We Humans do Belong

 “the rocks and trees knew me and were glad to have me back; they were friendly towards me. One finds harmony in one’s home that cannot exist in an alien place.” It is best to die and be buried in the ground that knows a person, the ground that is waiting to receive home its children.” - Eben Tillotson

**Introduction**

We Human’s are evolved and born of, by and for this place. Yet, when we say, this place, what do we really mean? People that inhabit an ecosystem over the course of lives and generations come to know it and the ecosystem comes to know them. Epigenetics takes this knowledge even further, with its recognition that behavior and environment heritably alter genetic expression.

California’s early population is estimated at some 350,000 people. Every one of these individuals was brought into a world where they belonged. They lived in roughly the same place as their great grandparents, ate the same foods and spoke the same language. This is not entirely unlike European systems, their languages and Coats of Arms. The charge and the escutcheon of the Coat depict where the family lives, what it has done and become good at over many generations. Genetics, epigenetics, personal experience and knowledge passed down over generations has helped people in every microclimate of every continent to tend the eco-systems of which they are part.

**Compare and Contrast**

Focusing back in on California today, we find 40 million inhabitants, most of them along the coast, living from and with a large set of unique, interlocking ecosystems. This is 100 times more people than before European contact. The former inhabitants although smaller in number, already embodied some 10,000 years of learning **how** to be the stewards of this place. Over 100s of generations, they had developed the techniques of stewardship as well as the methods of teaching these techniques to each new generation. Much the same may be said to be true in Europe, where stewardship of the land has been practiced, refined and taught for thousands of years by the same families.

Like Europe, California is an extremely diverse set of ecosystems with an equally diverse set of languages. Scholars from linguists to ethnobotanists agree that language shapes thinking, culture and ways of stewarding the ecosystem. When we compare the place of origin of our english language with where we live today, we find ourselves at least 1500 miles further south on the Earth than the British Aisles, where our language originated. In fact, if California were part of Europe, it would extend from Northern Portugal to Central Morocco or from Northern Turkey to Cairo, Egypt.

In his book, Practices of the Wild, Gary Snyder points out that, “in the old ways, the flora and fauna and landforms are part of the culture. There is no compartmentalization of nature from humans.”

When we observe and interact with the California ecosystems today, we are living in ecosystems that have been subjected to extractive economies for the past 200 years. Of the 40 million people currently in the State, there are only 52,000 working in forestry and some 400,000 in agriculture. These individuals, who are directly investing their time in caring for the land are just 1% of the population of the state. This is a striking contrast to just 200 years ago, when nearly 100% of the population invested at least some of their time in ecosystem stewardship

Another contrast is that modern stewards operate under systems driven by two primary influences: the extraction favoring economy and conservation, favoring setting aside land to free it from human influence. This second aspect is due to the fact that “A primary way that we have responded to the loss of biodiversity, the degradation of ecosystems, and the endangerment of particular species is by setting aside land and protecting it from virtually all human influences.” - as stated by M Kat Anderson

**The Fallacy in Hands-Off**

This ‘protection’ of ecosystems by excluding humans is not just misplaced but also detrimental. The ‘hands off’ approach denies the fact that change is the only constant while artificially separating humans from the ecosystems of which we are part. ‘Hands off’ management is also a denial of the fact that “Much of what we consider wilderness today was in fact shaped by Indian burning, harvesting, tilling, pruning, sowing and tending.” The historian William Cronon continues; “the removal of Indians to create an ‘uninhabited wilderness’ - uninhabited as never before in the human history of the place - reminds us just how invented, just how constructed the American wilderness really is.”

“A common sentiment among California Indians is that a hands-off approach to nature has promoted feral landscapes that are inhospitable to life. “the white man sure ruined this country said James Rust, a Southern Sierra Miwok elder. “its turned back to wilderness”

California Indians believe that when humans are gone from an area long enough they lose the practical knowledge about correct interaction, and the plants and animals retreat spiritually from the earth or hide from humans. When intimate interaction ceases ,the continuity of knowledge passed down through generations is broken and the land becomes “wilderness.””

“California Indians have never advocated leaving nature alone.” It is ludicrous to believe that setting aside land to be “free of human influence” is going to fix the damage that a lack of local knowledge and extractive economies have wrecked upon our State. This notion is as ridiculous as thinking that a gunshot wound will heal itself without medical attention.

Action and inaction over the last 200 years have laid waste to California’s ecosystems much like cannon fire lays waste to men on a battlefield. Men wounded by cannon fire are never expected to ‘heal themselves’ and we should never expect the ecosystems we have ravaged through both our action and inaction to heal themselves.

It is also important to recognize that change is the only constant and that the eternal river of metamorphosis flows forever into the future. We can use geology, history, story and acute observation to peer into the past but we can never go back. Therefore it is utterly useless to concern ourselves with what has been lost except as it pertains to charting a path to a healthy, joyful and abundant future.

**Early California**

On the path to health, we have much to learn from the annals of ‘early’ California. The following are a few excerpts that might help us to understand what this place can be. Through an understanding of what has been before, we may develop a vision for the possible future that we want to inhabit.

“From historical archival records and early photographs, it is clear that at the beginning of Euro-American contact the central and southern Sierra Nevada was very open, featuring large-diameter trees, 40 to 60 feet apart and minimal underbrush.

James Hutchings, one of the first non-Indian inhabitants of Yosemite Valley, described the openness of this forest community: “ Large sugar pine trees, from five to ten feet in diameter, and over two hundred feet in height, devoid of branches for sixty or a hundred feet, and straight as an arrow, everywhere abound… These forests are not covered up with a dense undergrowth, as in the East, but give long and ever-changing vistas for the eye to penetrate.”

Early accounts report that the canopy of oak trees sprawled outward from the trunk for a distance of sixty feet in every direction. These trees often grew with an absence of underbrush, and their woodlands were likened to “highly cultivated parks.”

Every winter, waterfowl flocked by the millions into the vast maze of waterways formed by the Sacramento- San Joaquin Delta. This elaborate labyrinth of splitting and merging distributaries made up “the richest ecosystem in the state”.

Plant ecologist Michael Barbour found that, “Late summer and early fall fires were an expected natural event in many California vegetation types below six thousand feet elevation. The same acre of ground could be expected to burn every ten to fifty years. Fire was uncommon only in deserts and at high elevations. California plants evolved with fire as a natural environmental factor over millions of years.

According to ornithologist William Dawson, in the mid-1870s, flocks of from one thousand to five thousand California quail were considered commonplace.

**Onward**

So how can we, the modern stewards of California, learn to move beyond stewardship approaches that are either extractive, or hands off to recognize the universal wisdom that “nature has an inherent ability to renew itself, to cause the return of the geese, the regrowth of the plants, the germination of next year’s crop, but also that this renewal cannot happen in the absence of appropriate human behavior”

Now is the time to look around us and recognize that we are here to stay, that there is not some new frontier to be imaginatively and extractively inhabited. The frontier now is learning to see the current degraded ecosystems for what they are, determining what we want our future to be and charting a path between where we are now and where we want to go.

When we step into this frontier, we realize that our state is as diverse as the hundreds of cultures that once inhabited it and therefore will require a vast diversity of stewardship actions.

The central valley was labeled on an 1830 map as “Tule Marshes” in a large oval with irregular borders. The Tulare Lake, at the Valley’s southern terminus was the 2nd largest lake west of the Mississippi River having an extent of over seven hundred square miles. During this period, 1000s of acre feet of water per day were not being drawn through pipes and concrete canals. Currently much of this water is subsequently flushed into the ocean in coastal cities. This same water now being piped from the mountains directly back to the sea was once a vast evaporative cooling system for the State.

Meteorologists and climatologists also recognize that the replacement of this vast wetland with the current dry desert environment often results in a high pressure zone which prevents Pacific storms from entering central California.

With all this knowledge, and Amador being a recognized as a County of Water’s Origin by the State Water Board, Amador Residents are still required to reduce water use by 25%. While residents of the East Bay are being asked only for a voluntary 10% reduction. These regulations could not be more backwards. Water that Amador residents use stays within the terrestrial system as freshwater and most of it is later available to the Central Valley Ecosystem and its human inhabitants. Meanwhile the water that the East Bay is using is piped from the Mokelumne River across the Central Valley, pumped over the Coast Range and then after it is used once, dumped in the Bay, becoming salt-water. Clearly, water conservation measures are not useful if they apply equally to all residents of the state and they are the opposite of positive if they do not take into account the local eco-system, climate and elevation.

**Living Water**

So what can we do here in our region to steward a desirable future? Water is the living foundation of life and no economy can sustainably thrive without clear clean water and healthy vegetation.

Multi-decadal UC Merced studies show that forest thinning can produce an increase in streamflow of over 10% and extend the flow further into the dry summer months. Not only will forest thinning produce more run-off, it also has the potential to eliminate the risks of catastrophic wildfire. The extra water will benefit downstream eco-systems and the state’s climate as a whole.

In order to carry out this stewardship work, we need more people working in forestry and eco-system stewardship. Currently less than 5% of our local workforce is engaged in farming and forestry. Even these 480 workers are much more commonly working to extract resources from the eco-system than in stewarding systems that are able to provide resources sustainably.

We can develop systems through both government and non-government means that put more people to work in the forest, carrying out prescribed burns, thinning dense stands of trees, holistically managing ruminant animals… in short invigorating ecosystem cycles in part so that we can continue to extract resources for our human wants and needs.

Prescribed burn associations like the nascent one in Calaveras and Tuolumne are one example of a step forward. Community work parties can also be organized to clear brush and thick stands of trees, focusing first on the areas that will reduce the risk of structural and vegetative damage during summertime wildfire.

We can develop volunteer work programs like those CalaverasGROWN set up after the Butte Fire. Volunteers from all homes and walks of life can participate in forestry work on private lands without having to deal with permits and government permission.

Social forestry programs can be implemented which train urban and rural residents in the techniques of forest stewardship. Volunteer teams can then be organized to perform thinning, brushing, fire and herd management work on private and public lands. Social forestry programs often allow and encourage the participants to camp on the land they are stewarding, thus deepening the human eco-system network along with inter-human connections.

These networks and connections will be invaluable in charting the paths to a healthy, joyful and abundant future. The ways forward will be as unique and interrelated as the languages of the peoples that once stewarded these perpetually diverse California ecosystems.

At the latest point that the eco-system was in a state of constant renewal there were over 100 different languages being employed by its stewards. It is time for us, the current stewards of this place to learn the language of stewardship that is specific to our local ecosystem while also recognizing the eco-systems around us.

A healthy, joyful and abundant future will be realized by acting on the recognition that a renewing ecosystem requires human stewards, that we are the current stewards and that yes, we belong here, this is home. The future starts now.

Notes:

horticulture - to garden with respect

resource from french re-sourdre, which means “to rise again”