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The underlying attraction of the movement of water...is biological. If we look more deeply we can see it as the basis of an abstract idea linking ourselves with the limitless mechanics of the universe.

- Sir Geoffrey Jellicoe

Water...one of the most fundamental elements of life on this planet. It has the ability to transform states between liquid, solid and gas. It has the potential to form and shape earth and stone with complex beauty. It has the capability to cleanse or destroy, to sustain life or drown it. It has a magical effect on the mind and spirit. It has inspired architects for millenia.

Humanity, like all life, flocks to water. Civilizations have risen or declined due to its availability. Coastal cities have grown through the centuries due to maritime ports. Beaches and lakes draw visitors from dry land seeking an oasis. Vacationers flock to island seas, or snow-capped mountains for recreation. Water has an amazing draw, it is essential to our life and lifestyle.

75% of our planet is covered by the odorless, tasteless and colorless element, of that 97.5% is salty. 40% of the earth's atmosphere falls to the surface through precipitation each day. This feeds the plant life, which feeds the animal life, and makes its way into lakes, rivers, ice caps, groundwater etc. before eventually draining to the oceans. As the sun heats the ocean surface, water evaporates again replenishing the atmosphere. The earth's continuous water cycle, through flows in the sky and currents in the sea is what sustains life.

70% of a tree is made of water, 80% of corn, 90% of a tomato, 70% of a chicken, and 70% of an average human. All from a simple combination of two small hydrogen atoms bonded to one large atom of oxygen. The hydrogen bonds that connect the atoms into water molecules forms an unequal distribution of electric charges which allows the electrostatic shifting of electrons. Each hydrogen atom is thus attracted to the oxygen atom of a neighboring molecule and bonds to it with the tenacity greater than the molecules of some metals. The hydrogen atoms form an infinite string that is configured as a structural lattice that constantly shifts from one configuration to the next every fraction of a second.

In architecture, water is often used as another material, collected in pools or fountains. It has directed site design and planning, orienting a view, collected for sustainability, or utilized for power generation. It has ever had an incredible influence on the human psyche, mesmerizing the eyes and ears with its soothing undulation and refreshing acoustics. These are valuable uses for this fundamental element of life, but is there something more that we, as architects, can learn from this amazing molecule? Can we learn to build in a life-sustaining way, which offers unending fluidity and flexibility through deploying a simple 'molecular' unit? Is it possible to achieve the emotional, physical and *structural* attributes of water in architecture? Can we build liquid architecture? The future is wide open...

*sources:

H2O The Beauty and Mystery of Water. Harry N. Abrams, Inc. New York, 2001.

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