

Got Water?
Honoring the Four Elements
Part I

by
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Today the periodic table lists 118 different chemical elements, 92 of which are found naturally on Earth, and the rest of which have been synthesized in particle accelerators. When the first periodic tables were created in the 19th century, scientists knew of only 60 elements, and more than 2000 years ago Aristotle suggested there were but four main elements; *earth, air, fire, and water*. Obviously the more we learn about our Universe the more complex it appears. Although, as the 16th century Spanish mystic, Diego de Estella, said, “a dwarf standing on the shoulders of a giant may see farther than the giant himself,” we must acknowledge the great discoveries of those giants who carry us forward, just as we must be grateful for their surefootedness and the solid ground beneath their feet.

Based on the four elements, for example, ancient Greek doctors believed there were four kinds of people, *dry, moist, cold, and warm*. Nowadays none of us would want to go to a doctor whose medical knowledge was limited to such a simple and archaic view. But just because we have more knowledge of some things than our ancestors did, doesn't mean they were completely wrong. Their knowledge of the world wasn't as complete as ours might be, but ours is not as complete as we expect our descendents' will be in the future. We may have identified nearly 120 elements, and may not refer to any of them as earth, air, fire, or water, but the truth today remains the same as it did 2000 years ago; there are four elements—carbon, oxygen, sulfur, and nitrogen—with characteristics very much like earth, air, fire, and water, that, once combined with hydrogen, the first cosmic element, form methane, water, hydrogen sulfide, and ammonia, which are, in fact, the fundamental chemicals of all life. As Lynn Margulis and Dorion Sagan write, “These gases, rearranged and recombined into long-chained compounds, make practically every component of our bodies.”¹ So our ancestors weren't mistaken about the four elements, they just understood them less than we are able today, having expanded our knowledge of chemistry based on the foundation they gave us.

Like all spiritual traditions, it is important that we honor our ancestors by remembering the gifts they have given us and the trials they endured so future generations could be born. It is with such respect in mind that I am embarking upon a four part series of sermons based upon the four elements, beginning today, with *water*. Although it is, as far as we know, essential to all forms of life, most of us don't think about water until we need it, when we're thirsty, or when there's a drought, or wildfires that need to be quenched. Water is something most of us take for granted, which shouldn't be surprising given that it's all around us. As a philosopher once pointed out, it would be difficult to

teach a fish to drink. We spend the first 9 months of our lives immersed in water, and the rest of our lives dependent upon it. 71 percent of the Earth's surface is water. This is an interesting number considering that about 70 percent of our own bodies is also composed of water. Muscle is about 75 percent water, and fat and bone are 50 percent water. In a very real sense, we are living water vessels. Even our blood, sweat, and tears, as many of you may know, have the same salt consistency as the ocean. Again, as Margulis and Sagan explain, "The richness of hydrogen is in our bodies still—we contain more hydrogen atoms than any other kind—primarily in water. Our bodies of hydrogen mirror a universe of hydrogen."² And even though, like fish, we may not usually be aware of all the water around us, it's always present within our bodies and without—in the air we breathe. 0.001 percent of the water on our planet exists in the form of vapor and clouds.

Perhaps the most amazing thing about water, however, is that the nearly 1500 teratonnes (a terratonne being 10 tons to the 12th power) of it that now exists on Earth is the same water, and the same amount of water, that has always existed on Earth. Water is like energy, it may change forms, but it can't ever really be destroyed. It continues to recycle itself, in saltwater oceans and freshwater streams, in the moist mother Earth, in clouds and rain, in the bodies of plants and animals, including our own, but it is an ancient element the Earth vessel has held for nearly 5000 million years. Water is at once our ancestor, our contemporary, and our offspring.

But its seeming immortality and innate ability to purify itself and all things should not mislead us into taking it for granted, no matter how abundant and eternal it seems. From a planetary perspective we're impossibly fortunate that water is mostly in liquid form. Although we know it exists elsewhere in the Universe, and much of our own water originally traveled here aboard frozen asteroids, its fluid state, a prerequisite for life, seems rare, at least within our own solar system. This is so because the Earth is just close enough to the Sun to keep its elements fluid and moving, but not so close as to have them all blown back into space, and not so far that everything is frozen solid. The liquid on Mercury, for instance, has long ago evaporated into space, and on Jupiter it is locked solid in the form of ice. True there's lots of water on Earth, not too hot, not too cold, but we must be careful not to make the same mistake as Baby Bear who finds it just right and carelessly uses it all up!

Although, as we have seen, it would be impossible to use it all up, since the actual amount of water on Earth is unchanging, it is possible to alter its form so dramatically that the delicate balance required to sustain life becomes upset and water retreats into places we cannot follow. Perhaps we'll pollute it so badly that it becomes completely unsafe to drink. Or, if we continue to destroy our forests, especially our rainforests, we will continue changing the water cycle and end up with more of the drought like conditions that are increasingly plaguing our world. Just try feeding 6 billion people without rain!

Although, as noted, 71 percent of the Earth's surface is water, 97 percent of it is salty, making it toxic to terrestrial beings. And because most of the fresh water on Earth is locked away in glaciers and ice sheets too deep to reach, only 0.0001 percent of fresh water is readily accessible.³ Despite its scarcity, however, the industrialized world continues to take this most vital resource for granted. According to Soil and Water Specialists with the University of California Agricultural Extension Department, for example, it takes more than 5200 gallons of water to produce one pound of California beef.⁴ This means you could practically conserve more water by not eating a single hamburger than you can by not showering all winter! These same specialists also estimate that it takes more than 1600 gallons to produce a pound of pork, and over 800 gallons to produce a pound of chicken, as compared to only 49 gallons of water to produce a pound of apples, and 23 gallons for a pound of lettuce or tomatoes. In fact, according to *Audubon Magazine*, "Nearly half the water consumed in this country is used for livestock, mostly cattle."⁵

This is a real concern when we consider that the Ogallala, one of the largest bodies of fresh water on Earth, stretching from South Dakota to Texas, which had remained virtually unaffected by human usage until the recent advent of factory farming and feedlot beef, is today being depleted to the tune of 13 trillion gallons of water annually, the majority of which is being used to grow grain for beef production—more than is used to grow all the fruits and vegetables in the entire country.⁶ According to a 1981 *Newsweek* article, "The Browning of America," "The amount of water that goes into a 1,000 pound steer would float a (Naval) destroyer."⁷ This is very bad considering that, as an underground fossil aquifer left over from a melted Ice Age glacier, rains and streams don't replenish the Ogallala. Once it's used up, it's gone forever. Nevertheless, as John Robbins explains, "the Ogallala's water tables are dropping precipitously, and some wells are going dry. In northwest Texas, by the early 1990's, one-quarter of the Texas share of the aquifer had been depleted. By then more than a third of the land in Texas that had been irrigated in the 1970's had lost its water, and had become parched and unable to grow food. Without water, these once fertile farmlands will be deserts forever."⁸

Nowadays, even as we concern ourselves with peak oil consumption and oil wars, global water shortage is also becoming a major cause of conflict. During a 1994 lecture presented at the Geneva Conference on the Environment and Quality of Life, British journalist, Adel Darwish warned, "Water is taking over from oil as the likeliest cause of conflict in the Middle East." According to Vandana Shiva's *Water Wars*, "The water crisis is the most pervasive, most severe, and most invisible dimension of the ecological devastation on earth."⁹ In her country of India, named after the great Indus River, the average water availability dropped from 3,450 cubic meters to 1,250 cubic meters between the 1950's and the 1990's, and is expected to drop to 760 meters by the year 2050.¹⁰ This dramatic reduction in water is due largely to deforestation for India's paper industry, but the same thing is happening in others parts of the world, including the Amazonian rainforests, the lungs of the Earth, to provide more grazing land for

livestock. Forest systems naturally store water, and when they are gone we end up with deserts. Even so, the U.S. imports hundreds of millions of pounds of beef each year from Central American countries where two-thirds of the rainforests have been cleared to raise meat for U.S. consumers, equal to approximately 55-square-feet per hamburger.

Just a few years ago, in 2000, the people of Bolivia had to take on the Bechtel Corporation after it took over their water system and tripled their rates overnight. They took to the streets, marching, raising barricades, and burning their water bills, even though many were killed or imprisoned by the authorities. Fortunately for them, after two months of protests, Bechtel backed down from its evil attempt to control Bolivia's most vital resource, and the people, at least for now, have control of their own water again.

Currently, and closer to home, the townspeople of Barnstead, New Hampshire are also fighting for their right to control their own water. Corporate water minors, hoping to cash in on our \$10 billion dollar a year bottled water drinking habit, are descending on communities like Barnstead around the nation, and are siphoning thousands of gallons a day for profit, rapidly reducing local water tables and radically altering the environment in the process. The Barnstead residents are hoping they don't end up like the nearby towns of Barrington and Nottingham, which failed in their efforts to regain their water rights from rich and powerful Corporations the courts consider persons with more rights than actual people.

And, in case you haven't paid attention to the news lately, Atlanta, one of our nation's largest cities, is running out of drinking water because of drought. Meanwhile the Army Corp of Engineers, required by law, is rapidly depleting what little water is left for the people of Atlanta by pipelining it to Florida and Alabama, states also devastated by a decade of drought. Stay tuned, because, if we don't get our act together, water wars like these will become commonplace, and far too many of us, I fear, will be dismissed as collateral damage.

All of this should make us appreciate and conserve this fundamental element that, as some say of God, is "in us and all around us." Water is sacred. It is one of our most intimate friends. We are water. And, just as important as water is for drinking, the water-like qualities drenching our souls can enable us to live our lives in a more meaningful and profound way. Many spiritual traditions have made this association. The *Tao te Ching* tells us, "Nothing in the world is as soft and yielding as water. Yet for dissolving the hard and inflexible, nothing can surpass it."¹¹ This is similar to what Master Ueshiba, the founder of Aikido, the Way of Harmony, meant when he said, "If your opponent strikes with fire, counter with water, becoming completely fluid and free flowing. Water, by its very nature, never collides with or breaks against anything. On the contrary, it swallows any attack harmlessly." Water is a force to be reckoned with. And because we carry it in us, because we are mostly water, each of us also has this force within us, this

power to become fluid and unstoppable while remaining soft and yielding. Water, though subtle, represents our greatest strength. It is the gentle warrior spirit that flows through us, that pushes on, seeking justice and harmony, slowly creating new pathways, new paradigms over time, even though it must move through and across hard surfaces and unyielding terrains that don't wish to make way for the new. Yet water perseveres, even against such animosity, and eventually finds its way back to its own source. Water which cleanses us, refreshes us, and renews us, enables us also to return to our own divine origins, like Jesus, who, "coming up out of the water... saw the heavens torn apart and the Spirit descending like a dove on him. And a voice came from heaven, 'You are my Child, the Beloved; with you I am well pleased.'" ¹² Water is a way, the maker of all paths leading back to the Divine. It is a source of life, and a way of life. "Take away from me the noise of your songs; I will not listen to the melody of your harps," the prophet cries, "But let justice roll down like waters, and righteousness like an ever-flowing stream."¹³

¹ Margulis, Lynn, and Sagan, Dorion, *Microcosmos*, Summit Books, a division of Simon & Schuster, New York, NY, 1986, p. 42

² Ibid. p. 41

³ Suzuki, David, *The Sacred Balance: Rediscovering Our Place in Nature*, Vancouver, BC, Greystone Books, 1997, p. 66

⁴ Schulbach, Herb, et al., in *Soil and Water* 38 (Fall 1978)

⁵ *Audubon*, December, 1999

⁶ Robbins, John, *The Food Revolution*, Conari Press, Boston, MA, 2001. p. 238

⁷ "The Browning of America," *Newsweek*, February 22, 1981, p. 26

⁸ Ibid. p. 238f.

⁹ Shiva, Vandana, *Water Wars*, Pluto Press, London, 2002, p. 1.

¹⁰ Ibid. p. 2

¹¹ Mitchell, Stephen, *Tao te Ching*, Harper & Row, New York, NY, 1988, #78

¹² Mark 1:10-11

¹³ Amos 5:23-24