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Our ECOLOGY crisis and what to do about it, as analyzed during Earth Week on NBC-TV's Today Show.

NEW WORLD or NO WORLD

Edited and with commentary by the author of DUNE,

FRANK HERBERT

Foreword by

SENATOR EDMUND S. MUSKIE

Preface by

SECRETARY OF THE INTERIOR WALTER J. HICKEL

Ecology is a dirty word to many people.

They are like heavy sleepers refusing to be aroused. "Leave me alone! It's not time to get up yet!"

They retreat into death games and other violence, hiding their awareness from the terrifying necessities of this moment.

If any human sees a clear choice between life and death, then chooses death, we call that insane. Why do we accept it when it happens on a world scale?

We must shake the sleepers—gently and persistently, saying: "Time to get up."

— FRANK HERBERT

Grateful acknowledgment is made to the writer of the *Today* show who conceived and shaped NEW WORLD OR NO WORLD:

Ric Ballad.

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INTRODUCTION

by Frank Herbert

My name is Frank Herbert and I am a human being on the planet Earth, a condition shared by about three and a half billion of my fellows in this year 1970.

Only about one-third of us are sufficiently well fed that we can take the time to write such words as these. Food is energy is time. Pollution is lost energy.

The pollution of over-population holds billions of my fellows in crawling poverty, and my own land appears headed toward this same condition.

This is insanity.

I felt constrained to say these things in just this way because of a pledge I have made. I refuse to be put in the position of telling my grandchildren: "Sorry, there's no more world for you. We used it all up."

It was for this reason that I wrote in the mid-sixties what I hoped would be an environmental awareness handbook. The book is called *Dune,* a title chosen with the deliberate intent that it echo the sound of "doom." On the pages of *Dune* there is a man named Pardot Kynes, a Planetologist, which is a kind of

super-environmentalist. I put these words into his mouth:

"Beyond a critical point within a finite space, freedom diminishes as numbers increase. This is as true of humans in the finite space of a planetary ecosystem as it is of gas molecules in a sealed flask. The human question is not how many can possibly survive within the system, but what kind of existence is possible for those who do survive."

Population can destroy us. There exists a limit to global elbow room, a limit to how many the good Earth can support. Yet, we go our separate ways, geared to propagating separation, geared to national and racial and many other kinds of distrust, actively preventing affection for each other as humans.

On the issue of birth control, Hindu deeply distrusts Moslem, and Moslem distrusts Hindu; Blacks distrust Whites and Whites distrust Blacks.

And all the time, we know we must solve our mutual problem together or be destroyed—Moslem, Hindu, Black, White . . .

Together is sane.

Fragmented is insane

That's the message I want you to get from this assemblage of words representing the *Today* show's look at Earth Week: *New World or No World.*

The thing we must do intensely is be human together. People are more important than things. We must get together. The best thing humans can have going for them is each other. We have each other. We

must reject everything which humiliates us. Humans are not objects of consumption.

We must develop an absolute priority of humans ahead of profit—*any* humans ahead of *any* profit. Then we will survive . . .

Together.

Seattle, Washington
May 15, 1970

FOREWORD

by Senator Edmund S. Muskie

More and more Americans are learning that our natural resources are limited and that, unless those limitations are respected, life itself may be in danger. The *Today* programs on ecology demonstrated the extent of that danger.

We are also learning that, unless we respect each other, the very foundations of freedom may be in danger.

If we are to build a whole society—and if we are to insure the achievement of a life worth living—we must realize that our shrinking margins of natural resources are near the bottom of the barrel. There are no replacements, no spare stocks with which we can replenish our supplies.

Our nation—and our world—hang together by tenuous bonds which are strained as they have never been strained before—and as they must never be strained again. We must lay down our weapons of self-destruction and pick up the tools of social and environmental reconstruction.

These are the dimensions of the crisis we face:

No major American river is clean anymore, and some are fire hazards.

No American lake is free of pollution, and some are dying.

No American city can boast of clean air, and New Yorkers inhale the equivalent of a pack and a half of cigarettes every day—without smoking.

No American community is free of debris and solid waste, and we are turning to the open spaces and the ocean depths to cast off the products of our effluent society.

We are horrified by the cumulative impact of our waste, but we are told to expect the use of more than two hundred and eighty billion non-returnable bottles in the decade of the Seventies.

In trying to turn the tide against pollution, we now face—collectively and individually—a moral frontier.

That frontier is the point at which we are willing to cut back selfish exploitation in favor of selfless conservation.

That frontier is marked by the extent of our concern for future generations. They deserve to inherit their natural share of this earth—but we could pass on to them a physical and moral wasteland.

We have reached a point where (1) man, (2) his environment, and (3) his industrial technology intersect. They intersect in America, in Russia and in every other industrial society in the world. They intersect in every country which is trying to achieve industrial development.

Our technology has reached a point where it is producing more kinds of things than we really want,

more kinds of things than we really need, and more kinds of things than we can really live with.

We have to choose, to say no, and to give up some luxuries. And these kinds of decisions will be the acid test of our commitment to a healthy environment.

It means choosing cleaner cars rather than faster cars, more parks instead of more highways, and more houses and more schools instead of more weapons and more wars.

The whole society that we seek is one in which all men live in brotherhood with each other and with their environment. It is a society where each member of it knows that he has an opportunity to fulfill his greatest potential.

It is a society that will not tolerate slums for some and decent houses for others, rats for some and playgrounds for others, clean air for some and filth for others.

It is the only kind of society that has a chance. It is the only kind of society that has a future.

To achieve a whole society—a healthy total environment—we need change, planning more effective and just laws and more money better spent.

Achieving that whole society will cost heavily—in foregone luxuries, in restricted choices, in higher prices for certain goods and services, in taxes, and in hard decisions about our national priorities. It will require a new sense of balance in our national commitments. We must cut back our spending for the supersonic transport, the space program and

arms development and step up our spending on air pollution control, housing and education.

We can afford to do these things if we admit that there are luxuries we can forego, false security we can do without, and prices we are willing to pay.

The environmental conscience which has been awakened in our nation holds great promise for reclaiming our air, our water and our land. But man's environment includes more than these natural resources. It includes the shape of the communities in which he lives: his home, his schools, his places of work, and those who share this planet and this land.

If the environmental conscience is to have any lasting meaning for America, it must be the instrument to turn the nation around. If we use our awareness that the total environment determines the quality of life, we can make those decisions which can save our nation from becoming a class-ridden and strife-torn wasteland.

The study of ecology—man's relationship with his environment—should teach us that our relationships with each other are just as intricate and just as delicate as those with our natural environment. We cannot afford to correct our history of abusing nature and neglect the continuing abuse of our fellow man.

We are not powerless to accomplish this change, but we are powerless as a people if we wait for someone else to do it for us.

We can use the power of the people to turn the nation around—to move toward a whole society.

The power of the people is in the ballot box—and we can elect men who commit themselves to a whole society and work to meet that commitment.

The power of the people is in the cash register—and we can resolve to purchase only from those companies that clean themselves up.

The power of the people is in the stock certificate—and we can use our proxies to make industries socially and environmentally responsible.

The power of the people is in the courts—and through them we can require polluters to obey the law.

The power of the people is in public hearings—where we can decide on the quality of the air and the water we want.

And the power of the people is in peaceful assembly—where we can demand redress of grievances.

Martin Luther King once said that "Through our scientific and technological genius we have made of this world a neighborhood. Now through our moral and spiritual genius we must make of it a brotherhood."

For Martin Luther King, every day was an Earth Day—a day to work toward his commitment to a whole society. It is that commitment we must keep—every day.

PREFACE

By Secretary of the Interior Walter J. Hickel

Earth Week, 1970, has come and gone.

It brought pleas, protest and pledges. It left among millions of television-viewing Americans and others a deep sense of awareness that there still remains a wholesome spontaneity when crisis threatens.

The crisis of environmental problems is real; the absolute way of lessening their impact still is value.

This comes into focus when one reads the series of NBC *Today* show interviews so ably compiled in this handy volume. Suggested solutions, and even interpretations of the nature of the problem, vary widely, depending upon the experience, background and orientation of the person interviewed. But the important truth that emerged from Earth Week, as revealed by the *Today* show, was that Americans now are determined to find the solutions—at all costs.

It is my hope that the Earth Week that brought us together through the common bond of true concern will keep us together every day as we move forward to correct the havoc we have wrought on our surroundings.

Only through a long-lasting national commitment

can we restore those rights of the individual which our own restive and affluent society has denied us —the right to wholesome air, clean water, peaceful association and an uncluttered land.

We are, at last, beginning to realize that pointing an accusing finger at someone or something won't clean up the environment. We are beginning to accept the stark truth that the finger really points at all of us.

We must establish new rules, new priorities, in the handling of our renewable and non-renewable resources. Simultaneously, we must grow and progress, but with carefully planned attention to the long-range effects of what we do on the world in which we live.

Pollution has affected the entire earth, particularly the forward nations. Regardless, it does not respect the individual or the group.

We who permit pollution must suffer equally from it. We must breathe the same contaminated air, drink the same pungent water, view the same ugliness.

The tide of pollution has been building for years, for we have been blind to the fact that it is far less expensive to prevent contamination of the environment than to clean it once the heaped-up insults have mounted to awesome proportions.

One Earth Week—a few hours of self-appraisal and dedication—won't bring about a miraculous restoration. It will require earth weeks throughout every year for decades to balance things out. Billions of

dollars must be invested just to prevent further degradation. More billions will be needed to restore and prevent.

We must capitalize on the gains of that week in April 1970.

We must assure our youth that we are with them in their demands that our environmental world be more wholesome.

I am encouraged by the mutal awareness of young and old that we can and must reason together to restore a workable balance in the use of the environmental elements that assure man of survival.

Our young people are inheriting an earth worse than was left their elders. They did not develop DDT, or non-returnable bottles, or stubborn plastics and detergents. Our streams were polluted when they joined us, our skies smoggy, our land debased.

They cannot be blamed for this "progress," but they can detest it.

There is no real generation gap between these younger people and the adults. I believe both groups will unite for a quality environment.

In an historic meeting, just before dawn began breaking over Washington, President Nixon met with students who had arrived for the May 9, 1970, demonstrations. Said one of the students:

"One of the reasons that we came here is the pollution problem."

The President and the students then talked seriously about dirty water.

"We're going to clean up these things," the President promised.

And we will—by working together. There is no other way.

On the morning of April 20, 1970, commentator Hugh Downs opened NBC's *Today* show with the first of five days' programs focused on Earth Week. His guests for the series were to be some of the nation's leading figures in the field of environment, people such as Margaret Mead, Paul Ehrlich, Rene Dubos, Ian McHarg, Canon Don D. Shaw, Mayor John Lindsay, Astronaut Frank Borman, Senators Edmund Muskie and Gaylord Nelson, Stewart Udall and Congressman Morris Udall.

That opening show shared the spotlight with many news events—the safe return of the Apollo 13 astronauts, disastrous tornados in the South and Middle West, the air war in Laos, President Nixon's announcement that he would report on Vietnam, a new assault on Cuba by armed exiles, new fighting in Israel, heavy snows in Northeast Minnesota and Idaho, and freezing rain in Northwest Wisconsin . . . and gusty winds in Southern California.

All of this, and much more, constituted the environment of April 20, 1970.

Apollo 13 astronaut James Lovell had some words about this environment which many probably did not associate with the air they breathed, the water they drank, with their total life style on this spaceship Earth. He said:

"As I looked back on the Earth and saw just how

wonderful we had it back there and suddenly realized maybe we would not get back, it suddenly became something much more, something we wanted to see and wanted to become part of again."

Although they may not have focused on the Earth as an oasis in space, the only place we know which supports our kind of life, many in the *Today* show's audience must have begun to sense vague feelings akin to those of the astronauts—that the Earth which could nurture them with its life-support systems was disappearing, and they wanted to hear what they could do to get back to that Earth.

NBC began then to conceive of its programs as a kind of Mission Control, searching out what was wrong with spaceship Earth, telling the passengers how they could participate in survival.

In that spirit, it was decided to preserve the essence of those shows in this book form: an extended service to that awareness we all have now—

Something is wrong with the ship and we must get back.

Join us at Mission Control, then, and pay the most careful attention to the *Today* show's cast of experts. Your life depends on it.

ONE

I'm Hugh Downs and I will be working the *Today* program this week, with many guests, and in a special set befitting our subject. All five programs this week will concern the environment. The question, as we see it, is here in back of me: *New World or No World.*

Our Mother Earth is rotting with the residue of our good life. Our oceans are dying, our air is poisoned. This is not science fiction. And it is not the future; it is happening now and we have to make a decision now.

Do we have the will to turn our way of life upside down?—because that is what it is going to take. To make personal, corporate, and national sacrifices in order to keep this earth alive? Or do we go on breeding, demanding more and more power, more of everything until we suffocate or die of plague or famine? Probably within the next century, possibly within the next couple of decades?

Now if these ideas disturb your breakfast I'm sorry. They are not our original ideas. We wish they were. We wish we had thought of this a year ago, or ten years ago. We didn't. We are jumping on the bandwagon a little late in the game. But we

have made a decision for the new world, and we hope you will too.

Let's assume now that I am that charming and fictional character, the average affluent American. I own a home, have a wife and let's say four kids. I make a good salary. We live well. In our living room, for example, we have a hi fi, color television set, an air conditioner . . . well, why not? Everyone in the neighborhood has them. In the kitchen there is the refrigerator, range, mixer and toaster. You should see my electric bill, but that is what electric power is for, isn't it?

Well let's see, what else have we got? We've got stuff like a hair dryer, electric blankets. Out back we have a nice garden. Sure we use pesticides in the garden. What can I do, let the bugs eat everything? I'm just trying to do right by my family. But just listen to this. Listen to what I'm reading these days.

Each one of my kids consumes fifty times as much as a kid in India. We have one-fifteenth of the world's population and we use fifty per cent of the products. Now can I help that? Now, here it says they are paving over four hundred acres of California every day. Every major stream in the United States is polluted. There is hardly a scientist who doesn't think we are going to be finished in less than a century and some are giving us ten years.

What is this? Now I have the good life and everything I own, everything I do is killing me? What is the matter with the industrialists? What is the mat-

ter with the government? How did we get into this mess?

We are going to try now to answer the question of how it came about that man began looking at the earth, became conditioned to view the earth and its inhabitants as victims fit for plundering. To do so we have to go back in history.

In ancient times people were closely tied to nature. There were spirits in the trees and in the water and in the skies. The Greeks dedicated their temples to such deities. But with the coming of Moses there arose the concept of man and the image of God. And slowly the relationship with nature cooled.

The early Christian fathers accelerated the idea of our man-God relationship with the accent on viewing this earth as a vale of tears with all good things to come in another world.

St. Francis of Assisi tried to reverse this trend, preaching the sacredness of all living things. But he preached a losing cause. With the coming of John Calvin and the Protestant Reformation, the idea of man as master of the earth was extended even to his commercial longings.

On the threshold of the industrial revolution, Jean Jacques Rousseau sounded a warning in favor of the noble savage and the return to nature. Rousseau's ideas were engulfed by the avalanche of technology.

Charles Darwin's theory of natural selection was twisted to become the survival of the fittest.

And so armed both by science and religion, the

predatory empire builders, men like Commodore Cornelius Vanderbilt, did indeed multiply and subdue the earth.

As the Twentieth Century dawned, Henry Ford gave the world mass production and material things became available to the common man as never before.

President Teddy Roosevelt, heeding the alarmed cries of conservationists, made a start towards saving the land but no one as yet dreamed that the world destroying pollution would be created by bringing a better standard of living to everyone.

It was not until the last few years that we began to realize that we must change our entire way of looking at our world and each other. We cannot go on mindlessly conquering, using, destroying, multiplying. We must create a whole new life style for the planet or we will perish.

We would like to show you now a portion of a film called *Man and Demons*. This was up for an Academy Award this year. It is a Japanese view of how man has always been pursued by demons. First they destroyed him with floods and fires and then he built an industrial society and learned to control nature. Demons were confounded. They saw mankind doing reasonably well and they decided to do something about it. . . .

Who are these demons? What do they have in store for us even if we succeed in cleansing our earth and deeply changing our mode of living?

This film evokes the thought that perhaps the

demons are within us and that behind our tendency to self-destruction, maybe we are without goals, without convictions, without gods.

Right now, we'd like you to meet Paul Cunningham. He is one of the people we are happy to have with us in this week of examining our environment.

Paul, in hearing some of the arguments that go on today and feeling the nature of the demons that are behind us creeping up on us, I was thinking any arguments today about hippie versus square, or communism versus capitalism, seem as irrelevant as arguing about our samples while the mine is caving in. You know, the question has been asked, what does it matter, for example, if South Vietnam is ruled by Red Hanoi or corrupt Saigon? This is relatively unimportant compared with whether the earth continues.

CUNNINGHAM: Don't you think the difference is based pretty much on the pragmatism necessary to do it? This is where we have to soul search and be willing to give up things.

For example, this piece you are going to see involved the Houston Ship Channel, and you see darn near raw sewage coming out into the Channel. Now the voters there turned down two bond issues in 1968. Recently they went ahead with the bond issue. You see, this is it. Are you willing to spend it?

DOWNS: It is true that when people say in a democracy "What has the government been doing?" a government cannot do anything until it is the

people's will. Unfortunately, people may accept some very bad things. . . .

CUNNINGHAM: I think the education is coming. I was interested in something that happened in London, where you see how complex this task all becomes. I was in London two weeks ago and they've done a marvelous job of cleaning the soft coal emission out of the air by enforcing laws to use smokeless fuels.

So all right, they cleaned the air. Now there is fifty per cent more sunlight in the city of London, especially in the winter, but there is a chemical reaction when that sunlight hits the emissions from automobiles. So now they have a new problem. This is of course what happens. It is a chemical reaction, and they never noticed the automobile emissions before, but now they notice.

They are also noticing with the clean air a lot of dirty empty lots.

DOWNS: It is a complex, interrelated problem, but it all boils down to the fact that we can't go on demanding more power and putting more waste of technology into the environment in a limited atmosphere and limited water supply.

Awareness of the environmental crisis has been a long time coming. Many have seen our misunderstanding of our place in the biological schema.

But now the awareness breaks upon us like a thunderous pounding on our doors. We have been served with a colossal summons:

"On this date you did willfully contribute to the pollution of your world."

The penalty is upon us. We are sentenced to breathe the air we have fouled, drink the water we have polluted, to have our consciousness crushed by views imprisoned in gray walls.

Nature has no probation system to test our good intentions. Continued offenses will only bring down total capital punishment—upon the guilty and the innocent.

TWO

DOWNS: By the year 2000 the world's population will double. Put it at about six billion. Massive famines will rack much of the world in the 1970's. Millions will die. These dire predictions come from the lips and the pen of our next guest, Dr. Paul Ehrlich, the Stanford University biologist who wrote the chillingly provocative book, *The Population Bomb.*

Dr. Ehrlich, there is a seeming paradox here. Some publicity about you indicates you are not interested in life insurance or pension plans or that sort of thing. This would seem to indicate the rather apocalyptic, hopeless view of the future. And yet you half kill yourself getting out, getting the message to people about how bad things are. Now are you thoroughly pessimistic or do you think there is something that can be done to save us?

EHRLICH: I am very very optimistic that we could do something but I am extremely pessimistic about whether we will and that is what I'm trying to change.

DOWNS: In other words, can we do it? Is what has to be done feasible? Is it within our techniques at this time?

EHRLICH: Well, right now we are adding sev-

enty million people a year to the planet. We have three and a half billion people, with about half of them hungry. We are certainly going to lose many many more people to starvation in coming years. But if we started immediately on crash programs of population control, environmental clean-up, I think we could hold down the increasing death rate that we are going to get. Then when the big troubles come, we will see the over-developed countries like the United States and Russia helping the rest of the world. I think that would depress the chance of the big troubles causing a world war, which would be the end of everything.

DOWNS: What specific steps should be taken first to get the public alerted and to get programs into action?

EHRLICH: The best thing that could happen would be to get a President, who would stand forward courageously and say, No American couple should have more than two children, hopefully one or zero, if they want to be responsible and patriotic. Start us on the way to controlling our population, because with the polluting and consuming that we do, the population growth in the United States is about as serious as anywhere in the world.

DOWNS: Is it likely in your mind, since President Nixon has already used the word environment in a State of the Union message, and I don't think that has happened before in history of the country, that he might do what you just suggested?

EHRLICH: Well, we are going to try to keep the pressure on him to do that.

DOWNS: What about summary action on the part of the authorities? I'm thinking about things like putting contraceptive chemicals into our drinking water.

EHRLICH: Well, it is a grim specter. I think we have to get on with propaganda and incentives, and if those don't work, we will say tax disincentives and that sort of thing. If we don't stop our population growth using voluntary measures, then sooner or later we will have to use coercive measures which I think we would all find very disagreeable.

DOWNS: Dr. Ehrlich, even with population leveled off at some optimum figure, our power demands in the technical society we have still will result in pollutants. Now, to what extent does industry tend to ruin the environment?

EHRLICH: To a very large extent, but we could very easily change the way we run our economy, change from a cowboy economy to a spaceman economy. We could force our utilities to stop creating more demand with advertising and then destroying the environment to fulfill that demand. We could push them to reduce the demand for power. There are some very simple steps that could be taken if the government were serious about it. For instance, if they just passed legislation immediately restricting all automobiles to small ones—you know, four placers, but small ones—you would

immediately help the resource situation, the smog situation, and your transit situation because you could move more rapidly, there would be more room and so forth. There are many simple steps the government could take which would require very little technological change but would be a big help on the environmental front while we are trying to pull the population down and clean up other areas in the environment.

DOWNS: If government fails to act in some of these emergencies, what chance do you think there is that the people, through demonstrations or widespread action on their own, might be able to force industry not to pollute?

EHRLICH: I think they are likely to force industry not to pollute by getting rid of a government that won't take action. In other words, groups like Zero Population Growth and Friends of the Earth are supporting candidates and we are working against candidates and we are just going to replace the politicians that won't take action.

DOWNS: It is believed by many that the urge to reproduce is the second most powerful urge there is. The first one, presumably, is to stay alive. How difficult is it, even with modern means of contraception, to sell the idea to people not to have a lot of children?

EHRLICH: I think it is not going to be as hard with modern communications as it might be, because we are going to focus on quality. Reproducing isn't just having the children, it is also raising

them, and raising them to have a decent life. When somebody says I want to have five or six children, what they are really saying is I want to soothe my ego but I don't care what kind of a world those kids grow up in. We must get people to have the urge to reproduce, but to include in that urge the urge to have one or two children well raised. In other words, to reproduce your children to be adults instead of dying young in a horrible war or from pollution-related disease.

DOWNS: The most alarming thing, Dr. Ehrlich, that you have written and spoken about is the possible death of the oceans within a decade. Is that a pre-ordained thing, or could we by taking action within the next couple of years prevent the oceans from dying?

EHRLICH: I hope we can. The trouble is with such things as the DDT we have added to the world already. It will not reach its peak concentration in the oceans, even if we stop adding any more to the environment today, it will not reach its peak in the oceans until somewhere around a decade from now. The peak effect on the oceanic food chains and eco system would probably be about twenty-five years away. It is possible that we have already gone too far, but I don't think so. I think if we stop immediately polluting the ocean and stop over-exploiting it, we can continue to get the food we need to get from the sea.

DOWNS: What likelihood is there that we are going to stop immediately?

EHRLICH: Very small, unless we can get the proper political action. The U.S. Department of Agriculture is still fooling around instead of putting the brakes on, but again, we are going to try very hard to get politicians in office who will do the job.

DOWNS: Would the public stand for it, if the government did take the action? Might there not be an outcry from people who had to eat fruit that had a worm hole in it?

EHRLICH: Maybe what you could do is require that each one of these pesticides have a vital dye in it, so that you can see a purple smear on the thing, and realize that what you are doing is substituting for a small harmless worm a film of poison on the apple. There would also be more food and cheaper food if we changed our pesticide practices. We get less food because of using a silly way of trying to control our competitors. I think that the public can be educated there also.

In some places in England, women pay premium prices for insect damaged fruit because they realize that it is safer to eat.

DOWNS: We just heard Dr. Paul Ehrlich speak of population increase as the escalating factor in pollution. Now we want to show how increased consumer demand leads to greater and greater industrial pollution. Our example is in the area of Houston, Texas. Here is *Today* reporter at large Paul Cunningham with his report.

CUNNINGHAM: The example we are going to show you is unique, but then most horror stories

are. This is the story of one of the filthiest stretches of water in the world, the Houston, Texas, Ship Channel.

Here is a sample of black sludge as it is taken from the bottom of the Channel. It will be analyzed to determine how much of the waste that goes into the waters of the Channel becomes part of its sediment. The sampling and analysis is done by a water quality research team from Texas A&M University. Their testing has shown that the putrid sludge builds up on the Channel bottom at an almost unbelievable rate of one to three feet a year. In some places, the sludge is two per cent grease and oil.

The Houston Ship Channel from Galveston on the Gulf of Mexico through Galveston Bay and now what is called Buffalo Bayou to what is the city of Houston, was constructed in 1914. It made Houston the third largest port in tonnage handled, but ultimately the cost was this.

Poured into the upper sixteen miles of the channel was ten times as much waste as it can receive or assimilate. It comes mostly from the Houston Metropolitan area, which has grown to about three times what it was thirty years ago. The prime contributor is the tremendous industrial complex that has been built along the upper channel: chemical, fertilizer, wood pulp, steel and petroleum plants. Concentrated here is probably the center of the world's petro-chemical industry.

However, some of the worst pollution begins

far upstream in the city. It is sewage, much from Houston's grossly overloaded North Side Waste Treatment Plant. In some places the channel is so polluted that what looks like rain drops on the water are bubbles of gas rising from the bottom. Houston has recently passed a bond issue to enlarge its sewage plants.

Galveston at the other end of the Ship Channel and Bay dumps a million and a half gallons of raw sewage into the water each day. And whatever else is dumped into the water and onto the beaches piles up on portions of the largest estuary on the Gulf Coast, five hundred and thirty-three square miles.

Here, in the Bay, is where extensive marine life is killed off. Nearly half the bay is now closed to oyster harvesting. And because the bay is a nursery for certain fish in the Gulf of Mexico, fishing there will also be hurt.

In the upper channel except when there are runoffs after a heavy rainstorm, there is no dissolved oxygen in the water at all. And when runoffs do occur, they most often send huge slugs of pollution into the Bay where they have killed as many as thirty thousand fish at a time.

Much of the problem stems from the fact that there is only one foot of tide in the channel and the water flows very slowly. The result is one big cesspool. A number of federal, state and local plans are being made to clean up the Houston Ship Channel. There are hopes for fixing higher water quality

standards, and increasing and enforcing restrictions on industrial emissions. But one wonders at the enormity of the task.

Dr. Roy W. Hand, Jr., who heads the Texas A&M water quality research team, studies the channel system in order to tell government and industry what controls must be exercised. He finds out what loads of waste the channel can take in order that objectives may be set. Even so, with strict control right now, the channel could still be polluted for years. Dr. Hand feels new techniques are needed, especially for cleaning up the water and sludge already in the channel.

HAND: If we could treat it so that the level of treatment going into the channel were equal to its assimilating capacity I think we would recover in a fairly reasonable period of time. The problem is, however, that the waste loading is so much higher than the assimilative capacity that I don't think waste treatments as we know it today is going to achieve this.

CUNNINGHAM: How about cleaning the water as it is right now? Can you do that?

HAND: I think we need to go beyond what we do on the shore with bodies of water that are in this bad a shape. This may mean that we need to add oxygen into the water. It may mean we need to modify this system so that it is more manageable, and so it is no longer under the whims of nature but under the control of man. And we may

need to separate more of our dirty water from our clean water, so we can handle it better.

CUNNINGHAM: All of this is very costly though, isn't it? I mean just take this one ship channel as an example; it would cost millions.

HAND: Oh, it certainly will, but remember that this body of water empties into Galveston Bay, and that is the largest aquatic community on the Texas Gulf Coast and the nursery ground for most of the aquatic life in the Texas Gulf Coast and in the near Gulf, and it is important that we not destroy this important area.

CUNNINGHAM: Are you optimistic as a scientist working with it, or are you still somewhat depressed about the potential.

HAND: I'm optimistic now, particularly as compared with last year and the year before. I think the public opinion that we are getting is helping the regulatory agencies get the necessary staffs to combat the problem. We are finding that our research results are being received better by the quality agencies. We think they are going to use our methods and they are using them to achieve reasonable levels of management of these systems.

CUNNINGHAM: I think the point to be made here is that there appears to be an awareness of the problem now in places like Houston.

DOWNS: I wanted to ask you one thing, Paul. There is a hint there that the Gulf of Mexico itself might be threatened.

CUNNINGHAM: Yes, there are those who feel

the Gulf of Mexico is very much threatened. Here you have a case where the Gulf does serve as a nursery for certain types of fish, anchovies and that sort of thing, where they incubate there and you kill them off there, and they are not going back out into the Gulf. So you are starting to lose fish in the Gulf. And this happens, of course, in many estuaries.

DOWNS: A very helpful thing, though, is that bond issue voted by the citizens of Houston.

CUNNINGHAM: Now we get back to the necessity of deciding how we do things. The point here was that you just can't wait with the tremendous build-up of sludge in an area such as this channel. You can't just wait to control emissions coming from a highly industrial area, and of course, you can't close down an area that fast, or make those technical changes. Can you therefore clean up water as it is? Dr. Hand believes you can, that you can do many things. You can aerate, you can skim. These are techniques we need to know more about and develop the mechanics of doing. Water does absorb oxygen rather rapidly.

DOWNS: It looks as though we must use stopgap measures as well as long-range plans. Our problem is extremely severe but there is no reason to despair. There is reason to be prodded into action.

In a universe which seldom gives warning of its larger death sentences, we have received clear warning. We feel the earth under our feet and we have seen the Earth from space.

It's all one world.

There are no more uncharted islands here where we can run away to sunshine and sparkling white beaches. We have just this one world, and on these pages we're beginning to get a feeling for the gigantic physical project confronting us. Our awakening is touched with dismay: we must come to terms with our world or it will terminate us.

When we speak of defending the environment, we are speaking of defending our own lives.

THREE

DOWNS: We are beginning to feel a little bit like a woman in a Jules Feiffer carton. She says, "Day dawned, the sky was brown, the sea was black, the air was gray. I staggered into a church and prayed to an end to technology. The police broke in and arrested me. The charge is conspiring to survive."

The world is a relatively small planet and if it is to survive the way we've treated it, we had better come up with some ideas. And that is what we hope to do on our five day series on the environment.

We already have established in somewhat horrifying detail the environmental chaos in which we are trapped and which threatens to destroy all of us. What we would like to do now with our guests is sound out their ideas on what the human race must do if we are to save ourselves and our planet. Let's start with Dr. Rene DuBos, who is Professor of the Rockefeller University in New York City and a distinguished biologist and experimental pathologist.

DuBOS: I do not wish to speak as a scientist. I wish to speak rather as a person of common sense. Anyone who goes to a restaurant can see in front

of him a basket of crackers, each wrapped in a cellophane bag. This obviously is nonsense. It symbolizes the fact that our country is being loaded with useless packages. This we have to get rid of and since they do not decompose, we have to burn them, and this makes for air pollution as we all know.

We walk in the street and see all the junk there. A man does not need to be a scientist to know this kind of visual pollution is destructive of the mind.

So if I have a solution to offer, it is just to use common sense. Eliminate all the junk with which we load our lives, and all the junk we throw out in the street. My interest in this particular venture is that by so doing we will get everybody involved, and it is only by getting everybody involved that we will get action.

Just talking the way we are going to do this morning is going to alert people, yes, but it won't make them act. We will act only if we do, each and every one of us, our small part and become actors instead of spectators.

DOWNS: This raises questions and we will get to them later. Ian McHarg is next. He is Founder and Chairman of the Department of Landscape Architecture and Regional Planning at the University of Pennsylvania.

McHARG: It seems to me the critical problem lies in the attitudes of Western man to nature. These attitudes have, as far as I can see, no correspondence to reality. They have no survival value

and indeed they are the best guarantee of extinction. The fact of the matter is that we have a whole culture that for two thousand years hasn't known the way the world works. It didn't matter for two thousand years, but it matters profoundly now. We don't know the way the world works. We live with a fantasy. We assume we are the apex of evolution, that the world is simply a storehouse and we can mine, mine, mine, mine. We don't know that it is an interacting bio-physical system which is enormously vulnerable. We simply have to junk our meta-physical symbol, get a new one that corresponds to reality, which is to say the sum of natural sciences represented in the integrated view of ecology, and we must use this to determine every intervention, to determine whether it is going to be beneficial or detrimental.

We can, with our technology, which has given us all the problems, reconstitute this technology and use it to really feel the world's pulse, to understand the ways of the working world.

DOWNS: Now we want to hear from Dr. Margaret Mead, an anthropologist who is much more involved with what will happen than with what has happened.

MEAD: I think the most important thing we have to do is to establish a new climate of opinion. And climates of opinion are established by the people themselves as they work with them, as they work in communities and as they work with the mass media. Our problem is to realize how bad

things are, and yet not describe them so that they are so bad nobody will do anything at all, but just take their marbles and go home and decide they might as well dance and live it up because everything is going to pieces anyway.

We have to make the task we are going to do possible, recognize how difficult it is, recognize this moment of possible catastrophe, but set up the mechanisms into the future that will see this doesn't happen again.

We haven't begun to plumb the depths of what may be happening now, even if we think of the destruction of the oceans. We have to somehow not blame one section of society or one section of humanity for all that has happened.

It is all very well to say the American Indian had a beautiful balance with his environment. He didn't, the minute he had a gun.

No society has ever yet been able to handle the temptations of technology to mastery, to waste, to exuberance, to exploration and exploitation. We have to create something new, something that has never existed in the world before. We have to learn to cherish this earth and cherish it as something that is fragile. There is only this one, that is all we have, and we have to set up a system that is sufficiently complex to continue to monitor the whole. We have to use our scientific knowledge to correct the dangers that have come from science and technology.

DOWNS: Now—Canon Don C. Shaw, an Episco-

pal clergyman, and former Director of Planned Parenthood.

SHAW: It is perfectly apparent that what we really need is a new ethic, which is what everybody has been saying, and certainly an ethic in regard to man's attitude towards nature. And there is a great tradition for this. The Jewish and Christian tradition is loaded with it. It is simply that man in his ignorance and his arrogance has chosen to pick those aspects of the scriptures and tradition which would exploit nature rather than understand himself as a part of it.

We creatures are not very happy about being creatures. We like to pretend to be more than we are. And we must learn to return to our creatureness.

The second aspect of this, of course, is a deep new ethic in relation to family size. And this is going to be one of the most difficult things to achieve. People are talking about the necessity of a two-child family. The fact is, if we are going to win this battle it will have to be a one-child family and we must learn to glorify those who have no children and those who remain single. Which is going to call for a rather vast revision of our whole understanding of morality.

DOWNS: We have heard from our four guests. We are going now to the questions raised by their statements. Let me start with something Dr. Mead said: The importance of not breaking the thread by being so apocalyptic that people simply despair

and withdraw. I think this has happened to a small sector of young people who have fled to the hills, so to speak. Maybe the reason most of us don't fly to the hills is that we are not awake yet. But where is the line to be drawn between the real doomsayer and the person who is a cheerful optimist?

MEAD: By giving people something to do. Because if people are doing something themselves and working on something, they immediately become optimistic even if the thing they are doing isn't very good. So if we can make it good and make them work at it, then we get over this pessimism.

I'm not afraid everybody will fly to the hills; I am afraid everybody will just deny that anything much is happening, or be awfully pleased when we change the shape of an automobile or re-collect some beer bottles. This is the real danger and then we will close our eyes to everything else and just go along with life very nicely.

DOWNS: Isn't there some built-in education to this whole thing because people have to breathe the air? They can't shut their eyes to that kind of danger if the air continues to get worse.

MEAD: Well, they have. It has been getting worse for thirty years.

DOWNS: And they have been putting up with it more than I would have guessed. One other thing I wonder about, Canon Shaw, in your statement you mentioned some of the things the world

of religion has managed to accomplish. Isn't it true, though, that some aspects of organized religion have ignored this crisis, at a time when we must forgive them for doing so, because the situation wasn't a crisis back then? Calvinism, for example, did tend to be exploitive.

SHAW: Yes, but the thing that is overlooked about Calvin is that he had a tremendous respect for all living creatures and felt that man was one part of the total show. He was an ecologically oriented guy as much as anybody could be at that time, in relation to the right of all species to survive. For instance, most people talk about man, who was commanded by God to multiply and replenish the earth. The same command was given to the fishes and the animals and the birds.

DOWNS: I thought about that, too. And another thing, we think that the Biblical injunction was to all man for all time, and that was God speaking to Noah at a time when the earth was extremely unreplenished.

SHAW: Well, it occurred at the time of Noah and at the Story of Creation. But we must understand that all that is myth and a path of our great tradition, and we can't be governed by it.

McHARG: I am a lapsed Presbyterian, and Presbyterians of course are indoctrinated with religion. It is like a stigmata pressed on the buttocks of a child. It seems to me that the literality of the first chapter of Genesis is the most calamitous text ever defined about the environment. The conception

that man is exclusively divine means, in the literal interpretation, that there is a moral arena, that is, the acts of man to man are moral. That is, if he covets his neighbor's wife, God is very angry and the priests are really annoyed. But he can screw up continents, destroy whales, redwoods, he can destroy without remorse or contrition, and God and priests don't care.

The second one is dominion. And dominion is a sergeant-major's view of the world. Dominion says, lie down and don't talk back. And subjugation is the third.

This Creation text, literally interpreted, I think is calamitous.

For thousands upon thousands of years before man's first written words ever were carved into stone or punched into soft clay, language was oral. Words were for the ears. At our most primitive levels, we still know this and react accordingly. That's why there is such power in these spoken words from the *Today* show. You see the printed words on the page, certainly, but the style is for the ears. You can sense the lips moving as these very human humans struggle with words against the apocalypse.

One thing you really feel about many of the people on this show—they have seen that words are most useful as harbingers of action. They have faced themselves and seen how the world is made. There is something essentially sane about facing up to our past mistakes, outlining the dimensions of the problem and saying:

"Well, now we must do thus and so."

FOUR

DOWNS: Let's look now at a comic strip called B.C. The message is very simple. They have a cave man taking a drink from a stream and pronouncing his verdict. He says: "It tastes like progress."

If only our ancestors had indeed been able to take such a long view of what technology would do to our world we would have no need to devote this entire week to the question of survival.

Let's turn now to discussing the ways in which mankind may avert the twin disasters of pollution and over-population—and they are intimately related.

In an earlier part of the discussion, Dr. Mead talked about the tendency of some people to despair and withdraw when faced with the horrendous situation. Dr. DuBos, at a recent appearance at Barnard College, I am told that when some young person shouted at you "Whose fault is it?" you responded "You're going to a teach-in and you'll get bored and you will become Vice President of the local bank." What do you think generally is the attitude? Young people seem to be aroused about this problem but what misgivings have you about their approach to it?

DuBOS: Well, that statement was about two months ago. During the past two months, however, I have traveled all over the country and I have somewhat changed my views. I was pessimistic about two months ago. I thought the teach-in was just going to be a big picnic and then people would move on to something else. But now I have sensed there is such a large commitment in terms of number and in terms of intensity that even though eighty per cent drop out, there will be the twenty per cent that will continue.

DOWNS: You are referring to the teach-in that is this coming Wednesday, on Earth Day?

DuBOS: Yes. There will be twenty per cent that will continue being active and that is enough to keep the movement going. And what makes me much more optimistic is that the movement has spread to high schools. In fact, there are many more high schools now involved than there are colleges, and what is even more important is that the high school students, as well as the college students, engage in practical action, if only to pick up beer cans and picket department stores asking that one be more careful about useless packaging. It is because such action has begun that I am optimistic.

DOWNS: The action is more important than all the discussion about it.

DuBOS: Yes, in fact I have heard students themselves repeatedly say, well if it is just going to be what we talk about this week, for Earth Week, that

will lead to nothing. So each one of them comes to you and asks you: "What can I possibly do to get things going?" And there are so many things that one can do. And I think most industrialists, sensing now that the young people are even more disturbed than adults are, and these young people are going to be the public of tomorrow, and that these young people are beginning to do things, that industry will mend its ways.

DOWNS: Dr. Mead has from time to time dealt with the necessity for a positive approach rather than merely an attack on individuals or industries that might strengthen or create more intransigence. What do you think are some of the dangers of the attack approach, Dr. Mead?

MEAD: It exonerates all the rest of us from doing anything. It is industry, all right, we attack industry, totally disregarding the fact that we are all a part of it. We've all bought these crackers in these plastics that Rene was talking about. We've all bought things in twenty packages when one would do.

Municipalities and a great part of agriculture are just as responsible for the pollution as industry. It's simply that the whole system has blown up so fast that nobody fully realized what was happening, nobody took responsibility, and we didn't have any way of looking at it as a whole, before we got computers. Now we've got computers, we can look at the whole system, we can make a simulation of this whole planet and the atmosphere

around it, and say what's happening. We can really look at wholes instead of looking at little parts and having silly little battles between some little lumber plant or some paper industry that is dumping something in the creek and a bunch of local corrupt officials that don't want to do anything about it.

Only if we see we are all in it, every one of us is in it as a consumer and a producer, as a shareholder and a citizen can something be done.

I would rather say I am working as a scientist and I want to contribute everything that anthropology can contribute to getting something done.

DOWNS: Now we know the potential exists for treating it as a whole, but what will it take to override narrow national interests or other sectors of civilization, such as industry and so forth? Ian McHarg?

McHARG: I would like to follow up what Dr. Mead said. I think it is true that with satellite technology and high level aerial photography we can get absolutely gorgeous time lapse information about biophysical processes.

We now have very fast scanners and can ingest information from very elaborate maps. It is going to be possible, as Dr. Mead says, to make elaborate ecological simulations of the actual biophysical processes, which allows us then to predict the consequences of interventions. To understand the way the world works is a beginning.

But I would differ with Dr. Mead. It seems to

me we need to buy time to reach a situation when scientists find out the way the world works. I want to have a checklist for survival, everybody checks off. I think that irrespective of race, color or creed, all the Drs. Strangelove, Generals Overkill of the Defense Department, of the Atomic Energy Commission and the pathology of Biochemical Warfare have got to be stayed. I mean you have to manacle them, hold their hands, buy survival for another day from the Generals Overkill and Drs. Strangelove, the biochemical warfare horrors, the pesticide reign of death people. The great industries must be toilet trained. They are profoundly incontinent. They have to be led, I think, to diapers and continence. The wastrels among us must be persuaded to abandon their gluttony and rape of the world.

We need a checklist for survival which is checked off every single day in the newspapers while simultaneously there are very quiet, thoughtful, intelligent, wise people beginning to monitor the world, tell us what the consequences are of our actions, help us to deal with the bio-physical-cultural realities with intelligence and deference.

DOWNS: Are you speaking now of legislation to get better control of the military and better control of industry?

McHARG: The mind boggles at the transformations that are necessary. You see, it means a totally new value system. You have to say the world is delicate, the world is tender, the world is our only

world. We have to learn the way the world works before we intervene. Whereas, at the moment, the ethos allows anybody to do anything except that which the law says he should not do. But that which is permitted threatens our very survival in many ways. The stratosphere, the atmosphere, the Van Allen Belt, the oceans, the rivers, the lakes, the land life and the genetic inheritance are all threatened by actions by perfectly respectable orthodox people and institutions within the law today. We have no custodians for the most vital processes upon which survival depends.

DOWNS: Canon Shaw, in your mind, and harking back to a discussion you had earlier with Ian McHarg, is there built into the machinery of applied religions as we know them now, the kind of thing that would allow religion to be a leader in inducing man not to harm the planet further?

SHAW: I have no question that the resources and the tradition are there. This is apparently where Prof. McHarg and I disagree a bit. At least I don't think it is wise to take time out to engage in a big sightless disorganized religion about the meaning of dominion. We can rather encourage religion to interpret dominion to mean stewardship which is what it ought to mean and what it does mean to me. So let's not get fighting among ourselves, but rather get on with the common job of saving the planet.

I want to refer back to Paul Erlich's comment which ties in with what Margaret Mean and Ian Mc-

Harg were saying, that political action is going to be very essential to get some of the priorities in our country vastly reorganized, and this is, again, one of the places where organized religion, if it's going to remain relevant, simply has to get involved. We cannot sit on the sidelines and talk about God in heaven or something else. We have to get in here where the decisions are being made.

DOWNS: Have we already seen harbingers of that political action, do you think, Dr. Mead, in the President's State of the Union message, when he used the word environment? I don't think any President, at least since Teddy Roosevelt, has done so.

MEAD: The President has responded to all the interest and excitement in the country. I didn't say, Mr. McHarg, that I didn't think we had to do things now. There are things that can be done right now, before we discover how to do better things. Every community ought to have a list of what ought to be done in that community. Then they will find out what they can't do themselves, where they have to work with the county, or the state or the nation. Or the North American continent, or the world. All of these things have to be done simultaneously if people are going to feel they are involved.

DOWNS: I want to bring up how this staving off of environmental catastrophe relates to social justice. There are those who tend to say that since we've all got to breathe the same air, let's postpone any action on social justice now and give all our attention to it, to saving the environment. But it is

intimately related to social justice and social progress and I want to ask each of you, if I might, how it relates. Dr. Mead?

MEAD: If we don't care about the children that are here, the children that are starving, that have no medical care, and no education, why are we going to care about the environment of the future? We have to start with our inner-cities, with hunger in the United States, with the things that we aren't doing for the poor all over the country, for the Black people in the inner-cities. We have to do things immediately for them because you never can give a child back a year of its life, when it has been hungry and badly treated. Just as we aren't sure we can give back to a lake a year of its life when it has been ruined. We have to think of the two things together and think of them in the same way.

DOWNS: Do these relate in your mind, Ian McHarg?

McHARG: Oh, absolutely. I think the most important task we have now is to insure that this environment problem is not seen as an exclusionary one distinct from war, poverty and bigotry. I think we have to see that these are all unitary. The violence that man does to man is no different from the violence that man does to nature. The same violent man who is prepared to make an atomic target of man is likely to be very very careless of the atmosphere, lithosphere, hydrosphere and life. The environment is a physical and social environment.

We must engage the Black and the poor as well as the rich and comfortable. It is one preoccupation with survival and with fulfillment involving the bio-physical cultural environment.

DOWNS: Does that require a deep change in what might be called human nature, or can it be culturally conditioned? Does anybody want to comment . . . Dr. DuBos?

DuBOS: Perhaps I could speak to this point. For once as a scientist, as a biologist, I think the reason we must be interested in the long-range effects of the environment is that the most important effects of the environment are not what it does to us here and now, the most important effects are in shaping what human beings become. We may all survive in the polluted environment. We do. But what is happening is that children born and raised in this kind of environment are handicapped for the future. Their physical biological characteristics are conditioned by the bad environment and they will pay for the consequences some ten or fifteen years later in the form of what we call the diseases of civilization.

But even more important is the fact that a child whatever his color, born and raised in an environment which is dirty, ugly, with visual pollution, will never have a chance to develop the kind of attributes that make him enjoy the world. He is handicapped intellectually, emotionally, for the rest of his life.

In reality, the quality of the environment must

be measured not only in terms of its effects on us today, but far more importantly, in terms of its effect on the children who are now developing and who will fail to give expression to their potentialities if we do not provide for them the proper kind of stimuli during the formative stages of their development.

DOWNS: I want to mention that what came out of this for me, and somewhat to my surprise, was that it seemed that all of you are in agreement. That it is necessary to act now on all levels, not to give a priority to the exclusion of other levels. In other words, international, national, and local levels and in all areas, social as well as technological. This is what we learned from this discussion on *Today,* on this first of our programs on the environment.

Between the lines of many statements made on these milestone NBC shows, you hear a second message:

"We must get out of our conventional stupor, away from our old and useless fears, and into a common awareness of what each of us can do."

You can hear, for example, Ian McHarg saying we need to toilet train the nation's industrial polluters—and toilet train ourselves while we're at it, because we're the worst polluters.

Like Pogo: "We have met the enemy and he is us."

But we allow hidden fears to constrict our minds, pull a curtain over our awareness and limit our imagination.

None of us can afford to be mediocre under today's conditions. The sickness of our world requires our best talents and perseverance, both of these qualities together, because without talent perseverance is a much overrated trait. You can beat your head against the wall all you want, but you're more likely to get concussion than produce a hole in the wall.

Each of us can transform his own life. Together, we transform what it is to be human and to value what is human. We can learn together and achieve this new sophistication geared to human survival.

But words are not enough. The root of environmental awareness may be an understanding of consequences, but first we must achieve awareness—here and now.

Keep that in mind as you enter the second day of the *Today* show's series on environment. Here it is, the morning of April 21, 1970, Hugh Downs at the microphone. . . .

FIVE

DOWNS: We are concentrating on economic matters today. The way the environment crisis is affecting our economy and vice versa, and how we may have to change our ways of doing business.

First, I want you to take a look at the way we are doing business today. These are the smoke stacks of steel companies in the Chicago area. The film was taken two years ago by Martin Schneider, who will be a guest here presently. These same types of plants operating in California have virtually eliminated such pollution.

The publication *Chicago Today,* in cooperation with the Better Government Association, conducted a two month investigation of this pollution and reported last February that two companies are still belching more than one hundred tons of pollutants into the air each day. Instead of reducing pollution as they promised to do eight years ago, they have increased it.

With us now are Charles Luce, Board Chairman of Consolidated Edison, the power company serving New York City; and also Martin Schneider, Consultant to the U.S. Public Health Service, who has investigated pollution in many areas of the

United States. He is also an instructor of ecology at Cooper Union College in New York City.

The photographs Mr. Schneider has taken and the manner in which he operates has led to his being called an ecology detective. His pictures remind us of some other pictures taken ealier by Louis Heyn, a social reformer in the early part of this century.

In this Heyn photo, you see a nine-year-old boy working in the garment district. And here is a picture of breaker boys, some of them as young as nine, who worked in a Pennyslvania Coal Mine. Heyn's photographs and research were instrumental in provoking child labor legislation.

Martin Schneider's work with the U.S. Public Health Service has contributed to legislation in the pollution area. Mr. Schneider, if you could give us a brief rundown of the kind of photographs that you have taken and the kind of information that you have dug up, we will get into our discussion.

SCHNEIDER: For the past six years I have been a consultant to the U.S. Public Health Service documenting air pollution throughout the United States. The function of the photographs I have taken, as well as films and test data, is to provide the same visual basis for federal legislation. However, in the course of doing this, I have run into problems of enormous media censorship, particularly by *Life Magazine,* where in their February 7, 1969 issue, they ran twelve pages of my photographs but refused to print the manuscript or show the pictures

to give the context of anger throughout the nation.

These are some of my photographs. The first few of New York were taken while I was strapped outside a plane. The stack you see in this photograph is Con Edison's. The closeup of this which I took by flying right into the stacks were acquired at enormous personal pain to me. I acquired sulfuric acid burns on my hands and face which partially peeled off somewhat similarly to a bad suntan. Of course, the levels of emissions at this position were quite intense.

Here's Mayor Daley's hometown area of Chicago, a complex of steel mills. On this rooftop, I placed a clothesline to demonstrate the corrosive effects of the emissions from the steel mills on clothing. What you see over here is a brand new T shirt and in the center a brand new man's dress shirt. Compare that with the results three months later. This is the brand new T shirt, disintegrating. The new dress shirt has three disintegration areas through it.

A test line placed elsewhere in the city revealed only fading.

Going to the most famous smog, in Los Angeles, we see this. This photograph was kept out of *Life.* It shows a child sleeping in the smog, which pours through the windows and covers the child. Anyone who lives in any seacoast area is familiar with fog rolling in the windows, but not smog.

This photograph actually no longer exists. It was taken in a Florida phosphate field. What you see is

an autopsied skull of a cow that died of fluorine poisoning, and in the background is the Mobile Oil Corporation, phosphate subsidiary of Virginia-Carolina.

The emissions are hydrofluoric acid and sulfuric acid. This has killed thirty-five thousand head of cattle, wiped out twenty-five million dollars worth of the citrus industry, and has caused in children ulcers of the nose, mouth and throat.

You never heard of this problem primarily because of the enormous censorship that keeps this out. The phosphate industry has spent enormous time keeping this information from the public.

This photograph was robbed from me by gunmen and later it was stolen from an Air Express Office to keep *Life Magazine* from printing it, and finally disappeared in the hands of the Managing Editor of *Life Magazine* after being placed in his hands. That photograph has disappeared and this is only a bad copy.

DOWNS: Excuse me, but are you suggesting that *Life* was under pressure from advertisers not to print the pictures?

SCHNEIDER: Well, that is making it sort of an understatement. They said to me that I was naive to believe that they would ever tell the truth about the story.

DOWNS: Now, Mr. Luce is still with us, and you heard Mr. Schneider refer to your company, Consolidated Edison. Do you want to, in the time remaining, say anything about it?

LUCE: Well yes, he has talked about the problem of air pollution in New York City, which is a very great problem. Sixty per cent of which is caused by the automobile. That part of air pollution caused by the production of electric energy is less than twelve per cent. We have reduced the sulfur dioxide and particulate pollution from our plants by more than half in the last three to three and a half years.

DOWNS: Can it be reduced still further?

LUCE: In the long run, the answer to the air pollution problem is nuclear power. Even in the longer run, the answer to all of these environmental and resource problems is that we simply use less goods and services. In other words, that we get off this growth kick our economy has been on throughout the history of our country.

DOWNS: Just briefly, do you think we can abandon that frontier complex and live comfortably with a no-growth economy?

LUCE: We can't do it easily, certainly, and we have to take into account the fact that a large segment of our population still doesn't have enough of the world's goods and services. We can't adopt a policy that keeps the poor poor, but I think we can redirect our growth into better channels.

DOWNS: Martin Schneider says some of his photographs have not been published because the magazines are under some constraint from advertising. We may hear from *Life Magazine* on this, as to whether they could be pressured by advertisers.

But you say some of these they refused to print for that reason?

SCHNEIDER: Yes, I hand picked the entire layout, but they expurgated the series on victims and refused the manuscript and substituted one that contains no less than several dozen outright lies.

For example, they maintain the auto industry is struggling sincerely with the problem of reducing contaminants. The truth is that they are under federal indictment and have been for over fifteen years for political collusion in refusing to do anything about pollution.

DOWNS: I find myself being Devil's Advocate for industry. Don't you think it would be expedient for industry to respond in a way that would not ultimately put them out of business?

SCHNEIDER: If that were their attitude, they would have long since gone ahead with the alternatives to the internal combustion or infernal combustion engine by substituting what they have long had on the drawing boards and in limited production. All the auto companies have substitute gas turbine engines which emit some one hundred times less pollution than the engines you currently have.

For example, nitrogen oxide emission is only six parts per million from the gas turbine engine. Carbon monoxide, forty thousand parts per million for the internal combustion engine, only two hundred parts per million for the gas turbine. These engines are quite inexpensive to manufacture despite the pretext of quite the opposite by the auto industry.

DOWNS: I don't know how to sit in judgment on that. I know there has been experimentation with the turbine engine. Mr. Luce, do you have any comments?

LUCE: Well, *Life Magazine* has not hesitated to criticize the electric utilities industry where they thought the criticisms were called for, despite the fact that we advertise extensively in *Life*. I just find it difficult to believe they are influenced by their advertisers.

DOWNS: Let me ask you, Mr. Luce, what would be the effects if an industry, let's say unilaterally led, was way in the van on anticipating the public outcry or government regulations or anything of that sort. What would the economic effect be? Would it be economic suicide or do you think that industry could move ahead a little faster?

LUCE: We always, in industry, have to be dissatisified with the progress we're making. I think we have to always try to go a little bit faster. I will say in the case of the electric utility business, however, that the cost of cleaning up the air, the cost of putting lines under ground, the cost, in short, of protecting the environment is quite high, and this has to be reflected in higher rates and as yet, those who are most concerned about the environment, at least are most articulate in defense of the environment, are not appearing in our rate proceeding to defend higher rates. When we have to go and ask the regulatory authorities to allow us to pay the cost of protecting the environment, the

most articulate defenders of the environment are strangely absent. We are down there by ourselves.

DOWNS: Yes, there is a question of public education, though, because people would ultimately rather pay more and be able to breathe.

LUCE: I'm sure they would, and we are proceeding on that basis. But there is a good deal of public education required.

As the *Today* show continues through this memorable week, we gain an increasing sense of how we exist in a finite energy system. We can feel the dangers of permitting unbridled growth in the use of that limited energy.

Our sun, that blazing fire in the sky which has dwarfed us with its outflow of energy all through our history, shrinks to a finite thing.

Just another star.

And this planet beneath our feet?

Just another planet, but the only oasis we know for human existence, and we know for a fact it is being overwhelmed by our excesses.

We are passengers on the spaceship Earth.

We get on and we get off. And while we are here, living beneath our gaseous shell of air, we often find ourselves daunted by the vastness of the unknown universe outside. We fret about many things, including our misuse of the fuel which stokes our solar furnace. We feel nature around us more complex than we can think. We see that nature which we had thought was tamed by our technology, rising up in the form of that technology to threaten our existence.

All this while we continue to breathe in and breathe out; we continue to get on and off our earthly ship.

SIX

DOWNS: It is Tuesday, April 21. We are going to be talking with Dr. Robert LeKachman, a noted economist now at the State University of New York at Stony Brook. And we will be switching to Washington where *Today* editor Bill Monroe will have two colleagues of Dr. LeKachman to join the discussion. Bill.

MONROE: Good morning, Hugh; my guests in Washington will be Dr. E. J. Mishan of the London School of Economics and Dr. Carl Madden, the Chief Economist of the U.S. Chamber of Commerce.

DOWNS: And our subject will be the growth economy, is it dead or can we still keep thinking in terms of an ever burgeoning world filled with more and more good things, which has been the basis of our economy up to now. We will examine the reasons for needing to put on the brakes and slow down. We want to talk about the economics of environment salvation and whether we can live in and with a no-growth economy.

So let's start in Washington. Bill, will you start the ball rolling?

MONROE: Dr. Madden, we are here to talk about a no-growth economy as one possible way of attacking the overall pollution problem. What is

meant to you by the words no-growth economy and do you think such a thing is possible?

MADDEN: No-growth economy refers to an economy in which the usual measure of output, such as the gross national product, fails to rise in real terms. It is possible, but I think it would be unwise. I think the basic problem of pollution is redirecting our resources.

What we need to develop the ability to do is to economize on the use of resources much more effectively, but this does not mean we need to have a no-growth policy. We can have a growth of the service industries, we can have a growth of the electronics industries and other industries which use small amounts of materials and still redirect our resources to reduce pollution and enhance the environment.

MONROE: Dr. Mishan, do you think we need to go toward a no-growth economy or to cut down growth to cope with the pollution problem?

MISHAN: The idea of a no-growth economy doesn't appall me; on the other hand it doesn't appeal to me particularly. In fact, I think on this issue I probably see eye to eye with Mr. Madden.

I read an address he sent to me where he spoke to certain business organizations and I found his words very decent and very perceptive. He pointed up the pollution problem. He spoke feelingly of the fact that we had in the last forty years used up more material resources in America than the rest of

mankind had used in the last four thousand years. So I think on this issue, at least, we see eye to eye.

MONROE: You have said in your own writings, I think, that we have been over-emphasizing growth. That growth has been treated as some sort of a god, and that we don't need to treat it that seriously.

MISHAN: Yes, that brings us to a slightly different issue. Let us assume that we could solve all the pollution problems; the question then is, why should we grow, or what should we expect to get from growth? I should think that I'm in the tradition of the classical economists who saw private business as a means to realize certain ends. They didn't regard private enterprise as a good in itself. But it had to work within a certain framework and initially the framework proposed by classical economists was simply that contracts would be honored and the money supply should be controlled by the government and possibly one or two minor things.

But as we grow in affluence, we begin to wonder whether we ought to continue, because private enterprise has the unfortunate motive that it encourages growth. This is necessary, it is the motive force necessary for it to operate under these conditions.

I think economists know this and they think there will come a time when perhaps we ought to be able to curb this feeling in favor of a more ordered or more harmonious society. In fact, one of the things that Lord Keynes said in thinking of the economic opportunities for our grandchildren was that we should be able to banish avarice from our society.

Now growth, the kind of growth that we have been having so far, does depend on continued avarice, not only of the businessman, of course, but of the population at large. This is the way to make it go.

MONROE: Hugh, do you have a question?

DOWNS: Yes, I would like to ask Dr. LeKachman if he agrees with the other two economists on whether no-growth economy is feasible and desirable.

LeKACHMAN: In good part I do agree with my colleagues, but you know there is an aspect of this I'd like to mention and that is the fact that all our current measures of growth are exaggerations. This is what ordinary people feel, I think. Every year the gross national product figures come out higher, higher, higher—forty, fifty, sixty billions of dollars—and people, in many cases, feel poorer. They feel oppressed, harassed, polluted, transportation is impossible, you can't get from here to there, nothing works, and so on.

Now, what strikes me about this is that the economists have done us a disservice by the near idiocy of some of their measures. If cigarette output goes up, gross national product goes up. If lung cancer goes up, the medical cost of treating it is a part of gross national product; that goes up. If automobile output goes up, of course, gross national product rises. But also does it rise if the cleaning bills and medical bills rise as a result of the automobile output.

So what we get, when we measure conventionally, is really a collection of pluses and minuses, and what is afflicting ordinary people, and ought to be afflicting national income estimators rather more than it does, is the fact that the minuses are grow-more rapidly than the pluses.

DOWNS: Let me belabor something obvious here: a no-growth economy would ultimately have to take over since the planet Earth is not growing. Wouldn't that be the answer to this?

LeKACHMAN: I would suppose, from what the scientists say, that the answer would be recycling the materials instead of wasting so much of what we produce. Presumably, the better treatment of resources would be their reuse, recycling. I would assume, nevertheless, just impressionistically, that if the population continues to increase, one of the most vital of all commodities, space, will diminish and resources per person will diminish. And I should suppose that in some sense I would agree with you, that growth will come to an end in time. That is to say, if we don't destroy ourselves in various other ingenious ways before that.

DOWNS: Dr. Madden, how do you respond to the idea that ultimately growth has to come to an end?

MADDEN: I think this is correct in the logical extreme, but I think we should keep in mind what Buckminster Fuller has said about what he calls ephemeralization, the ability to get more out of a given set of resources. He argues that we are operat-

ing at about four per cent of our efficiency and that if we raised our efficiency by ten per cent or fifteen per cent many of the problems we see resulting from the lack of resources would disappear. For example, a medium sized nuclear plant provides the amount of energy equivalent to twenty-five million people working in the labor force.

The whole development of solid state physics has meant tremendous economics. A single satellite communicating from the United States to Europe saves millions of tons of cable that were put underseas, and so, indeed, television saves the tremendous waste of paper that we use in newspapers.

There are lots of opportunities to improve the use of resources.

MONROE: Dr. Mishan, we have been talking about the possibility of a no-growth economy. Now growth, in this country and around the world is symbolized more by the automobile than anything else, and you have made some statements about the automobile to the effect that you regard the automobile as a disaster that has befallen mankind. Are you serious about that?

MISHAN: On that I am perfectly serious. I don't think Satan himself could have invented a more self-defeating instrument. It was presumably invented to save time to get people from here to there a little quicker. But at one time people took about ten minutes to get to work; now I think it takes them at least an hour or more. If you took an average commuting, it has become one of the great problems.

I feel I'm merely uttering platitudes when I talk about the congestion in the cities, the congestion of the air, the continuous noise, the sense of pressure and the sense of false urgency that gets hold of people, leads to all sorts of nervous diseases, pulmonary diseases also.

Above all, I suppose, one ought to say that it has become a form of psychological dependence, economic dependence, physical dependence, because it creates an environment in which you can't possibly do without a car after a while. People just go on extending, extending because they know they have a car, and consequently in that sense, they over-respond and they defeat their objectives.

I shouldn't even perhaps need to mention that it is also an instrument of murder. After all, fifty thousand people are killed on the roads each year and probably a million more injured; of those I would say about one hundred thousand are crippled for life.

MONROE: Do you own a car, Dr. Mishan?

MISHAN: My *wife* owns a car.

MONROE: Your quarrel with the automobile goes beyond the pollution that comes from it, it goes to the kind of life it leads to, the kind of pattern of life?

MISHAN: Yes, a certain frenzy about it. Of course, I don't have to say it has become a status symbol, a sex symbol; we know this because the advertisements appeal to these particular things, to sell automobiles.

MONROE: The type of growth represented by the automobile you feel we could do without?

MISHAN: We certainly could benefit without, yes.

MADDEN: I take a much less extreme view. I notice that when you change the hours of commuting here in Washington, much of the automobile problem disappears, or on Sunday it disappears. But I would advocate user charges on public facilities and I would advocate a national transportation policy that balanced the use of the automobile against the use of mass transportation. I think we use the automobile in commuting in ridiculous and insane ways because we lack a coordinated national transportation policy and we lack this because of the fragmentation of the policy making apparatus in Washington.

The fact is that nothing has struck the fancy of people in modern life more than the automobile. They must get some pleasure from it that justifies their tremendous desire for it. But I see no basis for the need of selling the automobile as a sex symbol or as a device for personal power. And I think the system doesn't depend on that kind of advertising at all.

We could control the automobile if we had a little more courage, and particularly public officials in cities and particularly the federal government, in establishing a national transportation policy that balanced automobiles against plane against railroad and so on.

DOWNS: Bill, Dr. LeKachman here in New York has said the motorist is offered no choice, really, between the high priced no-pollution car and the lower priced high-pollution car. What he appears to mean by this is that the car companies are willing to speculate on jazzy new gadgets.

LeKACHMAN: I'm afraid that I must dissent from Dr. Madden's careful view of the necessities of automobile marketing. I think, in fact, the automobile has been based upon an appeal to the strongest and most volatile of human emotions, and the automobile is dangerous, destructive and so on. For the consumer there is very little choice, really. He doesn't have a choice between a car that doesn't pollute at a higher price and a car that does pollute at a lower price; he is caught by the industry's preference, natural commercial preference, for rapid depreciation, rapid replacement, wasteful consumption of gasoline, easily damaged product.

This, in fact, strikes at the heart of the issue. If we're going to have a slowing of growth, or redirection of growth, or a more sensible growth, we need an enormous alteration in national preferences, national taste, and in business habits. Major industries in our land are going to have to be redesigned. Major habits of consumption are going to have to be altered and I have no notion, as we sit here, whether this is indeed a national preference.

It may be that there is national preference, despite the current campaigns and excitement, for pollution and environmental defilement if the alterna-

tive is an extensive change in national habits and national preferences.

I'm not nearly as cheerful as the media explosion on this topic suggests.

DOWNS: This is something we could continue for quite a time and we don't have that time. But I do want to thank our guests for this brief examination of the economics of environment salvation.

We are nearing the end of our show *Today*, on this April 21st. And tomorrow is Earth Day.

As you know, there are teach-ins, there are various activities and there will be many words spoken and there will be a lot of action taken towards cleaning up the environment. A coalition of various groups is forming.

It is hard to say what the nucleus of this was, but we are going to have a talk with grassroot workers for environment.

We will be coming from all over—just as the real environment does.

Time and again, you hear the guests on the *Today* show say something like this:

"Many of our present laws are adequate; they're just not being enforced."

The United States Attorney in Seattle recently refused to bring action against twenty-seven pulp mills which have been discharging their wastes into Puget Sound. The law under which action could have been taken was on the books. It has been there since 1899.

A private citizen, an attorney, had asked the U.S. to take action.

The excuse for no action, in essence, was that the State had worked out a compromise with the offending pulp mills and this compromise would be endangered by Federal action.

Needless to say, perhaps, but the State's compromise will not put a firm stop to the continued action by these pulp mills of discharging their deadly effluents into the public waters.

This is a story being repeated all over the nation.

It is the thrust of one argument reiterated by the man who is probably the nation's most famous pollution hunter, Ralph Nader, the next guest on the *Today* show.

SEVEN

DOWNS: We will begin this day talking with Ralph Nader. Mr. Nader, who began his public career by battling for safer construction in automobiles, has expanded his consumer investigation into environmental problems, the most pervasive of which remains the automobile. We invited Mr. Nader to be our guest and we also invited all four of the major automobile manufacturers to send representatives to discuss the entire subject of the automobile in its relationship to the environment. No such representatives were available now. So today we will be talking to Mr. Nader alone.

Welcome to *Today,* Ralph Nader. Let me start right off by asking you, flat out, are we winning the fight against air pollution?

NADER: I don't think we are gaining appreciably at all. The Federal Air Quality Act of 1967 has not reduced smokestack emissions one iota. It hasn't even gone into effect yet. As far as automobiles are concerned, that is one of the greatest legal shams of the last generation.

Automobiles coming off the production lines consistently and flagrantly violate the Federal Air Pollution standards and those standards are very weak to begin with.

DOWNS: The standards that are now in existence?

NADER: That's right, on hydrocarbons and carbon monoxide.

DOWNS: One other thing, on the matter of both smokestack emissions and the exhaust pipes, what about the technical feasibility? Is it technically possible now to suppress most of the pollution that is going into the air?

NADER: There are two answers to that. One is that the available technology is far greater than is actually being used, and second that with some investment, technology could be developed very rapidly, not only to control or prevent pollutants, but to cycle many of these out, separate them out, and use them for commercial benefit on the part of the companies or industries involved.

DOWNS: Now, as to who, a person or consumer who reads and watches television and so forth is to believe, we read things by you and by government experts and by industry itself. I have here a thing called a primer on air pollution. It is put out by Mobile Oil Company and I want to read something to you from it.

It says here: "Any new kind of car engine will have to offer more than just pollution control because the gasoline engine is close to that goal right now. So the new engines will have to compete on the grounds of comfort, convenience, efficiency and economy that you've grown accustomed to, with the piston engine. Maybe the answer is to make the

most of the piston engine." Would you have a comment on that?

NADER: I think that is patently false on two grounds. First that the pollution problem is virtually solved by today's internal combustion engine, and second that the motorist can't have it both ways. The industry wants us to believe that the motorist can't have the convenience and the nonpollution at the same time.

One of the main things to remember, and this is one reason why the representatives of the auto companies never debate their critics, is that the present internal combustion engine as it is now coming off the line does not do the job. It fails very very rapidly, even from slim beginnings, after a few thousand miles of actual driving in New York City or Los Angeles or other actual city conditions. And it doesn't even begin to affect nitrogen oxides, because there are no standards there. Nitrogen oxides are very serious pollutants, and present alleged exhaust control systems worsen the nitrogen oxides problem. Senator Muskie has refused to acknowledge this sham of the standards and the fact that they are being violated in many ways.

The full story has not been told to the American people. The technology has been suppressed, it has not been developed even to minimum perfection levels, and we are getting this fraud, which is costing motorists millions and billions of dollars, in maintenance and other problems with their cars. And the auto industry blames it on the government.

DOWNS: Much money goes into persuasion in the form of paid advertisements. To give an indication according to the text that industry is making an attempt to better things, or a least making an attempt to have people believe they are on the ball with it.

What about these ads, that talk about what industry is doing?

NADER: It is the latest in public relations. If you won't do it, at least you talk about it, and of course, we are not organized as a society to impeach consistently with nationwide authoritative voices the false, so-called pollution control claims of industry.

This clean gasoline is a fraud. The fact that auto exhausts have been controlled is a fraud. There are five pollutants coming out of the automobile, at least, major ones. Nitrogen oxides, carbon monoxides, hydrocarbons, asbestos filings, and rubber particulates.

DOWNS: Even these new gasolines?

NADER: Of course. The entire auto industry has done no research about the pollution of rubber tires; that is a very complex subject and they have informed me they haven't begun even looking at it.

Dr. Rene DuBos, a very prominent biologist at Rockefeller University, says this may be one of the worst pollutants coming out of the car. They haven't even looked at it.

DOWNS: That is one that I didn't even know about.

Recently we have been reading, Mr. Nader, about Campaign GM, the attempts to get at the industry through proxies owned by universities, where students may have control of these. Is there any reasonable hope of getting control of some kind over a big industry like that?

NADER: Campaign GM's thesis is simple and it is as old as capitalism, that the owners of these companies have the right and the duty to exercise their vote in policy directions as to whether the company is doing the right thing by pollution or by safety or in opposing mass transit or whatever.

Universities as well as church groups, pension groups, and mutual funds, and other large block holders of GM stock, have just been voting their stock, voting their proxies unthinkingly for management.

I don't think that should be the case. Whichever way they go, they should sit down and say, what would we like this company to be?

And this Campaign GM, which is headed by a number of young lawyers in Washington, is now sweeping across campuses, making trustees, faculty, administrators, students, think hard about university holdings in GM and what they should do and how they should vote.

In that way, it is having an impact. General Motors is taking this campaign very seriously, even though it doesn't have much chance of losing a high percentage of the shareholder votes because of the moral impact of an MIT or Harvard or Prince-

ton or Yale or University of Chicago, voting their shares for these modest proposals which would simply breathe a little more public responsibility via a broader representation on the Board of Directors of General Motors.

DOWNS: In all fairness to industry, should we expect it to really lead? And should industry be the big daddy that takes up our moral responsibilities, or should it merely respond expediently to the pressures put on it by the people and their government?

NADER: Well, that would be sufficient in and of itself, if it would respond instead of fight or be intransigent, to overwhelm political figures, or pollute the channels of communication with grievously erroneous material.

DOWNS: In other words, the money spent for their propaganda you think would be better spent in correcting the errors.

NADER: Of course. Consolidated Edison, which likes to put on a forward image in New York City, spends more on ads than they do on reseach. Their research budget, their annual basic research budget, is trivial compared to all the ballyhoo.

And it is the same with General Motors. Between 1967 and 1969 they spent two hundred and fifty million dollars just to change their signs around the country and world to GM MARK OF EXCELLENCE.

They haven't spent thirty million dollars in research to find a new alternative propulsion system that isn't polluting. They are trying to work in this

ancient, eternal, infernal internal combustion engine. It just doesn't do the job.

DOWNS: Mr. Nader, you know, has been a crusader on behalf of the consumer, on behalf of the human being, really, to see that he is informed on subjects that are in his interest. I think mostly, people have tended to accept what American industry has handed out on grounds that it more or less had to be that way. Nobody really much questioned the safety of American automobiles until you began looking into it. What made you first decide that there was some unsafety involved and that it would be a good idea to sound the alarm?

NADER: First of all, the technology if it is not designed safely can produce an awful lot of violence, inbred violence. Unsafe cars are violent beings.

Environmental pollution is a very serious form of violence leading to emphysema, cancer, shortened life.

Now when you look at it that way, and then you look at the marvelous achievements in science and technology that our engineers and technologists have obtained in space and many other areas—computers, automated production—you begin to ask questions.

Who decides where the life-giving technology is distributed and applied?

Who decides how fast it gets to two hundred million Americans in their everyday life?

It is that gap between the antique automobile,

which is ancient by comparison to what it could be, for the controls on pollution, that really concern me.

The purpose of the law is to generate preventive activities, to speed up humane technology and science for people's health and well being and safety, and that is the critical point. People must realize that all this modernism they watch on television, going off to the moon and elsewhere, can be applied to the problems at home. Hospital service, educational plants, mass transit, air and water pollution control, safer cars and highways, and many many better ways of doing things. We are a rich country, but we are not distributing it for our major public needs.

DOWNS: How do you see the future now? There tends to be polarization. Nobody says he is against the fight to end pollution. Nobody says he wants to breathe polluted air, or drink polluted water, but there is the intransigence you mention. There are people who wish to focus on other issues. How do you feel it is going to come out? Will public education rise to a level where industry and government will be forced into responsible action?

NADER: I think that depends on several things. It depends on how much support goes into anti-pollution groups. Private groups, public groups, agencies like the Federal Water Pollution Control Administration and the National Air Pollution Control Administration, had last year a combined budget under four hundred million dollars. That is less than the cost of one nuclear aircraft carrier.

And I think that is one of the problems. The second thing is what goes on on campuses, and I think if the students rise above mere concern, if the faculty and the campus begin doing the research, if they begin generating strategies of action, then we will get somewhere.

I think the other area is sportsmen, hunters, fishermen, conservationists. They have seen the air, water and soil of the U.S.A. so despoiled that it is not just hazardous, it deprives the man of use of these great natural resources.

We are seeing a combination of many forces, conservation, consumer forces, campus forces, and then pretty soon it will be ghetto forces, because Black people, minority groups, get the worst pollution. They live in the major pollution zones.

I have never yet seen a President or a Chairman of the Board of any of the large pollutors in this country live anywhere but far from their plants and their pollution zones.

DOWNS: They don't want to breathe that air.

Put this book down a moment. Do it. Go look out the nearest window or completely around you if you're outdoors. This is your world. You are here now. This is the only moment you have, this moment of now, when you can do the things which must be done to save this world. Do it.

And remember this:

Human survival is not negotiable.

EIGHT

DOWNS: This is Biscayne Bay, Florida, a National Monument, rich in marine life. The Federal government claims the Florida Light and Power Company has killed life in a six hundred acre area of the bay, and the killer weapon is alleged to be heated water, returned to the bay after being used for cooling and condensation. A preliminary motion to halt construction of a canal designed to carry water to the southern end of the bay has been denied. Still to be decided is the request for a permanent injunction against the present conventional power plant plus two nuclear reactors under construction. It is the first attempt to apply the 1899 River and Harbors Act, in the fight against thermal pollution.

The coincidence is that President Nixon's Florida home is just a few miles away on Key Biscayne.

This is just one of the many economic puzzles created by environmental pollution in the fight to clean it up and we want to be talking now about these with the Board Chairman of two corporations involved in the environmental argument and one of the country's foremost ecologists.

Shortly after the Civil War, a copper smelter in Tennessee poured off poisonous fumes to such an

extent that seventeen thousand acres of trees and attendant wildlife were destroyed. We have been receiving the warnings for years. But apparently they did little good. Right now in Arizona, where I have my home, copper smelters are still pouring out the same types of fumes and creating a pollution horror in what was once the cleanest air in America.

We are not talking specifically about the copper people, though, but we are talking about the economics of pollution and the strange things that go on inside our heads when the pollution menace collides with the profit motive. And industry begins playing brinkmanship with our lives and their own.

Our first guest is Dr. Barry Commoner of Washington University in St. Louis. Dr. Commoner is a pioneer in the struggle for the environment. He enlisted for the duration, back in 1953, when his research found Strontium 90, a radiation poison, in baby teeth.

He has said of the environment crisis, "Once you understand the problem it is worse than you think." But he also believes we are in a grace period when something still can be done. In other words, the limb is not chopped off.

Another guest is Robert O. Anderson, Board Chairman of Atlantic Richfield Oil Company, which is involved in oil production on the north slope of Alaska and in the tanker route through the Arctic and also in the projected Alaskan pipeline.

And finally, we have Charles Luce, Board Chairman of Consolidated Edison, the giant New York City public utility. Welcome, gentlemen, to *Today.*

Let me start with Dr. Commoner, if I may, and ask: Are these two companies over here to my right dangerous pollutors and are they moving swiftly enough to stop polluting in your opinion, both present and potential?

COMMONER: Let me broaden the question. I think all industries are serious pollutors, and of course you have very carefully chosen two representatives of industries that are rather serious pollutors. After all, petroleum is the source of all of the pollution that is derived from automotive traffic, but it is also the source of a good deal of pollution from synthetic materials. For example, detergents, which represent a very serious pollution problem, are based on petroleum. As far as power plants are concerned, they represent an important segment of air pollution in urban areas.

The main difficulty is that, like all industry, these industries are designed to produce things without worrying about getting rid of them. Whereas in nature, nothing is produced unless there is a way of getting rid of it already available.

DOWNS: I know you gentlemen would like to reply to that. Earlier, when Ralph Nader was a guest on the program, I asked him if we should expect industry to be the big daddy in this situation and whether it should assume our moral responsibility or whether it can be excused for act-

ing expediently and responding to pressure from the public and the government. And he said the response wasn't right. Well Mr. Anderson, would you like to answer first?

ANDERSON: I think that a lot of these problems have really just come to light. Ten years ago, we might have known a little about it, but I think the real magnitude of the problem has really been driven home in the last year or two, and I think industry is keenly aware of the problem and is doing everything generally speaking that it can to make up for many many years of not having recognized the tremendous need.

DOWNS: What about the charge that a lot of money that could go into research to correct the ills goes into public relations to soothe the public or help them accept things as they are? Is this true generally, do you think?

ANDERSON: I doubt it, because I really don't believe the public is going to be satisfied for long with the public relations approach. I think this is a serious matter and it has to be corrected. Public relations might smooth a few things over but they are not the solution.

DOWNS: Mr. Luce?

LUCE: I heard Mr. Nader's statistic wherein he said that our company, Con Edison, spends more on electric advertising than it does on research. That just doesn't happen to be correct. We don't spend as much as I wish we could afford to spend on research, but we spend somewhat more than

we do on advertising. I've cut our advertising budget in half in the last two years. This year our electric advertising budget is just a little over one million dollars.

In response to comments of Mr. Commoner, I'd say that while it is true that the nature of producing electricity is going to cause some impact on the environment, there is no way to produce electricity without some impact on the environment. The environment of New York is much better because we have an electric utility than if we didn't have it. If we had to produce all the energy in the way it was formerly produced, with coal, for example, coal burning gas plants and all of that, this would be a much less pleasant city in which to live. I think electricity actually improves the environment.

DOWNS: Is there a way to produce electricity—I will ask this of anyone—and produce much less by-product pollutants into the air?

LUCE: Let me take the first crack at that. There are degrees of pollution from the production of electricity. We have, for example, in the last three and a half years reduced the sulphur dioxide and the particulate emissions from our plants by more than half. We have done that by going to premium fuels that are much more expensive. You mention economics; these things cost money. We have also put in electrostatic precipitators on our coal-fired plants to take ninety-nine per cent of the ash out of the smoke stacks. And then, of course, we

have to get rid of the ash and that is another problem. But. . . .

DOWNS: But that is not an air problem?

LUCE: No, that becomes a water pollution problem, as a matter of fact. What we can't dispose of for building materials has to go out to the ocean and be dumped, but we have to get rid of it. We just simply can't pile it up in great mounds, larger and larger.

While we can do important things to reduce pollution, it is impossible to produce electricity and have no pollution at all. There simply is not the technology.

In the long run, we think nuclear power holds the best answer. Indeed, probably the only answer.

DOWNS: Isn't there a danger of trading one pollution for another though? Nuclear power produces heat pollution.

COMMONER: Well, nuclear power is less efficient in producing electricity per unit energy and the result is that it does pollute the environment relatively more with heat than do other forms. It also raises the problem of pollution from radioactivity. This is a fairly serious problem, I think, because the Atomic Energy Commission is in the midst of reconsidering the emission standards for radioactivity since two of its scientists have suggested they be made ten times more stringent.

DOWNS: Ten times more?

COMMONER: Ten times more stringent generally than they have in the past.

And I think this reveals the importance of recognizing our ignorance. Mr. Anderson said we didn't know about these things ten years ago. Well, what worries me is that we are barging ahead, and in particular with the Alaska pipeline, not knowing what the circumstances are going to be.

I recently read a report from the U.S. Geological Survey which points out the vast ignorance we have of the consequences of running heated oil down a long pipeline in Alaska. We know so little about the permafrost which underlies that area, it is quite clear that the pipeline has been decided on in advance of our knowledge of the consequences.

In the same way, we drill for oil in off-shore areas without having adequate capability, according to government reports, for taking care of accidents.

The main problem is that we have moved ahead with most of our industry, intruding into the environment, before we were aware of the consequences, before we were ready to take care of the impact on the environment. And I don't think this can go on much longer without disastrous results.

DOWNS: Let me ask you, Mr. Anderson, about the pipeline particularly, where these things seem to be self-completing projects. Sometimes they are under way before people are aware of what's happening. Have the dangers been examined by the company, do you feel?

ANDERSON: Yes, I am sure that more engineering and planning has gone into this line than any

comparable project I know of. Still, as Dr. Commoner says: What is adequate planning?

We believe, though, that we can construct the line without damaging the environment. We are fully prepared and have from the outset felt that there were questions about protecting the tundra, that the line should be above ground rather than run the risk of some kind of melting problem in an unstable environment.

COMMONER: How are the caribous going to like that?

ANDERSON: Well, we don't think we are going to have any long exposed segment of line and the line does not go through the principal migration route of the caribou.

DOWNS: You don't believe it will cut them off?

ANDERSON: No, it will not interfere with the north-south migration. To the best of our knowledge it will not interfere. Really, the total surface disturbed by this project is rather modest.

COMMONER: But it is the surface that has properties we know very little about. The report on the permafrost, for example, indicated there are unknown distributions of ice, wedges of pure water, lying in various angles in the permafrost, so that when melting begins to occur, and the hot oil will melt the ice in the permafrost, there are going to be shifts that put enormous stresses on the pipeline. It is almost impossible, they say, to design the mechanics of the pipeline in advance without a very detailed study of this area.

Very little is really known about the whole terrain there, and we know more about the fact that we need oil than we do about the area from which we are getting it.

DOWNS: The question has been raised also of what is the hurry, that that oil will still be there. It is not evaporating or anything. Wouldn't it be worth waiting until reasonable doubt was allayed? What would the oil company's answer be to that?

ANDERSON: Well, my own answer to it would be that this is a significant national resource in terms of our energy supply and we are a highly energy oriented country. As a matter of fact, our whole way of life is energy oriented. We know we are going to need the oil in the near future. The oil will be needed by this economy under the present growth curve.

COMMONER: You know, I challenge that because clearly we are not going to be able to handle the smog problem from cars in cities without considerably reducing gasoline consumption.

And I think in the same way, we can't go on doubling our power output every ten years, because by the year 2000 the waste heat alone is going to involve a twenty degree rise in the temperature of all the water in the United States.

In other words, there is a limit to what we can do, and I think it is probably not very useful for us to look at the past slope of the curve for the growth of power needs to guide the way in which we exploit our natural resources. It seems to me

we are beginning to get to the point where things are going to have to level off, and this really has to be a guideline for your economic considerations.

LUCE: I wouldn't want to let go of the statistic that by the year 2000 the production of electricity is going to heat up all the water in the United States twenty degrees. That simply isn't the case. What we will have to do is to devise ways to put this heat into the air, and we know the technology for doing that.

DOWNS: If the air were heated and the overall temperature came up, wouldn't we still be faced with that problem in the closed system of the air?

LUCE: But the effect would not begin to be what Mr. Commoner's statistic would indicate. As far as electric loads doubling every ten years, this is a result of growths in our economy, and it is a result also of the direction in which growth occurs.

DOWNS: Earlier we discussed the no-growth economy.

LUCE: Fine, well the point I want to make is that public utilities are set up by law to provide the energy required by law, to provide the energy for this growth. And if we are not going to have the growth then that is a decision you and I and everyone else on this panel and everyone listening to this program is going to have to make, for himself.

DOWNS: Mr. Anderson, would you like to answer Dr. Commoner's point about the Alaska pipeline?

ANDERSON: Dr. Commoner, you mentioned ice wedges in the unknown aspects of the tundra. We have operated there, I guess, as much as anyone, and have great respect for the environment and its problems. And those are exactly the areas where we would like to put the line above ground. At any point that isn't stable, we would prefer to get out of the ice and out of the tundra.

DOWNS: Briefly in summary then, we know the earth can be hurt, is being hurt, by our power demand, by you and me as consumers. To a great extent industry is responsible for this, but industry cannot be considered solely responsible. The question is: Is industry assuming as much responsibility as it might? Will it respond to public pressure in time to avoid serious damage? Mr. Luce points out that all of us, all of us really must get into this and make the decision about what our way of life will be, what our demands of industry are.

I want to thank all of you for being here this morning to discuss some of the economics of pollution and the problems that pollution entails.

On this day, April 22, 1970, at Philadelphia's Fairmount Park, I stepped out in front of thirty thousand people to open that area's Earth Day observance. It was a beautiful sunny day and I felt happy, delighted to be alive and there, delighted that we were doing this thing to awaken people.

When I asked them to begin a love affair with our planet, the audience responded with the sure signs that they felt my joy. A small corner of the earth sang for us that day. The whole earth must sing for us before this job is completed.

So what do we do?

Our most powerful weapon, together, is the boycott. Take this to heart: If it helps kill you in even a small degree, don't buy it. Don't buy death.

On that Earth Day in Philadelphia, I asked the audience to join me in never again buying a *new* internal combustion engine. Making-do with the old ones may increase our air problem for a while, but it will send an unmistakable message to the manufacturers. They are committed to keeping the internal combustion engine no matter what it costs us in disease and unhappiness. They propose to burden this monstrosity with "systems" to control harmful emissions.

Those systems will require frequent, costly, periodic maintenance or they will be useless. They will so depress an engine's efficiency we will require

another quantum leap in engine power "for performance."

Getting rid of internal combustion will be no permanent solution. But it will give us breathing room. The next steps are obvious—a decrease in size (and energy consumption) for individual vehicles; longer lasting vehicles of all kinds; and more and better public transportation.

Let's do it.

NINE

DOWNS: Good morning, this is *Today*, it is April 22nd, Earth Day, and there are Earth Day demonstrations in practically every community across the country this morning.

This is the day that workers in the environmental movement have been planning for many months now. It is also the third in our five day series on the environmental crisis. We are exploring the grass roots sentiment of the ecology movement today, and concerning ourselves with the social implications of the struggle to cleanse and save our environment. Among other things you will be hearing from *Today* reporter at large Paul Cunningham.

CUNNINGHAM: Here on Fourteenth Street in New York City, at Union Square Park, not many people have arrived yet. Not many run of the mill New Yorkers. Most of them down here right now are the young people who are out here putting up booths.

It is worth it for people to come here, though. For two reasons: A free breath of fresh air from a huge bubble, and also a New Yorker's survival kit. How to survive in polluted New York City.

DOWNS: We will also be talking presently with

a Louisiana charter boat captain, a Negro publisher from San Francisco, a college professor from Idaho, and we will see some of the activities around the nation on this Earth Day. Now, here is Frank Blair.

BLAIR: Earth Day demonstrations began in practically every town and city in the United States this morning, the first massive nationwide protest against the pollution of the environment. Coeds went to pollution teach-ins wearing gas masks. Small children on the way to school cleaned litter from the streets. Many cities, including New York, banned the automobile from at least one major street.

At Jamestown, New York, the Kiwanis Club arranged to dump twenty tons of sand in a downtown area to show just how much dirt falls in a square mile of the city in just thirty days of maximum air pollution. In Ashtabula, Ohio, demonstrators set up what was called a funeral for unborn children, possible future victims of the environment.

In Washington, the House and the Senate adjourned for the day. Practically every Senator and Congressman was off to make speeches on the year's most popular and least risky election issue.

But there was a pre-Earth Day rally in New York's Wall Street, and Senator Jacob Javits, voicing the concern of many national leaders, cautioned against letting pollution overwhelm other national issues.

JAVITS: I'm concerned that this fight against environmental and physical pollution is so popular it will tout us all away from the long standing and at least equally vital effort to deal with poverty, alienation, racial tensions, the gross inadequacy of health services, education, housing, intelligent population control, and the ending of the war in Vietnam.

BLAIR: The Wall Street crowds broke into song to express their protest. Later today, to show concern for automobile pollutants, New York will close part of famed Fifth Avenue to automobile traffic. Mayor Lindsay was keeping appointments in an electric car.

In Philadelphia, where the Declaration of Independence was signed, demonstrators at another pre-Earth Day rally signed a so-called Declaration of Interdependence, dramatizing the point that every man depends on his fellows and on nature to help keep the environment livable.

Two thousand ghetto residents were boycotting another Philadelphia rally today, arguing that the nation's new found infatuation with the environment has distracted attention from the misery of the poor.

For a look at the polluted center of the nation's biggest city in New York, at the start of the rush hour this morning, here is Paul Cunningham at Manhattan's Fourteenth Street.

CUNNINGHAM: Even the most chauvinistic New Yorker would probably not consider his city

beautiful, yet, like it or not, he is going to get some beauty here. The Environmental Action Coalition, which is sponsoring Earth Day in New York, and concentrating here in Union Square, says this is the first step toward restoring New York's original beauty. Besides a mammoth teach-in here with booths devoted to wilderness, open space, wildlife, solid wastes, air, water, population, urban health, noise pollution (and there is certainly *that* in Manhattan), Union Square will be scrubbed clean.

There is no telling what they will find underneath the dirt.

Part of Fourteenth Street here will be banned to motor vehicles. Instead, they will be riding bicycles, electric cars, and even roller skates.

But the biggest treat for New Yorkers may be a large dome, a bubble, where they can get a breath of fresh air free, and that is well worth the trip down here to Fourteenth Street.

DOWNS: *Psychology Today* magazine and College Press Service have been co-sponsoring a dirty pictures contest. Don't jump to any conclusions. This is a contest for photographs, drawings, paintings and sculpture that deal with pollution, to bring to the public mind some of the dangers. The contest closes on April 30th. We thought you would like to see some of the entries.

This first one is by a twelve-year-old boy from Delmar, California. He created this sculpture of this automobile junkyard, and how unsightly that

is, against the background of a still beautiful part of his state.

Here is a sculpture called *Bottled Ocean* and in it is the sea water and then there is oil and sludge and dead fish at the bottom, a very unappetizing reminder.

Another one; this is in a brown paper bag, and a tremendous number, as we spill them out, of babies. Little tiny doll babies.

Margaret Mead cautioned against thinking in terms of an epidemic of children. We mustn't lose our regard for human life as we face the dangers of population explosion.

Now, speaking of pictures, yesterday we had on as guest, Martin Schneider, a photographer who said, somewhat to my surprise, that some pictures he had taken were not published by *Life Magazine* because of advertising pressure on the magazine not to tell his story.

I felt at the time that *Life Magazine* would be fiercely protective of its editorial integrity, as we are here, and expected to hear from them, and I did. I got the following wire. It says: "We notice that Martin Schneider, when he was interviewed by you on the *Today* show this morning, stated that *Life* had censored his photographs of air pollution and suggested that *Life* had capitulated to advertising pressure by so doing. These statements are not true. The photographs were selected from those submitted to us by Mr. Schneider, the text drew on materials submitted by him, and our in-

dependent research. At no time was Mr. Schneider subjected to anything other than the normal process of editorial selection, and the checking of his facts and assertions. There was never any question of censorship of his material or advertising pressure to keep material out of the magazine." And it is signed Thomas Griffith, Editor of *Life* and *Time Inc.* So much for *Life* and Mr. Schneider.

This is the State Seal of Louisiana. The bird is the brown pelican. There used to be hundreds of thousands of these birds off the Louisiana Coast, and on the coast, and now there are less than fifty, according to some estimates. We have a picture of a few of the survivors. Now these aren't even native Louisiana pelicans, these were imported from Florida several years ago. But these too are dying off.

What happened to the pelicans of Louisiana?

Our guest can answer; he is well versed on the subject. He is a charter boat captain and his name is Charles Sebastian. Welcome to *Today.* What is the answer, what did happen to the pelican?

SEBASTIAN: Insecticides, Mr. Downs, coming down the Mississippi River from as far as seven hundred and fifty miles away. A plant on the Mississippi River put out a tremendous amount of insecticide, killed fish all the way into the Gulf of Mexico, and these fish that had absorbed this insecticide in their systems were eaten—were picked up in the food chain of the pelican. The quickest way to get rid of any species is to keep them from propagating and what the insecticide does is to

prevent the female from laying eggs that have sufficient shell, calcium in the shell. . . .

DOWNS: The shell breaks.

SEBASTIAN: The shell breaks, and you have no new baby pelicans, and all at once you are out of pelicans.

DOWNS: Captain Sebastian has spent the last twenty-four years as a charter boat captain. Taking sports fishermen into the Gulf to the best spots there for fishing. And in 1968 he was awarded the Louisiana Governor's Conservation Award for his efforts to alert the public to the dangers of pollution of the Gulf. We talked a little bit about that yesterday and what the dangers are.

When you began running a charter boat in 1946, as I understand it, there were no oil drilling platforms in the Gulf. The fishing was very good there in almost any spot that you would choose.

SEBASTIAN: Yes, we had very good fishing, even then, but the fishing has greatly improved since the advent of these huge off-shore drilling platforms in the Gulf of Mexico.

DOWNS: Do they act like a reef?

SEBASTIAN: Act just like a reef. It is a food, shade and shelter cycle. And the fish tend to congregate around these huge off-shore platforms, and it has made my job of finding fish much easier, this is true. But we have such a proliferation of these things that now the tide is starting to swing, and we are being affected adversely by them.

More than two thousand, two hundred shrimp

boats are engaged in catching shrimp in the Gulf of Mexico today. Last year the catch was worth about thirty-three million dollars, about fifty million pounds, so the shrimp fleet is very important.

DOWNS: Is that shrimp catch threatened now?

SEBASTIAN: Well, we simply don't know. We don't know enough about what is going on. I would like to stress that our fishing off the Louisiana Coast right now is tremendously good and I want to keep it that way. That is my worry—what may be happening. We don't know.

DOWNS: Let's take a look at some of the photographs you brought that show the pollution going on down there.

SEBASTIAN: Here is a pipeline break. March the 25th of this year, I believe was the date, and in Barataria Bay, which is right behind Grand Isle; about four thousand barrels of oil, I understand, were spilled there, and this is the marsh set on fire and oil in the marsh being burned out.

Here are some more shots of a helicopter with its crew trying to burn this oil out of the marsh. As you say, what difference does it make if we dilute and pollute and lose a little marsh? Well, the marsh is the nursery for everything. Everything that is in the Gulf of Mexico either comes from this marsh or spends some of its time in that marsh or feeds on something that came out of that marsh. If you destroy the marsh . . . that's it. There is no more nursery.

DOWNS: What has been the reaction of companies involved in this, to your efforts to alert the public? Have they cooperated?

SEBASTIAN: Well, they are cooperating, yes. The oil companies are doing the best they know how. But a great deal of research needs to be done.

DOWNS: I was going to ask you, what do you think specifically should be done, step by step, to save the fishing industry in the Gulf?

SEBASTIAN: The first thing, we must have research money. We need research programs to tell us what is happening with these insecticides and the chemical and oil pollution. We live on the alimentary canal of the United States, the Mississippi River, and we are the anus of it, in the Gulf of Mexico. Everything that comes down the Mississippi River is deposited in the Gulf of Mexico. Two thirds of the solid waste, human waste and other pollution of the United States are deposited in this Gulf of Mexico.

We are told frequently that we have shortages of natural gas in the United States. Well, there are billions of cubic feet of gas wasted in the Gulf of Mexico and in Southern Louisiana every year through flares, like that underwater flare that you see here. Here is a Grand Isle spill of this year, January 24th was the date, I believe, and we had oil all up and down our beach. It was a terrible mess.

DOWNS: And oil will not dissolve?

SEBASTIAN: In anything except varsol kerosene,

diesel oil or something like that. If you get it on your feet it is difficult, almost impossible to take off.

Now this is not a problem peculiar to Grand Isle. Hawaii, the Jersey Coast, Florida Coast . . . any place you go you are going to find this stuff on the beach. It comes from tankers. Over a quarter of a million tons of crude oil are spilled in the waters of the world every year. I said tons, not gallons or pounds. A quarter of a million tons, and we are going to get more and more of this sort of thing as we move oil more and more by tanker.

DOWNS: Is this an accident or is it flushing bunkers?

SEBASTIAN: This is deliberate; this is the residue of a bunker which is used for fuel in most cases, and after it is concentrated down, and all the usable fractions are used off, this is the goop that is left. They pump it over the side, it floats on top of the water, and eventually is going to come on somebody's beach, somewhere in the world. The Riviera has this problem.

DOWNS: Eventually, wouldn't it have to come about that one of the worst crimes you could commit would be to pollute the environment in that way and we would have stringent international laws about it?

SEBASTIAN: Yes, this is an international problem, and it is being worked on, but much much too slowly. Tanker captains must be a heartless group of people, and I want to say that in all sin-

cerity, because how could anybody pump all this stuff into the water near or close to a swimming beach, a recreational area, knowing that sooner or later it is going to end up there.

DOWNS: As things now stand, is there another place for them to put it? I mean could they, in port someplace, make a proper disposition of it, where it. . . .

SEBASTIAN: Certainly, it could be held in vessels and brought back to shore and pumped into tanks and reprocessed into road materials.

DOWNS: It could even be usable?

SEBASTIAN: Surely, it has a use. That is where road tar come from. That is the final, bitter oil of the crude oil.

DOWNS: How can it be policed? You know, you and I can have boats out there, where the Coast Guard can come aboard to see if we have holding tanks. How can you police the high seas to make sure that somebody doesn't do that?

SEBASTIAN: It is impossible under present regulations. There are regulations against it, but they are not enforceable at the present time. I am doing everything I can to clean up my boat operation. I carry a garbage can on my boat and everything that we take aboard, beer cans, disposable bottles (seventy-eight billion disposable cans and bottles a year are put out in the United States today). I put all of mine in the garbage can and bring it back ashore.

By the end of the day, six or eight fishermen

will fill a thirty gallon garbage can with refuse. I put it back in the garbage system on shore. I don't pump my oily bilges in the water. I am now trying to find a chemical toilet to take care of my boat. I am going to clean up my system to the nearest possible degree of cleanliness, hoping someone else will follow.

DOWNS: That kind of example is a good thing to set, I think, and I hope when the laws do come in, they are going to crack down on the consumer in a way. Sometimes, it is good to have a reminder, to have laws that we should follow, but very often you get something like laws about holding tanks aboard a private yacht when ocean liners are allowed to dump their raw sewage in the bay, and this is not right.

SEBASTIAN: And when you get to dock where do you dump your holding tank? There is no facility there.

DOWNS: They are gradually putting those in, I think, in various places.

SEBASTIAN: That is true.

DOWNS: Maybe, as the thing snowballs and we get people like Captain Sebastian to show the example, we will be able to get sensible legislation. Certainly people will be more inclined to follow it if it is their own environment. They have to live with it, we all have to live with it, so maybe we will all cooperate.

Even the more sophisticated pollution control methods leave residues of pollution. These residues increase alarmingly as the number of people in the system increases.

In the past seven thousand years, we have grown from a population on the whole earth that would have fitted nicely into New York City to something above three and a half billion. This is the primary threat to our mutual survival, and the most disturbing single fact to the egos of many who are refusing to face up to how they are participating in the death of the planet.

Ecology is a dirty, seven-letter word to many people.

They are like heavy sleepers refusing to be aroused. "Leave me alone! It's not time to get up yet!"

They retreat into death games and other violence, hiding their awareness from the terrifying necessities of this moment.

Do we use such people as scapegoats?

But we cannot afford the time for witch hunts. We can't say: "Hey! You have nine children and I only have two. You owe me seven!"

That's more insanity.

What we can say is: "I hope your nine don't

have nine each. That's something I really hope, that they wake up in time."

And we can shake the sleepers—gently and persistently, saying: "Time to get up."

TEN

DOWNS: It is Earth Day, April 22. We will be talking with a Negro publisher who has some well-defined thoughts on the environment issue, and we want to take a look at what is happening along the Snake River in Idaho and Oregon.

These are two aspects of the environmental deterioration problem. These tree stumps that you see here are not typical of the region there in Idaho and Oregon, but they are a danger signal for some farsighted Idaho-Oregon people. These people are forming the first overall regional planning group to correct the mistakes of the past and see that this beautiful area doesn't succumb to destruction.

I want to show you a series of pictures here of the Snake River Valley area. The Snake River is a tributary of the mighty Columbia. It rises in Wyoming, and it flows through Idaho and Oregon. It is one of the most dramatically beautiful river valleys in the world, curving past majestic mountains and placid meadow lands. At points, the canyon of the Snake is deeper than that of the Grand Canyon of the Colorado.

Four years ago, two men became very concerned about what was going to happen to this land as our affluent civilization began to move in on it.

They conceived a plan for a Snake River environmental study. And now, by virtue of a one hundred thousand dollar grant, that study is becoming a reality.

One of these men is with us this morning; we welcome him to *Today*. He is Dr. Lyle Stanford, Professor of Biology at the College of Idaho in Caldwell.

Dr. Stanford, is this the first time a regional study has been attempted involving universities, industries and government?

STANFORD: As far as we know. At the time we started this it certainly was true. We are pretty sure now that we are in the lead on this kind of regional study.

DOWNS: Before I ask what you are finding out, I would like to ask you, is there a way to be sure that your study will be used by government in a way that can give them maximum assurance this beauty will be saved?

STANFORD: I think so. This, of course, is our main effort. It is to make it possible to educate our region, which is principally a pioneer region. They still have the pioneer spirit. Some people say cowboy attitude, and we have to get beyond that.

DOWNS: And what has been the reaction then, how have the industries or the government, the local and state governments, responded to your approach?

STANFORD: We are new at this, but we worked at it four years in the preparation and during that

time our contacts with industry have been numerous. Just since we received the grant, the number of industries that have called us, asked to come and see us, agencies that have made themselves known, there have been a rather astonishing number. We are very grateful that they seem to be picking up the idea rapidly. Now, just how we are going to make the contact will be something that will have to develop.

DOWNS: I am going to ask all of our guests this. Are you hopeful that until the population of the earth is controlled (let's assume that it will be) and during the interim period of growth, will it be possible for industries to come into the area and to deal with their wastes in such a way they don't ruin Snake Valley?

STANFORD: We have a very serious water pollution problem in our region. In proportion to our population it's as bad as anything in the nation, but we are still a young region, with a low population. If we can control the industries we have, and thus set sort of an example, I think we can go a long way toward expecting the other industries to fall in line when they come in. We may be able to choose them actually. This is an important point for us.

DOWNS: Part of the planning.

STANFORD: Yes.

DOWNS: I think we ought to explain what this valley is that we are talking about.

STANFORD: Our region is the watershed of

the Snake River. It is one hundred and ten thousand square miles. It is a very large area.

DOWNS: Worth preserving. Do you want to see something in the way of really rugged beauty? Isn't that picture something!

STANFORD: This is a mountain that has been the center of a controversy recently, the White Clouds Mountain. We have a mining company which has, under the law, come in there to make exploration. They are actually having to helicopter their crews into the region.

DOWNS: And of course, there is danger there that if that isn't properly controlled it could really. . . .

STANFORD: It is a very serious problem for Idaho. You see these old ghost towns, abandoned mining areas. We have this sort of thing, of course, going on all the time. The miners come in, stay a few years, and leave their debris behind. It is a part of mining, of course.

DOWNS: It is a curious thing about the nature of our problem now and the acuteness of it, in that humans have always polluted their environment since the Stone Age, but the earth could handle it. Now, there are so many of us and our power and energy demands are so great we are overwhelming the earth.

That brings us to our final guest of the day.

Environment of the 1950's was something which, of course, affected man. It was used as a pivotal argument for the 1954 Supreme Court decision

which stated that equality of education could not be attained in a segregated environment. In the sixties, underprivileged groups, including Blacks, grew disenchanted with the fruits of liberal legislation and so equality and the effect of environment were discounted in favor of asserting innate distinctiveness and, in some cases, superiority. Now, in the seventies, environment is back. But now the new issues are what we are doing to the environment. And we found an interesting view of the environmental crisis in a magazine called *Urban West.* It was contained in an article by the publisher, John C. Bee, Jr., of San Francisco and we want to welcome him to *Today.*

You concur, Mr. Bee, with some Blacks who say that the environment argument is a copout by people interested in dodging other thorny issues such as war, race, health, poverty and so forth, but you say that it is a dangerous copout, and would you explain why?

BEE: I think it is a dangerous copout mainly because the environment is deteriorating and many people haven't come to grips with the real issues. Our real concern was that this wouldn't be just another issue, that it would have meaning.

Now, many people who live in ghettos and especially Black people feel the problems that they've talked about, the environmental problems in ghetto areas, poor garbage collections, sewage, areas located close to plants and factories, where we have stench, and these types of things—these people

have talked about it for years. But nothing has been done.

I think that in a social sense, beyond the current ecology and environmental concerns, that it has meaning. It shows that the people are so powerless that these problems have been there, but not until middle class America has become concerned are we generally, as a nation, giving some attention to environmental issues.

DOWNS: This also throws the spotlight on the inter-relation between these problems that some people think are separate. You know, if we are to live, if various forms of life on this planet have to get along together, then certainly humans have to get along together.

BEE: That's right.

DOWNS: It would be related directly to the environment crisis?

BEE: I think many people talk about the pollution of racism, which is definitely a social issue, but I think it has something to do with the ecological balance in the country.

DOWNS: You write, and I'll quote: "The environment issue assumes a deep skepticism about the value of personal success."

BEE: That really goes to the core of the whole American tradition of free enterprise. I think most of us have become conditioned to thinking about production—you know, more production, more gadgets. A man could put a factory anyplace he liked and produce. Just as long as he produced goods

that were marketable. You know, this is good. I think we are coming to the core of this. Maybe this is not the most important thing in society.

DOWNS: Do you think there is an awakening now? We see it particularly on a day like this Earth Day. Do you think there are people who see the desperate necessity to change the quality of life and not merely go on a quantitative basis, which is what we have tended to do in our American growth?

BEE: I'm not sure. We are hoping. I think this type of effort, here, that NBC is doing this week will help. But I still feel that much research and many plants and delivery systems for industry are still being developed, I think the consequences of taking the resources from the earth are still not fully understood.

DOWNS: That ties in with something you published. You said we are shocked now to find that wealth may destroy us even worse than poverty. Because it is a bigger danger, if it means exploiting.

BEE: Sure. How would you like to see seven hundred million rich Chinese in China. I mean. . . .

DOWNS: You mean each with the energy demands that the average American has?

BEE: That the average American has, yes. The whole ecological balance of China would be changed.

DOWNS: And that would eat up the earth faster. Are you hopeful, generally, that we'll find our way out of the woods? Things seem to be

snowballing now and it is a terrible tide to try to stem. Do you think the efforts of things like Earth Day and the aroused people will get things going on a massive enough scale to reverse this tide, or are you one of the doom mongers?

BEE: I am a doom monger in the sense that I have seen other issues develop and then, after they are no longer fashionable or in vogue, lose impetus. In the sixties, we had the big push with civil rights, and then when you really analyze and look at what has actually happened, the attitudes and everything are all the same.

I think we're more sophisticated in practicing these things. So it just seems to me that, if other great issues of my generation are any precedent, that pollution and environmentalism and ecology and these concerns might be verbiage, that's all.

DOWNS: I hope you are wrong.

BEE: I indeed hope, because all of us are going to be affected by it. Industry as well as government and private citizens.

DOWNS: Well, Earth Day has dawned, and will officially get under way here in New York within just a few minutes. Union Square is now being readied for today's activities and, for a report, we want to switch to *Today* reporter at large Paul Cunningham in Union Square.

CUNNINGHAM: Of course you recognize him. With me here on Union Square on the sidewalk which is being swept up, is one of New York's most ardent supporters of Earth Day, Mayor Lindsay.

Mayor Lindsay, right behind us, as you know, is a fourth grade class from the Sacred Heart School here in Manhattan. I am going to give you a chance to do some interviewing with me. To find out whether this message is really sinking in with the young. Suppose you start with some of the children. Here's a mike.

LINDSAY: Girls, what are you doing today?

CHORUS: Cleaning up New York City.

LINDSAY: Why are you doing it?

VOICE: To keep the city clean.

LINDSAY: How about having Earth Day every day?

CHORUS: Yes!

LINDSAY: But you have to go to school, too?

CHORUS: No. (Laughter)

CUNNINGHAM: Let me ask you, dear, what have you done, or what do you think you should do yourself to help clean up and keep the city cleaner?

VOICE: Grab a broom and start sweeping.

CUNNINGHAM: That's very good.

Incidentally, Mayor Lindsay, have you done any sweeping yet? You're always having your picture taken with a broom. Have you done it yet today?

LINDSAY: Sure, I've done a little sweeping today, but I pick up litter when I walk along the street. Somebody throws a newspaper or a bottle or tin can and I pick it up, and try to set an example that way.

CUNNINGHAM: You're quite a walker. There

is a report that you are going to walk the entire forty-five blocks that will be blocked off on Fifth Avenue today.

LINDSAY: Fifth Avenue, Fifty-ninth Street to Fourteenth Street, and then Fourteenth Street from Seventh Avenue to Third Street, which is a big L in Manhattan. I will walk the whole distance today.

CUNNINGHAM: If you had to make a point of what you think is the most important pollutant, the worst pollutant here in Manhattan, how would you break it down?

LINDSAY: People argue over figures on this kind of thing. Unquestionably, incineration and automobiles are the biggest contributors to pollution.

CUNNINGHAM: What do you think, as the mayor of the largest city in America, can be done about the automobile? I know we are going to dramatize it here today with a parade along Fourteenth Street, people riding battery operated cars and bicycles. But what do you think can be done in a city like this?

LINDSAY: The main thing, of course, is mass transportation. We are building twelve new subway lines in New York City and that will make a big difference. The city is contributing a billion dollars over the next ten years to mass transit construction.

And then, more and more, we are discouraging automobile use in this central business area, particularly.

CUNNINGHAM: But isn't the biggest problem attitude? How do you get people like New Yorkers to change their mode of life, to be willing not to bring a car into the city, to be willing to pocket that empty cigarette package?

LINDSAY: We have to make Earth Day an everyday habit in people's lives. You know, there is nothing more discouraging to me than to see somebody litter, and I go right up to them and talk to them about it. And people are careless about it, they don't think, they just throw something on the ground. Attitude is the biggest problem of all, and the real pollutors, you know, are people. If it weren't for people, we wouldn't have pollution; people can change things, once they get it in their minds to change them.

CUNNINGHAM: Hopefully, we are getting to the young here on Union Square on Earth Day.

Concern for the environment is no fad.

We cannot get tired of the environmental issue and turn to something else because, if we do, it will get tired of us . . . and dispense with us.

This is an issue which cannot be co-opted by any group seeking to divert us into the old bread and games. It won't go away. Bandaids won't cure it. Partial solutions will only delay the ultimate confrontation, and they will require greater and greater efforts for shorter and shorter delays.

The problem is not merely water and air and resources. It is life style and how we develop our potential as humans. Pollution is Black Panthers murdered in Chicago. Pollution is a thousand bodies floating down the Mekong. Pollution is Russia sending planes and guns to Egypt. Pollution is Red China huddling behind its paranoid curtain. Pollution is the radical left and radical right secretly arming for a war of extinction. Pollution is the son of a dear friend being shipped home from Vietnam in a flag-draped box. Pollution is distrust. Pollution is hate.

Pollution is anything which keeps us divided.

Pollution is insanity.

We are in a world-wide crisis of sanity.

ELEVEN

DOWNS: I'm Hugh Downs, and this bring us to the midway point in our five part series on the environment, the series we are calling *New World or No World.*

This day, April 22, 1970, is Earth Day. It is a modern version of an ancient rite, ancient man's humble acknowledgment that, in the spring, we should pay some sort of homage to the earth that gives us life.

All over America, people of all persuasions are gathering to speak their views on what is necessary to save the planet. As it has been called, a plundered planet. The ground swell has been building for some months now. At a March teach-in at the University of Michigan, at a Noise Symposium at Chicago, at government hearings, the people have been speaking out.

Here is a composite film of what the people have been saying:

VOICE: But if we are going to lose it, we are going to lose it in the next twenty years, because time is running out. Whether you like it or not.

STUDENT: So now I said to the SST developers, I do not believe this nation will tolerate sonic booms, I am one of that group. I'm one that is a

great deal more cynical now, after my experience, than I was a year ago, about whether the system we now have is capable of overcoming the pressures, the strengths, the power that exists within those groups that are now destroying our environment.

CONGRESSMAN: The system is responsive within the system—every two years in the November elections. You have certain remedies next November about making this system responsive, of giving the priority to legislation that has been discussed today. I hope you will use that.

MUNICIPAL OFFICIAL: At present, the Federal government has not set precisely what is a dangerous level of pollution. We must know precisely at what amounts sulphur dioxide in the air endangers the health of the average citizen.

CONGRESSMAN: I just wanted to concur with the idea that there are many of us, and I think most of us at this table, who do feel that perhaps the place to start cleaning up our environment is in the Congress of the United States.

DOWNS: Earth Day is not centered around any big demonstration in any one place. It consists instead of thousands of local marches, rallies, protests, meetings and teach-ins all over the country. But it did begin with some national organization in a Washington Office under the name of Environmental Action, Incorporated.

We have asked two of the national leaders, a Congressman and a student, to tell us about it.

Representative Paul McCloskey, Republican of California, is Co-Chairman of Earth Day, and twenty-five-year-old Dennis Hayes is National Coordinator. They are both in our Washington studio now with Bill Monroe.

MONROE: Congressman McCloskey, did you and Senator Gaylord Nelson have something to do with starting Earth Day?

McCLOSKEY: I think Senator Nelson should get the credit for conceiving the idea. I joined him to form a non-profit corporation to have an entirely student-run operation that would give it the motivation and direction.

MONROE: The money coming from private individuals?

McCLOSKEY: Well no, the money has come from a mixture of foundations and corporations, but the students won't take money from corporations they deem are polluted.

MONROE: Mr. Hayes, I gather you have kept the accent on local activities all around the country. What are some of the things that are particularly expressive of Earth Day that are going on today?

HAYES: There are a wide variety of things, as Mr. Downs was saying at the beginning. Everything focuses upon a series of specific local issues, some of them with national implications. For example, in New York City they have blocked a couple of streets, one of them for a ten hour period, the other for a two hour period. Some of that can be seen as a symbolic protest against the internal

combustion engine, which of course has national implications.

In other places, people are talking about expansions of airports, and are trying to do what they can to point out the flaws of some of the technological boondoggles coming from our aerospace industry, such as the SST.

In other places, they are doing things more formally academic, with people bringing in lecturers to talk about some of the environmental concerns. They are addressing local problems in such a manner that they are trying to appeal to the political philosophies of the people in their areas. And of course, there are some fairly strong distinctions between a place like Berkeley and a place like, say, Oklahoma City.

MONROE: I would like to ask each of you, starting with Congressman McCloskey, what about opposition to environment clean-up, and to this whole movement? You hear talk these days that the environment is as sacred as motherhood. Is there any opposition, or is there any resistance?

McCloskey: I can only speak with the industrialists and the Congressmen I see, and in the past two years I have seen all resistance evaporate. There is no one in the Congress today who will say "I am against the environment," or "I don't think we ought to take strong action to preserve and restore the environment."

MONROE: Mr. Hayes, there are a lot of young people leading movements. It would seem to be

uncomfortable, it would seem to be in bed with the establishment if there is no opposition. Does that apply to you?

HAYES: I think the environment isn't the kind of bed that everybody can lie in very comfortably, and when we stop posing problems and start proposing specific solutions, solutions that have some costs to them, then I think there is probably going to be some division of the ways.

It is safe to say now that our organization has ceased being a tax-exempt organization, that we have moved into a non-tax exempt state, an action oriented state, that probably a lot of the people who have been giving us vocal support are now going to start raising their eyebrows a little bit. I suspect we are going to have rather serious financial problems. I am not sure what our sources of funding will be.

MONROE: You have moved from tax-exempt to non-tax exempt for a purpose?

HAYES: Sure. In the past, we have been an educational foundation. We had to be totally impartial, simply presenting material and doing what organizing we could to encourage people to set up educational activities. From this point in time, we can begin pointing the finger at specific people and institutions who are responsible for massive types of environmental degradation.

MONROE: Do you feel you've got it made if there is so little opposition?

HAYES: No, I don't think there is that little

opposition. It is very very fashionable to talk about the environment, but as every day proceeds, we find very very little concrete being done.

There are now a few measures that are beginning to be introduced by some of the major corporations, but they are still spending an insignificant fraction in terms of environmental clean-up if it were compared, say, to what they are spending on public relations. A typical sort of day's advertising for a major corporation is approximately twice the amount for several corporations that we have spent on this entire campaign organizing Earth Day.

MONROE: What about the Congress, Mr. McCloskey? Does legislation to do something about the environment go through automatically?

McCLOSKEY: It did last year. We passed that population commission and the environmental quality bill in such short shrift that it was almost incredible.

This is the great thing about the teach-in today, that these students are looking at the issues. They are coming up with specific solutions and then they are asking specific questions of me and many of the other members of Congress. Have you done it or aren't you? And if you don't do it, we are going to defeat you at the polls. And I can't help but think that is very helpful.

DOWNS: I would like to suggest one way of looking at this Earth Day. You know, all week, because of the subject matter, we've been dealing with

dire predictions and taking a rather apoplectic view of what is happening and what could happen. It is not designed to scare anybody but rather to awaken. But I think, as precarious as the times are, it is worth considering them also as pivotal. We could be at a turning point and this Earth Day could be the time when human beings, gathering their resources and their techniques, which are formidable, could begin to rebuild the earth.

It is not easy to reverse our tendency to frontier thinking. That was very useful in our past; we had frontiers to push back and it was there to be exploited and developed, to use those words, not to be conserved.

There were early warnings, though; a book by A. B. Guthrie, Jr., referred to two young men who were spending the young year, he said, like beaver trappers, confident they were inexhaustible.

Well, before the Civil War we knew the beaver were not inexhaustible and they would be gone if we didn't do something about it. But conservation efforts have always been met with smiles among more hard thinking types in this country. While many have been concerned about our environment and working to try to save it, they've often gone unnoticed or criticized as bleeding hearts.

Such a person is Mrs. Trudy Bernhardt, President of the Palm Beach County Animal Rescue League in Florida. Last month during extremely heavy rains in the Everglades, many deer starved to death or drowned. Mrs. Bernhardt, a very attrac-

tive lady, put on boots and joined forces with members of the Florida Game and Fresh Water Fish Commission and a veterinarian from a tourist attraction called Lion Country Safari. They set out to rescue as many young deer as they could. Here is Mrs. Bernhardt's story.

MRS. BERNHARDT: We went out early this morning by helicopter and then by air boat, out to various hummocks in the glades where the deer are. It was a very rainy day; it curtailed our time. We saw some fawn, we brought back some. One fawn was so exhausted that we just picked it up. The others were in a weakened condition, but we did have to chase them. Mr. LaBlanc from our Shelter actually dove into the water after one that was trying to get away. We also saw skeletal remains of fawns. It was very sad.

The hummock I was on in particular, there was no forest for the deer. It was browsed away way up to the tree line where an adult deer could reach. But for the little ones there was just nothing. We brought back the deer we could before we got really rained out.

DOWNS: Ron Davis, News Editor at NBC affiliate WPTV in Palm Beach, estimates that in the last seven years the deer population of the Everglades has diminished from thirty-five hundred to less than four hundred. We salute the efforts of Mrs. Bernhardt and the men with whom she worked on this small, almost unnoticed but important effort, to protect our vanishing wildlife

and an essential link in the ecological chain we call environment.

It is often chalked up to sentiment and yet the people who have worked in that type of conservation have had sentiments, obviously, humane feelings about other forms of life, which are not generally shared by humanity. But it is not a matter of sentiment. The idea of preserving ecological balance is vital to the survival of humans on the planet. If we were the only form of life, we would not last very long on the earth.

It seems hard to believe we couldn't stamp out certain unwanted types, and I am thinking of mosquitoes, for example. Is the common house fly necessary in that link? Anytime we make a massive assault on any species of life, we raise the danger of causing more of a ripple in the ecological chain, increasing the number of natural enemies of some species we've killed off. We don't know the total effects, and for that reason it is very necessary to proceed cautiously with any kind of control of the environment. We are learning this now, the hard way. And I think there is more and more public awakening to this fact, and that is what Earth Day is all about.

Even from the doomsayers you hear reflections of hope. Nobody wants "it" to happen.

In his darkest moments, man is aware that, while he may be limited, humankind need not be. It's a bedazzling fact—our energy here and now may be finite; humankind need not be. Death is a limit to the individual; life is potentially unlimited. Power is limited and limiting; the human spirit is unlimited.

The questions remain there, waiting for decisions.

Would you like to save the earth?

What are you willing to do?

TWELVE

DOWNS: "When in the course of evolution it becomes necessary for one species to denounce the notion of independence from all the rest . . ."

So read the first words of this Declaration of Inter-dependence, a respectful, non-political parody of our famous political document, the Declaration of Independence.

It's a very important concept. It was conceived by the Environmental Group, Ecology Action, and it calls upon mankind to recognize that all of us have been the villains and we must reaffirm our inter-dependence with other forms of life on earth or all perish.

All of these symbols that have come to have meaning and that relate to Earth Day and Earth Week are going to be familiar sights, I think, from here on.

The term survival seems like a dramatic term, but it is a dramatic situation, and that is what it boils down to, whether we are going to survive. We are going to show you presently how some people in Philadelphia are doing their part in this movement.

First, let's note that all over America, Earth Day is being marked by parades, demonstrations, ex-

hibits, survival walks, dozens of other ways of telling our political and industrial leaders we all prefer life to pollution.

The Earth Week people of Philadelphia have been working particularly hard. One of their projects is to make films of environmental problems in the Philadelphia area. They are not professional filmmakers, but they are young and energetic, and they are filled with ideas. We have a short sequence, showing two of these ideas. We will hear first a statement by a man who is holding on to his old homestead in the rural atmosphere of what is called Hog Island. This is a bucolic setting, surrounded by an industrial slum. The second concerns a group of North Philadelphia ghetto boys who are locked out of their playground on Sunday.

Here are these films!

VOICE: People today have no concern, they have no respect for the other person. All they think of, I'll get rid of it and I don't care. They don't care whose doorstep they dump it on. They ride in their cars, they throw the rubbish out and they do everything. They just don't have no respect for people, that's all. One for another. The main reason is, it is no concern of mine. As far as we have been talking about the slums in the city for quite a long time, and now we realize . . . we are realizing these slums are spread outside.

VOICE: That's right, that's right. You can say that. Take the Fort, Fort Nelson right down further from my home here. All right, the war was

over, they closed the Fort. What did they do, they demolished it. Why couldn't they have left that together? Why couldn't they take the kids from the center part of the city and brought them down here and show them the birds, show them what the grass, what a piece of grass looks like? A lot of kids never seen that. Never even seen a live rabbit.

VOICE: We ain't got nowhere to go, man.

(OVERTALK OF YOUNG VOICES)

VOICE: Ain't got nothing to do, man. Ain't got nothing to do, man . . . start fighting or something, man.

VOICE: We're in there playing basketball or sumpun. And then we have something to do, man.

VOICE: Let us in, let us in. Hey, let us in.

VOICE: What are we going to do? I'll tell you what we're going to do. We'll get a small grenade and ball it off man, wow!

VOICE: One thing that I would comment about. The people here are trying to do a little for us, like we are getting a recreation center up on Seventh Street and all that, you know.

VOICE: Yeah, but we need someplace to go before that, man.

VOICE: I want to say something else about the system. They got their hands in all kinds of goings on. Dope traffic, book making, and they just acting like they want to build up the neighborhood.

Like, really it is too late.

DOWNS: Experienced film makers might be horrified to see a camera pulled back as that one

did there, and to reveal a soundman sitting there with his microphone and other equipment. Orthodox professionals would be inclined to think you shouldn't see such things. On the other hand, professionals would be less likely to think of the simple idea of handing a microphone to a bunch of ghetto kids and getting their random thoughts. It was what could be called a real documentary service.

I think these films do a real service in giving a means of expression to people who, while perhaps not professionally articulate, open up passionately when somebody bothers to listen to them.

Right now we would like you to meet Mr. Ed Furia, the director of the Philadelphia Earth Week group. He is an attorney and also holds a degree in City Planning, which is a pretty good combination for the work he has undertaken.

Welcome to *Today,* Ed, and tell us a little first about Hog Island and the man who lives surrounded by that industrial slum.

FURIA: That is not actually in a rural area. It is right on the outskirts of the main part of the city and at one time it was a place where people could quickly get from the buildings and factories of the city and get a little sunshine, fresh air and grass.

That's changed. It certainly has changed. The center of that island, where that man lives, is really very pastoral, and is completed surrounded now by industrial sludge and dump trash, abandoned

cars, water that is filled with oil slicks and it is actually completely ruined on its boundaries.

DOWNS: What do you do when you make a film of a place like that, what is the purpose of it? To what use will you put it other than showing a portion of it on your program?

FURIA: The Earth Week film crew probably has about twelve hours of film. Basically, they are trying to make a statement about the environment from the point of view of every possible interest group in the city. Black people, suburban people, lower class White people, etc. The idea being to finally come up with a definitive statement of the largest kind about what the environment means to human beings. What they intend to do afterward is to produce four different films: three short ten minute films and one feature length film.

DOWNS: To be put together from all of this.

FURIA: Right, and these will be distributed to one hundred thousand different organizations, high schools, etc., so we can get the message out. The name of the game with our film crew is communication.

DOWNS: What about money now, your financial backing; do you accept money from pollutors?

FURIA: We have accepted money only from those pollutors who have admitted the amount of pollution they are producing. What happened in Philadelphia was that when we started our planning, we found out that the Greater Philadelphia Chamber of Commerce was planning to print an

eight page supplement in all the newspapers which would say something about what industry is doing to solve the problem. You have seen a lot of these ads nationally by large corporations saying what they are going to do about it. We felt that even if those facts were true, whatever they say in these ads, whatever they say in the supplement, it is basically still whitewash if corporations don't admit to the problem they are producing.

We went to the Chamber of Commerce and we said to them that if you intend to do anything about the problem, you'll have to admit to it, because the public is at a point now where they won't believe you are doing something unless you admit to the nature of the problem you've caused.

DOWNS: You are then actually helping those industries. I mean you are helping them to cut down the pollution by pointing out the public relations futility of merely whitewashing.

FURIA: That's right. One of the things we tried to do, which I think in policy is very similar to the GM Proxy Campaign, is to say to these corporations, you are up against the wall now. The citizenry, the students have had it with the kind of perverse cost accounting you have been using for years. Whereby you don't take the social costs into account of your decisions. We say now you have the opportunity to become socially responsible. If you don't become socially responsible, then there will be nothing more than a continuing con-

frontation, which could become violent, as it has already in some states and some cities.

DOWNS: You are wearing a button there, Ed. What is the meaning of it? It has no lettering on it.

FURIA: This is the Earth Week button designed by David Powell in Philadelphia. It symbolizes what could be clear pure water, a sunny sky, clear air, etc.

DOWNS: Saturday marks the end of Earth Week; what will happen from there on, Ed? How do you keep the momentum for survival going?

FURIA: I think that question is particularly appropriate to groups that are only planning protests and public activities, along with the public activities that have been occurring in Philadelphia for the last couple of weeks.

But the Philadelphia group has been involved in actual problem solving areas: Getting better legislation, putting pressure on politicians, etc. One of the things we are trying to do is to make it impossible for a politician at a local, state or national level in Philadelphia to get votes unless he addresses himself in a meaningful way to these issues.

Another thing we're doing is gathering data about who is polluting the environment and how much. One of the things we're very proud of is that in Philadelphia we were able to get the city of Philadelphia, the Health Department, to provide the information which was kept confidential for the last four years on exactly who is polluting and how

much. They said the reason it was confidential was that they had to protect the interests of corporations, of proprietary interest.

We explained to them that the public interest is much more important. Last week they gave us this data. Now, when the public has this information in their hands, they no longer look at a smokestack and say gee, that looks like that's polluting; now they know how many tons of sulphur dioxide, how many tons of particulate matter, etc., etc.

DOWNS: So this momentum will keep going, even though this week is just a kickoff?

FURIA: Very definitely.

DOWNS: Earth Day is going to be a very busy day in New York City, among other places. For a look now at some of the preparations, we switch to our remote unit at Union Square where *Today* reporter at large Paul Cunningham is standing by.

CUNNINGHAM: At this moment, Union Square Park on Fourteenth Street here in Manhattan is still pretty deserted. None of the many booths that are to be involved in this teach-in on Union Square are yet put up. They are assembling out here on the sidewalk, and this generally is where the action is now.

Incidentally, the average New Yorker hurrying to work—we talked to a couple of them; they just hurry right on by—is showing a remarkable lack of interest so far. Most of the people you see here on the sidewalk are young people involved in the En-

vironmental Action Coalition. Excuse me, you're one of the leaders of this group aren't you?

VOICE: Yes.

CUNNINGHAM: What is your name?

VOICE: Ron Nevis.

CUNNINGHAM: What is your title?

NEVIS: I'm design director.

CUNNINGHAM: All right, what does that mean, what are you doing?

NEVIS: I'm responsible for everything here that is not living or growing.

CUNNINGHAM: Aren't you a little slow in getting everything up so far this morning?

NEVIS: No, I think people are just a little too anxious. We have it all planned out. No problem.

CUNNINGHAM: Tell me about this geodesic dome where one can get a breath of fresh air.

NEVIS: It is not a geodesic dome; it is an inflatable structure which people will be able to go into. We also have three rooms coming in with three environments. One polluted, one totally clean and one just totally ecstatic expression.

CUNNINGHAM: How many do you expect out here?

NEVIS: Oh, fifty or sixty thousand or more.

CUNNINGHAM: Let me talk to some people here. Sir. you are a New Yorker, I can tell.

VOICE: Yes, I am.

CUNNINGHAM: What do you feel about all of this effort to clean up your city?

VOICE: Well, I think it's a good idea. It should

have been done a long time ago, and I think it's up to the people to do something about it.

CUNNINGHAM: Well, you say it is up to the people. What are you going to do?

VOICE: I'm going to help out too.

CUNNINGHAM: How?

VOICE: By doing what should be done. The proper things. Keep the city clean . . . of air pollution.

CUNNINGHAM: What about some of you other fellas here? Would you call yourself a typical New Yorker, or are you one of the young people down here who feels very strongly about it?

VOICE: I feel pretty strongly about it, but I'm from Memphis, Tennessee. I just came to the city. I came out this morning because I wanted to show my support.

CUNNINGHAM: What are you going to do?

VOICE: I brought my hammer, but I haven't been able to use it yet. I don't know, I have worked a little today, so feel that I have done something. I hope I can do something of a little more consequence maybe in the future.

CUNNINGHAM: What will be the most important message do you think, delivered here?

VOICE: I think maybe the fact that we are in a bigger hurry than a lot of people think we are about cleaning up the environment.

CUNNINGHAM: What about you, sir? Are you working here or did you just pass by?

VOICE: I'm just passing by. And we're taking some of our equipment off the streets.

CUNNINGHAM: Have you gotten the message yet about cleaning the city?

VOICE: Yes, everybody has the message.

CUNNINGHAM: Were you born and raised here in New York?

VOICE: Yes, Brooklyn.

CUNNINGHAM: How dirty do you think New York is, or did you ever think much about it?

VOICE: I have been to some other places, not too bad. I've seen worse. I have seen worse. We'll do a good job.

CUNNINGHAM: They say they are going to make New York a beautiful city; do you think that's possible?

VOICE: Yeah, if everybody pitches in, sure, why not?

CUNNINGHAM: What are you going to do?

VOICE: Try and keep it as clean as possible, on the job that is, anyway.

CUNNINGHAM: Anything in particular, though?

VOICE: No. Well, you've got garbage pails, so put garbage in the garbage pails and that's it.

CUNNINGHAM: All right. How about you, sir? Go ahead.

VOICE: I think you're doing a wonderful job, but you ought to do a better job on dope addicts, it is a little more important than this thing here, I think. Because two hundred and sixteen kids died this year, just in New York City alone. If you did

it over the country there are more kids dying from dope than from the whole war effort.

CUNNINGHAM: Well, how do you feel about cleaning your city up?

VOICE: It is a wonderful job if they do it. If they penalize people for dirtying up the city, and do a better job.

CUNNINGHAM: You think they should be fined or something?

VOICE: That's right. And they also should have the Department of Sanitation doing a better job.

CUNNINGHAM: Thank you very much, sir. There is a bit of the sample. We did get a few New Yorkers passing by here and nobody is against the effort here today, Earth Day here on Union Square.

Ecology is a word which points to a revolution generated in the earth beneath our feet.

As any good doctor will tell you, one of the best medicines is Tender Loving Care. But we have to be certain what we're doing really is TLC. The very fact we have air pollution control agencies contributes to pollution. They tend to lull many into the false belief that everything possible is being done.

That's one of the problems about such a thing as Earth Day. We get outside together, experience the sanity of being all together on a mutual problem, and we go home feeling great.

We *did* something.

And that's true: we did.

But that effort is useless if we then go on about our business-as-usual, immersed in word pollution, power pollution and sanity pollution and all the other pollutions destroying us.

It pays to listen occasionally to what the young are singing. Here's a Simon & Garfunkle sampler:

"So I'll continue to continue to pretend my life will never end and flowers never bend with the rainfall . . ."

We are tangled in contradictions between what we say and what we do. By any clinical definition,

that is insanity. Let's put the words down occasionally and pay closer attention to what we are doing.

Especially when we're dealing with politics.

THIRTEEN

DOWNS: Politicians are subject to the whims of public opinion and, understandably, sometimes some of them say not what they mean as much as what they think their constituents want to hear. We want to talk now about the political relation to environment problems, how politics may be changed by this issue.

On my left is my first guest, Representative Morris Udall, the only Democratic Congressman representing Arizona. He has been doing it for nine years as a champion of various liberal causes, including birth control, despite or perhaps because of the fact that he has six children. He also helped lead the fight in 1964 for the Wilderness Act.

On my right is William A. Rusher, publisher of the *National Review*, a magazine of conservative leanings, edited by William Buckley. Mr. Rusher writes, lectures, and, among other things, serves as co-chairman of the American-Africa Affairs Association.

Gentlemen, I would like to begin what will turn into a discussion here by getting your opinions on some recent legislation, and to set this up we want to present a portion of a film interview recently conducted by NBC News Washington Cor-

respondent Peter Hackes with the Secretary of Interior, Walter Hickel. He speaks of the Clean Water Legislation.

HACKES: Well, now, the President's Clean Water Legislation, the proposed legislation, includes four billion dollars in Federal money to help cities build sewage treatment plants. How do you answer those who say that that is less than half what is really needed to really get at this problem, particularly to face future needs?

HICKEL: We have two separate studies that show that it will take ten billion dollars to give secondary sewage treatment to the sanitary sewage systems of America. That's our goal. Four billion is direct grants, and then we have six billion, the program called EFA, Environmental Funding Authority, that makes available loans to those cities, the counties, or state governments. I don't know of any state government, basically local governments, that can fund or finance their bonds any other way. They can't find a market for them.

So, in essence, the ten billion dollars will give us this secondary treatment. It doesn't go beyond that, but that's the goal we are going at now and I think that will be accomplished in the next four to five years.

DOWNS: Mr. Rusher, how do you feel about the clean water legislation of which Secretary Hickel spoke? And I may ask you generally, how do you regard all of the environmental legislation that has been suggested thus far?

RUSHER: We certainly have to have some legislation in this matter and it would be politically fatal for this or any other administration if they didn't do something about it.

I will say this, that when I hear politicians calling for the expenditure of ten billion or is it maybe twenty billion dollars, I begin to get a kind of tingling feeling in my scalp. I wonder how much of that ten billion is actually going to reach the spotted trout. I have a feeling money tends to sort of peel off along the way and wind up in the hands of politicians or contractors or businesses.

I note that the so-called ecology stocks on the New York Stock Exchange have had a boom this last year. There is going to be a lot of money in this pollution business and I think it is not unreasonable for the American people to take a good long look at these expenditures and make sure they do what they want them to do.

DOWNS: Do you have the same feeling, Mr. Rusher, about the seventy-five or eighty billion that goes into defense?

RUSHER: Absolutely, I have been in the army and air force as it was in the Second World War and I know perfectly well that money can be wasted and will be by government if it can be done, and it generally can.

DOWNS: Guy Wright, writing in the *San Francisco Examiner* said that what disturbs him is that most of the enthusiasm for saving the environment

is manipulated, he says, artificially induced. Do you think that's true?

RUSHER: We seem to live in an age of fads and I am very much afraid pollution is being treated and regarded as a fad. It is a serious problem. I think we ought to look before we leap in these matters. Everybody is terribly excited about it now. I hope they don't lose interest, that it doesn't turn out to be just another flash in the pan, just this year's excitement.

DOWNS: Congressman Udall, do you feel the Congress of the United States is responsible not only to the will of the people, but to their needs?

UDALL: In the long term, yes, short term often no.

Watching Secretary Hickel's statement, the thought occurs to me that we are going to take two hundred billion dollars this year out of you taxpayers, one way or the other, in different kinds of taxes. The public isn't ready to pay more than that. That's all there is. Two hundred billion is about all the public will pay.

I don't agree that four billion or ten billion will clean up the waters of this country. Every river is going to be dirtier next year. We come back here the same day next year. So the real test of the politicians is whether they are ready to re-direct some money from national defense into pollution, re-direct some money from an SST that is going to pollute things, or the ABM or some of these other things. This is the real question.

I have a feeling that getting around the country, and talking about this, people are ahead of the politicians. And the young people are ahead of the old people.

DOWNS: That brings me to the whole subject again of manipulation. Is that necessarily bad? The people may be ahead in feeling, but isn't every issue necessarily manipulated for it to become articulate?

UDALL: Of course; the job of leaders is to lead, to find the issues and get out front and give the people the banner they can rally behind. And this is politics, this is statesmanship, I suppose. But I think the people are way ahead in terms of the fundamental things that have to be done. I find the people ahead of the politicians on many of these things, and as I say, I am amazed to find the young people so far ahead of the older people.

DOWNS: Mr. Rusher, would you agree that the people are ahead of the politicians often?

RUSHER: I think the people are generally ahead of the politicians.

DOWNS: You said you feel that industry has become, to a certain extent, a whipping boy for the environment issue, and you have quoted some statistics. I would like to hear the essence of your argument.

RUSHER: I think a lot of people are riding their hobby horses on the pollution issue, and those who just like to get mad at industry and the mili-

tary-industrial complex are mad at it about pollution now.

Actually according to the *New York Times* just the other day, only seventeen per cent of the air pollution in the United States is caused by industry, sixty per cent by automobiles.

In the matter of solid waste, I was very interested in the clip you had a little bit earlier about South Dakota. Actually, of the three and a half billion tons of waste produced per year in the United States, two billion tons, or fifty-eight per cent roughly, are agricultural crop and animal wastes.

I don't hear so many politicians talking about this. It is much easier to horsewhip some large corporation. But it is these things that are causing the real trouble, or the majority of the real trouble. If we are serious about pollution we are going to have to stop riding our personal political hobby horses and go where the trouble is.

DOWNS: Interesting statistics. Perhaps true that scapegoats will tend to be the visible ones, in crowded urban areas where there are smokestacks belching and quite visible.

RUSHER: Well sure, in given concentrations in cities and so on, the percentages are undoubtedly different.

DOWNS: Industry isn't going to get off the hook, even if that statistic is true, only seventeen per cent of the pollution, because that is pollution. And how do you feel about it, Representative Udall?

UDALL: It is nice to have a villain to kick around. General Motors or good old reliable, lovable, Consolidated Edison. No one really can fail to kick them around. This is a two-sided thing. The fact is that industry in many cases is responding to our demands. We want this. The American life style demands it, industry produces it.

On the other hand, a lot of this is introduced by industry. I tell the automobile makers, we don't need a new car every two years. You don't need to change a little bit of chrome and convince us through advertising we need these big four hundred horse power automobiles. And when sixty horses will do the job. Yeah, and junk perfectly good cars. We don't.

Industry will often decide we are going to want something and they tell us we are going to want it, and they make us want it. It is not just simple enough to absolve industry of all blame. I think Mr. Rusher would agree with that. Industry causes a lot of this. We are told the electric power demand is going to double in ten years. We are told the public demands a fourth jet port in New York City. Well, lots of the times the public does and lots of the times public doesn't. We are made to think we demand it.

DOWNS: The statesman's job then is to reconcile the demand on the one hand for more power, and the demand on the other hand for clean air, which may be mutually inconsistent.

UDALL: Precisely.

DOWNS: How can tax legislation be useful in this problem.

RUSHER: I think it is extremely important we remember that legislation doesn't have to involve the passage of appropriations of billions and billions of dollars. Some tax legislation that could be used to both encourage anti-pollution devices and expenditures by industry and that could also be used to discourage the use of pollutants and/or the amount of stuff that is polluting the atmosphere in solid wastes, is just as effective, much less expensive, and doesn't require some gigantic pollution czar in Washington, D.C., with a suitable bureaucracy to handle it.

UDALL: I would agree. We ought to tax horsepower. We ought to say to a guy, the first sixty horses are on the house. Anything beyond that, you pay so many dollars per year and we are going to put that in a fund to provide mass transit or clean up the environment. I think Senator Robert Packwood may be on the right track, for the government to go on record and say we are not going to give exemptions of fourteen children in a family, or six as I have. We are going to give you exemptions for two.

DOWNS: Mr. Rusher has said it isn't so much the choice between good and evil, really, as between good and good and it is a relative thing and ultimately in a democracy it has to be up to the public to decide which good they are going to have, and implement through government offi-

cials. But we can't have our cake and eat it too. That is kind of what we want now.

UDALL: Emerson has a wonderful epigram somewhere in his writings. He says: "What wilt thou have, sayeth the Lord? Take it and pay for it."

I think that's a very telling summation of the pollution problem. Here we have in the hardwood forests of the Northeastern United States one of the most important natural beauties being literally chewed up by the gypsy moth that can at the moment, technologically, only be stopped by DDT. The moth is having a great renaissance because the use of DDT has been cut down so seriously.

We have to be careful about DDT but also we don't want to lose the hardwood forests of the Northeastern United States and I think there is going to have to be a judicious balance of the interests here to do that. As well as some fast technology to think of another way to get rid of the gypsy moth.

DOWNS: Let me ask both of you: How does the public evaluate? There are many responsible, alert people who in their effort to get through public apathy may overstate the case and be labeled doom mongers. I don't know how to evaluate the cry that maybe the oceans will be dead in nine years if the DDT we are presently using drains into them. This apparently has an effect on the vital plankton, and that is the bottom of the life chain.

If the oceans die, we would not survive that. How does the public evaluate and know who to vote for and what to believe?

UDALL: Well, this is a great problem. This is an issue in this year's election. Everyone is against dirty water. I haven't heard a single speech in favor of dirty water or dirty air down in Washington. We've always used crisis constructively. The American people have always used an alarm to maybe get some things done that we may not do otherwise, and I hope this is what we do. But if we are going to announce the end of the world tomorrow, people are going to wake up and see two years, three years from now that we are still here and say, these were the politicians that misled us on this issue. Some politicians might get some temporary advantage by over-playing this business and announcing the end of the world, but in the long run, the people catch up with him if he overstates it.

DOWNS: What about the danger of despair if we oversell? There is no doubt about the reality of the danger, but if it is oversold, will people just withdraw?

UDALL: I heard a professor, the night before last, out in Illinois, standing before an audience of an ecological teach-in. He seriously suggested we had to cut the population of the United State to one hundred million people. That is his privilege to think it if he wants, but to begin with, it is a

stupid proposition; it is not going to be cut to one hundred million people.

It is necessary, not only for the politicians, but I may say for the professors of this country, to think of other ways of solving this problem. We are not going to go around reducing the population of the United States by over fifty per cent. That is just not going to happen.

DOWNS: That is a very tough problem.

UDALL: You bet your life.

DOWNS: How do you feel about holding the population growth to zero for the planet?

RUSHER: The population problem is a real one, but I think to tie the population problem in the United States to the problem of pollution is another business of hobbyhorse riding. Population is a problem in the world at large, principally in places like India and China. The United States is not basically an overpopulated country. Now, it is true that the more people we have, the more pop bottles and so on. But there is that much relation between almost any two facts in the United States. I think these are both serious problems, but I don't like to see one piggybacking the other.

UDALL: I couldn't disagree more.

DOWNS: They are so inter-related?

UDALL: There is an interrelationship here that is vital and fundamental. The use of resources and population are so closely intertwined you can't separate them out. We could support five hundred million people here at a lower standard of living,

but I think, long term, the carrying capacity of this country, in terms of the standard of living, is something less than two hundred million. Now we can't eliminate all of these people overnight, but I think that fifty years from now, we ought to try to be down to one hundred and fifty million or some similar figure.

RUSHER: Well, I disagree with that.

Our goal is to become activists.

We must rely on our own actions more than on words.

And these are just words.

It's good to be reminded of that occasionally in any book which reports on mutual problems.

FOURTEEN

DOWNS: We are exploring the political aspects of the environment issue today. We want to give you a look now at another of our guests. This is from a film made at the University of Michigan teach-in last month. The speaker is Senator Edmund Muskie, Democrat of Maine.

MUSKIE: If what you want is the right to impose your ideas on other people, then you and I talk a different language. But if what you are talking about is the importance and the necessity of changing other people's ideas and getting the country turned around to follow a new set of values, then I'm with you. I won't buy all of yours, and you won't buy all of mine. But I'll listen and I hope you will. And in the process we might come up with one or two packages of mutual value.

DOWNS: That was Senator Muskie, the leader of the environment movement in the United States Senate. He will be our guest in Washington presently with Dr. Russell Train, Chairman of the President's Council on Environmental Quality.

Secretary of Interior Walter Hickel would, of course, have been the most logical guest for a program on the environment but, unfortunately, Secre-

tary Hickel was not available to us live this week. We did interview him on film, however, before he left for an Alaskan trip. Here is NBC News Correspondent Peter Hackes with a portion of that interview.

HACKES: With this fight to preserve the environment apparently split up among fifty or so government offices, why hasn't the President proposed one single central agency for everything?

HICKEL: The Ash Committee will make recommendations for what they call the reorganization of the Executive Branch. There are many areas of pollution: there is marine affairs, there is a natural resources; I am hoping that we have a Department of Natural Resources and Environment. I don't think it's possible to separate the environment from natural resources. If you cut a tree or plant a tree you change the environment. If you use water for swimming or use water for industry, or use it for recreation, you are using it, and you can't separate that from just the environment.

I would hope the President would set up in his reorganization, and Congress would accept, some department that handles this total environmental problem with natural resources. So the natural thing would be a Department of Natural Resources and Environment.

DOWNS: We thought Secretary Hickel's comments would be a most appropriate way of leading into an interview we have now with two very important figures in the environment area. And for

this we will switch to *Today* Washington editor Bill Monroe, in our Washington studios.

MONROE: Our guests are Senator Edmund Muskie of Maine, leader in the environment field in the Congress for some years, and Dr. Russell Train, Chairman of the Council on Environmental Quality, former Under Secretary of the Interior.

Mr. Train, let's start out talking about what Mr. Hickel mentioned. Are we going to get a Department of Natural Resources and Environment or a Department that is going to centralize the government's activities in the environment field?

TRAIN: The reorganization which I feel sure the President will be proposing fairly soon will bring far more effective coordination and consolidation of environmental activities into the operations of the Executive Branch. Whether this will be in terms of one super department or some other combination it is too early to say.

MONROE: Governmental activities in this field are too fragmented right now?

TRAIN: They certainly are.

MONROE: And your council is working on the reorganization?

TRAIN: One of our functions is to help coordinate these many activities in the environmental field. We are working closely with the Ash Council, which Secretary Hickel mentioned.

MONROE: Is there likely to be a new cabinet department?

TRAIN: I think it is too early to predict that.

MONROE: Senator Muskie, I know you have some ideas about centralizing government activities.

MUSKIE: Yes, very much so. In this field there are two approaches to the combining of the environmental agencies. One is the so-called Department of Conservation idea, which would be better than the present situation. But what I would prefer is to combine the environmental improvement agencies in sort of a separate NASA kind of agency. That is, all of the agencies, air pollution control, water pollution control, solid waste disposal and other related activities, ought to be in one place. The environmental impact agencies which include not only mining, but also housing, for example, on the other end of the spectrum, ought to be separated from the improvement agencies.

I just don't think agencies concerned with the use and development and promotion of resources ought to be their own judges as to the environmental impact of their activities.

MONROE: Let me ask each of you about air pollution and whether what we are doing in air pollution right now is effective. Do we have enough money appropriated to fight air pollution? Do we have adequate air pollution standards or air purity standards? Mr. Train?

TRAIN: As you know, the President has proposed to revise the standards, and to go to a system of national standards to strengthen air pollution abatement programs. This is proving quite con-

troversial in Congress. Perhaps Senator Muskie can comment.

MUSKIE: We do need to toughen our standards. Our legislative effort has been evolutionary. In 1963, for example, we authorized the establishment of criteria by the Department that would relate pollutants to their effects.

In the 1967 Act, we undertook to establish an organization for the setting of standards to improve the air in the problem areas of the country.

I think there is agreement on this principle, in the Administration and the Congress, that we ought to have an approach to standard setting that covers the whole country, leaves no blank areas, leaves no havens to which polluters can flee to get away from regulations. I think we will arrive at agreement and an effective law. We have public opinion to help us stiffen the whole process.

DOWNS: I want to address a question to Senator Muskie. How do you propose to reconcile a national goal of general environment preservation with the local needs of the home state in development? For example, the proposed off-shore drilling?

MUSKIE: It is difficult to relate those two, but the law as we have written it now, and as I think we will continue this concept, is to leave the initial responsibility at the state and local levels, so that standards can get an input at least from the local point of view. But I think, to make those effective, you need a national presence, na-

tional guidelines, national standards and a national enforcement authority. You have to have the two together, otherwise you leave blanks which are a temptation to those who instinctively pollute.

With respect to drilling off the shores of the United States, I don't think any state can control this. The whole Continental Shelf is involved on both coasts, and in the Gulf. And the enormity of this problem is highlighted by this fact: there is as much oil in the outer Continental Shelf as we have discovered on the United States mainland since oil became important.

Beyond that, in the high seas, there is the possibility, and the very real possibility, that explorers may begin to drill for oil. In the areas of the seas that are not under the jurisdiction of any country. There is consideration being given in the State Department and in the Congress to that problem.

MONROE: Let's talk a little about water pollution. Are we in somewhat the same boat with water pollution, in that we don't now have effective water purity standards?

TRAIN: The standards have been set by the states and I think we do, in most cases, have effective water quality standards. I think we have to be continually upgrading this, and the new proposals made by President Nixon to Congress move in that direction. They also move in the direction of much quicker enforcement, and have more teeth in the enforcement provisions.

MONROE: Are the proposals of the President adequate in terms of the amount of money contemplated going into such things as water treatment?

TRAIN: I think they are adequate for the purpose for which they are designed, which is to bring all of the waste treatment facilities of our municipalities up to present state standards.

MUSKIE: I don't think the President's proposal is adequate. At hearings this week, Secretary Hickel testified. I think that before the next two months are over, we will know whether the President's ten billion dollar program meets the requirements or whether a higher figure, which I think can be supported, will be necessary. I don't think that for the next two months, at least, we can profit much from partisan argument over these figures. We are going to try to establish them, and Secretary Hickel agreed the other day that our objective must be to provide enough money to build waste treatment facilities to deal with all presently untreated municipal wastes, whatever that figure is. If he means what he said, there should be no difficulty on this point.

MONROE: One of the pollutants of water has turned out to be the phosphate detergents. Do we need phosphate detergents, Mr. Train, or won't the soap companies sell some other kind of soap if they don't sell phosphate detergents?

TRAIN: The present percentage of phosphate in detergents is creating a very real pollution prob-

lem. There is no question in our minds about this. It is a major contributor to the over-fertilization of our lakes and rivers and the death, as it has been called, of Lake Erie.

The solution to this problem is not as easy as some would think. To maintain the efficiency of the washing materials, the cleansing materials, some kind of a substitute for phosphates would probably be needed. We are not one hundred per cent sure of the safety of any of the present substitutes but this is a problem we are working on very hard right now, and I think we are either going to get very substantial voluntary action by industry or we are going to have very tough government legislation.

MONROE: What is your comment on the phosphate detergents, Senator?

MUSKIE: I discussed this with the soap companies too, and they are reducing the phosphate content, and they are prepared to move as fast as government insists. Another approach to it, of course, is to provide an effective way to deal with the phosphates in waste treatment in these plants. Research is underway in the Department of the Interior on this problem. Some interesting and encouraging results have been achieved.

Several years ago the question of bio-degradability arose. And it was under pressure from the Congress that the soap companies finally developed a degradable detergent, but the phosphate problem remained.

MONROE: Let me ask each of you, going back to air pollution, what do we need to do to stop the process of dirtying the air? Not necessarily get the air cleaned up, but to reach a level where we are no longer adding to the pollution in the air—how long might that conceivably take, and what do we need to do? Mr. Train?

TRAIN: I hesitate to put time tables on this because that is a very big goal. We need technological breakthroughs, particularly in connection with the internal combustion engine, either a massive improvement in the internal combustion engine itself, or the development of new automotive power, what we call an unconventional vehicle. We need new technology also, in manufacturing processes.

MONROE: Do you feel we might go another five or ten years, continuing to add pollution to the air?

TRAIN: We feel the emission standards that have been recently established by Secretary Finch, for 1973 and 1975 models, will produce a substantial reduction in the level of emissions from individual automobiles. The difficulty is that the constant rise in the population of automobiles, like the constant rise in our entire industrial system, the growth, will mean that the air pollutants will rise.

MONROE: Senator Muskie?

MUSKIE: I would say the internal combustion engine must be cleaned up in the early part of this decade. For the very simple reason that there are a hundred million automobiles on the road

today beyond the reach of factories and there is no really effective way to clean them up. The sooner we begin imposing stiff standards on new automobiles the better. That may mean the elimination of the internal combustion engine.

On stationary sources, there is a good deal of technology available now. If communities insist, there are ways for industry to clean up.

On Earth Day in Philadelphia, Senator Edmund Muskie said:

"Our priorities are all wrong. We cannot afford to spend more on killing humans than on saving them."

We're right with you, Senator Muskie.

Being human, that's the thing. We have to keep it in our minds all the time that people—not institutions, or laws, or theories, or science, or technology —*people* are more important and must always be considered first.

It may just be possible that all the governments we people have in our world have been more concerned with keeping their systems going than with doing things for people.

That's a question worth asking, anyway.

Especially if you work in government.

FIFTEEN

DOWNS: *Today*'s reporter at large, Paul Cunningham, is going to give us a report on how the city of London has attacked the pollution problem with a law that worked. I was in London before that law, and it was a very polluted city.

CUNNINGHAM: You might not recognize the city of London now. While the smog, fog mixed with dirt and smoke, may not be analogous to the air pollution situation in this country, it is an example, of what a people, through their government, can do to clean up the air if they really want to. They were strangling to death in London.

DOWNS: Yes, we will get to that. First, here is Frank Blair.

BLAIR: A reminder: this morning on the day after Earth Day, there probably is no place in all the United States free of even local pollution problems. Here is Tom Broker, NBC, in Eastern South Dakota.

BROKER: This is South Dakota, one of the most rural states in the country. There is no population explosion here. In fact, the population may be declining. There is no major heavy industry in South Dakota. Agriculture is the chief industry. It is also the principal source of pollution. Cattle and hog

feed lots are placed on the sides of hills so they will drain into rivers and creeks, and in South Dakota there is nothing illegal about that.

Cattle and hogs aren't the only source of pollution, however. Chemicals, in the form of fertilizers and insecticides, are washed into the fields and wind their way to many lakes. The lakes, in turn, are choked with algae by mid-summer.

There are other forms of pollution. For instance, solid waste. Nearly every farm has its own unsightly junk pile. Most of the small towns have open, unregulated dumps.

South Dakotans have good reason to be proud of their environment. The air is clean and clear, there is virtually no air pollution.

Curiously, the riches of the South Dakota environment are part of the problem. There is so much open space, so much clean air and so much clean water that everyone tends to take it for granted. And treat it a little carelessly.

DOWNS: For those who fear that pollution, like the weather, is something one discusses but is not able really to do anything much about, the city of London today provides remarkable proof that something can be done through political action. *Today* reporter at large Paul Cunningham went to England to get the story. It is a very different London today from what it used to be.

CUNNINGHAM: This is a testament that a government can drastically improve an environment by passing the right kind of law and enforcing it. It

is said that several centuries ago in England a man was hanged for burning smokey, sooty fuel. He burned it at a time when one community, apparently, was nearly choking to death. There is no report of such a measure being taken recently, but certainly there was a time not many years ago, when Londoners were desperate for clean air.

Look carefully to see it: this was London during the great smog of 1952. In six days, four thousand people died of respiratory disease. Choking sulphur dioxide was principally responsible for the great number of deaths. Londoners were accustomed to smoke mixed with fog, but this was too much. Chimney smoke had to be drastically curtailed despite an Englishman's characteristic devotion to his coal burning fireplace.

And this is London today. On an early spring afternoon only a few weeks ago, with fifty per cent more sunshine than there was ten years ago. Trafalgar Square, and a city one can see to enjoy. St. Paul's Cathedral is scrubbed clean. At the end of one beautiful avenue where there is green grass and flowers, the tourists gather to watch the Guard changed each noon. The once gray and black stones of Buckingham Palace will now remain white for some time to come, along with the statue of Queen Victoria.

Besides enjoying cleanliness, Londoners are suffering less from bronchitis, and they are seeing more things like species of birds that have returned. The reason is passage in 1956 of a smoke

abatement law, the Clean Air Act, which allows local authorities to declare their areas smokeless zones, where only smokeless solid fuels may be burned, such as anthracite and cokes. They are used most often with fireplace conversion units, the government paying seven-tenths of the cost.

VOICE: You will have to put the appliance into your existing fireplace. You may have to have a little bit of building work done just to seal it in, but once it's in, it will give you plenty of heat. You may have to bank it up when you go to bed. You may have to bank it up in the morning, if you're going out all day.

VOICE: People here have become accustomed to the open coal fire. It is an old tradition in this country and nobody likes giving up something that they are accustomed to and going over into the unknown.

I would say the initial problem was emotional, but this passes very quickly, very quickly indeed.

VOICE: The people I've spoken to have said they don't mind spending all the money out, because they think it's for healthier living anyway, which helps. I mean, children are going to grow up healthier than what they are now.

CUNNINGHAM: Talking with people on a shopping street on the edge of London, that is generally the attitude I found.

VOICE: Well, you know, you can notice it in the air. You know you are walking about and breathe easier, you feel much healthier. I think it's

worth it. It has been worth it in Britain, so I think it is worth it anywhere.

VOICE: You've got it upstairs, haven't you. You have the jet planes contaminating affairs.

VOICE: Of course you don't get clouds of smoke coming from the neighboring chimneys and you do feel a lot better.

VOICE: I never hear any grumbling now. I heard a lot of grumbling originally. And of course, a lot of grumbling among the coal dealers, too, and these used to grumble. But then they found, you know, they made just as much money out of selling smokeless fuel. Now, another problem is gone.

CUNNINGHAM: You do now have a problem on a shortage of solid smokeless fuels, do you not?

VOICE: Yes, yes. We do now, and I think this is serious. It's inevitably going to hold up, I think, the limitation of our Clean Air Act.

CUNNINGHAM: For what, a year?

VOICE: If you were to ask me where the fault lay, I suppose I would be critical and say that this lies with the fault in government planning. You must plan forward very carefully.

CUNNINGHAM: What has been generally the attitude of industry with regard to these conversions?

VOICE: Well, again, initially you know, rather like the attitude of the general public. But, when they have converted and no longer are making smoke, it is quite an easy thing to do. After all,

smoke coming out of a factory chimney is inefficient combustion. This is costing the industrialist much money. He didn't always see this in this way, but when he was forced to convert, and at the end of the day saw that he had saved money, then he becomes, you know, keen on clean air. I would say that there was no objection from industry now at all, none at all.

CUNNINGHAM: This model of a new power station boiler which prevents sulphur escaping into the atmosphere was proudly shown me by Lord Robbins, Chairman of the National Coal Board.

LORD ROBBINS: In terms of the economics of the nation, there is no doubt at all that unless we can find the answers to the pollution of the skies on burning coal, then coal will cease to be used for any combustion purpose. People will not accept, in this modern day and age, dirty skies and being poisoned by sulphur in the air.

VOICE: Well, it has definitely been a success story. Anybody can see there isn't the pollution there was when we had the 1956 Clean Air Act as a result of the disastrous smog just before.

CUNNINGHAM: Lord Kennet, Ministry of Housing and Local Government. I asked him about any opposition to the changeover.

LORD KENNET: There wasn't . . . we passed a law, that you just weren't to do it. If the local authority puts down one of these smoke control things, and it is not allowed anymore and if you do, you are prosecuted. But not many people

have been prosecuted, considering, because public opinion was behind it. They wanted it, everybody agreed that we shouldn't have a smog like that and we haven't had one.

CUNNINGHAM: Do you think it is just the British habit of obeying the law better than we do in America?

LORD KENNET: Well, I think that there is something of that in it. And also it is an easier structure of government control in this country for law enforcement because we don't have any states. It is a two-tier system, central government and local authorities.

VOICE: It has been a long struggle and, of course, there were prejudices to be overcome.

CUNNINGHAM: Retired Rear Admiral P. G. Sharp, Director of the National Society of Clean Air, explained the attitude toward cost.

SHARP: There is a cost which is shared by the individual, by the local authority, the local government or authority and the central government in doing this. So everyone shares in it. But I am quite sure that if people really added things up, their laundry bills are less, their cleaning bills for their furnishings, for their curtains, or drapes as you would call them, are less. And there is a saving in this respect.

CUNNINGHAM: Perhaps Americans don't realize what a revolution this thing encompasses. Here is Britain, where the industrial revolution began on

coal, saying: if we can't clean the air as a result of coal, we have to get rid of coal.

DOWNS: It was a revolution.

I want to discuss with Paul Cunningham now, the political steps by which this was brought about in England.

CUNNINGHAM: There was the Clean Air Act, and this was up-dated later, but what it involves is that local communities, through their County Councils, can declare themselves clean air areas. This means there can be no pollution in terms of soft coal burning. People, remarkably perhaps, did go along with it, except that they shared a horror there in London that we, in America, have never seen anything like.

DOWNS: Four thousand dead.

CUNNINGHAM: Four thousand dead in six days. But again, there is an attitude on the part of Englishmen and that is that we are all together in this nation, we will do the best we can. It is a different kind of attitude.

DOWNS: Do you think there is a more community minded attitude?

CUNNINGHAM: Yes. You can tell the way an Englishman cultivates his little garden, and he worries about the place down the street. There has been some opposition.

DOWNS: What was the opposition?

CUNNINGHAM: Primarily from the coal mining areas where miners fear their jobs and their industry will be hurt. Also, miners get two or three

tons of coal a year free, and they were reticent about making this change. There are those who feel, however, that not in the too distant future, much of England will be running on natural gas from great deposits they found in the North Sea area. There is that metamorphosis taking place, too.

DOWNS: Most interesting. We will see presently how it may apply to efforts to do a similar thing in areas of our own country.

In New York City on Earth Day, yesterday, some areas were blocked off from traffic and the automobile was not permitted on Fifth Avenue, for quite a stretch between 12:00 and 2:00. And it was quite a thing to see, with jokes like: Will the trees that are used to bus and automobile fumes be able to stand all the corrosive effects of this fresh air? But it was a beautiful sight with the people in the street.

CUNNINGHAM: I took the walk myself, and I suggested that the producer take one, and he went over and took one too, and he came back and he mentioned that he saw the same kind of thing I did. Everyone was smiling and you had no idea where people were in this spectrum of conservatism or liberalism, or whatever. Everybody was kind of happy and smiling. Three young couples were having a picnic right in the middle of Fifth Avenue, with napkins spread out. I think they were infringing on our rights to walk there, but that is another story.

DOWNS: The thing is that people weren't incensed about that at the moment.

CUNNINGHAM: No.

DOWNS: That is an isolated special instance; it isn't like it is going to be that way every day or on every street in New York. The question isn't whether we can occasionally have a Woodstock type of atmosphere where people get along, and where people are helping the police and the police are helping the people. The question is whether we can enjoy the fruits of our technology within reason, and still not choke ourselves to death with the waste of it. And take the kind of action, at community levels, that will prevent the proliferation of pollution.

CUNNINGHAM: Right. The thing impressed me. Maybe we ought to do it about once a month now, I don't know, do this sort of thing, so that you can realize how pleasant it can be. I hadn't realized how pleasant it could be, and you know, I have gotten a little bit of this feeling of being crowded in sometimes when I walk along a crowded street. It bothers me. And maybe it was the attitude on the part of the people smiling and not driving—that I kind of like people again.

DOWNS: Another thing it did, Paul, was that it dispelled hopelessness. Because how did that come about now, if there were no cars on Fifth Avenue? That took a monster force to do, but that force came from the people. It was people in committees, the whole concept of the formation of Earth Day.

It came about because of the action of the people, not because of some dictate from on high.

CUNNINGHAM: Right.

DOWNS: So the people can do this . . .

CUNNINGHAM: All of us were out there; not just the new left, the hippies and so forth. There were more of us squares out there than anybody else, and we were all smiling.

DOWNS: This is important, because stuff isn't going to happen without the cooperation of us squares.

CUNNINGHAM: Right, right.

DOWNS: I think that it behooves any group to make changes to get that cooperation rather than opposing it by violent means.

That is kind of a sermonistic thing to observe, but I think it is the idea, and you will hear other guests on the program raise the alarm of the danger of this thing being a fad that will kind of fizzle out. And the momentum be lost. If that happens, the fad will re-arise quickly, because if we continue with the difficulty and have to live with it, you can be sure there will be more Earth Days.

CUNNINGHAM: If the movement runs down, it will come back like a wave, because now we've been exposed.

DOWNS: We realize what the problems are, and what remains is to get together on how to solve them.

CUNNINGHAM: And I didn't throw my cigarette out a window.

DOWNS: You wonder . . . the crunch comes sometimes because, well, I haven't owned a car for fifteen years, and I figured that I should buy an automobile and I could not in conscience buy an automobile, a big Detroit monster that spewed fumes into the air. I finally found a car that has better than the California requirements in smoke suppression and I don't care to give a brand name, but I did find that and so my conscience is salved somewhat. I was going to get a horse and wagon. The pollution of a horse is better taken care of by nature, I think, than the pollution of a car.

From the individual survival point of view, the most urgent need takes priority. If you're drowning, you go for air. On the scale of the world's population, however, humans don't appear to have the same survival mechanism.

If any human sees a clear choice between life and death, then chooses death, we call that insane. Why do we accept it when it happens on a world scale?

Birth predicts death, but we don't like being reminded we're going to die—individually. We have a big hang-up on this question of dying, one by one.

If you can say to yourself "There's nothing I can do" then you can ignore the problem. We carry a whole bagful of euphemisms for saying this.

"Human nature won't change." (That's another way of saying: "I won't change.")

"It's always been this way and always will be." ("You won't catch me doing anything.")

It may be that we are unconsciously saying: "If I have to go, I don't care who I take with me."

It's a real hang-up, isn't it?

The tipoff can be seen in all these boulder-yards we scatter over otherwise useful landscape—useful to the living, that is. We call them cemeteries. Occasionally, we go there and feel sad. Most often,

we're really feeling sad for ourselves, that we're going to wind up there.

Of course this sadness is proper when it puts us in touch with our own real feelings. Many people have little touch with their own feelings. That's not considered proper in Western Civilization. And the odd thing is that having repressed that touch of real feeling and its attendant sense of sanity can become a fixation. We can become fixed on death, in the hypnotic sense. Turned off and "living for death."

The sane thing for the living to do might be to plant orchards on this well-fertilized land. We could put the ancestral names on nearby cenotaphs and rid ourselves of the idea that humans should not be bio-degradable.

There shouldn't be any such thing as a no-deposit, no-return human. Even the dead could help save the earth.

SIXTEEN

DOWNS: We are concentrating this morning on environmental problems at the local government level. Our guest in New York will be Jerome Kretchmer, newly appointed Environmental Protection Administrator of New York City. And today Washington *Today* Editor Bill Monroe will be joining in with us with guests of his own.

MONROE: Good morning Hugh; I'm with Mr. Thomas F. Williams, the Assistant to the Administrator of the Environmental Health Service, who prior to that, for ten years, was in government air pollution work.

DOWNS: We also have an interview with a man who has some advice for politicians seeking election on the environmental issue. It sounds a little cynical, but it is not and it is very interesting.

My guest in New York, Jerome Kretchmer, served seven years in the New York State Assembly. He was called by one newspaper probably the most radical elected official east of Oakland. Here is what he says that he is going to do to protect the environment for New Yorkers. I'm quoting:

"My plan is to organize the poor and lower middle classes into a political opposition to the forces with a vested economic interest in pollution. The

industrial pollutors, the highway lobby and the manufacturers of sewage and mobile equipment among others."

Now, Mr. Kretchmer, you plan a series of law suits, and you say many environmental laws have never even been tested. Can you tell us some of the specific things we will be aiming at?

KRETCHMER: Here in New York we are into one right now that is really of great consequence to us. As you may or may not know, there is competent medical evidence that asbestos particulate matter, when it is sprayed into the air, is harmful to people's health. We spray asbestos in our commercial office buildings and we build them to fireproof the steel, to fire-retard the steel.

We are now in the process of promulgating a series of rules to limit the way in which that asbestos is sprayed and we are very deep into that. After we have promulgated the rules, and we do this in cooperation with industry (I would like to call it the carrot and the stick), we went out and looked at the job sites and they were still spraying in a way of releasing the asbestos particulates into the air.

We served two of the worst offenders last week with orders to show why the equipment should not be sealed.

If they can't come in and indicate to us that they will either do this job right, or they are going to do it a different way, then we are going to order them to stop. Now that's tough.

DOWNS: Through the courts?

KRETCHMER: That's right. The economic consequences of that are very difficult. We stand the risk of closing down a potent industry in New York, the construction industry. We are convinced that if we indicate to them we really mean business here, they will either find different ways to get that stuff on, so that it's not so harmful to health, or they will put the stuff on in a way that they are now, but they enclose the area in whch they are spraying.

The question here is, can we use the courts and the law to do what has to be done? Our ability to close this equipment has been in this law for a long long time. Nobody has ever taken advantage of it before, because it is a tough thing to do. I mean, just think of the overriding consequence of a person like me, who comes into a job like this and within the first couple of days he says, O.K. now you have to stop spraying that asbestos.

I think somebody has to say to these people, stop spraying the asbestos. And then somebody has to have the initiative and the capacity to enforce that order in the courts.

DOWNS: What are we going to do about the incinerators? I understand five hundred of them are burning now, are operated by the New York City Housing Authority in violation of the New York City laws.

KRETCHMER: That is so typical of what goes on here, that we are the worst offender. We have

had a series of meetings, however, this past week, with the New York City Housing Authority and with the State Government, because the state sponsored and supported a lot of our housing and we were hung up in exactly that kind of problem.

There are two ways to upgrade the incinerators: One is to compact stuff, just to squash the stuff up and take it away. And the second is to put electrostatic precipitators or scrubbers into the incinerators so they don't let all the fly ash and stuff off into the air.

They couldn't decide which of these two devices they were going to use. That is what hung us up. And we just went in and said, listen, go to electrostatic precipitators and scrubbers because we don't want to dispose of the solid waste at this point in time because we don't have the capacity to take it away. So burn it more cleanly. And having made that decision, we now think they are going to begin to upgrade their equipment.

But the bureaucracy moves very slowly, and that is the problem, and you need somebody or a group of people with the kind of energy to move a little more quickly.

DOWNS: One other thing on solid waste disposal, if you can't burn it. There is a conversation reported by Samuel Kurning in the *New York Magazine.* He said, talking about somebody whose responsibility it was to get rid of these things:

"And after we've filled up Staten Island, we will

fill Jamaica Bay, but this is a park land and a wildlife refuge."

He said, "It doesn't matter, Commissioner, if you can't burn it and you can't export it, then Jamaica Bay is the only place left." What does happen?

KRETCHMER: We are not going to fill Jamaica Bay. I mean, there just has to be some ecological exchange here. And just because we have to get rid of our solid waste doesn't mean we have to destroy Jamaica Bay.

But there are things we can do. Garbage is the most political of problems. Everybody wants it taken out of their community and nobody wants it brought back. You know, pick up my garbage, we get all these telephone calls. And when are you going to get it? The question I ask is: What are we going to do with it after we get it?

There are areas in New York where we can go to land fill, which are not wildlife refuges. We have Hoffman and Swinburne Islands which are two islands in the lower bay off Manhattan where we could build a great big dam around and put the fill in. But the problem is that we can't put the fill in as we presently know it. All it is now is dirty garbage, and it leeches, it runs off into the water, it pollutes the water. If we can figure out a way, if the technology can be advanced enough to clean that garbage out, reduce it to a kind of inert ash, reduce the mass to about twenty per cent, and then we pour that into a land fill, well that is clean fill

and it is no longer so unsightly. It is no longer obnoxious, it no longer smells. More important, the land fill can be used in five years instead of the twenty years that it takes with raw garbage, and is a social benefit.

DOWNS: Thank you, Mr. Kretchmer. We want to switch now to Washington, where Bill Monroe has a guest who should be able to make some interesting comment on Mr. Kretchmer's statement.

MONROE: This is Mr. Thomas F. Williams, Assistant to the Administrator of the Environmental Health Service. Mr. Williams, we have been listening to Mr. Kretchmer, and he gives us a picture of a tough administrator trying to do something in cleaning up the environment. Do we need a lot of local, tough administrators?

WILLIAMS: We certainly do and I wish Mr. Kretchmer a lot of luck. I think the bureaucracy moves pretty much in accordance with the will of the public. If public opinion wants environmental problems solved, they will be solved.

MONROE: Have there been tough administrators of the kind Mr. Kretchmer's hoping to be, who have run into problems and have lost ground because they were tough and irritated people?

WILLIAMS: I think you have to be more than tough. You have to be very, very intelligent and have real awareness of what the public does want and what the forces around you are, and operate in awareness of all of that. I think that Smith Griswold in Los Angeles is noted as a tough admini-

strator, and he did a tremendous job. Stationary sources in Los Angeles have been brought under a higher degree of control than any other place in the world.

MONROE: He and other tough administrators have shown that they can get public backing?

WILLIAMS: They have been able to get public backing of course, in accordance with the place and the time. Right now, administrators in local areas will get public backing that was unavailable to administrators, tough or not, just a few years ago.

I might add that in Los Angeles, there was tremendous public consternation about the smog problem, which helped Mr. Griswold. But in New York City, as I say, I wish Mr. Kretchmer luck.

I was interested in what he said about ecological system. That is what our service is concerned with primarily. The possibility of the ordinary citizen appreciating and understanding the relationship between the solid waste problem and his breakfast cereal and other things that don't seem to normally be related, will help Mr. Kretchmer and other administrators throughout the country.

MONROE: You've been working in air pollution, going back to twelve years ago, presumably in a state of discouragement during much of that time. Are you beginning to feel, as a result of what is happening now, Environment Week and all this sort of thing, some sense of exhilaration, that things are going to really begin to move?

WILLIAMS: I am delighted. I am amused at being considered too old to understand by those who just discovered their pollution problems yesterday. But we will get over that, too.

MONROE: Do you have the feeling we are not going to be able to move as fast as some of the younger enthusiasts would like?

WILLIAMS: I'm afraid the fact is that those who expect the world to be made utterly clean and sanitary and safe tomorrow morning are going to be disappointed. I am also happy to say that those who want nothing to change are going to be disappointed.

MONROE: You were telling me earlier this morning that perhaps not enough attention is being given to special air pollution problems, such as those that occur within certain occupations.

WILLIAMS: Within the environmental health service, we consider the environment, and rightly so, as including more than merely the wide open spaces. We consider the environment of home, work place, school and so forth. And certainly occupational hazards in this country, affecting some eighty million workers, in many instances, exposed people to higher levels of certain important contaminants and stresses than do the normal urban environments.

There is a strong relationship between what happens to workers and what happens to people. Mr. Kretchmer talked about asbestos and his concern to keep people on the sidewalks from being

exposed to asbestos. Workers who work with asbestos and workers who work around those who work with asbestos have an even greater exposure. We are studying that problem, and I don't mean studying it passively. We have spent a considerable amount of money in cooperation with some world renowned experts to find out what to do about this.

DOWNS: People are falling all over themselves to clamber onto the environmental bandwagon. Students and businessmen, journalists, and even us here on the *Today* program. Most, I am sure, have quite pure motives. We are trying to help ourselves to survive, is what it amounts to.

But for fair or foul, environment is being talked about and, to a large extent, used by many people. Quite naturally, it is grist for the politicians' mill. And environment is high on the list of campaign issues. Our next guest has been making numerous appearances, telling politicians, hopefuls that is, how to incorporate the environmental issue into their campaigns. He is Roy F. Greenaway, Chief Legislative Assistant to Senator Alan Cranston of California. Mr. Greenaway, I must say that on the surface, this seems like an appallingly cynical practice you're in. How would you respond to that idea that it might be cynical to help politicians make use of the environment issue?

GREENAWAY: Hardly cynical. Take the discussion you have just had of the need to have strong administrators taking care of various types of environmental pollution problems. Unless those

administrators are responsive to our elected officials and unless those elected officials have the mandate of the people to do something about environmental problems, there is really no way in which you can have strong administrators. They have to be hired by politicians. Eventually, the decisions that will lead to a remedy of our environmental pollution (if indeed we are going to remedy it, and I am not that sanguine about the possibility that we are going to solve this problem), must be made by politicians enunciating what needs to be done, and being elected on that basis.

Let me explain also that I am not a professional in this field. I happen to be a person who's spent a lot of time on environmental issues and I do that, in part, because of my job, and because of my interest, and have felt this is a contribution I individually make, by helping politicians look at environmental issues.

Let me give you an example, because you started out saying you wanted to talk about local issues on the show. One of the major environmental problems we face in the United States locally is the question of land use. How we zone our lands and what uses we allow for our lands. In the State of California, this zoning is done almost entirely by county zoning commissions that are in turn responsive to county boards of supervisors. I have yet to see in California anyone make a really effective campaign on the relationship of zoning as an en-

vironmental issue to the problem of electing a county supervisor.

It is that kind of thing that I talk to people about.

DOWNS: What kind of promises should candidates make and where are they getting in hot water?

GREENAWAY: One of the first ways of getting into hot water is to treat environmental pollution as if it is something like, you know, cleaning up the litter. As if that is what is involved. That is such an oversimplified example of talking about environmental issues that I think it does enormous disservice. Jesse Unruh of California, for example, said environmental politics have become the new motherhood issue and that everybody can be for cleaning up environmental pollution.

That is absurd. Anyone who begins to understand the environmental challenge we face realizes this is the toughest political issue to come along. I think tougher than civil rights, I think tougher even perhaps than war, in terms of its political implications. It is going to require more drastic changes in our way of thinking and behaving as a people, to begin to solve this problem, than anyone realizes.

DOWNS: An honest politician, in other words, if he goes right to the root of it, is going to say things that may jar the very people who would put him into office?

GREENAWAY: Exactly! Because really, it isn't

a question of throwing away litter. It is basically that the two most fundamental aspects of the environmental problem are that we Americans are consuming far too much of the world's natural resources as a people. An American child born is a far more dangerous pollutor than the child born in India or Africa. And the second thing is the influence that environmental problems have on the health of our people.

Charles Luce declares the U.S. should convert to nuclear energy for generating electricity. That idea is raising more and more controvery in the world's scientific communities.

The chief thing that should be noted about it is that we have developed no suitable model of the "many nuclear plant" problem. We don't know what a lot of them will do to our environment.

This is an exquisite demonstration of the "Sorcerer's Apprentice Syndrome" in U.S. industry and technology. We already have turned on more destruction with our technology than we know how to turn off. DDT was released after only eight months of controlled field testing and now threatens every ocean in the world.

Still, an important figure in industry can say we must turn on more nuclear power when we have not fully assessed the consequences.

We see here the extreme danger of ignoring negative information and taking at face value the authoritative pronouncements of important people, of assuming they have all the necessary basic information.

On an environmental scale, if we lack information, that is the vital information.

Of course, we do know some things about the fuel Mr. Luce proposes using to fire up our elec-

trical systems. Much of the garbage from atomic generators has a half-life on the order of one thousand years. It is becoming increasingly difficult to store safely without enormously magnifying the disaster potential.

The waters of the Columbia River already are being thoroughly radiation-tagged by Hanford. Fisheries scientists can determine the dispersal patterns of the Columbia in the Pacific Ocean by using geiger counters.

We also know that genetic mutations are literally related to radiation dose, that there is no threshold effect, that all doses are cumulative and the effect is independent of dose rate or the time over which the dose is received. We know radiation-induced mutations are generally recessive and harmful.

Ecology is the understanding of consequences.

SEVENTEEN

DOWNS: On this final day of our series on the environment we want to present highlights from some of the twenty-seven guests we've had with us. Later, we will have seven panelists who will be questioned by a cross-section of about thirty college students and environmental workers, all concerned with the environmental crisis, who have come to us this morning to be in our studio from all over the country.

We want to summarize now some of the more trenchant observations made by guests on our program through this week. Here is their thinking on the subject of our environment and how to save it.

First, we will hear from anthropologist Margaret Mead.

MARGARET MEAD: We haven't begun to plumb the depths of what may be happening now, even if we think of the destruction of the oceans. We have to somehow not blame one section of society or one section of humanity for all that has happened.

It is all very well to say the American Indian had a beautiful balance with his environment. He didn't the minute he had a gun.

No society has ever yet been able to handle the

temptations of technology to mastery, to waste, to exuberance, to exploration and exploitation. We have to create something new, something that has never existed in the world before. We have to learn to cherish this earth and cherish it as something that is fragile. There is only this one, that is all we have.

IAN McHARG: I want to have a checklist for survival, everybody checks off. I think that irrespective of race, color or creed, all the Drs. Strangelove, Generals Overkill of the Defense Department, of the Atomic Energy Commission and the pathology of Biochemical Warfare have got to be stayed. I mean you have to manacle them, hold their hands, buy survival for another day from the Generals Overkill and Drs. Strangelove, the biochemical warfare horrors, the pesticide reign of death people. The great industries must be toilet trained. They are profoundly incontinent. They have to be led, I think, to diapers and continence. The wastrels among us must be persuaded to abandon their gluttony and rape of the world.

SHAW: Political action is going to be very essential to get some of the priorities in our country vastly reorganized, and this is, again, one of the places where organized religion, if it's going to remain relevant, simply has to get involved. We cannot sit on the sidelines and talk about God in heaven or something else. We have to get in here where the decisions are being made.

DuBOS: The reason we must be interested in the

long-range effects of the environment is that the most important effects of the environment are not what it does to us here and now, the most important effects are in shaping what human beings become. We may all survive in the polluted environment. We do. But what is happening is that children born and raised in this kind of environment are handicapped for the future. Their physical biological characteristics are conditioned by the bad environment and they will pay for the consequences some ten or fifteen years later in the form of what we call the diseases of civilization.

But even more important is the fact that a child whatever his color, born and raised in an environment which is dirty, ugly, with visual pollution, will never have a chance to develop the kind of attributes that make him enjoy the world. He is handicapped intellectually, emotionally, for the rest of his life.

NADER: People must realize that all this modernism they watch on television, going off to the moon and elsewhere, can be applied to the problems of home. Hospital service, educational plants, mass transit, air and water pollution control, safer cars and highways, and many many better ways of doing things. We are a rich country, but we are not distributing it for our major public needs.

LUCE: The point I want to make is that public utilities are set up by law to provide the energy required by law, to provide the energy for this growth. And if we are not going to have the growth

then that is a decision that you and I and everyone else on this panel and everyone listening to this program is going to have to make.

LeKACHMAN: I think, in fact, the automobile has been based upon an appeal to the strongest and most volatile of human emotions, and the automobile is dangerous, destructive and so on. For the consumer there is very little choice, really. He doesn't have a choice between a car that doesn't pollute at a higher price and a car that does pollute at a lower price; he is caught by the industry's preference, natural commercial preference, for rapid depreciation, rapid replacement, wasteful consumption of gasoline, easily damaged product.

This, in fact, strikes at the heart of the issue. If we're going to have a slowing of growth, or redirection of growth, or a more sensible growth, we need an enormous alteration in national preferences, national taste, and in business habits. Major industries in our land are going to have to be redesigned. Major habits of consumption are going to have to be altered.

BEE: I have seen other issues develop and then, after they are no longer fashionable or in vogue, lose impetus. In the sixties we had the big push for civil rights, and then when you really analyze and look at what has actually happened, the attitudes and everything are all the same. I think we're more sophisticated in practicing these things. So it just seems to me that, if other great issues of my generation are any precedent, that pollution and en-

vironmentalism and ecology and these concerns might be verbiage, that's all.

RUSHER: To tie the population problem in the United States to the problem of pollution is another business of hobbyhorse riding. Population is a problem in the world at large, principally in places like India and China. The United States is not basically an overpopulated country. Now, it is true that the more people we have, the more pop bottles and so on. But there is that much relation between almost any two facts in the United States. I think they are both serious problems, but I don't like to see one piggybacking the other.

UDALL: I couldn't disagree more.

DOWNS: They are so inter-related?

UDALL: There is an interrelationship here that is vital and fundamental. The use of resources and population are so closely intertwined you can't separate them out. We can support five hundred million people here at a lower standard of living, but I think, long term, the carrying capacity of this country, in terms of the standard of living, is something less than two hundred million. Now we can't eliminate all of these people overnight, but I think that fifty years from now, we ought to try to be down to one hundred and fifty million or some similar figure.

RUSHER: Well, I disagree with that.

DOWNS: Only in the last of those excerpts did we touch on over-population of the planet as a root problem. We are going to go a little more

deeply into that with Dr. Paul Ehrlich, excerpts from an interview we did earlier in the week.

EHRLICH: We could very easily change the way we run our economy, change from a cowboy economy to a spaceman economy. We could force our utilities to stop creating more demand with advertising and then destroying the environment to fulfill that demand. We could push them to reduce the demand for power. There are some very simple steps that could be taken if the government were serious about it. For instance, if they just passed legislation immediately restricting all automobiles to small ones—you know, four placers, but small ones—you would immediately help the resource situation, the smog situation, and your transit situation because you could move more rapidly, and there would be more room and so forth. There are many simple steps the government could take which would require very little technological change but would be a big help on the environmental front while we are trying to pull the population down and clean up other areas in the environment.

DOWNS: How difficult is it, even with modern means of contraception, to sell the idea to people not to have a lot of children?

EHRLICH: I think it is not going to be as hard with modern communications as it might be, because we are going to focus on quality. Reproducing isn't just having the children, it is also raising them, and raising them to have a decent life.

When somebody says I want to have five or six children, what they are really saying is I want to soothe my ego but I don't care what kind of a world those kids grow up in. We must get people to have the urge to reproduce, but to include in that urge, the urge to have one or two children well raised. In other words, to reproduce your children to be adults instead of dying young in a horrible war or from pollution-related disease.

DOWNS: One statement that was made that sounds a little bit humorous, but is deadly serious and very deep, was by Dr. Barry Commoner. He said: "When you fully understand the situation it is worse than you think."

It does seem that way. There is a little bit of danger of peering into an abyss and simply withdrawing and saying it is all up. There are those who think the limb has been chopped off. The ones that are called doom mongers.

Dr. Ehrlich is not one of those, and I asked him about that. He said, "No, it is necessary to state the case pretty firmly, maybe even stridently, to get people awake to how serious it is."

So that is his reason. He doesn't overstate, but he states very forcefully.

We have in the studio now about thirty college students and other young people who have been working for a better environment.

Since population was the last element of the interviews that we had, and since many figures have been tossed out about what an optimum pop-

ulation for this planet might be, assuming certain levels of energy demand on the part of people, I would invite any opinions that any of you might have of what that optimum figure might be. We have three billion people now, and one billion is eating enough. So what would you guess an optimum population level? Anyone want to tackle that?

STUDENT: One statement should be made. We attended an SSS conference in Boston at Christmas time, and the statement made there was that in the scientific community there is not one reasonable scientist willing to state that we can support a population on this planet greater than twenty billion. This is given absolute optimization of every possible input. And at the present rate of population increase, we'll reach this level in ninety years. I am not advocating twenty billion as a maximum population, I am just indicating that ninety years, and twenty billion people, seem to be a sort of total absolute, and we have to work down from there.

DOWNS: That is a figure on the high side, but I have heard figures that are pretty high like that. Yes sir.

STUDENT: I would like to suggest an alternative way of looking at the problem. There is no inherent relation between any figure, apart from the limit of twenty billion, and the number of people who can live comfortably on the earth. Take three billion people and the finite resources of the

earth; there is no inherent relation. One must look at the standard of living and the manner in which those people get that standard of living. If one looks at that area of the problem, then one might see that this planet would be able, perhaps optimally, to support somewhere in the neighborhood of twenty billion people. But it depends upon how that living is achieved. In what sort of a system of economics and politics does one go about generating life?

DOWNS: Yes, these considerations do emerge—not only food production and distribution, but the energy demands and the waste of a technology that will deliver that amount of energy. The earth can't be made bigger, so one can argue about whether technological breakthrough would make it possible to dispose of the waste and distribute the food and so forth. As things are now, if we didn't have any technological breakthroughs, do any of you think the figure as high as twenty billion suggested would be viable or should we go after reducing it?

STUDENT: I think we have our priorities confused as usual. I don't think the first question should be how many we can support. I think the first question should be how we are going to support the three billion we do have, equal distribution of what we have. I think that is the first question. And I think the three billion level that we are at now could be argued one way or the other.

But the problem is, unless we correct the mental

process of man's inequality and injustice to man, whether it be on a racial level, whether it be on a national basis, then we could have one hundred people on this earth, and still not have it.

I think we have to remember that every drop of water, every square inch of air, everything we have, there is no more and there will be no more.

As the Youngbloods sing it:

"If you hear the song I'm singing
You will understand
You hold the key to love and fear
In your tremblin' hand . . ."

Our real foe is anything which dehumanizes and victimizes humans. It is being insensitive, unconscious and unconcerned. That is our primary pollutor. All other pollution stems from this. If we are aware of what is happening around us, we can begin to move in new ways.

When you read what the young people have to say in these last pages, you hear that message over and over between the lines. This is the survival metamessage. It is in the songs of the young, in their radical diatribes, in their most violent actions and most loving actions.

It's called "concern."

When you love someone, you are concerned for them. The young want a love affair with humanity and, essentially, that's love for the Earth.

EIGHTEEN

DOWNS: Now, I want you to meet our guests —Stewart Udall, former Secretary of the Interior, and now serving as a consultant on environmental problems; and Roger Caras, the conservationist and author who has been our guest many times.

Who would like to start questioning our guests? Right here in the front row.

STUDENT: Mr. Udall, as former Secretary of the Interior, how do you feel that Chevron Oil Company should be dealt with concerning the recent disaster in the Gulf of Louisiana, and further, what changes do you feel should be made in the off-shore drilling practices and regulations to eliminate this sort of incident?

DOWNS: Before he answers, did you give your name?

STUDENT: I'm sorry; Michael Love, from Carlton College.

UDALL: I think this is another one of these appalling examples of where we have rules, where they are supposed to be observed and where there are flagrant violations and disaster. I'm afraid some segments of the oil industry, particularly the maritime industry, the people who move goods around the world, are just incredibly careless. All

I know that you can do is either make tougher rules or crack down on them.

The trouble is that most of the rules on pollution today are not enforced. We have much better laws than we admit, as a matter of fact. But they aren't enforced because the enforcement is usually at the local level, and the closer you get to the local level, the more cozy industry is with the local enforcement people. That is the truth of it.

DOWNS: Second row here.

STUDENT: It seems to me that one of the suggestions coming out of the ecology movement is that we should cut back on the amount of resources we use, and on our technology and on our standard of living. The fact remains that forty per cent of the people in this country still live in poverty or conditions of economic deprivation. Perhaps a more reasonable solution would be to look at the areas in this economy where money is being spent wastefully, such as military spending, speculation in real estate, aerospace programs and so forth. Tax these profits heavily and use that to finance the necessary changes.

DOWNS: Do you want to give us your name and college?

STUDENT: Dan Wasserman, Swarthmore College.

DOWNS: Roger Caras . . .

CARAS: Before diverting money from one place, you have to make sure it is going to go to the other. I don't think that, had there not been a space pro-

gram, the money from the space program would have gone into cleaning up the slums. I think it would have gone exactly where it did go, into the technical industrial complex. I think it would build weapons instead of spacecraft. The military expenditures are horrific. They are now doubling every twelve years, a pace set some twenty years ago. That, I think, is where the money can come from. But before you say money should not go there to there, you have to be sure it is going to go to B, and I don't think that our industrial technical complex is going to be allowed by the government to collapse. It is going to be supported by one thing or the other, and, personally, I would rather see it supported by a space program than a military program.

DOWNS: In the front row here, a lady.

STUDENT: Janice Johnson, North Texas State University, NAACP. As a part of our NAACP program, we have for a long time called upon governmental officials to direct their energies and resources to cleaning up our environment, particularly the ghetto areas, which are very heavily polluted. All of a sudden everybody is interested in environment, which is very good. So, as a part of the President's program, what programs will be specifically geared for cleaning up the ghettos in regards to rat infested apartments, debris, substandard housing and so forth?

UDALL: I'm an ex-government official and I am not going to answer for the administration. But I

will try to answer your question because one of the things that disturbs me most about the whole environment thing is the fact that many of the Blacks, many of the minorities in this country, consider it a cop-out, and a diversion of energy from their area of interest.

The environmental movement that I'm a part of begins with people, wherever they are, and whatever trouble they're in, and the people who are in the worst environmental trouble are the people in the worst slums in this country. The environmental movement that I want to be part of begins in the worst ghettos and this, of course, is something we haven't done in this country.

As I see this movement, it ought to involve everyone in this country, and it really ought to give the highest priority to the people who are in the worst difficulty environmentally. This is one thing we ought to start facing up to. And I think that the environmentalists themselves are at fault for acting as though this was purely a matter of pollution, or a matter of having a pretty country or something like that. Environment begins where the worst problems are.

DOWNS: Your answer suggests an ecology of moral issues. But they are not really separable. They can't be put in separate compartments.

STUDENT: Poverty is social pollution.

DOWNS: Now we had a hand over here in the front row.

STUDENT: I have a question for Mr. Caras. It

seems to me a definite conflict of interest for the National Park Service to provide wilderness areas for large numbers of the American public when there is increasing need for preservation of these areas for wildlife. As a conservationist, I was wondering what type of management you think will be needed in the future to serve these two basically incompatible interests?

CARAS: I don't think the interests are incompatible. It is not a cop-out when I say the program has to be cooperative. Unfortunately, no one's interests are clear cut and clearly defined. This is not a White interest, this is not a Black interest, this is not a tree interest or an animal interest, it is ecology. That means an interplay of forces.

You would have to get specific that you need a multi-disciplined over-view. People from the various disciplines must get together, hopefully in a sense of goodwill. And govern the problem and face the problem, but only as a specific. You cannot deal with these problems generally. The problem is one thing in one place and another thing in another place. But if it is given to the United States Department of Agriculture to solve this problem, and given to private industry to solve that problem, then you are going to get private interests, and the government is also a private interest. Our approach has got to be, I am sorry, it has to be a committee, and I know committees are distasteful. But it must be multi-disciplined, and you must have all kinds of people: silvaculturists as well as zoologists, num-

erologists as well as meteorologists. All involved together, and hopefully together, intelligently they will come up with the solutions. I know this is a general answer, but your question was rather general too.

DOWNS: In the back row here.

EARTH WEEK WORKER: I'm John Brennan, with the Earth Week Committee in Philadelphia. I am not a student. I wonder, we do a lot of talking about the re-establishment of national priorities. And we have always been led to believe that this is the job of the administration and of the Congress. But so many people have so many divergent views of what are the priorities, I am wondering, Mr. Udall, short of a referendum how do we really get a meaningful list of these priorities?

UDALL: Well, there has been a lot of talk about priorities in this country in the last year. I think it only began about a year ago. And we haven't developed any new priorities. As a matter of fact, new priorities probably await a sharper phasing out of the Vietnam business than the President seems to be interested in, because if you are going to really talk about priorities, it means moving money around, it means new programs, new emphasis and so on. And as far as the national government is concerned, the Congress and the Administration and the President, primarily, make priorities. But it just seems to me that at this point we have got to have more intensive discussion, we have got to have a larger demand from the

country, we have to have stronger feelings or we are not going to get these new priorities. I don't see them emerging as yet.

DOWNS: Second row here.

STUDENT: My name is David Harrison of Kalamazoo College. I would like to ask a question of both you gentlemen referring particularly to the population problem. If it is true that we can no longer increase our population and maintain the quality of life, what specific governmental legislative action would you personally advocate to begin to stem the population explosion?

CARAS: I don't think government belongs in the bedroom. It is already there, of course, as Dr. Ehrlich has pointed out in the past, because it tells you how many wives you can have. So I presume that is a precedent. And it could tell you how many children you could have. Hopefully, people can be educated. Hopefully, we are educatable, and reasonable, and I would advocate with fingers crossed that there be no legislation on birth control. However, realistically, if within the next twenty-five years we do not become reasonable and do not do it voluntarily, then I think there will be birth control with a bayonet. Because if we do not have voluntary birth control then we shall have no choice but legislation and then we shall have punitive surgery on the husband, we will have state ordered mandatory abortions, we will have underground maternity clinics. You will go to a maternity clinic the way you go to an abortionist in the country

today. That is the nightmare, the Dr. Strangelove outcome of lack of reasonable and voluntary birth control.

DOWNS: Mr. Udall.

UDALL: If it is really urgent, as most of us believe, to level off population in this country, then our national policies ought to reflect it. Particularly our tax policies. And Senator Packwood from Oregon, who is a real comer and one of the new heroes in the Congress, proposed this morning national legislation on abortion laws. I personally hope the Supreme Court knocks out all abortion laws as an unconstitutional invasion of the right of privacy. I think that is a reasonable hope at this point. But it ought to be reflected in our tax laws, and again legislation for the first time has been introduced in this area. It ought to be reflected in our other policies so that we have economic sanction or disincentive, working in the direction of what we say is in the national interest.

CARAS: One thing: birth control is going to require an awful lot more goodwill around the world than currently exists now. In India, if you say birth control to a Moslem, he says it is a Hindu plot. And if you say it to a Hindu, he says it is a Moslem plot. And you say it to a farmer in the Deep South, he says it is a Black Plot. And I have had Black students say to me, it is a White plot. If we continue along those idiotic lines, then indeed we shall have birth control by bayonet.

DOWNS: Thank you, gentlemen, our time is up.

It is time now for our weekly upbeat feature, People, Places and Things. Today Frank Blair brings us some environmental stories.

BLAIR: Yes, in Virginia Beach, Virginia, the city fathers are laboriously building a mountain of sanitary land fill, and while it may be just an eyesore right now, Virginia Beach is looking forward to the day when it will be converted into a ten thousand seat amphitheater with a soap box derby track, picnic grounds and tennis courts adjoining.

But until it's completed the city fathers will have to put up with the city wiseguys who are calling it Mount Trashmore.

An item about fish. Clear Lake, California, which used to be choking in the plant life called algae, is coming to life again and all because of a little fish known as the Mississippi Silverside. The Silverside loves to eat the nutrients on which algae feeds. They have reduced the nutrient supply by seventy-five per cent, thus killing off much of the life choking vegetation. What remains to be seen is what the valiant little Silversides could do in other troubled lakes.

The underground movement for the environment is gaining adherents among cashiers in America's supermarkets. Many people are reporting that the checkers are whispering, Don't buy that cleaning product, it poisons the water, buy the other one. Apparently, the idea is catching on in a super giant Safeway from the Atlantic to the Pacific.

And then there is the story of City Commissioner

Robert F. Jackson of Pontiac, Michigan. He reported that his barber, who had cut hair in many other cities, swears the air pollution created by a nearby auto company is wearing out his clippers.

Finally, the last straw in our struggle for survival. It comes from an article in *Science Magazine* which reports that oil pollution in the Caspian Sea is destroying sturgeon and skyrocketing the price of caviar. Now how can we find the courage to go on in the face of such drastic news? Is survival worthwhile, without caviar?

If we're going to get our world back in shape for happiness and assure an open-ended future for happy descendants, we must work fast. There's a real sense of urgency to the problem because, on a world time-scale, two decades is tomorrow, not the day after.

The young especially feel this urgency because the decades ahead are their decades. The question is whether *their* children will have any world at all.

It is no wonder that they question many of our systems and institutions. It's quite plain to them that these institutions and systems have contributed to setting us on an extinction course.

In the pages ahead, as you encounter the questions of the college students, keep in mind the fact that their world extends beyond that of many in the nation right now. If there's any place to live at all, they will live longer.

When they say: "Let the pollutors pay!" they are angry, yes, but perhaps with reason.

It may be that the job of the older generations is not to resist change, but just to keep the young from throwing out the baby with the bathwater. The young have come up through an educational system which, for the most part, is one-way: from pedagogue to student. Good communication, however, requires feedback. And if education does not communicate, it fails.

Let's call these next pages: "Older generation listening time."

NINETEEN

DOWNS: Good morning, this is *Today.* It is Friday, April 24th. This is the last day of our five day series on the environment titled New World or No World.

First, we are going to have answers from these gentlemen who are our guests: Mr. Charles Luce, Board Chairman of Consolidated Edison, a major power company for New York City, and Mr. Dan Lufkin of the broker's firm of Donaldson, Lufkin and Generate, the only businessman on the Earth Day Committee.

The questions will be coming from young people who are in our studio. Most of them are college students or have recently been college students and they come from fourteen different colleges.

I think it is of interest to know where all of them come from: Amherst, in Amherst, Massachusetts; Carleton, Northfield, Minnesota; Colgate, Hamilton, New York; Davidson, Davidson, North Carolina; Hiram, Hiram, Ohio; Kalamazoo, of Michigan; Redlands, of Redlands, California; Morgan State in Baltimore; Westminster in Wilmington, Pennsylvania; The University of North Carolina, Chapel Hill; Sarah Lawrence, New York City; and Swarthmore College, Swarthmore, Pennsylvania.

We will be asking some of the questions we may have missed or not had an opportunity to ask previous guests.

Suppose we start with the questioning, remind ing you again, if you please, to stand and give your name and college and then address your question to either Mr. Luce or Mr. Lufkin. The young lady in one of the rear rows.

STUDENT: Peggy Weisenberg, Sarah Lawrence College. Mr. Luce, why have the Atomic Energy Commission and the power industry been converting to nuclear reactors, when the National Academy of Science has said the supply of uranium 235, the fuel for these reactors will give out in twenty to thirty years? That nuclear reactors give rise to thermal pollution and fission products of radioactive waste?

LUCE: I think the figures released by the National Academy of Science had to do with the known reserves of uranium today. We have more known reserves of uranium today than we have for natural gas, for example. Probably more than we have of other fossil fuels.

However, the hope of the future as regards extending the energy supply from nuclear sources is the breeder reactor. Presently, with the type of reactors we are using now, we are getting maybe two or three per cent of the energy out of uranium, but with breeder reactors we can get sixty per cent, a tremendous increase.

I don't see how mankind over future generations can have the energy supply it must have to maintain what we think of as a decent standard of liv-

ing, unless we convert to nuclear power and develop these breeder reactors.

You ask about radiological discharges. Those at our Indian Point Plant near where you go to school are about equal to the natural background of radiation. If you stood on the border of our plant grounds every day, all year, you would get less radiation that if you lived in Denver.

DOWNS: Because of the height of Denver?

LUCE: Yes, because of the height of Denver, solar radiation. There is a lot of natural radiation. AEC and the power companies did not invent radiation. It has been around the universe from the beginning, if there was a beginning. Solar radiation is an important source of radiation.

DOWNS: What about the thermal pollution aspect of her question?

LUCE: Of course, all power plants, whether they are nuclear or fossil fired, have to be cooled. The condenser has to be cooled. Nuclear plants of the present type, the type we are building now, require about fifty per cent more cooling water, but the cooling doesn't put boiling water into the river. We heat it up about fifteen degrees Fahrenheit. Thus, we are taking water out of the river at sixty degrees, and it goes back at seventy-five degrees.

We are designing our Indian Point nuclear plants so that we can add cooling towers. The water will go back to the river at approximately the same temperature, if ecological studies indicate that this is the proper thing to do.

DOWNS: Now the second question, here in the second row.

ED FURIA: My name is Ed Furia. Mr. Luce, I am from the Earth Week Committee of Philadelphia, not a student group as such. It is mostly students, but with businessmen and other members of the community in it.

As a member of the business community who must be committed to doing something about environmental problems, I would like to ask your suggestion for the Earth Week Committee of Philadelphia, about what to do about a problem that we have in Philadelphia. We are basically non-violent, we don't believe in any bloody revolutions, and we are trying to get businessmen to be socially responsible for what they do. We found that the laws we have in Philadelphia are strong, but they are not enforced. We had only four thousand dollars in fines in four years in Philadelphia for pollution control.

At the same time, businessmen tell us they won't move any faster than the legal requirements make them.

What would you suggest, Mr. Luce, that an organization such as ours, somewhat constrained by our process, do to get businessmen to act a little faster? To take the social costs of their decisions into account?

DOWNS: Mr. Lufkin might also like to comment on that later.

LUCE: I would suggest, first of all, that you

organize to elect representatives to your city government who will enforce the laws. That is the democratic process that has worked so well and protects freedom in this country. I think also that you should talk to the business leaders, but particularly you should get government officials who will enforce the laws and not just enforce them against industry, but enforce them generally and clean up city pollution as well.

You know, in New York City, a lot of the pollution comes from city operations itself: raw sewage dumped into the Hudson, or the East River incinerators that aren't properly designed and so forth. We have to attack this on a broad front.

LUFKIN: I would also say that Philadelphia is not unique. To my knowledge, there has been no fine imposed in the State of Connecticut for pollution, and yet we have had excellent Clean Water and Clean Air legislation on the books since 1967 and 1969.

What is really required is the will and desire of the people to have enforcement proceed. As you are agitated, as other people become agitated, through things such as Earth Day and Earth Week, with that knowledge and with that agitation, and with the legislation and the election of properly inspired officials you will get the job done.

LUCE: Could I add one other comment? Go to work for some of these companies. Come up to Con Edison and go to work for us. Go to work

for your power company in Philadelphia, bore from within.

DOWNS: Mr. Charles Luce is one of those who has followed his own suggestion of boring from within. He was Under Secretary under Udall and moved into the Con Ed position in an effort to do something about it, and has done something about it. I think the feelings of frustration of people in the Earth Week movement and so forth are that things aren't moving as fast as they should. Things never do. But the important things is to find out what has been done, and the follow-up of the questions.

Next, in the back row, right there.

EARTH WEEK WORKER: I am Shel Gordon of the Earth Week Committee of Philadelphia. I have a question for you, Dan. You are in the investment business, I am in the investment business. Our business, to a large degree, been based on growth syndrome with premiums being paid for growth of earnings and growth of gross.

As Kenneth Boulding states, we are in a state of transition, we must be at the point of transition from a cowboy economy to a spaceship economy. How do you, as an individual, given your business position, feel you are going to play a part in bringing about this adjustment?

LUFKIN: I think business has a responsibility beyond short-term profit. Some businessmen have advanced the thesis that without short-term profit there is no long-term future. This is totally incor-

rect. Basically, we must have an intelligent investment program based not on Adam Smith's market mechanism, not only on the return on investment, but also based on the return to our community. What happens to our environment—and I suggest environment to include all conflicts. Black versus White, rich versus poor, young versus old. Not only the conflict of man in nature. I am not suggesting the sacrifice of profit, but until that occurs, we will make no progress, it seems to me.

DOWNS: We have a question in the second row.

STUDENT: My name is Ian Riggs from Salt Lake City, Utah, and Kalamazoo College. One of the first things I noticed when I came to New York City yesterday was the incredible number of cars in this city. I have been interested in the comments earlier in the week made by Dr. Mishan about the car and our psychological dependence upon it, as well as our dependence upon other products. I wonder, in your estimation, how do you go about changing public attitudes like these on a large scale?

LUFKIN: One thing you can do, and one thing I suggested to Mayor Lindsay, is that we tax automobiles in this city. The automobile in this city, as you suggest, is a very severe problem. We will have to tax it. We may come to a five dollar toll charge for non-residents who bring automobiles into the city. The only mitigation I would have of that would be to the extent that they carry six people. If there were six people they would pay no toll. If they carry five people, they could pay a

dollar. If they carry four people, two dollars and so on. The point I am making is that you need economic incentives to reduce the dependency, psychological dependency, on the automobile.

DOWNS: How about taxing horsepower, Dan?

LUFKIN: Taxing horsepower is an excellent idea.

LUCE: I think both of these things are good ideas, but right along with this, we would have to improve our public transportation system. It's going to be very difficult to get people to give up automobiles, as important as that is, because the automobile causes sixty per cent of the air pollution in New York, until they have an acceptable alternative.

DOWNS: Front row here.

STUDENT: Jim Cathlin. I'm from Colgate University. Gentlemen, a long-range possibility exists that depollution of the environment is going to give rise to a new technology, whose effects will one day once again require depollution. I wonder what plans either of you have made, both as investor and an industrialist, to ensure that this will not occur?

LUFKIN: As an investor, I naturally am concerned with the welfare of an investment, and with the insured continuity and continuation of that company's progress to the extent that a company is disavowing its responsibilities to society, it will not proceed long-term. It may have short-term victories, but not long-term.

On pollution from a new technology of conquer-

ing pollution, I think I would worry about that one when we get that far.

STUDENT: Am I to assume then that if the building of air filters for plants to prevent air pollution necessitates more pollution to build these filters, then this will be permitted?

LUFKIN: You would also attempt to accomplish your industrial tasks both with carrot and stick incentives from government, with the least possible pollution. But we need electricity, and there are some costs of that electrical problem to produce it.

DOWNS: I think of what Ian McHarg said earlier: as long as there is technology, and as long as we utilize it at all, there will be wastes from it. There are proper and improper disposal of the wastes and he thinks industry ought to be toilet trained, as he put it. In the back row here?

EARTH WEEK WORKER: I'm with the Earth Week Committee of Philadelphia. Mr. Luce, I am wondering, whenever the questions of anti-pollution measures are raised to industrialists, quite often they will raise the specter of increased costs to the consumer. I am wondering to what extent you feel that is legitimate? And to what extent do you feel it is reasonable to expect the industrialists to absorb that cost themselves?

LUCE: In answer to your question, ultimately each of us, as consumers, has to pay the cost of the production of whatever goods and services we use. There is nobody else we can pass it to.

What is a community of humans? How large should it be?

Lewis Mumford suggests, on the basis of much convincing evidence, that a city should be no larger than two hundred and fifty thousand. But we are headed toward a "sardine can" world, with all the available spaces used and cities far larger than two hundred and fifty thousand.

A community of humans requires certain attentions to the individual. In a world where destructive power sources have reached such magnitude that individual decisions can extinguish all life on the planet, the needs of the individual assume primary importance.

No individual should want to destroy the rest of us.

On the basis of their actions, however, some obviously do want to wreck us.

Perhaps a community of humans requires we provide each individual with that mutual support which enables each human to withstand the disintegrating forces which assail us from without and within.

It may boil down to getting each individual to accept himself—to accept all the hungers, the sexuality, appearance, the thoughts which arise unbidden in consciousness—accept it all.

As a friend one said: "If you can accept yourself, you can accept anyone."

He was only half joking.

There's no real paradox in our problem. Individuals can destroy us. To survive, we must do it together.

TWENTY

DOWNS: We want to continue with our platoon of young people in the studio. They have come to us this morning to do what I usually do, to ask questions of guests. The guests now are all in the Washington studios. They are Senator Gaylord Nelson, Wisconsin Democrat and co-founder of the Earth Day movement; C. C. Johnson, Administrator of the Consumer Protection and Environmental Health Services of the Department of Health, Education and Welfare; and astronaut Frank Borman, one of the few men who has seen our whole environment from the perspective of the moon.

We'll start with the young lady in the front row here.

STUDENT: Anna Richards, Westminster College, Wilmington, Pennsylvania. I would like to address my question to Senator Nelson and Mr. Johnson.

All over the country, especially this week, there has been so much emphasis from people in the government and Senate on the whole environment issue, my question is, how can a government which supports chemical warfare in Vietnam and has so many problems here at home in America, in terms of not only minority but also poor people as a whole, devote itself to this problem of environ-

ment? I cannot honestly believe the government can be serious in its efforts when they continue to carry on so many hypocritical actions in other areas.

DOWNS: All right, who wants to answer that in Washington?

NELSON: First, I am opposed to the use of chemical-biological warfare of any kind and to the defoliation program in Vietnam, and I have spoken out strongly against both. And looking at the concern here at home, the worst environment in America is in the Appalachians and in the ghettos, and dealing with the inhuman conditions of these areas must be one of the first undertakings in an environmental program.

DOWNS: Does anybody else want to add to that?

JOHNSON: I would. This is a valid question. I think this is the opportunity for all of America to use environmental concern to broaden the kind of attitudes that exist in America. If we really look at the environment in its truest sense, and that is a concern for man, this will shape attitudes all over the world in how we approach man, one to the other.

Certainly what Senator Nelson says is true. The environmental concern is where man lives, where he works, where he plays. The attitudes we are going to need to shape that environment will also temper the kinds of attitudes that create the wars, that create the poverty, that create the ghettos.

DOWNS: That shows the enormous scope of

the problem. The second row here, this young lady.

STUDENT: I am Mary Lou Morelock from Johnston College, at the University of Redlands. I am rather frustrated. I don't mean to attack you, but to make an analogy of why I don't have any hope in the government and big business. Just like in the TV show, every time anyone makes a point, just on the hope, or on the boundary of making a decision that could effect somebody really seriously, and maybe bring a profound change, special interests enter in. And those special interests take priority.

Now, in a small microcosm like this, you can just enlarge it to the bigger microcosm. The government obviously has other special interests, such as President Nixon saying yeah, I'll sign a bill for ten million dollars for pollution control, and then he signs the plan for the SST. It doesn't make sense.

Special interests have more priorities, and those special interests are big business and other people with money and with power. I say that the people, those people without power as far as money is concerned, those people must take the initiative to change the environment. Not the government and not big business. Those are the people who really will effect change, because they don't have any special interest except their lives. And I disagree strongly with government control; I think it definitely has to be a grassroots movement.

DOWNS: Do you want to ask whether it may

become a grassroots movement, or whether it will take that complexion? Anybody in Washington want to comment?

BORMAN: If I might. This is a prevalent attitude and a very disturbing one. Essentially, it is a cynical attitude about the democratic process and the government in which we all exist. The thing that bothers me is that supposedly this attractive young lady is educated, at least she has been exposed to some years of education, and it is surprising to me that she is such a cynic.

I have been involved in the government for some twenty years, and most of the people in the government are trying desperately to do what is best. I must say that when you continually point your finger at the establishment and big business, I would just like to shoot it back at you a little bit. One of the greatest problems we have in the environment of the future is the current crop of irresponsible college radicals going out into society. I hope we can assimilate them.

DOWNS: Does anyone have a different question?

MARY LOU MORELOCK: I would like to respond to that. I don't think campus radicals are irresponsible. They care very much for change in this country so that poor people will no longer be poor, Black people and the whole Third World movement will no longer be subject to White rule, and that is what the radical movement is about.

Maybe I'm not as educated as I should be. The

reason I'm a cynic is because I've seen too many poor people, I have seen too many injustices.

Look at the Civil Rights Bill. It is supposed to be a free country for people, the Civil Rights Bill dies. Integration, look at that if you're for integration, that's not working. You move Black people to White schools, you don't do anything for the Black schools. I mean you can't help but be a cynic, with this system.

DOWNS: There is no doubt about a sense of frustration here. We are exhibiting the polarization that does come about when the problem is addressed by people who feel deeply about it. Frank, do you want to say anything else about that?

BORMAN: The only thing I would say is that I share the concerns. To suggest I am not concerned about the Black man or the conditions of this country is completely misstating my case.

I would also suggest that in the past twenty years of my productive life I have seen great changes in this country. And I can certainly not say that we have changed enough. I do suggest there are a great many people just as concerned as the young people in this country and perhaps you all shouldn't be quite as cynical as you are.

DOWNS: Continuing our questioning, this man on the left in the second row.

STUDENT: Peter Marring, Colgate University. Over the past few weeks, I think it has come out that environment is the concern of everyone. Yet there still seem to be some people who are not con-

cerned. And I think there is a feeling still abroad that environment is a passing fad. Would you comment on how students can help make environment a growing concern rather than a passing concern?

DOWNS: Anyone?

SENATOR NELSON: One of the purposes of the nationwide Earth Day effort, which I proposed last September, was to greatly increase public understanding of the scope and depth of the environmental crisis, to build the concern for sustained citizen action. In a representative democracy, you get action when an informed citizenry demands it. You get action when you participate. That's what makes the system work.

And one of the purposes in organizing Earth Day was to stimulate a grassroots movement all across this country, to stimulate participation through the formation of environmental action groups in every community who will insist that their elected officials from the City Council to the Congress make a continuing, consistently strong commitment to this very urgent matter of restoring the quality of our environment and establishing quality on a par with quantity as an aim of American life.

DOWNS: Here on my right in the very front row.

EARTH WEEK WORKER: Ken Brown, NAACP. I am not a student. Senator Nelson and Mr. Johnson, you say one of the aims of the whole environmental movement is to go for those ghettos and Appalachia and other places. What administration

is going to do this? The Nixon Administration has plainly shown the whole world it couldn't care less about Black people, about poor people. Mr. Nixon and Agnew, Mr. Mitchell and company, have shown this entire world.

What can you tell these young people here about the commitment of this administration and this Congress to the problems of environment? Would you say that Southern Democrats would vote for any mass money to be spent in the slums of the North and the South, or would you say Northern liberals would vote for any mass money to be spent in the ghettos and Appalachia? Just what administration is going to solve these problems? It certainly is not going to be the Nixon administration.

DOWNS: Does anybody there want to give an answer?

JOHNSON: I would like to comment on that. First of all, Senator Nelson said what happens depends upon the people. I think when enough people demand enough out of the government, to meet the needs in terms of the American way of life the way they want it, they will get this.

I believe the environmental movement that is now underway, to which a great deal of attention has been called, will be successful only to the degree we make it relevant. That is an overused term. But relevant to things that people understand here and now. I think too much of our concern has been with the rather unclear consequences of the

future, and if we can just do something now, about our environment in terms of the cities, in terms of our working people, in terms of our needs to upgrade the quality of life of all citizens, we won't have to worry too much about the future.

This, only the people can do, regardless of what administration is in power. And I would hasten to add there is sincere concern about the quality of life and the quality of the environment by this administration, as there was by the last administration. I believe our lawmakers actually react rather than lead, and this is the way I would like to have it. It is up to the public what they want.

DOWNS: Our time is up for the questioning now.

This is the last day of our week-long environment series and there are mixed feelings about this moment because all the problems we have been discussing are grim ones. But the opportunities offered for the creation of a new world are certainly exciting. We are not going to stop talking about it here on *Today*. It will not be a fad with us.

Our various guests this week have differed on methods, but they have all agreed that the environmental issue is a force of overriding importance. They have urged the citizen to make his voice heard. To write letters, to organize, to let government and industry know how they feel. Public pressure may be the one thing government and industry respond to. They have called to our leaders in all areas and sectors, not simply to ask

the people what do you want or do you want to survive, but to call for a positive stance. They have challenged our politicians and our industrialists to take the initiative in changing their ways, to opt for a clean life. Liberty from pollution and for the pursuit of happiness can only come when we re-establish our harmony with nature and keep the planet a habitable place.

Survival is everyone's business, from Main Street to Pennsylvania Avenue, and only together as a people, as a nation, as a unified planet can we finally answer the question New World or No World.

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