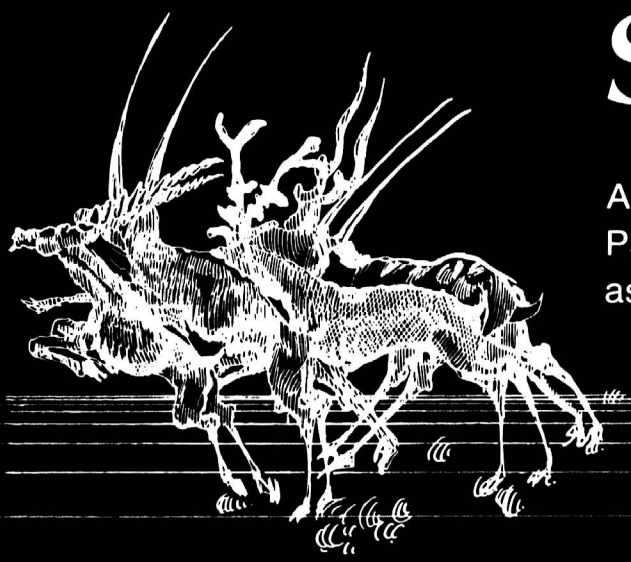
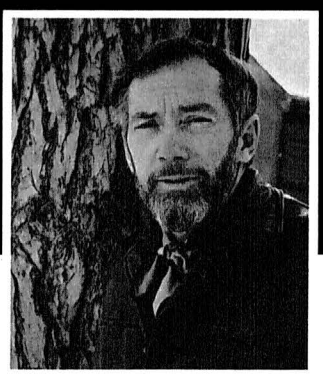
The Tender Carnivore and the Sacred Game

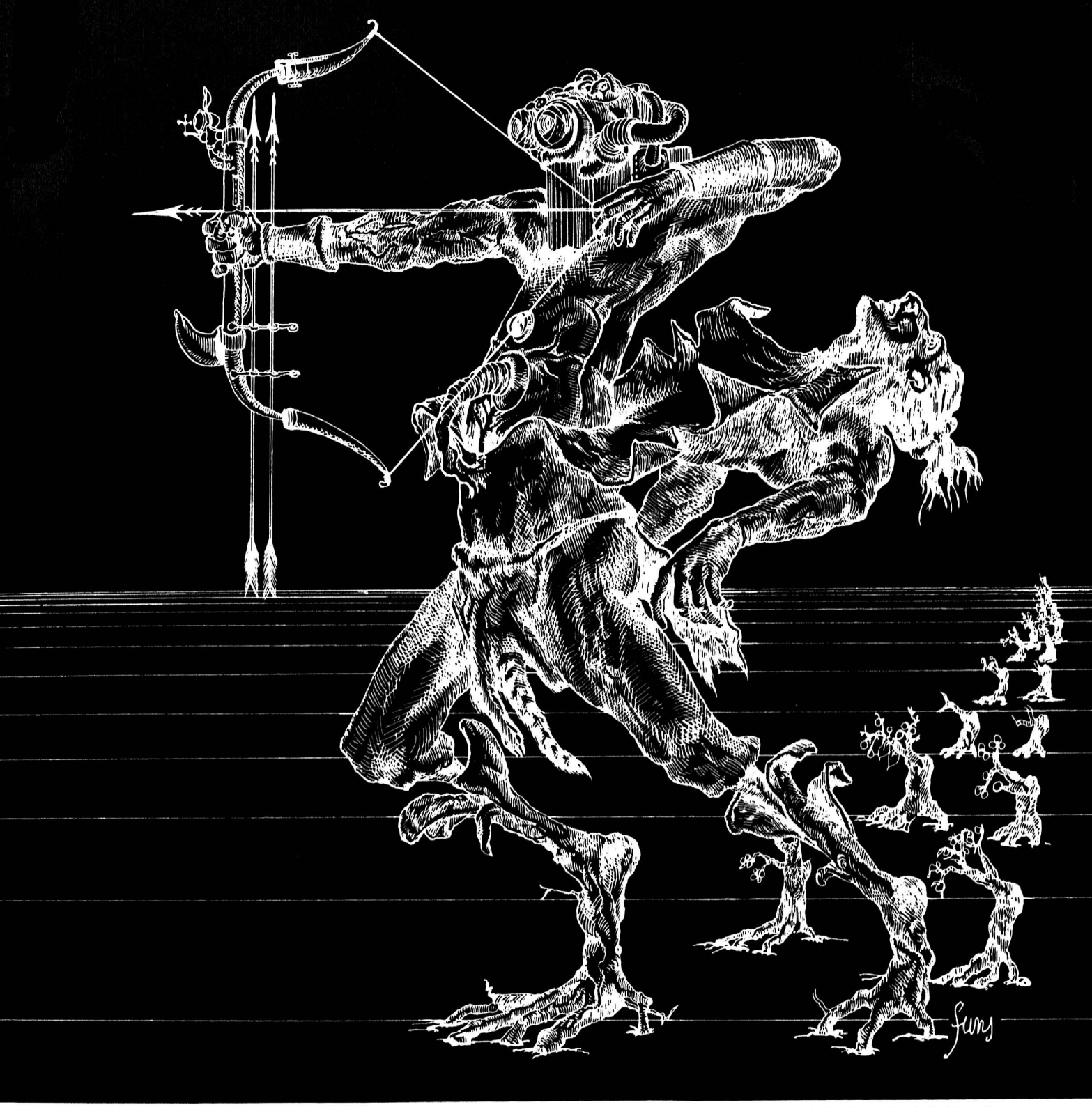


A provocative new book by alumnus Paul Shepard examines our Stone Age past as a key to man's future survival.



Paul Shepard

AGRICULTURE should be abandoned as a disease on the earth," says Dr. Paul Shepard, Avery Professor of Natural Philosophy and Human Ecology at Pitzer College and Claremont (California) Graduate School. Even to an angry consumer, faced with rising food prices, that statement seems somewhat drastic. But, according to Shepard, many of man's problems began when our cave-dwelling ancestors laid down the spear for the plow. "Man is biologically and phychologically still a hunter," Shepard says, "But, he has been isolated from his natural past by 10,000 years of agriculture." The problems of today's society, overpopulation, ecological impoverishment and even the modern-day identity crisis, cannot be solved with science or more technology, he ex-

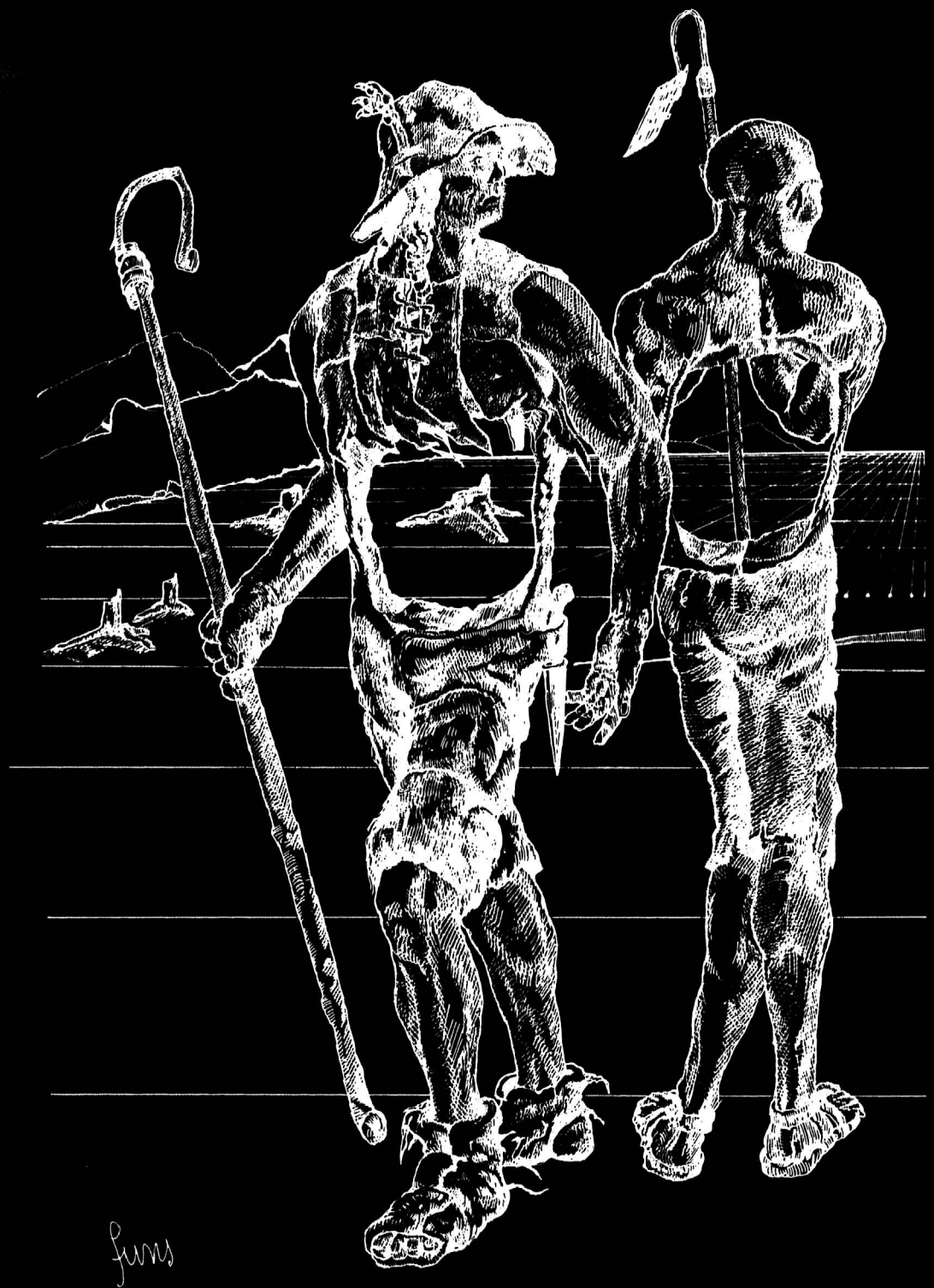


Illustrations by Fons van Woerkom. From the book, *The Tender Carnivore and the Sacred Game*, by Paul Shepard, published by Scribners.

plained as we sat in the living room of his summer home, an 1810 farm house in Ashfield, Massachusetts. "We must reshape our image of man, do away with agriculture and recover our 'heritage' state as hunter-gatherers."

Shepard's interest in man's relation to nature dates back to his undergraduate days at the University of Missouri—Columbia, when he studied under the late Rudolph Bennitt. Bennitt, a Rucker Professor of Zoology, was the first person to teach conservation at the University.

"He was ahead of his time," Shepard says. "When most professionals were thinking of conservation in terms of science alone, Bennitt saw it as man's interaction with his environment. We've had enough ecological data to guide the redirection of society toward environmental harmony for more than 30 years. But, we've missed the central spark of ecology, its humanness. We put the environment 'out there,' external to man.



"The biggest myth in human history is that the development of agriculture improved man's well-being."

"For the past ten years, I've been reading books on anthropology, psychology and the evolution of man in an attempt to learn how man, as a species, relates to his environment. What I've found is that ever since the advent of agriculture, society has been caught up in an ego trip. Even the lyrics to a popular song claim 'It's getting better all the time.' Man thinks he has infinite capabilities, that he can accomplish anything he sets his mind to. He won't accept the idea that he is limited by his genetic endowment and obligated to his environment."

The total existence of man takes in at least 300,000 years. When considering a time period such as that, the emphasis on change, growth, progress and the machinery of civilization seems relatively recent and to some extent unimportant, Shepard says. Agriculture is, at most, only 10,000 years old. That is not a unit of time in which man, as a species, could have changed in any great degree. To talk about profound and deep human traits that have grown up out of our agricultural past is illusory.

The peak of cerebral perfection was probably reached more than 50,000 years ago. Shepard explains. Prehistoric man was not intellectually impoverished, as Western culture has so long believed. "One group of hunter-gatherers, the Aleutian Islanders, have been found to be excellent comparative anatomists and physicians. They are careful dissectors, keenly interested in the differences they find in spleens, hearts, gonads, stomachs and lungs. There also is a group of Columbian Indians that knows 200 species of a single genus of plants by sight, name, and medical, nutritive, ecological, utilitarian and symbolic use.

"During the Second World War, when the Allies established air bases in Alaska and Northern Canada, they employed Eskimos, many of whom had until then lived essentially Paleolithic lives. The Eskimos developed into excellent mechanics, taking apart airplane engines, diagnosing, repairing and reassembling them with astonishing speed. Their hand dexterity was superior to that of farm boys or city men."

IN ADDITION to his intelligence, Shepard believes cynegetic man was just as creative as modern man. "In 1969 on a tour of Europe and Africa, my son and I spent a day studying the Lascaux Cave paintings in France. The next day we went to Rome to see the Sistine Chapel. The two art forms are at least 20,000 years apart, but, in comparing them, we found the cave art just as awe-inspiring as Michelangelo's ceiling."

Shepard and his wife June, a geneticist engaged in cancer research, share environmental and ZPG convictions, but they admit to being parents of seven children – three, Kent, Margaret and Jane, by his former marriage, and four, Stephanie, Tom, Janet and Jon, by his wife's previous marriage. They also have a dog named Puppy and at the time of this interview, a baby starling, which periodically interrupted the questions and answers with loud vocal demands to be fed.

In comparing hunter-gatherers with Twentieth Century man, one difference that seems readily apparent is that cave men did not have our inventions, our machines. But, Shepard has an answer for that, too. Pre-men were using tools while their brains were the size of gorilla brains. Man did not discover the art of toolmaking; he inherited it, he says. "In view of the enormous numbers of people who have lived in the Twentieth Century, compared to the small populations of the past, if the numbers of inventions were tallied in terms of the number of man-years lived, the rate of technological change may not have changed in more than 300,000 years. For example, if a tool change is made once in every 10 million man-years, it would constitute a rate of change of one tool every 20 years in a population of 500,000 hunter-gatherers, but 350 changes a year in our present world population.

"I'm sure a lot of people will object to my ideas," Shepard says. "There is no way of proving most of them, and if I were a card-carrying anthropologist, I would probably be thrown out of the union. But, because of my background, I'm freed from the restraints of the discipline, and I can examine these ideas from a different perspective."

Shepard's background, in addition to an AB in wildlife management from MU, includes an MA and PhD in interdisciplinary studies in ecology, art and history at Yale University. While a professor of biology at Knox college, from 1954 until 1964, he directed the college field station, initiated its prairie restoration project, and undertook research in the social behavior of birds with grants from the National Institute of Health and National Science Foundation. He also has taught at Smith and Dart-

mouth colleges, and is the author of *Man In The Landscape* and joint editor of the *Subversive Science*.

A bearded, quiet-spoken man, Shepard has been referred to as a noted naturalist, a scholar-teacher, and more poet than scientist, but he likes to think of himself as an Ozarkian. "I was born in Kansas City, but I grew up on a farm in Mountain Grove, Missouri, where my father was the director of the state fruit experiment station." His father, the late Paul Howe Shepard, was also a graduate of MU and a member of the football team in 1912, '13 and '14.

With a farm boy background, how did he wind up so anti-agriculture? "I didn't set out to destroy agriculture," Shepard says. "But, I honestly believe it is one source of the problems of modern society. With the development of agriculture there was a shift in man's sense of his place in nature. He began to presume that he owned the world and the creatures in it. Man began to war as soon as he took ownership of land. Populations increased rapidly. Agriculture also created the urban crisis. For whom was food mass produced and stored if not for the town?"

BUT the ecological crisis is by far the worst result of agriculture, Shepard says. "Animals became crude pawns in the farmer's domestic breeding game, shorn of the finesse and detail of their wild cousins. Herds of cattle literally munched their way across Persia, Arabia, Morocco and Ethiopia replacing forests with deserts."

The historical record of agriculture everywhere is that of a blind force extending sand dunes and other wind damage by excavation and burial, not to mention lowering water tables and increasing flooding, he says. The land misuse of past years also has set a precedent for the machine age. "Scalping with the bulldozer succeeded gleaning with the goat, while polluting the air with fumes is much the same as the Sumerians polluting the water with silt."

A chain saw stopped its whirring, as the men who had been stripping the timber from a neighbor's land across the road from Shepard's home went to lunch, and the quiet and solitude of the New England countryside seemed to close in around us.

"I do admit that the pleasures of quiet and fresh air are found in the country," he says. "That is why people escape the city and spend weekends in rural areas. Farms are said to be good places for children to grow up. But, that is in spite of agriculture. It is the wildflowers the children remember, not the corn. Also, the solitude, clean air and water have not been made by agriculture; they are properties of the natural earth.

"Today, we are on the threshold of a green revolution of intensified land use and super agriculture," Shepard says. The destruction of soils and forests has been ignored because the harvest has been increasing. "We boast that American agriculture is the most efficient in the world." But, the tools that keep the crops greening are massive doses of fertilizer that have leached through the soil to poison underground water and pollute reservoirs and lakes, he adds.

"The agronomists train the industrial farmer to sacrifice everything for crop productivity: fencerows, natural soil, trees, wildflowers, small mammals, insects, birds and natural brooks," he says. The harvest may be bountiful, but Shepard believes the quality is decreasing. "Vegetables grown under irrigation are notoriously tasteless. Where fowl are kept in highly artificial pens, egg quality is down by the industry's own standard. Soon, no animals will have a life as it is ordinarily thought of in the image of the barnyard community. Their experience will be limited to slings or scaffolds in closed chambers, punctuated by the drone of machines that castrate, inseminate, vaccinate, medicate and end with the needle, gas jet or knife."

Agriculture has altered man's environment. But, post-industrial man still has much in common with his hunter-gathering past, Shepard says. "Modern man and the Stone Age hunter are both highly mobile, non-territorial, non-soil working, much leisured and small familied. Hopefully by the Twenty-first Century, man might recover some of the principles of early cynegetic man and thus recover a liveable environment."

The first step, as Shepard sees it, is to get rid of traditional agriculture and shift to microbiological farming. Microbes can make up all the amino acids and most of the vitamins essential to human health, he says. "Some types of yeast can produce one ton of pure protein from each two tons of petroleum on which they are grown. At this rate, the oil now used to operate farm machinery would feed more people than the farms now feed." Food technology based

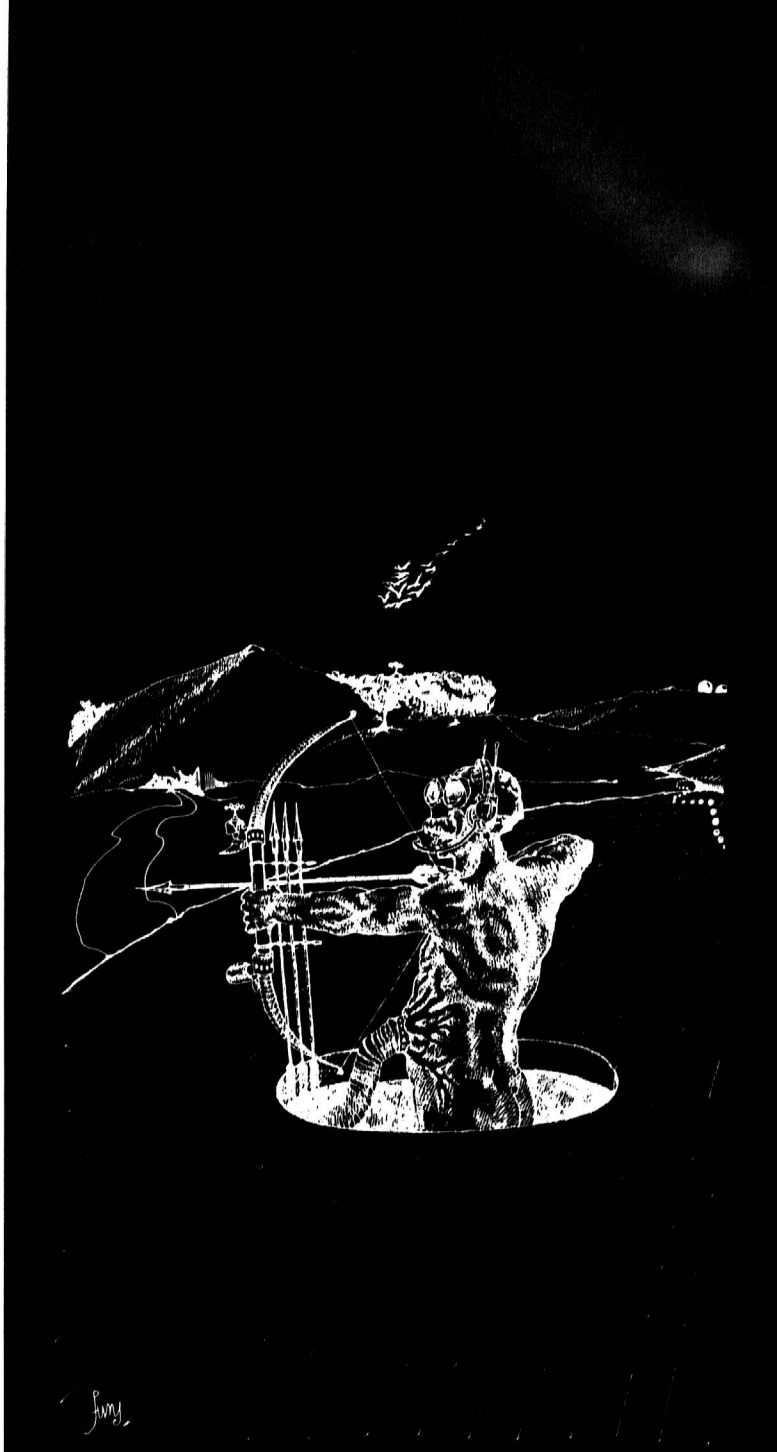
on microbial life would not mean a shelf of bad tasting pills, food bars or medicines either, Shepard says. There would be a wide range of food which could resemble familiar fruits and vegetables. By lifting the biological burden of agriculture from the land, we could recover a liveable planet.

In Shepard's "World of Tomorrow," he would also require the freeing of domestic animals. "When children or adults make substitute people out of their pets, they put demands on them that far exceed the animals' capabilities," he says. Man does have an inborn need to associate with animals in nature. But Shepard feels that when pets, animal movies or zoos serve as crude substitutes for this need, we are less concerned for the survival of wild creatures which are allowed to slip into extinction.

CITIES of the future should have populations of no more than 50,000 and be strung in a narrow ribbon five miles wide around the perimeters of the earth's continents and islands, Shepard says. "If the city would go deep underground and high into the sky, the residential, office, industrial and business areas could easily be concentrated within a square mile. Residences, located on the periphery, would be adjacent to family gardens and spacious parks. Inter and inner city transportation could be simplified by such a broken line of human settlement around the continent.

The interiors would then be freed for ecological and evolutionary systems and allotted to hunting and wildlife preserves. The educational system also would be revamped with children being sent into the wilderness with teachers to collect and study plants and animals, Shepard says. Between the ages of six and 12 they would concentrate mainly on natural history, anatomy, biology, geology, soils, geography and certain social sciences. Abstract sciences, such as math, chemistry and physics should be postponed till age 20, he says.

It's hard to imagine Shepard's vision of the future coming true—even though drastic times often call for drastic solutions. But the ideas and arguments he sets forth in his latest book, *The Tender Carnivore and the Sacred Game*, are in the least interesting and at the most convincing. The book, published by Scribners, this past May, has been widely reviewed and as one critic said, "is as much fun as a barrel of Naked Apes." **—By Sue Hale** □



Shepard's vision of the future includes the creation of a society combining sophisticated technology with hunting and gathering.