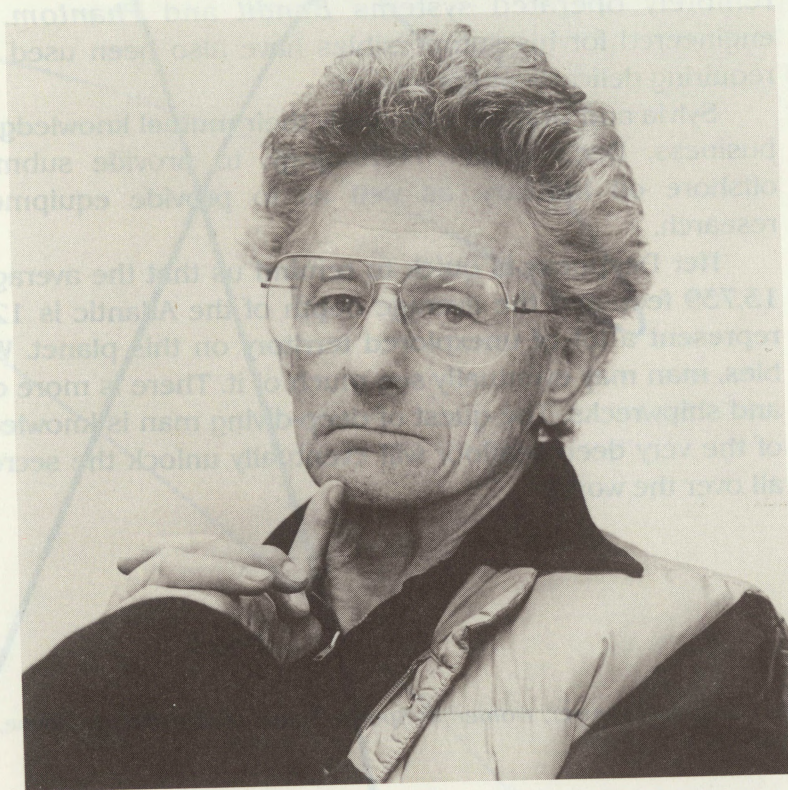


Chapter 15



John Lilly

John Lilly: Searching the Unsearchable

*Imagination,
not invention,
is the supreme master
of art as of life.*

— Joseph Conrad

Within the next decade or two the human species will establish communication with another species: nonhuman, alien, possibly extraterrestrial, more probably marine; but definitely highly intelligent, perhaps even intellectual. An optimistic prediction, I admit.¹

So John C. Lilly predicted in 1960 in his preface to *Man and Dolphin*. The book outlines his revolutionary experiments in talking with dolphins at his Communication Research Institute in St. Thomas, U.S. Virgin Islands.

In 1959 Dr. Lilly and his scientific team created an underwater environment complete with hydrophones and underwater loudspeakers so that man and dolphin could speak to each other. This was not the work of a Frankenstein gone mad, but the outgrowth of Lilly's many years of serious medical research on the human brain. A graduate of Caltech and the University of Pennsylvania Medical School, Lilly was, by 1949, involved in the probing of the human mind. He had studied at the National Institute of Mental Health as a United States Public Health Service Officer. (The institute later provided him with a five-year Career Award providing financial support for his dolphin research in St. Thomas.) Lilly's revolutionary concept of interspecies communication inspired the popular movie, *Day of the Dolphin*, based on his research experiences at the Virgin Islands laboratory.

This project is not the only unusual product of Lilly's unique mind. In 1954 he began a series of experiments on human isolation from all senses—sight, sound, hearing and feeling. He created the "isolation tank", in which a person could float in the darkness and silence of a closed capsule filled with body temperature water. With no light to see or sounds to hear, with body and water

temperature equal, a person could "be nowhere else but in his own mind," Lilly said. This work, outlined in his books, *Programming and Metaprogramming in the Human Biocomputer* and *The Center of the Cyclone*, inspired the motion picture, *Altered States*.

Lilly's controversial experiments have been frowned upon by more serious scientists, who believe that scientific research should remain far apart from flights of the imagination. However, Lilly's unusual projects have inspired two major movies, and this may be an indication of how the public loves to dream. Lilly is right on the edge between the sane and ridiculous, but perhaps this is an edge every innovative thinker has tiptoed upon. Those who go out on a limb, like Columbus, tend to discover new worlds. Even if Lilly is not considered a "scientist" in the pure sense of the word, he is an imaginative explorer. The complicated labyrinths of a researcher's own imagination can provide plenty of adventure.

In 1984 I was assigned to interview Lilly for the *Santa Barbara News-Press*. I was curious to meet the man who had written the many books I'd read following the *Maravilla* expedition in 1972. That summer, as we searched the Little Bahama Bank for the Spanish galleon that had sunk in 1656, we occasionally stopped to swim with the playful dolphins. To write a story about my experiences, I ran into Lilly's work.

At the National Institute of Mental Health, Lilly had discovered a number of dolphin traits that indicated their high intelligence, including their love of play and need of sleep ("cat naps" at the surface). Lilly also noticed the dolphins' uncanny instinct about protecting each other, pointing out that a sick dolphin must be attended 24 hours a day and that one dolphin will perform this duty for another until the sick one recovers. The recovery period can range from several days to weeks, and the faithful dolphin stands by the whole time.

Dolphins and porpoises comprise the family Delphinidae. There are minor physiological differences between the two: the dolphin has a long, snoutlike beak and sharp teeth; the porpoise has spade-shaped teeth and no beak. The physiological differences are minor. Most people, and some scientists, refer to them both as porpoises.

Dolphins and porpoises belong to the scientific order *Cetacea*, which includes the whales. Cetaceans are not fish, but warm-blooded mammals that bear their young alive and nurse them after they are born. While they live completely independent of land, unlike seals and sea lions, they need air to live. A dolphin needs to breathe, on the average, every thirty seconds.

Cetaceans are sometimes called "reentrants" because millions of years ago, they once lived on land. Scientists point to their terrestrial body plan; an X-ray of the flipper of the dolphin would show the bone of a hand, forearm, wrist, fingers

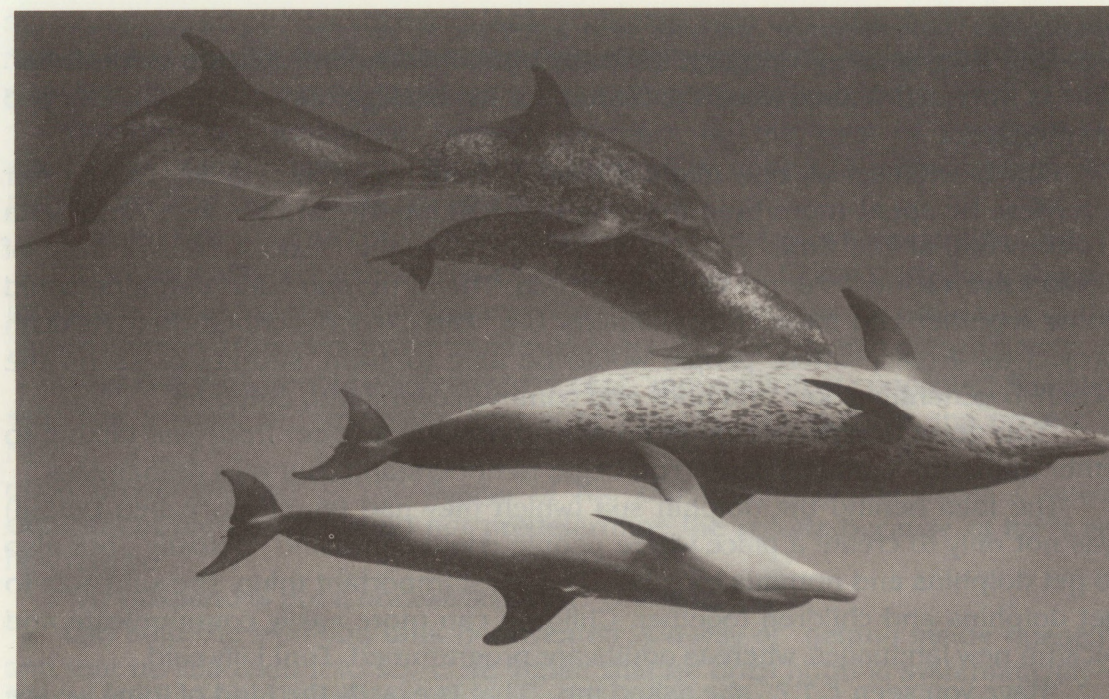


Photo by Dick Anderson

Dolphins are intelligent, as well as very social creatures.

and upper arm. The nose has moved to the top of the head to form the blowhole. With this, the dolphin can breathe without lifting its head from the water.

The dolphin has a sonar so highly developed that it outclasses anything created by our highest technologies. The best of sonars available to humans, in use by the U.S. Navy, can only indicate an object in the distance. Whether it is a whale or a submarine often cannot be distinguished. The dolphin, on the other hand, can discern not only whether the thing is a whale or submarine, but it can tell what kind of metal it is (if it's a submarine), or whether it is dead or alive (if it's a whale). The sonar of the dolphin tells the animal the size, direction, distance, shape, density, movement and texture of the object in question.

There is a peculiar awareness within porpoises of the intelligence of man, which is one purported reason that porpoises adapt so readily in captivity. Dolphins have been known to exhibit excessive faithfulness toward their trainers, sometimes returning to them even when set free in the open ocean.

The Greeks called dolphins *Hieros ichthys*, the "sacred fish." Throughout time dolphins have been respected, admired and worshiped as intelligent brothers of the sea. Troubled mariners on rough waters always regarded their appearance as a good sign—an indication of safety. The animals have often been

fantasized or idealized to have extraterrestrial connections—so intelligent, some say, that they speak a language we puny humans cannot duplicate or decipher. This is where Lilly considered the matter, for his background was heavily steeped in mind work.

Lilly is intense, as one might expect a mind-researcher to be. During our interview, he spent more time thinking than talking. He and his wife, Antoinetta (Toni), were, at the time, building a spa in the sunny Mexican coastal town of Costa Careyes, near Puerto Vallarta, Mexico. There, humans and dolphins could come together and interact in a shallow bay. The Lillys described their Mexican project as a place where people would be able to swim, snorkel or sit on the beach, regenerating soul and body and communicating with dolphins.

"You get a perspective on awareness that you can't get from just talking to other humans," Toni Lilly said. "You begin to understand your own humanness."

The idea behind the dolphin spa (which they had tentatively called Delphi) was not only to create a place where people could come and "detoxify", but also to get dolphins and humans together. The most important thing, she said, was to get dolphins and children together. Children can more easily communicate and pick up new languages, whereas adults are programmed, Toni Lilly said.

"Have you seen *E.T.*?" she asked me. "That is exactly the kind of thing we are talking about."

The idea of the Costa Careyes project was that dolphins could swim into the cove freely, mingle with the humans and even participate in underwater birthing. Dolphins could participate in the birthing process, Lilly said, a procedure not unusual for a highly intelligent animal known to help mankind in trouble at sea. He felt that the best time for interspecies communication between man and dolphin was at the moment of birth, or at least when a child is very young. After that, the limitations of adulthood enter in.

Lilly, whose work has resulted in dozens of scientific papers and books (his books include *Man and Dolphin*, *The Dolphin in History*, and *The Mind of the Dolphin*), said he believes that when man communicates successfully with these mammals, he learns something about his own origins.

Working with Elvar the dolphin, Lilly reported that within several weeks after the dolphin first heard human voices, the animal's vocalization became "less delphinese and to break up into more humanoid, wordlike, explosive bursts of Donald Duckish quacking."

Through all of the experiments Lilly maintained that the important thing was not so much that dolphins should speak like humans—but that humans should accept the idea that highly intelligent species may be able to communicate through a language far more sophisticated than words.

In the movie, *Day of the Dolphin*, the animals actually said things like "Mama" and "Papa". I asked Lilly if this was at all realistic. The movie, he said, was not indicative of how dolphins behave and, in fact, "downgraded" them.

Dolphin communication, he said, is more on the level of telepathy, an expression of inner feelings. "The talk is more of an appeal to pain or happiness, more body language," said Lilly. "It's psychic."

I asked Lilly what he considered the most exciting day of his scientific work.

"It was the day when I realized Elvar was a human," he said. "It was a sudden intuitional flash, a feeling of weirdness. There was a being on the other side of the (Jenus) screen. He was reacting toward us as hard as we reached toward him."

Toni Lilly said people are ready to accept "more spiritual concepts." She also said that science can follow the lead of philosophy. The dolphin spa project in Mexico would have a significant impact on science, she said. Where science is often predetermined by the design of the experiment, in the Costa Careyes experiment the design would not predetermine the results because of its "free-flow nature".

"My husband is not a normal scientist," she said.

Lilly said the isolation tank he invented is a way of "getting inside oneself" and that he still used it to relax. He added that he does nothing systematically—"in food, sleep, you name it."

At the time of our interview, he was working on another book, *From Here to Allternity*. "It's a manual on how to amuse God," Lilly said. "The theme? In any given instant, you have all possibilities open to you—including communications with dolphins. You must keep these possibilities open."

Endless possibility and imagination are the themes of all Lilly's ideas, which can unite artistic thinking with science. Art, he said, is one way of communicating—the sort of inner talk dolphins engage in.

"Art is always in the forefront of science," Lilly said. "Art is the vision of things to come."

Notes

1. John Lilly, *Man & Dolphin* (Doubleday & Co., Inc.: New York, 1972), p. 19.

Suggested Reading

- John Lilly, *Man & Dolphin* (Doubleday & Co., Inc.: New York, 1961).
 John Lilly, *Programming & Metaprogramming in the Human Biocomputer* (Julian Press, Inc.: Crown Publishers, New York, 1972).
 John Lilly, *Center of the Cyclone* (Julian Press, Inc., Crown Publishers: New York, 1972).
 John Lilly, *The Dolphin in History* (University of California Press: Berkeley, 1963).
 John Lilly, *The Mind of the Dolphin: A Non-human Intelligence* (Doubleday: New York, 1967).