

Water and Ground FS 2019 V09

"The oceans, three quarter of the earth's surface, are a great stable body with little variation in temperature and alkalinity and with both richness and constancy of chemical composition. It was here in this realm where sunlight penetrates, but beyond the range of toxic ultraviolet rays, that life could and did emerge. Here in this ancestral home life was created. The body fluids of simple marine organisms are all but identical with seawater. The blood of man is similar to the seas of earlier times. Loren Eiseley has said that the dimension of man's emancipation from the sea is the length of that cell which separates him from its source of blood, the ancient brine. All creatures are essentially aqueous solutions confined in membranes."

McHarg, Ian L.: Design with Nature, p.47

As water becomes a main point of discussion and action for the future of our planet, society's attitude towards this element has become a poignant subject for the general culture as well as for design practice, research and education, affecting in particular the shaping of the ground. However, not enough has been realized, researched and written about the significance of water and its containment in contemporary society. The first level of reflection should be based on the basic physical properties of water, for this would enable us to develop and structure an approach to water in its many states and attributes, whether through containment and storage, or evacuation and dispersion. Because the intelligence of water is epochal, it would be interesting to define what this particular intelligence could mean at present. It is also important to define our understanding of water based on the direct physical and sensory properties of the element as it directly relates to people and the shaping of space. Through necessity, water and its containment on the ground will become the basis of an entirely new design philosophy in the future.

Whether directly or indirectly, inside or outside, people have an intimate, tactile phonic and visual rapport with water each and every day. Despite the absence of a modern mythology of waters, the frequency of our physical contact with water has significantly altered our daily relationship to the element. For the sake of utility and hygiene there has been a clear physical rift between the channeled and piped waters indoors and the running waters outdoors. This polarization of water inside and out is recent and has, in turn, greatly affected our environmental approach to the element. What used to be common watering holes are now mostly absent from the public domain, at least within the "developed" world. Fresh water is now piped underground and brought directly into the domestic realm, where it is then flushed out immediately into sewers that run under the surface of the city. In general, people seem completely removed from the production, collection and disposal of this contemporary water;



Lake Ontario, Toronto/Canada.
Photo: Christophe Girot.



Tanner Fountain. Harvard University, Cambridge/USA, Peter Walker and Partners Landscape Architects. Photo: Christophe Girot.

they are part of the flush culture in which water has become an abstract medium detached from all geographic reality. Our present culture encourages passivity towards water in its collection, containment and distribution; it denies one of the oldest human activities in the public realm, namely the daily contact with and gathering of water.

Water, together with ground, is the most immediately perceptible element in the environment and has become a reference for climatic change. Through the solid, liquid and gaseous states of matter, water encapsulates the thermal potential of the biosphere. All too often designers neglect the extraordinary design potential of this unique element and its relationship to architecture and ground. The entire storage, distribution and percolation of freshwater and grey water can be managed at the scale of an individual building as well as that of an entire neighborhood. Many regions already use grey water several times before retreating and recycling it. Western civilization, however, perceives water largely as a problem to be contained. But necessity may well change this perception; we are entering an era in which a water-accepting and water-receiving culture will be born and the expression of water on the ground within cities will reappear. This not only represents an extraordinary design potential for architecture – it also means that the logic of water collection, treatment and storage within entire cities will need to be both patiently rethought and worked-out topographically in terms of drainage, collection and distribution. The city of the future will be required to contain, absorb and resist water more than it does today. New architecture and landscapes capable of receiving, containing and celebrating this precious liquid will soon again appear.

Water will soon again be made visible, dug up from the underground, so to speak. It will become the universal chemical filter of our times, accumulating both organic and inorganic substances; it will participate more directly in the food chain. But many of these substances are simply not biodegradable and may consequently prevail. In other words, water will serve as the liquid memory of our planet's chemical history. In many instances, ground and sand can be used to filter these elements and help cleanse water for further use. As such, further filtering systems for black waters such as ultra filtration stations will definitely have a growing impact and presence in the future environment of our cities.

The rapid change in climate and its immediate effect on global ocean levels, will soon have the strongest impact on the shaping of ground in our environment. This, coupled with the unpredictable amplitude and occurrence of torrential floods, will dramatically affect and transform the border conditions of most cities. Future cities will develop like living cells, and these will need to exchange fluids with the outside through a set of complex level changes functioning as membranes. The acceptance of flooding as a "normal" occurrence within cities will therefore also need to be integrated and contained – it will change the entire topological organization and use of urban ground. Out of necessity, and in response to the coming fluctuations of our times, a different intelligence of water and ground will emerge. This will lead to a new kind of architecture of the landscape, one with a strong vision and method toward shaping the fundamental changes to come.

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