A jackhammer in New York City.

Buddhist monks in Japan.

Gypsy Moth caterpillars in Connecticut.

A cast of characters for a story about you and the environment.

Professor Fred Hoyle, a British astrophysicist made a prediction back in 1943, that once man had taken a photograph from space showing the earth in its entirety, a new idea would be let loose in the world — concern with our environment.

There may have been other reasons for the sudden surge of interest in ecological matters, but Professor Hoyle had the timing pretty nearly right.

The first headlines about environmental problems came from the doomsday prophets who painted the end of the human race in vivid colors. The extinction of all life on this planet was variously attributed to overpopulation, depletion of natural resources, chemical pollution and
changes in our climate. Any one of these predictions may still prove to be valid, but in the early 1960's there seemed to be very little that we could do about it. We had a choice of roads to destruction, but there was no turning back. Since then there has been renewed interest among scientists in finding solutions to environmental problems. The fact that most of these problems displayed a total disregard for national boundaries led to the calling of the first United Nations Conference on the Human Environment in Stockholm, Sweden in the summer of 1972.

What very few of the doomsday prophets foresaw was the groundswell of concern among ordinary people, men and women not members of the scientific community. The environment became a topic of conversation and a favorite subject for cartoonists.

CARTOONS

HOST ON CAMERA

HOST:

Some people actually did something about local problems.

For this program we've chosen three stories out of many. Three stories about people who
have done something about their environment,
in New York City, Minamata, Japan and
Cornwall, Connecticut.

We'll start in New York, with a form of
pollution that has received very little
publicity: Noise.

Most of us tend to ignore the noise that we
live with every day. The right to make noise
has virtually become a fifth freedom. This
may have something to do with the fact that
the effects of noise pollution are not as
dramatically obvious as those of air or water
pollution. Complaining about noise used to
be the province of the little old lady in
tennis shoes who complains about everything.

In New York City, at least, this has changed.
A lot of it is due to one man, Robert Alex
Baron, the author of a book on noise pollution
called "The Tyranny of Noise".

Mr. Baron gave up a career in the theater to
found a group called "Citizens for a Quieter
City".

The problems in New York were staggering,
but not much worse than other large cities
in the world. So we asked Mr. Baron how he'd
come to leave the theater and devote his time to New York City's noise problems.

CONSTRUCTION SITE

BARON:
I was, in a sense, blasted into it. They started to build opposite my home on Sixth Avenue, in mid-town Manhattan, and for a period of two or more years, I had a battery of five air-compressors outside of my home operating from 7 in the morning till 4, 30-5 o'clock. This was dreadful, it was legal, it still is. There are ways of making these devices so that they produce less noise. And this is the point, we can design for quiet.

BARON ON CAMERA

You could say that one of the easy ways to solve air pollution is to live in a space suit, or something like that. I don't think that we can retreat. Here's a form of retreat, and this can be helpful in preventing hearing loss: acoustic earmuffs, but I don't believe that human beings, especially civilians should be required to retreat from the natural environment any more than they have to.

NARRATOR:
We spoke to Mr. Anthony Romano about acoustic earmuffs.

SYNC SOUND:

Peter:
If you were given the opportunity to wear ear protection devices, would you wear them?

Romano:
No, not really. No I wouldn't wear them. I think its a hindrance to my hearing and more than... cause when you're working out here, especially in the winter time, you can't even work with those things on. I'd rather wear, not have them.
Peter:
The people you mentioned that work on the rock drills, do you think they feel the same way?

Romano:
I think so, too. You take a walk up there, and watch them, I'd say none of them are wearing earmuffs, looks like they've been doing it for years, those fellows up there.

Peter:
How do you feel about it when it's happening in front of your house?

Romano:
You got to go with progress. I live in Staten Island, the people didn't like it when they built the Verrazano bridge, but it's progress, you gotta go with progress.

Peter:
However, they have developed equipment that is quieter, would you prefer that?

Romano:
Quieter? What kind of equipment?

Peter:
Air compressors, for example, they have an air compressor that makes half the noise of the one you're using, that's progress isn't it? They also have an air hammer that's vastly quieter. Would you prefer to use it?

Romano:
If it does the same type of work, the same job, I'm for it.

Narrator VO:
Quieter air compressors are already in use.
In some cases because of pressure brought by Baron and his Citizens for a Quieter City.

JACKHAMMER
They were also behind the push for the
development of a quieter jackhammer. Some of them are just beginning to be used on construction sites.

BARON ON CAMERA

I'll give you another sample, if you like to see how we design for quiet. Here for example is a cymbal, that people are familiar with. You hit it, it reverberates. And a dishwasher frame for example is made that way, so that when a dishwasher is operating and the motor we'll say is not particularly quiet, or mounted with any special rubber or plastic mounting, the reverberation goes through the whole house. Now you can treat...here's the same cymbal that's been treated. Now listen, it's been treated with a substance called sound damping. So there...I use this to illustrate...this, of course is not going to solve all of the noise problems, but there is a technology for designing quieter equipment. Incidentally I'm not against noise. It's perfectly necessary and normal to make noise, but the point is that we should be able to make noise without interfering with another persons' right to be free of excessive noise.

ROCK GROUP

There are a number of theories why the interest in Rock and Roll music: One that it is a form of what's the word, tuning...is it tuning out or tuning in...being surrounded in an envelope of sound, getting high on sound.

It is also sometimes said in the world of noise, that the maker of noise or the one who willingly exposes himself to say, Rock and Roll, is not as disturbed. It's something that you deliberately do. So that even though there is reason to believe that there may be hearing damage caused it is something that the person who goes, goes deliberately.

FIRE-ENGINE, TRAFFIC,
GARBAGE TRUCK AND
JET PLANE

SYNC SOUND:
BARON:
The citizen should be concerned with whether or not his own community has a noise abatement function. That's very important. I helped press for a Task Force on Noise in New York City, and helped fight for the development of an Office of Noise Abatement. Oddly enough European cities have such things, had them before we did in the United States. Very few cities in the United States have an Office of Noise Abatement. So that's another thing. Do you have a function, that has control or a focus on the problem. As you can see it is a very wide-spread problem. And that leads to what we're trying to do. Which is find out if we can, how we can get the community, as a community, in other words the various components of the community, concerned with noise as a problem. So that it is no longer the isolated noise victim that is complaining, but society, or a segment of society, that is saying: Look you step on his ears, you're stepping on our ears, and if we have that kind of reaction the design for quiet that we can achieve will take place.

HOST:
Today, New York City has a Noise Abatement code and many other cities are going in the same direction.

It proves what a group of dedicated citizens can do if they organize.

But the cities are not alone in noise pollution. The countryside is getting noisier every day. Lawnmowers and chainsaws disturb the rural quiet with noise in the range of decibels that is considered harmful to human beings, not only annoying.
The usually silent winter months are being shattered by snow-mobiles that crisscross property-lines obscured by snow. To organize opposition to noise pollution in the rural areas may prove to be much more difficult than in the city.

The locale must determine the means in every case. What works well in the United States may not work as well in other countries. Take Japan, for example.

The city of Minamata is located on the Shiranui Sea in Southern Japan.

HOST VO:

In the early 1900s, at the beginning of Japan's industrialization, a chemical plant was established in Minamata. Almost completely destroyed during the second World War, the plant made a comeback in 1945, producing the first chemical fertilizer in Japan.

The Chisso company, like most industrial plants, discharged its wastes into the nearest body of water, in this case, Minamata Bay. The pollution caused by these effluents affected the fishing which provides the mainstay of the local diet.
One of these waste products, organic mercury, transmitted to human beings by food fish from the bay, caused an outbreak of mercury poisoning, a disease that is either severely disabling or fatal.

Many Japanese felt that the chemical firm should indemnify the victims and their families but at the 43rd annual stockholders meeting the company made it very clear that they felt no responsibility. Among the 7,500 stockholders at the meeting was a large group that supported the claims of the Minamata victims. They had organized themselves by buying single shares in the company, but the management had forestalled any discussion of the topic by carefully stage managing a brief 12 minute meeting. When the single-share group objected, the meeting turned into a riot.

Almost half of the stockholders apparently supported the claims of the victims but the company had hired 3,000 special guards who set upon the dissident group with fists and billy clubs, when the meeting adjourned.

The single-share group seemed to have lost the battle. But when modern methods failed, they turned to more traditional ways.
These murals of the agonies of hell were painted in the 12th century, but even today Buddhism has a strong hold on the average Japanese. Some of them may have adopted western ways, but the fear of retribution by the gods still plays a part in their daily lives.

It was this typically Japanese aspect of the situation that the group supporting the Minamata victims counted on.

They organized a demonstration in front of the Chisso plant. Not the sort of thing that we are used to in the west, with placards and slogans, but a group of Buddhist monks and nuns to chant hymns and throw a spiritual curse on the owners of the company.

And this very Japanese method proved more successful than the attempt at the stockholders meeting. For the president of the company, Mr. Egashira, it involved a loss of face.

He called a press conference sometime later, to announce the company's new position.

"About this curse...it is in the same class as fortune telling and such superstitions. I don't believe it will affect the management of the company. However, I feel that it can have some
detrimental effect on the image of the company.
So if we can arrive at some kind of understanding
with these people, we hope that this will stop
them from taking any further action."

The methods may vary but the aim is the same.
People can make their voices heard where it counts.

From Minamata, Japan to Cornwall, Connecticut.
This time we're going back to 1962. Rachel Carson
had just published her book "The Silent Spring"
and all of a sudden the benefits of DDT, the
miracle insecticide of the postwar years, seemed
to be in question. Today, the battle against DDT
is in the headlines and the more restricted use
of chemical pesticides like DDT is an accepted fact.

In the early 1960's, DDT was being used against
all kinds of insect pests. Sprayed by hand or
from the air, it was used indiscriminately. Only
3% of the world's insect population has any effect
on man or his food crops. The rest are either
beneficial or harmless to man. DDT made no such
fine distinctions. And the residue of DDT
remained for years, washed into rivers by the
rain and ending up in our oceans.
Many scientists today believe that 1/4 of all the DDT ever made is still to be found in the world's oceans.

Worse, perhaps was the fact that many insects were rapidly developing immunity to DDT.

In 1963, New England experienced a plague of gypsy moths. In their caterpillar stage, these insects can strip the leaves off vast areas of treeland. They seemed to come in seven year cycles, lasting about 3 years per cycle. But in these three years they could destroy some of the weaker trees. Aerial spraying by DDT was the accepted remedy and very few people questioned the wisdom of this method.

In Cornwall, there was a small group of people who felt otherwise.

We went up to Cornwall recently to talk to some of these people. We asked them to tell us about what happened here back in 1963.

Mrs. Joan Terral, in the center, is a year-round resident of Cornwall. Cliff Wojan is a professor at Brooklyn Polytechnical Institute. He and his wife Phyllis come to Cornwall only for weekends and the summer. It was their common interest in the environment that brought them all together.
The three towns of Cornwall, Cornwall Bridge and West Cornwall lie in a triangle in the northwest corner of Connecticut, near the New York and Massachusetts borders.

There are houses and churches that date from colonial times and Cornwall is a favorite spot for weekend trips to look at the fall foliage.

In 1963 there almost was no foliage to look at. It was the first year of the plague of gypsy moth caterpillars.

The state had decided to spray the whole area in the spring of 1964, and there seemed to be little opposition except from a group of 100 or so Cornwall residents, among them Mrs. Terral and the Wojans. But they were in the minority. The first vote in the Cornwall Town council meeting went against them. In some respects this turned out to be an advantage.

Mrs. Terral:
...and the state entomologist's office had proposed that the state bring in spraying apparatus, at the time when the larvae, if that's how you pronounce it, were about to hatch. That is the time to kill them with DDT. And people remembered from 1955, it must have been, whole thing is very unpleasant. And there were just beginning to be rumblings about DDT at that time.
Woian: A number of things had come out, Rachel Carson's book and some of the other scientific investigations into DDT and its effect on fish and other small mammals and so on in the environment, and a number of us had worries about this, and we were, we decided to actually make a more thorough investigation as to what happened to the deposit of DDT in the area.

Mrs. Terral: In 1964 the gypsy moths had had a chance to increase their population enough so that they were all around us, and they had been eating the trees and the state had by that time changed its recommendation because, enough people were beginning to be alarmed by 1964 about the possible hazards of DDT. And now their recommendation was instead of spraying the forests of a town, to spray only on land where the property owners signed up on a fifty-fifty basis, paying half the expenses themselves. Some people feel a little guilty about wanting DDT, but they were so sick of these gypsy moths that they just felt we'll just throw out our objections and close our eyes to it and one little bit won't matter, that sort of reasoning.

HOST VO: But there were some people who didn't want their land sprayed with DDT. The bare trees and the nuisance of the caterpillars worried them less than the long-range effects of DDT on the Cornwall Environment.

SYNC SOUND: Mrs. Terral: Montgomery Hare, who is a Cornwall landowner and interested in conservation, got in touch with somebody at the New York Botanical Society, who recommended a chemist to us who does consulting on a daily basis.
He came up to Cornwall and looked over the lay of the land and he saw that there was a great variety in the terrain. It goes up at least 5 or 700 feet from the western boundary and there were great possibilities of wind drift being unpredictable.

Wojan:
Our big argument was that this very fine spray would drift over the whole town and not be confined to the particular owners who wanted the spray.

Mrs. Terral:
In Cornwall, especially, it would be very absurd to predict where anything you sprayed by air would land.

Wojan:
He suggested using sample glass plates and placing these plates at strategic points throughout the town. And then when the spray was deposited, the surface of these plates could be washed off into a sample jar and analysed for the amount of DDT.

Mrs. Terral:
The experts couldn't agree, and that would annoy a great many people, they would say, if the experts can't agree why should I decide that it's dangerous. And other people felt that if the experts couldn't agree, that it was quite dangerous, it all depended on who you listened to.

The group opposed to the spraying drew up a map of Cornwall showing the areas to be sprayed and the location of the glass panes.

Mrs. Terral:
The striped blue represents the acreage that was going to be sprayed, and the circled red represents the landowners that didn't want to be sprayed, who were contributing to this counter-spray glass pane experiment.
We found later that some of the small drifts, of the small particles that were formed, would drift more than seven miles way from the point of deposition.

Following the spray, a number of months after the spray, many of the farmers had to dump thousands of gallons of milk because of the contamination of the DDT. Practically every plate throughout the town has some sampling of DDT on it. This information was compiled by the chemist and submitted in a final report to some of the State Legislators who carried this project a little bit further.

Mrs. Terral: They reported back to our group of citizens and the following winter, February 1965 they publicly announced that there was to be no more aerial spraying program in Connecticut.

We were glad in a way that we lost the first vote in the town council, we were defeated and the people who requested the spraying won that particular vote, but in winning that vote we were able to bring a group together who finally were, we feel, partly responsible for banning the DDT operation throughout the state.

Connecticut was one of the first states to ban aerial spraying of DDT, other states are following in Connecticut's footsteps. Indirectly the little group in Cornwall was responsible for much more than they had aspired to. Today many countries have banned DDT altogether and the continuing manufacture of the insecticide is in question. This has caused a great deal of worry on the part
of some of the developing countries who depend on insecticides like DDT to keep diseases like Malaria in check and limit the destruction of food crops by insect pests. So far, at least, DDT has been very successful in these countries. Until such time as an equally reliable insecticide that is less toxic and persistent is discovered they will be forced to continue using DDT.

In the case of gypsy moths, attempts are being made to find non-chemical solutions.

In 1971 there was another great plague of gypsy moths in the northeastern states. In one season they denuded one million acres of trees.

The cry to bring back DDT was great, but concern about the environment had increased dramatically since 1964. "Sevin" a less persistently toxic insecticide was tried but even this was not considered acceptable by many environmental groups. "Sevin" like DDT, was non-specific in its destruction of insects.

Today, parasites that feed on the eggs of the gypsy moths are being raised in many laboratories to fight the insects with specific natural enemies. Only time will tell if this technique is as successful as DDT and Sevin once seemed.
Man is finding that controlling the environment is often harder than destroying it. Over the years we have found that decisions made in one area of the environment radically effect many other areas. The environment, like a web, is woven out of innumerable strands.

But the decisions are not solely in the hands of scientists and statesmen.

Only an educated citizenry can hope to make the changes that will keep us from destroying what generations of mankind have so carefully built.

The major agents of environmental damage are mostly of very recent origin. There are some scientists who feel the beginning of our present course goes back no further than half a century. Can we reverse this trend in the remainder of the 20th century?