

# Biological and Cultural Diversity: Repairing and Depending On the Web of Life

## KEY STRANDS OF THE WEB OF LIFE:



AIR



WATER



LAND/SOIL



ENERGY



INTERIOR (repository of diversity)



EDGE (change space, where contrasting environments meet in an ecosystem)



METABOLISM (the systems, cycles and relationships between them that regulate planetary life support)



SPIRIT (the always mysterious and unknowable whole that holds all together - we are part of that whole, but we cannot see or know it all)

The sum of all biological and cultural diversity is supported by a web of different systems and processes, like the anchoring (or radial) strands of a spider's web. The web is full of connections, and everything is dependent on everything else for the web's structure to be maintained. There are also certain key strands that keep the web attached and that are central to keeping the web from collapsing.

The spider sits in the center of the web, and can feel movement or changes anywhere in the web. If a strand is impacted or breaks, the spider goes and repairs it because if there is no web, there is no food, and if there is no food, there is no life. She is Biological and Cultural Diversity. She is all life, from the microbial to the bipedal, and the evolved inter-relationships of life. She is seed, soil and story. Her tools for maintaining her web are symbiosis and co-evolution (interdependence), zero waste, and dynamic tension (which is the process of balancing limits).

For the purposes of this metaphor we are going to say there are **8 key strands**: Air, Water, Land/Soil, Energy, Interior, Edge, Metabolism, and Spirit.

**Air:** Our atmosphere is a delicate blend of carbon, oxygen, hydrogen, nitrogen and other elements; balanced over billions of years in relationship to soil, water, sun and life.

**Water:** Every drop of water is essentially every drop of water there has been (since long before humans first emerged) and is every drop of water there ever will be. Water does, however, constantly change from salt water, to fresh water, to vapor and solid through the complex dance with sun, soil, air and life. This is called the hydrologic cycle. Disruption of the hydrologic cycle is compromising our access to fresh water, and leading to the acidification of the oceans. This, in turn, leads to the disruption of the climactic cycle. Independently, the

disruption of the climate cycle - through the release of billions of years of stored sun's energy via burning fossil fuels - is disrupting the hydrologic cycle.

**Soil:** Composed of 45% minerals, 25% water, 25% air, and 5% organic matter (both living and dead), soil only covers 30% of the planet and is constantly transformed through the relationship between air, sun, water and life. Soil stores water and carbon; nurtures life and for most human communities defines place – and home.

**Energy:** Every single bit of energy on this planet originated from the sun, whether it is food you eat to power your body, or excess carbon stored as fossil energy a mile below the surface unleashed to drive industrial production.

**Edge:** Edge is where different environments meet in an ecosystem, blending together (ecotone). In this space two or more biotic communities meet, creating unique diversity- a key change space for evolution.

**Interior:** Interior is the stable area of a biotic community- the safe space, if you will. The interior of an ecosystem tends to have more stable relationships.

**Metabolism:** The systems, cycles and relationships between them that manage the interdependent relationships. These are the planetary life support systems, such as the climate cycle, the hydrologic cycle, the tides, the seasons, symbiosis, evolution, decomposition, etc. Some of the systems and cycles are short, repeating, observable; some, such as evolution, are long, and unpredictable.

**Spirit:** Spirit is the mystery of the whole. The term we use to capture the reality that, from within the system, we cannot see it or know it all. There are irreducible, emergent properties that we are not aware of. All traditional, evolved cultures hold some reverence for the mystery of the whole.

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Some of these strands are obviously very important to communities and are a key site of political struggles – for instance water. Some, like edge space, are crucial to nature and ecology, but are less obviously important to us on the day-to-day, because our relationship to it is obscured, mediated and, in fact, unhealthy. **We have our priorities, but nature also has its priorities.** Whether or not these have been key to our agendas, all of these strands anchor the web and keep it together.

What humans offer to biological diversity is “evolved knowledge of place.” Culture and cosmology, or worldview, is the container of how well we navigate the relationships to a place. Traditional evolved knowledge is by its vary nature complex, incomplete and ever changing. Human communities are always part of an ecosystem – a “Basin of Relations.” Human communities require biological diversity. Rapid erosion of biological diversity simultaneously leads to and is caused by the erosion of cultural diversity; and these two facts compromises our collective survival.

The colonial logic, by the vary fact that it is derived from an intentional displacement from home, has a disruptive effect on place (just as an invasive, non-resident species, which has no

coevolved relationships in a place can decimate a stable ecosystem, changing it forever). Without any authentic, evolved relationship to place, a forest is simply lumber waiting to be cut and milled, and people are simply labor waiting to be exploited. The colonial mind has evolved a twisted wisdom of ultimate reductionism – atomization and individualism.

**What happens when you cut a strand of the web?** It depends which strand. If you cut in the middle, you are generally still stable. Ruptures to the web are to be expected, and the spider (the combined skill of bio-cultural diversity, with complex relationships and knowledge) can easily repair and restore the web. But as you continue cutting strings there is a cumulative effect and the web becomes less stable. **It might feel slow, but as you keep cutting strings you get closer and closer to collapse, and some strings have a bigger impact than others.** The more you cut, the closer you get to collapse. Resource intensive, globalized industrial production, with its linear materials flow (wasting nature and people), is cutting strands left and right.

Can you repair strings? Yes. Can you fix one piece by moving around strands? No. Since it's a web you can't fix an energy problem by creating a water problem or a metabolism problem. In fact, the only way to repair and restore the web, is to ensure that the spider can survive and thrive, enabling it to continue to be nourished so it can spin more web. If the web becomes so compromised that the spider cannot eat, the spider can not play the critical role of helping maintain the web. We are starving the spider through rapid erosion of the web. What that starvation looks like is the astronomical and rapid collapse in biological and cultural diversity. We are losing species and stories. We are eroding land and language. The more simple an ecosystem becomes (i.e. the less diversity) the less resilient it is in the face of disruptive change.

Certain strands can be considered commons: Land, Water, Energy, Air. **They are of shared importance for all of us and for nature's processes.** What does that imply for how they should be maintained and controlled? Fights to control land, water, and energy sources drove conquest and colonization going back thousands of years. **In today's world, these commons are most often held by the few as commodities, although the conquests go on.** We have been seeing a new wave of energy and water wars, over recent decades as these resources have become compromised for people (much less nature). Now air and life itself is even being commodified under carbon pricing, forest markets, and, of course, labor exploitation. **In the context of this web, to be commodified is to be systematically taken out of relationship to the other strands of this web, and to be placed into the chains of The Market.** This is the battle between the web of life and the chain of the market.

The web of life is all of what we've got to work with – the biological and cultural diversity that currently exists – all of the living world. This living web has strands that are connected – but the exploitative, oppressive system that we live in, in addition to creating all kinds of social destruction, is snipping away at the strings and we are getting close to collapse. We can fix the web, and we can best fix it by remembering that it's a web that is unraveling, and not a pie that we divide differently, or a bug in a computer program that needs a fix. Any workable solution needs to holistically integrate these strands under the control of communities who live in reverence of the whole (with Spirit), who see themselves reflected through the cycles of the day, seasons, etc (metabolism), who learn through experience and struggle (edge), who hold each other in community (interior). This web is us and all of nature, which we might not always see, but we still always depend on.