

The following selection was excerpted from America the Raped (1969) by Gene Marine.
"Engineers Are to Blame"

The old rapists--the lumbermen and miners and utilities companies--are still with us, though today they substitute seduction for rape whenever possible. The Georgia-Pacific Company still strips virgin Douglas fir from California's northern coast, but today it also contributes a few thousand dollars to a study of the habits and habitats of the American eagle.

Fortunately for the rest of us, a dozen groups have arisen to keep the old rapists in check. But while they try, the new rapists are loose upon the land; theirs, still, are the vicious, violent techniques of the laissez-faire turn of the century. They are not, for the most part, employed by lumber companies or mining companies--but by you and me. They work for the Port Authority of New York and New Jersey, or for the state highway commissions; the U.S. Forest Service or the National Park Service; the Army's Corps of Engineers, the Bureau of Reclamation or the Bureau of Public Roads.

They are called Engineers.

They build bridges and dams and highways and causeways and flood control projects. They manage things. They commit rape with bulldozers.

They are hard to fight off, because they must be fought with words, and the weapons are inadequate. In New Jersey, there is a fantastic land of wonders, still substantially as it was when the glaciers retreated thousands of years ago. It is called the Great Swamp. The Engineers want to put a jetport on it--an absurd and irreversible crime. But--who needs a "swamp"?

The salt marshes of the Georgia coast have become an outstanding laboratory for the study of the interactions of life; there, the University of Georgia has learned much of how shrimp and other seafood depend on the unusual estuarine conditions for their life. Yet Dr. Eugene Odum, the leading researcher in the field, reports that "we are often asked, 'Of what value is the salt marsh?' or 'What can be done with all that wasted land?'"

The Engineers know: build a dam, build a levee, build a wall, dredge, fill, change. The marsh grass will die, the phytoplankton will die, the algae will die--and thus the shrimp and the bass will die, but the Engineers don't care. What good is a salt marsh? Who needs a swamp?

The government builds dams and highways, levees and reactors, and every one rips into an ecological system far more complex than anyone yet understands. "No one," says Dr. Odum, who is one of the world's leading ecologists, "has yet identified and catalogues all the species of plants, animals and microbes to be found in any large area, as for example a square mile of forest." But science in government is dominated by the Engineers, and the government is doing almost no work in ecology, giving almost no grants, encouraging almost no one. Instead, as could be expected of Engineers, they spend millions studying things that somebody wants to manage.

They not only do not care whether they push a freeway through a wildlife refuge, nor whether they flood the Grand Canyon with a dam, they don't care whether they wipe out our only chance to understand the ecology of vast regions of the earth, and thus, perhaps, keep from killing ourselves. It is the Engineers who pollute our air and our water--and they may yet do worse than that.

While we search, perhaps not as frantically as we should, but at least with increasing concern, for someplace to put our solid, liquid and gaseous wastes, the Engineers gaily produce new ones. The Engineers assure us that we can get rid of sulfur dioxide in the air and stop the ecological damage done by big dams on watersheds if we will only turn to nuclear power; but nuclear plants create radioactive wastes and "thermal pollution." Thermal pollution--the alteration of the ecosystem by changing the water temperature--is what's killing the shad near the Yankee atomic plant on the Connecticut River.

Ultimately, it is reclamation and reuse that hold the only hope for escape from slow death by pollution. The reclamation and reuse of water is already possible, and can be done by some methods without the creation of too much solid waste. A method is being developed to make it far more economical to reclaim steel from junk automobiles. Sulfur can be reclaimed, albeit expensively, from the sulfur dioxide of stack gases. Electric automobiles, still a difficult conception for most of us, can be a reality whenever we're ready; it's a simple matter of cost.

Dr. Eugene Odum muses about the Engineer mentality in broad, metaphoric terms. "We still think of ourselves," he said, "as waging a war against nature, conquering the land. But the war is over. We've won. We know that nature is defeated now before the advance of man--we have the weapons to fight the forest and the flood, the storm and the heat. We are even conquering space.

"But when we defeat an enemy in battle--when we defeated Germany and Japan--do we simply go on killing and slaughtering? Do we set out deliberately to massacre the population and destroy the land we've defeated? Of course not. We have defeated nature. We must do as we do with any other defeated enemy--help nature, and recognize that we must live with nature, from now on, forever. The war is over.

The war against nature is over. It is time for the war against the Engineers. It is time to learn--even if it is beyond the Engineers' ken--that we must save our ecosystems, not only because they may be pretty or because man may have a need to escape to them for recreation or meditation or the simple inhalation of fresh air, but because we may, someday, vitally need what they contain.

The freedom of the pike, Tawney said, is the death of the minnow. The freedom of the growth-rate planner, the builder of projects, the rapacious Engineer, is the death of man.

Write on one of the following:

1. Marine contends that "Engineers" are largely responsible for ruining our environment. How fair is this charge? In other words, how justified are Marine's claims, how persuasive his arguments and evidence?

2: Dr. Eugene Odum (cited in passage) clearly disapproves of what he sees as mankind's war against nature. In your opinion, what should mankind's stance, attitude, or behavior towards nature be?