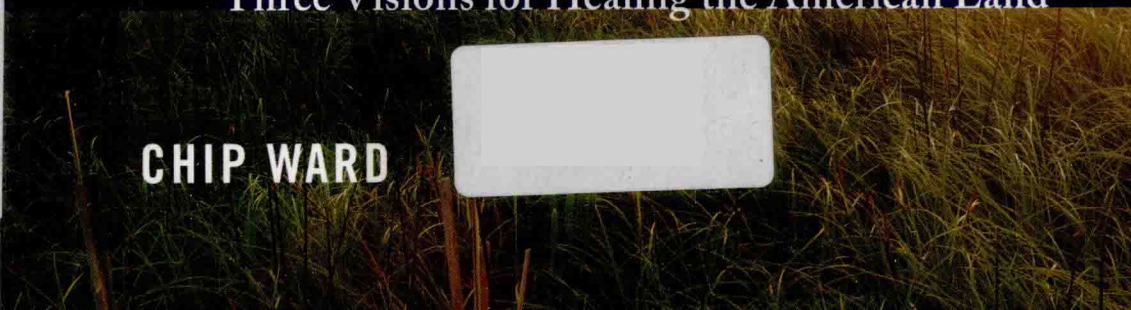


HOPE'S HORIZON



Three Visions for Healing the American Land

CHIP WARD



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For Brian, Carly, and Tyler

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HOPE'S HORIZON

PROLOGUE

Diving into Soup for Fun and Profit: Hubris and Progress in a Pothole

*There is a spiritual basis to attention, a humility in waiting for the
emergence of a pattern from experience.*

—MARY CATHERINE BATESON

In the desert west of town, deep holes of hot water are scattered along the alkaline crust of earth, springs of varying clarity and depth. They contain a salty broth of barely discernible plants and creatures, warm reminders of the heat that emanates from the earth's volcanic core and the subtle and soupy nature of life itself. Water is always surprising on the desert, but to suddenly come upon one of these sockets of water is spooky, like sifting through a sandbox and discovering a glass eyeball. They seem out of place in such a dry and barren setting. Their murky bottoms are indefinite and mysterious, like cave holes or horse eyes. They smell slightly sulphurous, like rain-soaked matchheads. The fear of accidentally slipping past a crumbling lip into who-knows-how-hot water to the bottom of who-knows-what can be palpable. I will never forget the first time I saw one. For months after, it haunted my dreams.

As familiarity overcomes fear and mystery, playfulness follows. First you stick a toe in, then a foot. Sooner or later someone dares someone else to jump in, and before long you have a combination hot tub and swimming hole. That's what happened just west of town in the largest

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hotpot out there, a cavity of water that would hardly qualify as a small pond by Eastern or Midwestern standards but was more than adequate for recreation according to the lower expectations of my Utah neighbors. Talk to old-timers and they remember riding their horses or driving out for a socializing soak in the old warm spring that was one of the few amusements available in the lean and hard years of settlement, dry farming, and Depression. Eventually some ambitious young men poured cement around the border, and the wild swimming hole took on a more formal and institutional demeanor.

When I moved to a small town about an hour west of Salt Lake City, where the ski-rich mountains of Utah give way to the vast and dry reaches of the Great Basin Desert, I often heard about the good ol' times around that natural desert pool. But I never got a clear account of how it turned into the scummy stinkhole I found when I went looking for it. Amber shards of broken beer bottles littered the path and an old car was tilting into green water, looking as if it had crawled across the hot dust only to slake its thirst in the poisonously deceptive brine of the first watering hole it found.

When I asked what had happened to turn the beloved gathering spot into such a sorry mess, I got vague answers—time and neglect had taken their toll, and then vandalism finished the job. Much of what goes wrong in this largely Mormon state is attributed to rude drunkenness, or at least the absence of righteous behavior. There's nothing wrong with our perspective or values, we are told, other than our failure to adhere to them.

Then, in the late 1980s, someone decided to rescue the old hotpots and return them to recreational use. A desert entrepreneur formed a business to dig out one cluster of hot springs and expand them into a grand pool. The usual cement was applied to the edges to add definition. A dredge stood by, ready to dig out silted bottoms, while a broad Plexiglas roof supported by metal beams was erected over the warm water. A dive shop and classroom were constructed next to a gravel parking lot, and before long, year-round scuba diving lessons were being offered—a unique and convenient venue for those planning to fly from Salt Lake City to Caribbean and Baja vacations, where certified diving skills could add to the fun. The business was fueled by enthusi-

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astic newspaper features that described the developer as an innovative and clever man who had the vision to bring the sea into the desert.

The facility also attracted curious desert landlubbers like my own family who were looking for some fun in the sun. We kept it simple and rented only snorkels, fins, and goggles. Linda and I told each other this day-long diversion would be an educational experience for our kids, who were raised in a dry clime and had never had the opportunity to snorkel in Hawaii-warm water.

As we flapped in our froggy gear down the cement steps into the pool, holding on to the already corroding metal railing, an attendant tossed lettuce onto the water and, to our utter amazement, summoned up a writhing swarm of parrot fish and other colorful tropical creatures. We oohed and aahed on cue. The attendant told us they had just added a shark—a small one, he reassured us, using his index fingers to demonstrate a two-foot length. Various guppies and mollies had also been tossed in to provide Mini-Jaws with distracting edibles. No worries for you, he said. Then, as we glubbed and bubbled away from the dock, he reminded us to dive down and look for a statue they had anchored to the bottom.

Our visit was fun, but it also felt weird to splash around in a pocket-size Caribbean on those white alkali flats west of town. There was something intuitively uncomfortable about it. We talked about going back there to swim but never did. Many years later I returned while giving some out-of-town friends a tour of the local desert. I was surprised by the changes I saw and then, as the predictability of the pool's fate sunk in, surprised by my surprise.

There was more gravel spread across the parking lot, and outbuildings had been added to the periphery of the canopy-covered pool. Despite the facility's expansion, there was little activity. One look at the water and it was apparent why. The pool was much greener and darker than I remembered. Algae had bloomed with a vengeance.

As we wandered around the pool's periphery, I tripped over a white five-gallon bucket filled with colorful little tropical fish. An elderly man in coveralls looked up, smiled, and explained that he and his wife had been invited to scoop out from the pool all the mollies they could because there were way too many of them. They had started to spread into

neighboring undeveloped hotpots, too. The scooping couple planned to keep some of the little fish to sell and give away. Others would be used for garden fertilizer or food for bigger hobby fish at home. I had tripped over the losers, weeded out because their skin was dull, although I thought there were at least some keepers in the gasping, bug-eyed pile. What happened to the shark, I asked; wasn't he doing his job? He got too big, they said, and had to be removed.

Then it hit me that I was looking at an ecosystem that was spiraling out of its original delicate and finely tuned shape and morphing into the molly-choked mess before me. Prey and predator had been clumsily dumped in with no appreciation or knowledge of the well-honed reciprocal dynamic that a food web requires—the kind of symbiotic tapestry that only evolution can weave. The indiscriminate addition of amusing fish had also contributed their accompanying microorganisms, each carrying new variables to skew the pool's complex eco-dynamics. Years of people diving in their wet suits and gear had no doubt introduced a whole range of new bacteria into the evolutionary game. Human urine contains antibiotics, estrogens, viruses, and trace chemicals. Who knows what was on that lettuce?

Here was a little jewel of a habitat that had evolved over eons, a fragile symphony of temperature, minerals, and microorganisms, and it was being reduced, slowly but surely, to a pea soup of trash fish and scum. The people running it must have known they had a frustrating problem on their hands, one that would have to be managed meticulously, but did they really grasp the slow and inevitable degradation they were causing?

As my friends and I drove away that autumn day, my mind's eye thrust forward in time and I saw sections of missing Plexiglas, rusted railings, broken bottles, and stout weeds in the parking lot, and an old tire floating on a wet velvet surface of startling green. Now I knew what had happened the first time—new players, old story—hey, they were just trying to make a buck and have some fun. We have long assumed that's what land is for—profit or recreation. For deserts, especially, the question "What is it good for?" is frequently a prelude to abuse.

It is easy to see nature's wounds and to project them into the future. It is harder to imagine resilience, a landscape restored and whole. Where, I asked myself, is hope's horizon?

I read my description of the hotpots and their fate to another friend in town. "You're wrong about the shark," he told me. "There are two of them. They left them in, and they're big now, maybe two hundred pounds each. They're nurse sharks, so they're not really dangerous. They feed them frozen fish to keep 'em fat and happy. It's cool—you can watch them do it. And the water is better in the winter, since the summer heat makes the algae bloom."

"So you can see underwater then?" I ask.

"Well, yeah, sort of," he replies. "It's a great place to learn how to use a compass—ya know, navigate by numbers." He senses my disappointment. "Hey, lighten up! It's not like it's the Dugway Proving Grounds, ya know, with anthrax spores lying around and old rockets filled with nerve gas buried in the dirt." Dugway is an area the size of Rhode Island occupying most of Utah's West Desert. It was used by the military to test chemical and biological weapons back in the '50s and '60s. Its contaminated grounds are still off-limits and closely guarded by barbed wire and soldiers in jeeps.

"You're right," I tell him, "it's not Dugway. Not even close."

My friend has a shed for his dirt bike and boat. To him, my deepest thoughts are just plain goofy. In fact, I cannot make a strong case for that particular hole of hot water. Granted, an algae-loaded dive pot is not on a scale with the destruction of salmon habitat across the Northwest or the elimination of big predators all over the country, first in the East and then across the West. But it is of a kind. Natural history out here has an echoing and fractal quality. The difference between trashing a small desert hot spring and poisoning an entire desert with toxic waste is a difference of scale, not consciousness, just as trashing a stream is on a different scale than killing a wild river but shows similar patterns of thinking and behaving. We seem to think that any aspect of nature is expendable until proven otherwise and that each place we crash and consume stands alone.

"You're perverse," my friend told me. "You insist on seeing everything upside down and backward. A guy tries to improve something that nobody wants or uses, and you see that as a dumb mistake. It's like you're some kind of cultural dyslexic who looks at progress but sees things as only getting worse. Then you write it all down to document your disorder. Does it help you to do this?"

“Yes, it does,” I answered. “If I can’t reconcile my worldview with yours, I can at least give you a good account of what I am seeing.”

What I am seeing is overengineering. Like the Everglades. We covered that inland sea of grass with a grid of canals and ditches until aquifers collapsed, estuaries rotted, and rivers became toxic, then had to spend billions to restore the ecosystem’s cleansing and replenishing ebbs and flows, the very rhythms we worked so hard to thwart. We tapped free-flowing water too hard in California and are now reverse-engineering the San Francisco Bay and its estuaries. When the over-plumbed Ogallala Aquifer, which stretches under the Great Plains, goes down sometime in this century, the nation’s breadbasket may become, once more, a bucket of dust. Those grand circles of green we see out the airplane window as we fly over the Midwest, those checkerboard farmlands, will blur and fade. Our engineering tends to be brilliant but brief, not sustainable across ecological time frames or even across the span of more than a few human generations.

Why do we insist on overengineering our landscapes despite all the self-evident failures we have experienced? Why do we still think we can engineer a fix for any problems we have caused, even when those problems are the consequence of the last technological fix? We persevere even when those in charge of promoting the latest fix are the ones who were in charge when the problem was created in the first place, or were in charge of previous attempts at a fix that failed. A kind of pervasive hubris resides on the face of our collective denial.

Is there another way? I began to wonder. What if we dropped that attitude—the one that regards humans as above and beyond the cycles and limits of the natural world—and understood how life’s myriad strands of species, habitats, and dynamic processes are woven together? If we focused on the health of the land and conserving the integrity of the ecological processes that shape its life and, ultimately, our own well-being, what would we be doing instead?

After more than a decade as an activist confronting polluters and the regulators and politicians who enable them to pass on the costs and consequences of the damage they do, I wanted to encounter people who are exploring positive, instructive, and alternative visions of how to live on the land. Looking only at nature’s wounds and playing defense all

the time can be emotionally and spiritually exhausting. And frightening—my own quest to understand the link between environmental quality and public health began the day I realized I could stand on my porch and point to four homes where kids were in wheelchairs and I asked myself if I had moved my own children into harm's way. I have tried to capture the hard lessons I have learned as an activist trying to hold polluters accountable in my first book, *Canaries on the Rim: Living Downwind in the West*. I understand that to solve a problem, you must first acknowledge and define it, but at some point we must move beyond criticism and defense to proactive leadership. We need inspiring visions to guide us.

There is good news. Increasingly, environmental politics is turning to thoughtful proposals aimed at healing whole ecosystems that have been stripped of their diversity and connectivity and at abandoning technologies that are incompatible with life itself. In a three-year odyssey that took me from my backyard in Utah south to Arizona's Sonoran Desert and east to the thick and fragrant forests of Vermont and New York, then to the marbled halls of Washington, D.C., I collected the stories that follow. Each is about the expression and practice of a new vision, one that replaces established notions about material progress within a hostile world of fixed objects with a fascination for creative emergence within a web of communities. In this new approach, respect for and trust in ecological processes replace hubris.

This is not, however, an account of philosophers. Each vision is applied. Each critique is active and catalytic. Each encourages the development of local ecological literacy to retranslate our shared and prevailing behaviors, habits, and assumptions into new earth-friendly behaviors, relationships, and understandings. Michael Soulé grew weary of studying extinction and decided to try to save evolution itself and rework the map of North America to look radically different from the one we have been using. Rich Ingebretsen wants to uncork one of the most colossal reservoirs ever built and watch the drowned canyons below it emerge and recover. Corbin Harney, an uneducated Shoshone elder, is taking on the nation's engineering elite in his struggle to keep nuclear waste off his ancestral ground. You may be smart, he tells them, but you are not wise.

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The individuals and organizations I focus on represent a tiny fraction of the tens of thousands of nongovernmental organizations emerging around the globe that are working on some aspect of conserving or restoring ecological health and integrity. Across the world, wetlands and streams are being restored, habitat is being reseeded, greenbelts and open spaces are being expanded, native seeds are being collected and cultivated, floodplains are being abandoned, and land is being set aside. In Georgia it's longleaf pine forest that is being restored, and in California it's butterfly habitat. On the Great Plains, bison are reappearing. In thousands of backyard woodlots from Michigan to Alabama, unsung citizens are making mindful changes on their own, inviting wild creatures back onto the land. State and local agencies charged with managing the public commons are finding new missions, pushed hard by local conservation and environmental groups.

I could have picked any one of those groups or projects to highlight in this book and still told the same story. Although they do not share a common agenda or ideology among them and there is disagreement on an array of issues, common patterns emerge. The new wave of activists aims for the reconnection and restoration of damaged and fragmented habitat. They don't want the damage that we are doing to ecosystems managed or merely curbed; they want it stopped, for the health and well-being of both wild creatures and humans alike.

I have divided the book into three sections to emphasize these themes—reconnection, restoration, and abolition—although the reality of creating a new paradigm for living on the planet involves all of them and more. That new model will recognize the intrinsic value of other species and the importance of diversity as a prerequisite for and sign of health. It will encourage the development of sustainable and fair economies. It will honor and create community rather than command ever more commodities.

The diversity of perspectives that can be found in this latest wave of conservation and environmental politics is a creative and potent mix that has already begun to bloom on the ruins of the culture that, from the latest terrorist attacks to emerging pandemics, is climaxing and crashing all around us. This book aims to provide an easy and colorful introduction to the potential for recognizing our biological commun-

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ion with the world and then translating that realization into behaviors that honor the living communities that sustain us.

The activists described here might be termed humble visionaries. Visionaries because they see through the underlying assumptions that for most of us are so transparent and self-reinforcing that we do not see them at all. Visionaries because they see in our common future the robust environments that most of us can only glimpse dimly in humanity's distant past. And although their visions are bold, the activists themselves are humble, because the outlook they are trying to share and practice says, very simply, that we don't know everything and that natural systems are astonishingly intricate, reciprocal, creative, and self-organizing as they emerge and evolve all around us. We can learn to dance with those systems but not drive them. Heed that, they say. Trust that. Heed them, I say.

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RECONNECTION

We could say a food brings a form into existence. Huckleberries and salmon call for bears, the clouds of plankton of the North Pacific call for salmon. The sperm whale is sucked into existence by pulsing, fluctuating pastures of squid.

—GARY SNYDER

