

The Long Lineage of Human Adaptability

Reading Time: 10-12 minutes

Let's step back and take a look at what we now know about the relatively long lineage of *Homo sapiens* (long in human scale, though remarkably brief and recent on a geological scale). Most indigenous cultures spend a good deal of time developing and tending to their memory, especially of their ancestors and their relationships with the non-human world. Through their stories, ceremonies, music, dances and in their everyday interactions with the world, they regularly recall and practice the knowledge and wisdom of those that came before. The written languages of more recent cultures are an alternative and, over the past few thousand years perhaps, an extension of the human proclivity for passing wisdom, knowledge and culture from one generation to the next. A big portion of what is preserved and handed down is what we might call *eco-social literacy*.

Eco-social literacy is intimately interwoven with a culture's resilience. It reflects the ways in which groups of humans develop culture, language patterns and systems that will help them work skillfully with the continual changes of life, from the small day-to-day changes all the way to large-scale (and longer term) changes. Whether it's a new predator moving into their territory or disruptive changes in weather patterns and climate, the culture they've developed, the norms, the beliefs, patterns of thinking and so forth, all help them adapt readily, reluctantly, or not at all. Of all species that have ever existed on Earth, only a small percentage exist today.

"All evolution takes place in this fashion. In this way, an oxygen starved fish, ancestor of yours and mine, commenced to colonize the land. Threat of extinction is the potter's hand that molds all the forms of life." John Seed, *Beyond Anthropocentrism* in *Thinking Like a Mountain — Towards a Council of All Beings* (1988)^[1]

Human groups that have been unable to adapt for whatever reason aren't around to tell the story. Extinction is a powerful driver of adaptability and hence, eco-social literacy. Adaptability is one of those features that have allowed humans to spread to every corner of the habitable world. Our cousins, the *neanderthals*, despite sharing our genetic endowment, for whatever reason weren't able to adapt as well as *Homo sapiens*. Very quickly (in geological time) we have become the last surviving member of the genus *Homo*. And we'll never know of the small groups of *Homo sapiens* who weren't able to adapt, despite their neighbors, perhaps only a mountain range or river basin away, who survived and eventually thrived. Perhaps something in their language patterns or societal systems helped them coordinate better for hunting, for finding new territory or for making the critical choice to migrate further.

"Out of a minimum of 18 different species of evolutionary ancestors and cousins, only one lineage — our species — has survived. All the other ways of life of earlier hominins have gone extinct, even though each species possessed at least some of the unique distinguishing characteristics of human life..."

"Homo sapiens possesses, through its natural evolutionary heritage, an extraordinary capacity to modify landscapes; the distribution of food, water and other

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resources; and, most interesting, ourselves. We have an unprecedented proclivity to alter our ways of life, our systems of belief, and our transactions with one another and the world around us. This is responsible for the vast diversity of human behavior and our species' cultural diversity." - Rick Potts, from *Being Human in the Age of Humans*. Smithsonian National Museum of the American Indian, Winter 2013, pp. 27-31. ^[2]

As human societies became more complex, so too the task of passing down eco-social literacy from one generation to the next. It is part of the astonishing diversity of languages, cultures and eco-social wisdom all around the planet that has, in all likelihood, seen its apex. The cultures of Europe that began their seafaring explorations and colonial migrations less than a millennium ago, carried their language and culture with them and inevitably, their particular strain of eco-social literacy. This is now coming to fruition in the global systems, infrastructures and patterns of thinking of the 21st century.

We're now facing a situation where we can no longer ignore the planetary scale of human impacts, both socially and ecologically. "Of the many impressive statistics, one of the more remarkable is that about six times more water is controlled by dams or in man-made lakes than occurs as free-flowing water on the continents."^[2] There's no question we live in the world by altering landscapes to suit our needs.

As the social fabric of our global society worsens each year, the level of alarm over the destruction of the Earth's ecosystems and habitats, the increase in manufactured toxins, the growing level of species extinctions, shifting climate patterns from a warming planet and continued human population growth are all slowly gaining more attention in our daily dialogues.^[3] Since the 20th century, various people have sounded alarms of varying intensity, warning that we humans need to change course if we wish to survive. From one perspective, these warnings reflect a level of eco-social literacy that seems bent on self-extinction. The human species is one of millions threatened by imminent extinction through nuclear war and other environmental changes.^[1] Much of the alarm has centered around drawing attention to the harm we humans cause. This is justifiable when we tally up all the downstream consequences of human activity — waste and emissions, the anthropocentric use of land and resources that provide the source of livelihoods, personal security and comforts for a minority of the people, not to mention other species. Empirically, neither our global social or ecological literacy are serving us well.

From one point of view, it would appear that our primary challenge must certainly be to create different economic and social systems and infrastructures, whether education, commerce or otherwise. After all, it is these systems that are directly "causing" the issues to begin with, right?

Yet, we must recall that it is our eco-social literacy that gives rise to the patterns of thinking, relationships and infrastructures that underpin our modern global society. How we view ourselves and each other and our place in the ecological fabric of Earth has everything to

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do with how we go about altering our environment and making adaptations to changing conditions. As we shift our sense of who we are and how we are embedded in the ecological fabric of Earth, we will naturally make different choices about how we relate to one another, how we share the magnificent diversity on Earth and how we alter (or help to regenerate) the landscape for our own benefit and the benefit of the rest of life on earth.

The primary challenge of the 21st century then is to revise, remember or remake the collective sense of who we are as a species, no longer constrained to specific cultures or locales, but global in scope, nature and impact.

“I’ve come to see the Anthropocene therefore, not as debate about a new geological era but rather as a way of thinking — a way of thinking about our identity and what it will mean to be human in the future.”^[2]

While we certainly need to focus on each of the specific problems with which we’re now faced and try to generate solutions to the social and ecological harm that our systems induce (or have already induced), without a fundamental alteration or reshaping of our *internal landscape*, we won’t be able to keep up with the worsening situation. With our current patterns of thinking, we make more problems than we can easily solve. At the same time we’re trying to solve the external problems, we must reflect on and shift the underlying principles that will guide us towards resilience and adaptation *as a species*. We must find a set of principles and mindsets that unite humanity in an eco-social literacy that makes our successful adaptation inevitable.

In other words, even as we continue to alter the outer landscape, what principles of our inner landscape will lie in our hearts and guide those alterations? What mindsets will we adopt? Therein, as Shakespeare might say, lies the rub.

This requires a revisiting of those fundamental questions all human cultures have asked since language was invented — what does it mean to be human and alive? What are the principles that can guide us forward in a eco-socially fluent way? How can we help our grandchildren and their grandchildren inherit a beautiful Earth of which we are a part and that was gifted to us? What does it mean to be human embedded in the rich, ecological tapestry of a blue water planet spinning in infinite space? What principles guide us to get along with one another and live happy, enriching and fulfilling lives?

Remaking our narratives and continually reshaping ourselves as humans is part of our evolutionary lineage. It’s part of what has given rise to our rich cultural diversity and which now represents a reservoir of knowledge and wisdom about different ways of life, adaptations to our environments, and our resilience as humans.

As different human groups and cultures, we have been tasked to remake ourselves again and again in the long history of our lineage. But our challenge now, never before seen in the history of our hominin ancestry, is to reshape ourselves from the ground up *as a global species*.

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If we choose, we can be part of nation-states, multi-cultural and colorful, and celebrate the vast diversity of our ethnicities, customs and traditions. But before any of that, we need to acknowledge our humanness and fundamental equality and unity. We need to embrace that identity and together develop an eco-social literacy that will easily carry us all through any disruptions that may come. If it was only climate change, we would have every hope for success, as our human lineage is adaptable across a wide range of climates and through varying changes in climates. Indeed, as Rick Potts points out,

“On a global scale, the past six million years have comprised one of the most dramatic periods of climate oscillation and environmental instability of the Cenozoic Era (covering the past 65 million years)”. [since the demise of the dinosaurs.]^[2]

The most recent 11,000 years of the relatively stable climate of the Holocene represents just a tiny fraction of our time on Earth. We’ve spent way more time adapting to glaciations, rising and falling sea levels, desertifications, dryer or wetter climates, reduced rainforests and other climate induced changes. But we only know which groups survived and passed down their legacies to us. Certainly not all human groups lived to transmit their stories. Many continue to fall even today as the last words of an ancient tongue fail to be whispered into the ears of children. Yet now we are a global species, connected to one another in nearly every sense — our fates entwined.

“And while it is true that the “human nature” revealed by 12,000 years of written history does not offer much hope that we can change our warlike, greedy, ignorant ways, the vastly longer fossil history assures us that we CAN change. We ARE the fish, and the myriad other death-defying feats of flexibility which a study of evolution reveals to us. A certain confidence (in spite of our recent “humanity”) is warranted. From this point of view, the threat of extinction appears as the invitation to change, to evolve. After a brief respite from the potter’s hand, here we are back on the wheel again. The change that is required of us is not some new resistance to radiation, but a change in consciousness.”^[1]

Humans have an incredible power of resilience — the ability to adapt and change. Not only our outer landscapes, which is becoming a source of infamy, but our internal landscape, which can become our collective heirloom we pass down to our descendants. The change being called for now isn’t technical — it’s relational and self-conceptual. How do we see ourselves in relation with each other and with the rest of the Earth and cosmos. This is the area where our resilient nature is most needed. This self-exploration done individually, in small groups, and together as a species is interwoven with and will change our social and ecological fabric. It will offer us a global telos and help us discover the common principles and morals that will form the basis of our eco-social literacy.

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[1] John Seed. from [Beyond Anthropocentrism in Thinking Like a Mountain — Towards a Council of All Beings](#). (1988)

[2] Rick Potts, from Being Human in the Age of Humans. Smithsonian National Museum of the American Indian, Winter 2013, pp. 27-31.

[3] We continue to wage war among and within nation-states, on our social media and in our dialogues. Nuclear catastrophe and war continues to threaten our world. We are seeing increased mental health issues such as suicide, depression and loneliness, especially among youth, rising inequality among people not only within nation-states, but across the world. Oceans face the effects of heating, acidification, predatory overfishing and unchecked chemical and plastic pollution. According to Paul Hawken in his book *Regeneration*, “The proximate causes of the climate crisis are cars, buildings, wars, deforestation, poverty, oil, corruption, coal, industrial agriculture, overconsumption, and fracking, among others. All have the same origin and impact: the economic structures created to support human well-being degenerate life on earth, creating loss, suffering, and a heating planet. The financial system is abetting and investing in planetary liquidation—a short-term source of monetary wealth and a near-term cause of biological depletion, poverty, and inequality.” - Paul Hawken. [Regeneration](#) (p. 7). Penguin Publishing Group. (2021)