Of Kropotkin & Lichen

Anarchy in Nature

Stephen Duplantier

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Finding anarchy at work in nature is a powerful experience. It proves that anarchy is not a human invention, but a deep pattern of life—one that persists beneath and despite control, and whose flourishing can eventually eliminate the need for it.

Anarchy is not the absence of order, but the presence of a different, distributed order strong enough to make centralized control irrelevant.

Russian revolutionary and geographer Peter Kropotkin was a pioneer in understanding how forests and steppes were a living archive of anarchist practice. Every bioregional regime has its own variations, but the commonalities shine through. His major stance was that species practicing mutual aid survive and attain their "highest development."

He saw the forest's mingled life, stories of plants being successful by cooperation, and not as a result of Social Darwinist struggles and endless war. There are struggles, but these are against circumstances and not internecine. Cooperation, not warfare, is a natural law, and understanding nature's patterns is a way to know and practice more.

Kropotkin's Siberian travels were adjacent to the era of intense naturalistic travel of the early 19th century adventures of Alexander von Humboldt, and later exploration of naturalists Charles Darwin, Henry Walter Bates, and Alfred Wallace.

During an attempted ascent of the summit of Chimborazo in Ecuador in 1802, Von Humboldt had seen lichens just below the permanent ice. Later, botanists made the startling discovery that lichens were not a single organism, but were a chimeric composite—a fungus and an alga living together as one. Kropotkin observed lichens in the subpolar regions, but also in the boreal and steppe life zones.

Lichens are found in nearly every terrestrial location—on rocks, beaches, patched all over the bark of trees in forests, roof tiles on houses. Lichens are an entire class of omnipresent organisms that could not exist at all without cooperation. The fungus side of the not-so-odd lichen couple provides structure, moisture, and protection; the algal other half, provides food through photosynthesis.

Neither could survive alone in whichever environment they are found. Together, an indomitable lichen couple can colonize bare rock, withstand cold, battle drought, endure relentless seashore conditions, climb the trunks of nearly any tree, and in their quiet conquests, create the conditions for other life to follow. Lichens are often the tough pioneers that, through mutual aid, first to each other in setting up lonely households in barren landscapes, but then to neighboring species, attracting microfauna and beginning the upward cascades of symbiotic life.

A deep pattern of symbiosis was discovered to be possible and necessary at the primitive level of fungi and algae. Then, why should cooperation and association among other classes of archaeons, fungi, bacteria, vascular plants, and all animals be considered exceptional or very much different?

The story of life and its evolution in and around and through the clades, or groups of organisms, and their branchings and nested hierarchies, and all of its descendants, tells similar stories. In such complex tableaux we find the chimeras—those species that cross borders and bounds and delight in confounding the purists. Among them as we have seen, the lichens, and now the humans, and dancing between them all an absolute riot of chimeras.

By now, the human microbiome is well established. Microbiome is the scientific term for the carnival of different organisms living in or on the mouth, teeth, skin, brain, and famously, the gut, from top and all the way down to the denouement at the bottom.

The total number of supporting cast members in the human chimeric carnival performance that is keeping us alive is estimated to be between 10,000 to perhaps 30,000. To even think we are individuals is the supreme fiction.

Kropotkin's rejection of Malthusian conflict in evolution can be seen in the lowly lichen, which demonstrates that even scarcity can produce interdependence. The stripped-down ecologies of the cold zones do not create more competition. Instead, the necessity of cooperation is obligatory. Kropotkin saw life thriving through the mutualism written into the biological circus inside of organisms. The lichen's mutual aid is that insight made emblematically visible in the cold north and the steaming tropics, and recently in the in-between zone of our own complicated chimeric insides.

Rhizomatic plants, such as ginger, bamboo, asparagus, and Irises, are rooted deep in the soil. Rhizome is also a term that Giles Deleuze and Felix Guattari, the French psychoanalyst and political activist, use to describe a sprawling, tangled network where any point can connect to any other point.

The treeless grasslands of a steppe ecosystem are a good example of how innocuous grasses can thrive through non-obvious collaboration, connecting sideways through the sod as they intertwine powerfully. The contrast between this strategy of growth and the trunk-and-crown dominance of trees in a forest with their vertical control provided observational proof to these two philosopher-naturalists of all-too-obvious primal differences. Trees are sessile, living at one address for life. The rhizomes slowly creep through the soil, escaping, but also building subtle and powerful genealogies.

A Marooning Botany of Freedom

Botanical strategies are always a catalog of odd biological curiosities, but also models for existence outside carceral systems. This is the very essence of anarchic marronage: first escape, then build a world in the act of fugitive ecology:

- Like a rhizome's clandestine network of communication, movement, and shared knowledge that makes escape and community possible.
- Like the liana, examples are woody vines or Clematis, using its system's own rigidity to escape its dominance, to compete for resources, and to create new vantage points.
- Like the epiphyte, such as orchids and mosses, which uses an oceanic strategy in the air to navigate and thrive in archipelagos of island sanctuaries and autonomous communities.

There is much more complexity to the networks, associations, and community practices of crisscrossed plant ecologies in the forest. Everywhere you look, you can find the same patterns of evidence of an anarchic commune at work.

When a plant is attacked, it alerts neighboring plants of different species, and changes are made to their strategies. The forest practices a community-wide mutualism with an intricate and collective, but also self-managed and self-generating functioning. Diverse mats of epiphytes collectively help adjust the water cycles and canopy-wide hydrology, capturing fog and rainfall, benefiting the host tree and the entire canopy community in a collective infrastructure project.

A kind of informational mutual aid happens constantly in the stateless realm of the canopy. Epiphyte seeds float with no passport, passing through open borders with no posted signs. Some plants directly fuse their roots. Trees of the same and different species form natural root grafts. Mixed marriages abound. Lateral gene transfer and rhizomatic evolution, non-hierarchical, networked changes are constant. There are creolizations all the time in evolution by connection, not divergence. The intertwining, exchanging, and merging sideways, breaking through levees, making crevasses, opening multiple channels, opening deltas of experience and change.

A Pelagic Indeterminacy

Pelagic refers to the sea, but could also easily include air oceans. Both are realms of flowing embedded in much wider oceans of star systems and galaxies floating and spiraling spectacularly in the cosmic ocean composed mostly of immense distances. From celestial bodies down to krill in the oceans of Earth, it's all about marooning, that is, sustaining a fugitive existence, not by finding solid shores, but by being rafts and islands in cosmic archipelagos, adrift within the pelagic ocean of the cosmos.

The Carnival Krewe of Rhizomia

In the ground of Rhizomia, where tangled roots and mycelia thrive, with no-rules of genealogy and symbiogenesis, of directionless and vast unseen territory, yet not unmanaged, non-hierarchical sharing between individuals, of solidarities that transcend individual self-interest, lies a carnivalesque zone of masking, costuming, and mutual borrowing.

It is there that the ornate masked balls of the Krewe of Rhizomia in New Orleans during Mardi Gras take place. The dance floors are open, and the orchestra rarely takes a break. This is where the active creation of the social and ecological conditions for more complex, diverse communities follows. It is where the commons meet and work out resource and information exchange. It is the scene of functional anarchy at its finest.

The carnival never ends in the Anarchist Ballroom.

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