

## Natural Man

LEWIS THOMAS

Lewis Thomas (1913–1993) was educated at Harvard Medical School and worked as a medical researcher. He served as president and chancellor of Memorial Sloan-Kettering Cancer Center in New York and as professor of pathology and medicine at Cornell University. Thomas published many scientific articles and books, and in 1971 he began writing regularly for the *New England Journal of Medicine*. His columns were collected in 1974 to form the best-selling book *Lives of a Cell*, which won the American Book Award and includes the essay presented here, "Natural Man." Thomas's other books include *The Medusa and the Snail* (1979) and *Late Night Thoughts on Listening to Mahler's Ninth Symphony* (1983). In honor of his stellar prose style as well as his engaging ideas, the Lewis Thomas Prize is awarded annually by the Rockefeller University to a scientist for artistic achievement. Thomas is widely known as one of the originators of the science-based personal essay.

The social scientists, especially the economists, are moving deeply into ecology and the environment these days, with disquieting results. It goes somehow against the grain to learn that cost-benefit analyses can be done neatly on lakes, meadows, nesting gannets, and even whole oceans. It is hard enough to confront the environmental options ahead, and the hard choices, but even harder when the price tags are so visible. Even the new jargon is disturbing: it hurts the spirit, somehow, to read the word "environments," when the plural means that there are so many alternatives there to be sorted through, as in a market, and voted on. Economists need cool heads and cold hearts for this sort of work, and they must write in icy, often skiddy, prose.

The degree to which we are all involved in the control of the earth's life is just beginning to dawn on most of us, and it means another revolution for human thought.

This will not come easily. We've just made our way through inconclusive revolutions on the same topic, trying to make up our minds how we feel about nature. As soon as we arrived at one kind of consensus, like an enormous committee, we found it was time to think it through all over, and now here we are, at it again.

The oldest, easiest to swallow idea was that the earth was man's personal property, a combination of garden, zoo, bank vault and energy source, placed at our disposal to be consumed, ornamented or pulled apart as we wished. The betterment of mankind was, as we understood it, the whole point of the thing. Mastery over nature, mystery and all, was a moral duty and social obligation.

In the last few years we were wrenched away from this way of looking at it, and arrived at something like general agreement that we had it wrong. We still

argue the details, but it is conceded almost everywhere that we are not the masters of nature that we thought ourselves; we are as dependent as the leaves or midges or fish on the rest of life. We are part of the system. One way to put it is that the earth is a loosely formed, spherical organism, with all its working parts linked in symbiosis. We are, in this view, neither owners nor operators; at best, we might see ourselves as motile tissue specialized for receiving information — perhaps, in the best of all possible worlds, functioning as a nervous system for the whole being.

There is, for some, too much dependency in this view, and they prefer to see us as a separate, qualitatively different, special species, unlike any other form of life, despite the sharing around of genes, enzymes and organelles. No matter, there is still the underlying idea that we cannot have a life of our own without concern for the ecosystem in which we live, whether in majesty or not. This idea has been strong enough to launch the new movements for the sustenance of wilderness, the protection of wild life, the turning off of insatiable technologies, the preservation of “whole earth.”

But now, just when the new view seems to be taking hold, we may be in for another wrench, this time more dismaying and unsettling than anything we’ve come through. In a sense, we will be obliged to swing back again, still believing in the new way but constrained by the facts of life to live in the old. It may be too late, as things have turned out.

We are, in fact, the masters, like it or not.

It is a despairing prospect. Here we are, practically speaking 21st-century mankind, filled to exuberance with our new understanding of kinship to all the family of life, and here we are, still 19th-century man, walking bootshod over the open face of nature, subjugating and civilizing it. And we cannot stop this controlling, unless we vanish under the hill ourselves. If there were such a thing as a world mind, it should crack over this.

The truth is, we have become more deeply involved than we ever dreamed. The fact that we sit around as we do, worrying seriously about how best to preserve the life of the earth, is itself the sharpest measure of our involvement. It is not human arrogance that has taken us in this direction, but the most natural of natural events. We developed this way, we grew this way, we are this kind of species.

We have become, in a painful, unwished-for way, nature itself. We have grown into everywhere, spreading like a new growth over the entire surface, touching and affecting every other kind of life, incorporating ourselves. The earth risks being eutrophied by us. We are now the dominant feature of our own environment. Human beings, large terrestrial metazoans, fired by energy from microbial symbionts lodged in their cells, instructed by tapes of nucleic acid stretching back to the earliest live membranes, informed by neurons essentially the same as all the other neurons on earth, sharing structures with mastodons and lichens, living off the sun, are now in charge, running the place, for better or worse.

Or is it really this way? It could be, you know, just the other way round. Perhaps we are the invaded ones, the subjugated, used.

Certain animals in the sea live by becoming part animal, part plant. They engulf algae, which then establish themselves as complex plant tissues, essential for the life of the whole company. I suppose the giant clam, if he had more of a mind, would have moments of dismay on seeing what he has done to the plant world, incorporating so much of it, enslaving green cells, living off the photosynthesis. But the plant cells would take a different view of it, having captured the clam on the most satisfactory of terms, including the small lenses in his tissues that focus sunlight for their benefit; perhaps algae have bad moments about what they may collectively be doing to the world of clams.

With luck, our own situation might be similar, on a larger scale. This might turn out to be a special phase in the morphogenesis of the earth when it is necessary to have something like us, for a time anyway, to fetch and carry energy, look after new symbiotic arrangements, store up information for some future season, do a certain amount of ornamenting, maybe even carry seeds around the solar system. That kind of thing. Handyman for the earth.

I would much prefer this useful role, if I had any say, to the essentially unearthy creature we seem otherwise on the way to becoming. It would mean making some quite fundamental changes in our attitudes toward each other, if we were really to think of ourselves as indispensable elements of nature. We would surely become the environment to worry about the most. We would discover, in ourselves, the sources of wonderment and delight that we have discerned in all other manifestations of nature. Who knows, we might even acknowledge the fragility and vulnerability that always accompany high specialization in biology, and movements might start up for the protection of ourselves as a valuable, endangered species. We couldn't lose.

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### Exploring the Text

1. What is Lewis Thomas's complaint in the first paragraph? What does he find "disquieting"? Do you see evidence today of the trend that Thomas bemoans? Do you find it disquieting, or do you have a different perspective? Explain your response.
2. The first "Earth Day" celebration was on April 22, 1970, and it became international in 1990. Considering the increased environmental awareness we have experienced since the 1970s, have we achieved the "revolution for human thought" (para. 2) that Thomas mentions?
3. What is Thomas's attitude toward the preference he alludes to in paragraph 6?
4. Why does Thomas regard the recognition that we are masters as a "despairing prospect" (para. 9)?
5. How many times does Thomas use the pronoun "we"? What is its effect?