



The Sag Harbor Express.



A Vision Of Invisible Life

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By Richard Gambino

In 1633, John Donne asked each person if he or she was “born to strange sights, Things invisible to see.” I can’t say I was so born, but this month I was not only reminded of things invisible to see, but saw a great vision of many of them. Living things. No, I don’t mean ghosts or other supernatural things. To the total contrary, I mean completely natural invisible entities. What I saw was a large floor-to-ceiling high representation of the universe of microscopic life all around us, and in fact inside us too. We know this universe to consist of astronomically huge varieties, in individual numbers so great as to be as impossible to imagine. In fact, a note at the exhibit told us that there are ten times the number of living single cell organisms on and in each of our human bodies as there of all the human cells in each of us. The number of cells inside each of us is calculated to be some ten trillion. So each of us has about one hundred trillion of microbial organisms living on and in us. (One trillion = one million million.)

More, these incredibly vast numbers of living biological types and the individual entities on and in us are absolutely essential to our lives. If all, or even certain varieties or numbers of them, were suddenly to wither and die, each of us would die soon after them. The very same is true of all animals and plants we gaze at on earth. They too are vitally dependent on microorganisms on and in them. The scientific reality is that all life, visible and invisible, is vitally interdependent.

I saw the representation of the huge universe of micro biotic life on our earth not on a TV science program, in a science class or science museum; but in the Parrish Art Museum in Water Mill.

At the Parrish was a sculpture of two interconnected rectangular columns. Each column and the interconnections between them supported sculptures of micro biotic life. Each of the sculptures, some smaller and some larger, was an imaginative depiction based on how micro biotic life appears via electron microscopes. And they were made from different materials, including paper and ceramics. For example, one of the larger representations, about two and half feet in size, was of a mass of microscopic algae. The exhibit told us that single cell algae diatoms “form the base of the food chain that almost all life is reliant on.”

In particular, I was struck with the fantastic story of microscopic algae called volvox chlorophyte. The tiny units of it live in colonies of up to 100,000, each “connected to each other by thin strands that enable the whole colony to swim in a coordinated way.”

Still more astonishing, individuals in each colony, about the size of a poppy seed, have “eye spots” at one end, and the entire colony uses them to swim as a unit towards light. So the entire colony “functions very much like a multicellular organism.” The exhibit told us to look for such colonies in a clean pond in summer swimming toward light.

Also imaginatively portrayed were probiotic, or beneficial, bacteria called bifidobacteria. They live in astronomical numbers in our digestive systems, and are indispensably essential to our digesting food. “They also,” I learned from the exhibit, “boost our immune systems and inhibit the growth of e-coli and other harmful bacteria.

Bifidobacteria can be found in yogurt.” And, remarkably, the exhibit at the Parrish Museum was imagined and constructed by children. At the Hayground School.

RICHARD GAMBINO is forever amazed at, one, how interconnected is all life on earth, and, two, how great is the learning capacity of children.