



# The Enlightenment



## A Secular Mini-Journal for Inquiring Minds

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### Water

*By Don Hatch*

If there were intelligent beings living on Mars with powerful telescopes observing our planet, they would be more inclined to call our home aqua, rather than earth. Why? Because seventy-one per cent of earth is covered with water, with only twenty-nine percent dry land. The picture of the Pacific Ocean shown at right illustrates the dominance of water on our planet.

One of the first things NASA scientists and engineers sending probes and exploratory vehicles to Mars look for is water, because water is a prerequisite for the existence of life. Yes, we would not be here without an abundance of water on earth. While humans might live for two to three weeks without food, they can live for only three to four days without water. And of course, we would not be here at all without water, because water was necessary all through the three and a half billion years of the evolution of all living organisms.



### Planet Earth or Aqua?

Looking around us, we observe water in rivers, lakes, oceans, clouds, and rain, but we seldom stop to realize there is hidden water practically everywhere. There is invisible water in arable soil, in plants, in animals, and in the air. Most plants are at least ninety percent water and humans are sixty percent water. The importance of rainfall for the growth of plants is obvious because much of our food comes from the harvesting of plants whether as grain, fruits, or vegetables. Furthermore, animals that supply our meat depend on plants for food as well as water itself for their metabolism. Then there are plants, fish, and various kinds of sea food that actually live in water.

And what about our sources of potable water? What percentage of the world's water is fresh, and what percentage is safely drinkable? Only 2.5 % of the world's water is classified as fresh water and only 1 % is

classified as drinkable without treatment. So, what does that tell us? It tells us we must be responsible stewards of this most precious of all our natural resources, for without clean water, we die.

Yes, only 2.5 % of the world's water can be classified as fresh water; the rest is saline. Much of the fresh water is tied up in glaciers, snowfields, and ground water (aquifers), with the rest being available in rivers and lakes. Ground water is obtainable from dug or drilled wells, and is usually drinkable, unless the wells have been contaminated by agricultural or industrial run-off. Water from rivers and lakes most often must be filtered and treated to be safely drinkable. And it must be mentioned that 11% of the world's population does not yet have access to an improved and safe water supply.

Therefore, it is more than obvious that fresh water, the most valuable resource on earth, must be preserved and protected from contamination, to the fullest extent possible. Existing sources of contamination must be cleaned up and possible new sources of pollution eliminated. Two dangerous contaminants are mercury and lead. In northern Ontario, 90% of Grassy Narrows First Nation residents suffer from mercury poisoning as a result of Dryden Chemicals Ltd. dumping mercury into the English-Wabigoon river system between 1962 and 1970. It has still not been cleaned up, although some financing has been allocated for this purpose. The case of the relatively recent lead poisoning in Flint Michigan's drinking water from a change in sourcing has been well documented in the news media. And higher than acceptable lead levels in drinking water have also been reported in various other municipalities due to continuing use of old lead water pipes, that must be replaced at considerable expense. In the meantime, the use of bottled water for drinking is necessary in these communities, which unfortunately increases the amount of indestructible plastic that hopefully will be recycled, rather than end up in landfill.

**And what about climate change?** Will climate change affect our supply of drinkable water? The answer seems to be yes. Weather patterns are changing with more droughts in some areas and more severe hurricanes in others, witness hurricane Dorian in the Bahamas that killed 70 people and devastated two islands. Droughts are aiding in the proliferation of forest fires in Australia and elsewhere, and droughts require the use of more water for irrigation, not to mention increasing desertification. Despite what climate change deniers say, most climate experts warn that civilization is at risk if Paris Accord targets are not met by 2050. Yes, concerns about carbon are fully justified, but surely concerns about water are just as serious. Could wars be fought over water in the future? It is not beyond the realm of possibility!

**The unique properties of water.** The water molecule consists of one oxygen atom and two hydrogen atoms. Water is classified as a polar compound, with unique arrangements of its molecules that imbue water with properties that most other liquids do not have. Water has higher freezing and boiling points and higher surface tension than other liquids. It is a universal solvent. It is one of the few liquids that expands when it freezes, thus allowing ice to float and humans and other animals to walk on water. And as already mentioned, water makes living organisms possible. We must protect and conserve it. We can help by minimizing water use in our homes and on our lawns.

**Nature's Cycles.** The four main cycles in nature are:

- The nitrogen cycle - Nitrogen circulates between air, the soil and living things.
- The carbon cycle - Carbon dioxide circulates between the air, soil, and living things.
- The oxygen cycle – The photosynthesis process, followed by respiration, recycles oxygen.
- The water cycle.

The water cycle consists of the sun vaporizing water from the oceans, lakes and other sources to form clouds which in turn precipitate water as rain, snow, or sleet to replenish rivers, lakes, and oceans. In the process, water is purified. Rain is the purest form of water, providing it is not polluted by impurities in the air such as particulate matter and sulfur dioxide that can cause acid rain. Perhaps no one has described the water cycle any better than Percy Bysshe Shelly\* in the sixth stanza of his famous poem *The Cloud*. This verse is printed below:

I am the daughter of Earth and Water,  
And the nursling of the Sky;  
I pass through the pores of the ocean and shores;  
I change, but I cannot die.  
For after the rain when with never a stain  
The pavilion of Heaven is bare,  
And the winds and sunbeams with their convex gleams  
Build up the blue dome of air,  
I silently laugh at my own cenotaph,  
And out of the caverns of rain,  
Like a child from the womb, like a ghost from the tomb,  
I arise and unbuild it again.

I trust readers will agree that this verse from *The Cloud* is an appropriate way to end a discourse on water.

\*Percy Bysshe Shelly (1792-1822) who became one of England's famous romantic poets, was expelled from Oxford University for publishing a pamphlet entitled *The Necessity of Atheism* in 1811. Shelly's second wife Mary Wollstonecraft was the author of *Frankenstein*. Tragically, Shelly drowned in a sailing accident at the young age of 30. He could rightly be called a humanist. An article on humanism follows.

## **Are You a Humanist?**

*By Duncan Watterworth*

The officiant at my daughter Brooke's wedding was very dignified, with kind, wise eyes, and a white beard. He started the ceremony as follows, "Humanism is a non-religious ethical philosophy, a way of life and of thinking that involves adherence to the common moral decencies of altruism, integrity, and honesty. Humanists embrace core human values of respect, responsibility, and compassion for all. We look to nature and on-going inquiry for the explanation of life, rather than a divine or supernatural power."

Brooke and I were members of the Humanist Association of London and Area. I dragged her to her first meeting, but she bought the membership. We heard a talk by Dr. André Lachance, a biology professor at Western. Turns out he is also an officiant of the Ontario Humanist Society and when Brooke and Joe got engaged, they asked him to do the wedding.

Dr. Lachance is also president of the Thames Talbot Land Trust, a charity involved in preserving land of natural value for posterity. He offered Brooke and Joe the option of donating to the Land Trust in lieu of his officiant fee.

Humanism has been called a worldview, a life stance, or a philosophy of life. It has no leader, pope, or prophet. Nothing need be taken on faith, or blindly believed. I see Humanism as having three components.

- First, Humanists prefer reason, scientific inquiry, and critical thinking as the means of understanding the world.
- Second, Humanists do not believe in gods, the supernatural, or mysticism. They are atheists or agnostics.
- Third, Humanists choose to “be good without God.” They choose to value the flourishing of every human being, in this lifetime. They think that they have the right and unavoidable responsibility to give meaning to their lives.

These ideas – a preference for reason, a skepticism of the supernatural, and human-centered ethics - are not new. They have roots in classical Greece, and in ancient Hinduism, Buddhism, and Confucianism.

Skipping forward a couple thousand years, these ideas were linked in The British Humanistic Religious Association of 1853, The Humanist Manifesto of 1933, The American Humanist Association of 1941, The Humanist Association of Canada of 1968, and the Amsterdam Declaration of 2002. And let’s not forget The International Humanist and Ethical Union, a coalition of 117 Humanist, rationalist, irreligious, atheistic, secular, ethical culture, and freethought organizations in 38 countries.

Well known Humanists include Margaret Atwood, Albert Einstein, June Callwood, Bill Nye (the science guy), John Lennon, Steven Pinker, Sigmund Freud, John Kenneth Galbraith, Bertrand Russell, and Frank Zappa.

Historically, churches have filled several functions in society. They are purveyors of theology, of course, but they also facilitate a sense of community, and preside over ceremonies marking births, marriages, and deaths.

Today Humanist officiants are available to perform these rites of passage in secular ceremonies.

For 20 years The Humanist Association of London and Area held monthly meetings with social time, and speakers on a range of topics. It produced a monthly mini-journal entitled *The Enlightenment*, with essays, book reviews, and the like. It held summer and winter solstice parties. It had a charitable status as an educational organization. But as of December 31, 2019, the London Association came to an end. Dissolved, like many churches these days, there was just not enough new blood to it keep going. Nevertheless, the ideas, and the umbrella term “Humanism,” live on in other groups across Canada and around the world.

So ... are you a Humanist?

*The Enlightenment* was formerly published under the auspices of the Humanist Association of London and Area (HALA). HALA came to an end on December 31<sup>st</sup>, 2019, but *The Enlightenment* will continue as an independent publication issued to a select group of readers. Editor and publisher is Don Hatch – [dahatch@rogers.com](mailto:dahatch@rogers.com) Past Enlightenment along with Goldwin Emerson’s London Free Press (LFP) articles and a list of topics of past HALA meetings can be found at [humanists-london.org](http://humanists-london.org). Future *Enlightenments* and future articles by Goldwin Emerson will also be available on this site maintained by Dr. Rod Martin.