

The View From Below

A Creative Journey

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For as long as I can remember, I have been fascinated by water. At the age of five, the decision for my life's pathway was etched. The summer of 1964 was when I began my creative journey of discovery. The journey and adventure have now reached its fiftieth year of travel. Along the way, the view has been quite spectacular even at times when many would think it was not. The journey is not one of all knowing, it begins with wonder, then understanding, followed by appreciation, and ultimately conservation. It is with these four cornerstones that the journey for each discovery becomes full, for the entire journey is never complete as it is the collection of all experiences yet to happen.

Dad was a teacher and philosopher, and within the limits of his abilities, he encouraged the exploration of nature. We lived in Brooklyn, New York; there he would take me to parks, botanical gardens, a zoo, and on what he liked to call, "nature hikes" even when it was just somewhere local. There was always some activity involved, it could be collecting acorns, sketching trees, pressing leaves in a book, or just laying in the grass and watching the clouds. Our parents were teachers, and we were fortunate that the entire family had summers off for vacation. We would travel around the country and wherever we were dad would point out nature and its kindness.

Amidst the glitter and glamour of Miami Beach in the 1960s, while mom and dad socialized at the hotel pool with a coke and a cigarette, I would put on my rubber mask and fins and swim in the pool. The feeling underwater was

invigorating, challenging, and free, but while this was fun, the bottom of the pool was void of exciting things to see. The ocean's edge was just a few hundred feet away and I wondered what I would find there. I suggested to my father we go to the ocean for a swim. He talked to me about currents, rip tides, and how salt water was denser than pool water. However, all I wanted to do was look at what was beneath the surface. Swimming along peering through the plate glass facemask, I could see all kinds of things down there. The fish were swimming, seaweed was waving, starfish crawling, and sand dollars were just lying in the sand. Sand dollars were on display at the souvenir shop, but I wanted one of my own.

With a deep inhale, I tucked my head under the water and began swimming to the bottom. Deeper and deeper I swam, the pressure building upon my ears, my heart pounding from not breathing, I was almost there but then realized it was too deep and I floated back to the surface. I tried again but no luck. A third try was in order, this time with a large rock as ballast. Upon reaching the bottom with lungs bursting, I grabbed two sand dollars, dropped the rock and swam to the surface. With sand dollars in hand, we went back to the pool. The intricate pattern on these shells was not as pretty as the white ones at the souvenir shop. We needed to bleach them. Little did I understand at the age of five that the splash of bleach would kill the life inside the sand dollar. The desire to stay on the bottom longer was overwhelming; there will be a next time.

My skills as a diver got better each day I practiced in the pool and the ocean. I saw everything down there and I was happy. As a treat, we went to the Miami Seaquarium, at the top of Key Biscayne. The big aquarium tanks had all of the things I saw underwater off the hotel beach, but so much more. In addition, it had dolphins! The desire to jump in the tank and swim with them was overwhelming. A few weeks later, dad surprised me with a trip down to the Keys to the Santini Porpoise Training School. This is where they trained Mitzi, better known as Flipper. There, I swam with the dolphins. I was interacting with other species my same size. Little did I understand the ethical issues surrounding keeping animals in captivity for human enjoyment (Hoyt, 1992). I was having fun.

Later in life, I swam and dived with wild dolphins throughout the Atlantic, Pacific, and Caribbean oceans. While animals in captivity serve utilitarian purposes, I can only suspect that the early encounter helped solidify my connection to these incredible animals. Even at the age of five, the self-realization that I could co-exist with the dolphins asking nothing from them other than an opportunity to play with was enough. Only once, many years later, did I swim with a dolphin in captivity, while it went against my belief; I justified the action while introducing my daughter to them in Curacao.

In the late 1980s, a professional spear fisherman in Key West Florida introduced me to spear fishing. I learned how to choose a fish that would feed two or three people, and we were conservative in our catch, rarely taking more than

we needed. At first, spear fishing was for personal consumption then as I worked with others, we did it for profit. At the time, it did not seem unethical or immoral. That entire concept came to a halt one day when we were working in deep water seeking out larger fish. Research had pointed us to one of the shipwrecks where grouper would congregate. As I turned the corner of the bow of this wreck there was an unsuspectingly large grouper. When the trigger released the spear, my line of morality crossed. Why was it that I could coexist with the dolphin but not the grouper? With the shot fired, there was no longer the ability to stop the rod from slipping through the water and reaching its target, a goliath grouper of 450 lbs. That fish yielded close to \$950 at the wholesale market. The money from that catch is gone, but the memory of that kill still lingers. That was the last fish I ever hunted. Incidentally, the harvesting of goliath grouper became illegal in U.S. waters in 1990 due to the over fishing of this remarkable species (Stevely & Fleuch, 2011). While I continue to eat fish and other animal products, I have become more aware of their origination and have a greater concern for their methods of breeding, slaughter, and conservation. The moral and ethical dilemma surrounding the eating of animals is becoming a personal struggle.

Exploring under the sea has become a life's work. However, understanding the life forms was not a primary focus, though this changed later on. Shipwreck exploration, developing technology, accident management, and creating education programs became the career. Along the way,

I have dived some places multiple times over the decades. The privilege of returning to the site over time grants the ability to monitor change. Besides diving on shipwrecks that resulted from a disaster, I have seen and been involved in the sinking of ships to create artificial reef systems. The first was a small tugboat in Key West in 1989, it became the home to thousands of fish that now had a place in a sand patch that earlier supported no life. In 1991, the *USN Algol*, a 459-foot attack transport became the next big ship as part of the New Jersey Artificial Reef Program. Twenty-three years later, this ship is home to tens of thousands of fish that live in and around the structure. While the hydraulic action of the sea beats down on these structures and their shapes change with each season, they are providing homes for generations of sea creatures. Artificial reefs support sustainable development; they contribute to economic growth of regions and are ecologically friendly. In addition, they support social responsibility (Rondinelli & Berry, 2000).

Circumstances led our family to the middle of a desert situated next to a lake formed by the Colorado River. Since 2002, I have explored the depths of Lake Mead, Lake Mohave, and Lake Havasu. During this short time, we discovered the dreaded quagga mussel that has wreaked havoc on the ecosystem. The mussel filters approximately one liter of water per day, removing phytoplankton and particulates from the water. By removing the phytoplankton, there is a decrease in the food source for zooplankton and this alters the food web.

The filtration increases water clarity and decreases mean chlorophyll concentrations. Water clarity that increases light penetration is causing aquatic plants to grow at an accelerated rate. Another issue with the quagga is they accumulate organic pollutants within their tissue levels more than 300,000 times greater than normal environmental concentrations, these pollutants in the pseudofeces pass up the food chain increasing exposure to other wildlife (USGS, 2014).

The view from below is ethereal and this journey, while already lengthy, gets a fresh start each time I enter that alien world. At first I was an intruder, now I believe I am an invited guest with a purpose. It is a place where few humans interact but have such an incredible impact due to their topside activities. Our waters are fragile, the organisms that live there fight battles with the chemicals and pollutants humans inject to the seas, lakes, and rivers every day. This fifty-year journey provides me with the unique ability to compare what I see now to what previously existed. Holmes Rolston wrote in an essay on species that, “Humans have more understanding than ever of the natural world they inhabit” and he adds, “more predictive power to foresee the unintended results of their actions and more power to reverse the undesirable consequences” (Rolston, 1991).

Friends and colleagues remain fascinated by my underwater exploits and while at times for me it is just plain work, I always find a moment to look at the wonder of it all. Sylvia Earle a biologist, explorer, ambassador of the sea, and friend said:

“The ocean is the cornerstone of earth's life support system, it shapes climate and weather. It holds most of life on earth. 97% of earth's water is there. It's the blue heart of the planet — we should take care of our heart. It's what makes life possible for us. We still have a really good chance to make things better than they are. They won't get better unless we take the action and inspire others to do the same thing. No one is without power. Everybody has the capacity to do something” (Earle, 1995).

Each time I visit the underwater world it is my responsibility to report what I see, to leave the area having done no harm, and to try to improve that small piece of the environment by removing something that does not belong there. In some ways, this approach to the waters takes on the flavor of Kant's categorical imperative of good will and duty. I look forward to my next visit below.

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