely tuned chain of life.

From Pole to Pole

The Antarctic continent is the most remote area of the earth, the most isolated from man and his activities. Yet in a very significant — and tragic manner — humanity is here too. At least the by-products of man’s “progressive society” are present.

Trace amounts of DDT (which has never been used in the Antarctic) have been detected in the tissues of four Antarctic animal species. Tissue analyses of Adelie penguins, crabeater seals, Weddell seals and fish species of the eelpout family have all revealed traces of DDT. The heaviest concentration was

found in the eelpouts, *captured in bottom traps at depths of more than 1500 feet* in McMurdo Sound.

At the opposite end of the earth, the same amazing result has been found.

Not long ago, a husband-and-wife team of amateur ornithologists explored the remote, nearly inaccessible interior of Alaska. In the vicinity of their campsite in the Brooks Range they investigated numerous nests and eggs. The result of their search? They discovered varying amounts of chlorinated hydrocarbons *in every specimen they checked*. The highest amount was found in a rough-legged hawk and *in a larva which lived under a rock in a cold mountain stream*.

The U. S. Fish and Wildlife Service believes the source of the contamination to be "pesticide fallout"—probably the result of aerial spray which never reached the ground at its intended target.

From the Pacific . . .

A three-man research team made a startling discovery in 1966. The researchers collected more than 400 samples of fish, shellfish and other invertebrates in the Pacific Ocean off America's West Coast. Do you know how many were free of pesticide residue?

FOUR!

That's right — *four!* A measly four out of over 400 samples — only one percent — collected in a broad area from Seattle to the Galapagos Islands and from San Francisco to Hawaii. It seems that animals without a trace of DDT or some other pesticide have become freaks.

The researchers were also startled to find that the DDT concentration *in the reproductive organs* of certain species was *10 times* that found in other body tissues. Is it any wonder the fertility rate of some forms of wildlife is dropping? In addition, the researchers said the widespread occurrence of DDT residues in marine bays and estuaries was particularly significant. Such bodies of water are the "nurseries" of many species of commercial fish.

"The distribution of pesticides in areas for which they were never intended is *no longer a nightmare but a reality*," the research team concluded (*New York Times*, February 9, 1966).

... to the Atlantic

Latest evidence of the presence of DDT comes from study of the Bermuda petrel. This carnivorous bird spends almost all its life far out in the Atlantic. It feeds at the ends of many of the ocean's food chains.

Biologists recently noticed that the 20 remaining petrel pairs were having serious difficulty in breeding. They could find no logical reason other than substantial residues of DDT in the petrel eggs. The biologists are worried because this is the clearest evidence yet of widespread DDT pollution in the world's oceans!

"DDT and pesticides just like it are the worst pollution problem we have on earth today," said Dr. George M. Woodwell, chief ecologist at the Atomic Energy Commission's Brookhaven National Laboratory. Speaking at a symposium on pollution titled "Challenge for Survival" in early 1968, Dr. Woodwell said DDT has so infested the world's air and water that *it has begun to kill off entire species of fish and birds*, particularly the scavenger birds who nest in oceanic islands.

For the past 11 years, Woodwell said, the world's consumption of DDT has averaged *200-million pounds a year*.

U. S. Interior Secretary Stewart Udall says it is wrong to call many of these products pesticides. "Biocides"—life killers—"would be a more appropriate term," he says.

On another occasion, Udall exclaimed: "Blithely we carry on our multibillion dollar programs in the pesticides field *with wholly inadequate research*. . . . *We could be building our own fool's paradise*. The day of reckoning may not be tomorrow, but who knows about the day after?"

Ecologist Warns of Oxygen Depletion

Many experts believe an ecological disaster is rapidly approaching.



Christopherson — Ambassador College

Garner Ted Armstrong (right), speaker on *The WORLD TOMORROW* broadcast, interviews Dr. Lamont C. Cole, widely known ecologist. Dr. Cole warned that man's pollution is threatening some of the basic ecological cycles necessary for the existence of life.

For one, Dr. Lamont C. Cole, Professor of Ecology at Cornell University, warns that man's shortsighted remodeling of his environment is now endangering the earth's oxygen supply.

Dr. Cole spoke before the annual meeting of The American Association for the Advancement of Science convention in New York City, December, 1967. Ambassador College correspondents and photographers attended the convention.

Dr. Cole told the AAAS delegates that industrial man is outpacing his supply of oxygen. The process of photosynthesis — whereby green plants consume carbon dioxide and produce oxygen — is falling behind the consumption of oxygen, due largely to the combustion of fossil fuels. Said Dr. Cole: "Every year we are destroying fossil fuels at a greater rate than the preceding year, while, in this country alone, we are annually removing, largely by paving, a million acres from the cycle of photosynthetic productivity. . . . Thus . . . we are reducing the rate at which the oxygen in the atmosphere is regenerated."

Yet, Dr. Cole went on to warn, the greatest danger to the earth's oxygen supply lies not in lagging photosynthesis by land plants but in the accelerating contamination of the oceans.

Some 70 percent of all our oxygen comes from diatoms, tiny one-celled plants in the sea. And into the oceans are dumped up to *one-half million* biologically active materials, including pesticides, detergents, and radioactive wastes!

Remarked Dr. Cole: "I do not think we are in a position to assert right now that we are not poisoning the marine diatoms *and thus bringing disaster upon ourselves*. If the tanker Torrey Canyon [which broke up off England's Cornwall coast in early 1967] had been carrying a concentrated herbicide instead of petroleum, could photosynthesis in the North Sea have been stopped? Berkner [the late Professor Lloyd Berkner] considered that a very few such disasters occurring close enough together in time might cause the **ULTIMATE DISASTER!**"

Yes, shocking though it may seem, even the most essential earthly substance for humans and all other animal forms — oxygen — cannot be considered safe from the polluting hand of man.

Biologist Speaks Out

Few men today possess the quality to see the "big picture", the overall perspective of what suffering mankind is doing to himself. Professor Barry Commoner, director of the Center of the Biology of Natural Sciences, Washington University in St. Louis, is one of these rare individuals.

On March 3, 1968 Professor Commoner addressed the opening session of the National Conference on Higher Education in Chicago. What he said there summarizes the facts in this booklet so far.

"We are tragically blind, I believe, not only about our fellow men, but also about important aspects of nature; we are dangerously incompetent not only in our relations with each other, but also in our relations to the natural world; our survival is threatened not only by a growing social crisis, but also by a technological crisis. . . .

"One of the striking features of modern life is a *deep and*

WHEN AN OIL TANKER BROKE UP — Cornwall, England's holiday industry faced disaster when the *Torrey Canyon* oil tanker broke up off its coast. Oil covered the beaches (below). A far greater catastrophe was the possible extinction of life in the area. Photo at right shows seabird tragically trapped in the oil. Thousands of birds died. Worse still, the tragedy struck at breeding time and threatened the extinction of bird species. A far more sobering thought is: Suppose the *Torrey Canyon* had been carrying high-powered pesticides instead of oil?

Keystone, Syndication International Photos





widespread faith in the efficacy of science and in the usefulness of technological progress. But there is now at least one good reason to question this faith: the phenomenon which has just begun to capture the public attention that it merits — environmental pollution. The rapid deterioration of the environment in which we live has become a chief determinant of the quality of our lives. . . .

“We have developed an enormous competence to intervene in the natural world. We can release nuclear energy, spray herbicides over the countryside, and produce millions of automobiles. But in the eager search for these benefits of modern science and technology, we have blundered, unwittingly, into serious hazards. . . . We produced power plants and automobiles which envelop our cities in smog — before anyone understood its harmful effects on health. We synthesized and disseminated new insecticides — before anyone learned that they also kill birds and might be harmful to people. We produced synthetic detergents and put billions of pounds into our surface waters — before we realized that they would not be degraded in disposal systems and pollute our water supplies. . . .

“*Clearly we have compiled a record of serious failures in recent encounters with the environment.* This record shows that we do not yet fully understand the environment well enough to make new large-scale intrusions on it with a reasonable expectation of accurately predicting the consequences. . . .

“In the eager search for the benefits of modern science and technology we have become enticed into a *nearly fatal illusion*: That we have at last escaped from the dependence of man on the balance of nature.

“THE TRUTH IS TRAGICALLY DIFFERENT. We have become, not less dependent on the balance of nature, but more dependent on it. Modern technology has so stressed the web of processes in the living environment at its most vulnerable points that there is little leeway left in the system. . . . Unless we begin to match our technological power with a deeper understanding of the balance of nature *we run the risk of destroying this planet as a suitable place for human habitation.*”

Foretold Long Ago

Sobering words by Professor Commoner. But words very similar to those prophesied *in your Bible* centuries ago!

God Almighty knew mankind would paint himself into a corner if he persisted in following the way of his human nature — the way of lust, greed, and total unconcern for the welfare of his fellowman and his environment.

The prophet Isaiah graphically foretold of our day:

“The earth is drooping, withering . . . and the sky wanes with the earth, FOR EARTH HAS BEEN POLLUTED BY THE DWELLERS ON ITS FACE . . . Therefore a curse is crushing the earth, alighting on its guilty folk; mortals are dying off, till few are left” (Isaiah 24:4-6, *Moffatt* translation).

The prophet Hosea, who was a contemporary of Isaiah, gave a detailed prophetic warning. It is found in Hosea 4:1-3 (*Moffatt*):

“Israel, hear the word of the Eternal, for the Eternal has a charge to bring against the dwellers in the land; No fidelity, no kindness, no knowledge of God in the land, nothing but perjury, lying, and murder, stealing, debauchery, burglary . . .”

What better description of life in the English-speaking world! We and related Europeans are the modern-day descendants of the people of Israel. The prophecy is directed to *our* nations today.

And now the last half of verse 3: “. . . even the beasts and birds AND THE VERY FISH WITHIN THE SEA ARE PERISHING.”

Nothing could more aptly describe what we are doing both to ourselves and to nature, to the abundant physical blessings a benevolent God has bestowed upon us.

Who Will Save Us?



TIME AND AGAIN one hears the hackneyed expression "Technology created pollution. It can also solve it."

But will the hoped-for new advances in science and technology clean up our polluted world to the extent that we can once again breathe clean air, drink pure water, eat wholesome, nourishing, uncontaminated food?

Afraid not. Scientists do not intend to go that far.

The committee on pollution of the National Academy of Sciences stated recently in its report on waste management and control:

"The right amount of pollution must be planned with criteria set somewhere between the ideal of complete cleanliness and the havoc of uncontrolled filth."

The so-called "right amount" of pollution, this report continued, "involves a calculable risk of society. It depends on where we are, what use we want to make of the environment and quality of cleanliness for which we are prepared to pay."

Are you willing to accept this decision on the part of the scientific community? Are you willing to accept the opinion of a news magazine which in a recent issue claimed that in the search for solutions "there is no point in attempting to take nature back to its pristine purity."

Why not? Why shouldn't our environment be clean — TOTALLY? Why should we have to tolerate a "little bit of filth"?

Pollution is NOT necessary!

Drastically Needed: A Fresh Perspective

In his frantic effort to curb pollution, man is passing more laws, spending more money and conducting more research than ever before. And we can be thankful that he is!



Duncan — Ambassador College

PLAIN TRUTH reporters examine a "sonic boom recorder" on display at exhibition booth. Fantastically expensive tape machine is used by government agencies to record sonic booms and other noises in urban areas. "Noise pollution" is a growing problem in U. S. cities.

As one manufacturer told us, "If all the pollution control equipment in the U. S. were shut down for *just one day* while industry continued to operate, you would really appreciate how much is presently being done to control pollution." He predicted that any such shutdown would create a national pollution emergency almost immediately.

But in spite of man's best efforts with all the control machinery working — in spite of a myriad of complex new codes and laws attempting to control pollution — the fact still remains that man is losing the battle.

Something new and greater must be done — *and soon* — if mankind is to survive!

To use Dr. John T. Middleton's words, "We have no alternative, then, but to seek a *fresh perspective* and to *think and plan along new lines.*"

But *what* "fresh perspective" — and along *what* "new lines"?

Is there a solution to pollution?

There is! And we bring you the good news that this solution will be in full effect well before the end of this century.

The CAUSE of Pollution

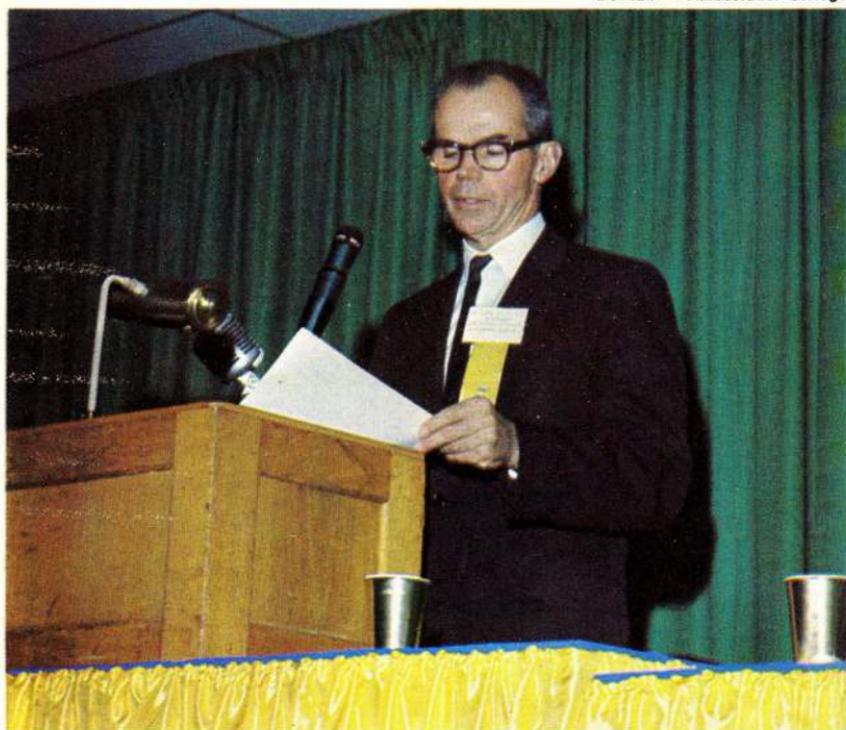
The cause of pollution is no secret. Many speakers at the Houston conference to which we have continually referred clearly identified the culprit.

"In its broadest dimensions, we all know that *pollution is a by-product of industrial civilization*, whether the system be capitalism or communism," said Dr. Lehner of Du Pont.

John S. Lagarias of the Air Pollution Control Association added that air pollution problems "follow closely the rate of urbanization and the development of megalopolises... [and]

Dr. John T. Middleton, Director of the National Center for Air Pollution Control of the U. S. Public Health Service, told delegates to the National Pollution Control Exposition and Conference that both industry and government must seek a "fresh perspective" and to "plan along new lines" to combat pollution.

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the crowding together of people in closer and closer proximity.”

Addressing the entire group at the convention's formal banquet, Senator Jennings Randolph of West Virginia stated: “Nearly all of the important and critical environmental health problems — air pollution, water pollution and the growing pervasiveness of pesticides . . . have been an undesired and unforeseen *by-product of goods or services which society has wanted.*”

These brief quotes lay bare the *cause* of pollution. Did you catch it?

Pollution is caused by MAN, by man's *lusts, his misdirected urban-industrial WAY of LIFE.*

Racing to Nowhere

Today our western society worships the false god of “Continued Economic Growth.” He is also known as the god of Greed or Materialism. Upon his idolatrous altar we are willing to sacrifice our all — clean air, pure water, good food, health, happiness, peace of mind and the well-being of our children.

To do obeisance to this god, 500,000 to 600,000 people a year in the U. S. alone march as permanent pilgrims from rural areas to his metropolitan meccas — our teeming cities. There they serve in his temples of technology — the factories, mills and plants — and breathe the acrid, sulphurous incense of industry which is continuously belched into the air like an ever-burning oblation.

If this pilgrimage to the cities were to continue at the present rate, by the year 2000, 100 million more people would be occupying American cities and towns now occupied by 140 million!

In fervent worship to this false god, 95 percent of man's technological achievements are estimated to have been made in the last 20 years! And pollution has been a *serious* problem in roughly this same time period. *Can't we see the connection?*

Isn't it high time we stopped to ask ourselves *where we are going* — and *WHY?*

One is reminded of the story about the airline pilot who told his passengers over the loudspeaker, “I have some good and

"America the Beautiful?"

OH (COUGH) BEAUTIFUL (SNIFFLE)
FOR (COUGH) SPACIOUS SKIES (HAK)...



bad news. The good news is that we are making rapid progress at 530 mph. The bad news is that we are lost and don't know where we are going."

The sad fact is that this becomes a true story when applied to our modern urban-industrial society. As Dr. Middleton so graphically stated: "In our *single-minded devotion* [idolatry] to achieving the benefits of science and technology we plunged ahead with the abundant materials at hand, without a very precise notion of where we were going, and without serious attention to the possible adverse side effects of our new activities on our environment."

Yes, conceive, invent, design, develop, forge, produce and fabricate. And do it FAST — with a sense of urgency! But don't ever ask WHY. And don't stop to think where it will end.

Incredible though it may seem, this is today's philosophy!

Confused Values

Hasn't it ever occurred to us that man can produce *too much*? Can't Western man see that he really doesn't NEED everything he *desires*?

What we as a people need are fewer conveniences and less soft living and more CHARACTER! We need to realize that there are some things our factories can't produce. Things like sound minds, healthy bodies, obedient children, a purpose in life, peace of mind, happy homes and marriages — to name just a few.

Examine our modern culture for what it really is. Many things which our industrial society produces are simply not good. Think of all the tons of newsprint consumed each year in producing cheap magazines, pulp novels and outright pornography. Many more of our manufactures are of a cheap, shoddy, inferior quality which serves to instill in both builder and buyer wrong character traits. (To see this, go to any cut-rate furniture store and see what the "bargains" are.)

Still other products are not as great a blessing as we think.

For example, what do you find at a supermarket? A fantastic variety of food, mostly in convenient packages (which are subsequently thrown away) and often partially or wholly prepared, then preserved with a battery of unpronounceable and

mostly harmful chemicals. (We've not touched upon the subject of food pollution. Suffice it to say here that there are *2400 food additives in commercial use today* — preservatives, bleaching agents, artificial colors and flavors, sweeteners, emulsifiers, stabilizers, thickeners, neutralizers, etc., etc.)

Society points to this variety and convenience as a great blessing. But what are we *paying for it?*

The penalty of added costs and ill health!

Wouldn't it be a much *greater* blessing to eat food that had a fresh, tree or vine-ripened taste, food without chemical preservatives and pesticides, food grown on healthy soil without unbalanced chemical fertilizers, food that isn't embalmed, food that contained all the rich flavor and nutrients that God intended?

Isn't good health worth it? How can you compare a few moments' convenience to a lifetime of good health? Yet this is just one example of many where a convenience of our mechanized age is called a "blessing" even though it is robbing us of our health and therefore becomes a curse.

A Shocking Report

But let's not just look at *physical* pollution and its *physical* effects. The pollution of our surroundings exerts a tremendous influence on our *mental* and *moral* well-being.

On the last day of the Houston conference, Dr. Richard A. Prindle, Assistant Surgeon General of the U. S., spoke on the effects of pollution on man. After first explaining the effects that chemicals play in the pollution picture, he said:

"Chemicals are only part of the known or suspected hazards of living in the mechanized, industrialized and urbanized environment of today. I consider the most important of these other hazards to be the many physical and emotional pressures which add up to a *total pattern of unrelenting stress upon the individual* . . .

"Gone is the satisfaction and a feeling of accomplishment in one's work. *With the advent of modern specialization, man often feels that he is simply a cog in the machinery*, endlessly performing the same routine task in the assembly line, in a

never-ending battle for survival in a fiercely competitive, often brutal world . . .”

“The individual,” Dr. Prindle continued, “is under constant attack from external influences such as congestion of all types, minor nuisances and daily hazards, noise at work, on the radio, on the television, noise from the telephone, the jets, the streets, and from people living close by. These assaults plus the lack of space and facilities for recreation and all the problems, stresses and frustrations encountered in the course of an average life can add up to an individual who is susceptible to the slightest infection that comes along, or who becomes one of the thousands who suffer from ulcers and other stress-related disorders . . .”

What a penetrating indictment of our WAY OF LIFE! Yet with foolish pride we hail the trends of urban, industrial and technological growth as the “hallmark of our era.”

Don't misunderstand! There is a place for the *right kind* of cities and industry in a well-ordered society. A “right kind” of city or industry will enhance the TOTAL QUALITY of human life and will enable the ones living and working in it to develop the *true values* of life.

But what a rare thing this is today!

Instead, “In almost every major urban area we observe the continual increase in crime and juvenile delinquency, in civil disorders, and in *general degradation of the quality of life*, and in congestion and in *environmental pollution*. Few of our cities today offer a foundation for a good life, much less the basis for a Great Society” (Senator Randolph).

WHY?

The answer lies in taking a closer look at the most basic reason of all for pollution — human nature.

Pollution and Human Nature

Human nature is a *selfish* nature of vanity, jealousy, lust and greed. It wants to GET, to acquire, to have for the self.

If this means upsetting the delicate balance of nature or hurting your neighbor — SO WHAT? If getting some small comfort or object for the self *here and now* means robbing a fellow

human or future generations of a vital necessity of life — WHO CARES? That's *their* problem, the reasoning goes.

This is the attitude of human nature. Human nature is completely hostile to God's law which says, "Thou shalt love thy neighbour as thyself" (Rom. 8:7 and Mat. 19:19). Our modern urban-industrial society is ideally suited to giving vent to this selfishness, greed and lust of human nature. It spawns a way of life that *appeals* to human nature.

A leading pathologist in Canada emphasized recently: "Most of the blame for pollution comes from man's desire [substitute 'lust'] for short-term economic gain. We tip things into [our lakes and streams] because it's cheaper, or spray apples because we want [again, 'lust after'] a bigger crop this year." But, said this pathologist, "We pay for years to come."

How short-sighted man is!

When man allows himself to so LUST for money, material things and polluted foods that he is willing to HURT his neighbor and his own physical, mental and spiritual well-being, then he SINS.

He disobeys God's Law of Love and he directly and indirectly breaks every one of the Ten Commandments. He breaks the first commandment by placing physical objects ahead of the true God, the second commandment by making an idol of these things, the fourth commandment by misusing time, the sixth commandment by hating his competitor or harming the health of his customer, the eighth commandment by cheating and defrauding, the ninth commandment in faulty advertising, the tenth commandment by coveting what does not belong to him. And the breaking of the third, fifth and seventh are a natural result of this kind of sinful living.

Ever think of it that way?

Man: The Dirty Animal

There is yet another way in which human nature has a bearing on pollution. Not only is human nature selfish and lustful, but it is also lazy and dirty. It likes to *make* filth and pollution, but it doesn't like to *clean it up!* Man truly is, as a recent book was entitled, "The Dirty Animal."



A SCARRED AND BEATEN LAND — Top photo shows pollution from mine drainage in Southwestern United States. Bottom photo shows scars due to strip mining of iron ore in Minnesota.

*FWPCA Photo (top), DenHouter —
Ambassador College (bottom)*



As one civic official lamented at the Houston conference, "Everyone wants you to pick his garbage up, but nobody wants you to put it down — at least near him."

Why do we have so many open dumps? "Because *it is cheap and requires no planning*," reported Charles C. Iglehart, Jr. of the Kentucky Department of Health.

He went on to say of pollution control programs that, "the problems are not *technical, they are problems of human nature* . . . cooperation; how to get along with your neighbor; interest in the community. . . These are the problems that must be worked out."

These perceptive words hit the nail squarely on the head. Cleaning up pollution just isn't that appealing to human nature.

Right now more than twenty percent of the *budgeted* jobs in pollution control in city, state and federal offices are going begging because of a lack of qualified men to fill them. Some of these jobs are in the \$25,000 a year category!

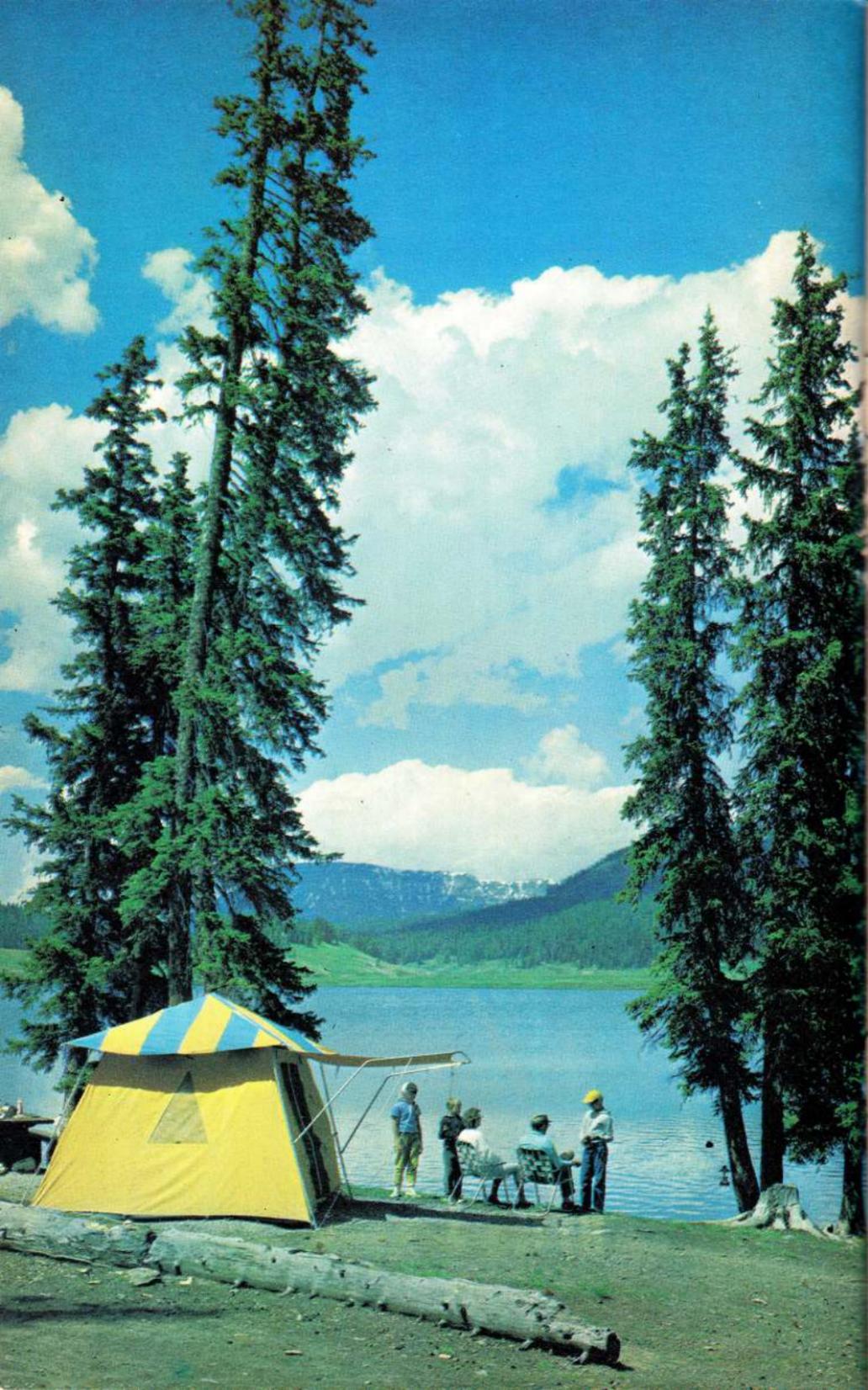
The only apparent reason seems to be, as one official put it, "Dealing with garbage is not as glamorous as a moon shot."

Let's face facts! *Many people and industries clean up only when forced to do so.* Municipal, state and federal officials are often dismayed at the reluctance on the part of industry to appropriate significant funds for pollution abatement equipment. Industry, in turn, argues (and sometimes is correct) that elected officials "don't understand" the problems industry faces in this regard. At the Houston conference the subtle government-industry tussle was evident in speech after speech. "Industry won't co-operate," complained government officials, in so many words. "Government is trying to pass unrealistic laws," lamented many industrialists in return.

MEANWHILE, AS THE BUCK IS PASSED, POLLUTION MOUNTS.

But, mark this — government-industry cooperation — as desirable and necessary as it has become — will not eliminate the primary CAUSES of pollution!

Human nature doesn't like to face up to this fact. We like to kid ourselves that we can still solve the problem. "Modern technology has created the problem, it can solve it as well."



WHAT THE WORLD COULD BE LIKE — Very few areas which are fit for human existence are yet unpolluted by man.

H. Armstrong Roberts Photos



Or, "Man created environmental contamination and he can also correct it."

But the truth is, the problem is *beyond* man's ability to solve. Soon he will be forced to face that fact.

No amount of wishful thinking can solve the insurmountable problems you have seen documented in these pages. It's simply a case of "too little, too late." *Could* there be *another answer?*

Could there be any truth to the whole chronicle of human history revealed in your Bible, a chronicle that includes *exact prophecies* which describe, with amazing accuracy, the *precise* problems confronting our peoples today?

Think about it.

How many problems are there now, that man seems to be forced to label "insoluble"?

Pollution is one, and the population explosion, the inability of the world to feed its millions, the frightening spectre of nuclear arms stockpiling — these and others.

In the face of these problems, one would feel virtually hopeless. But, though most would be tempted to reject the *source*, there is good news! There *is* a great Master Plan, already under way, that will *SOLVE* these massive problems.

To find out how these seemingly insoluble problems will be eliminated; to learn more about the good news of the *clean* world tomorrow, write immediately for our *FREE* booklet, *The Wonderful World Tomorrow — What It Will Be Like*.

This booklet, sent in the public service, shows how the polluted world will be cleaned up and how all the other problems of the world today will be solved.

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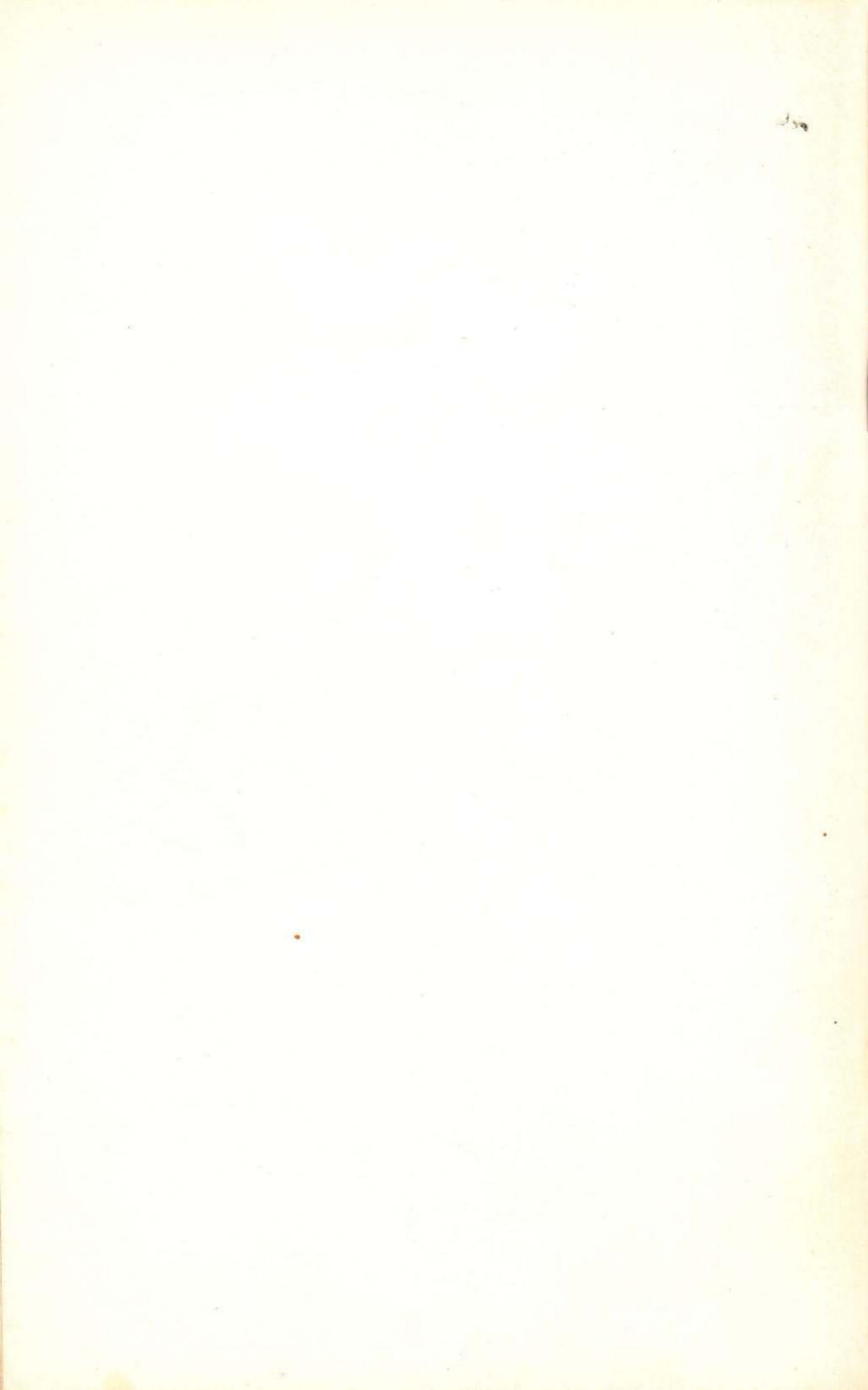
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OUR COVER

The air pollution-choked United States makes a travesty of the words on the Statue of Liberty, "Give me . . . your huddled masses yearning to breathe free."

After Poster by Public Health Service