SHELBY GRAHAM

Palm Crownshaft Core, 2021
Cyanotype print, 16 x 26 in.

COURTESY THE ARTIST, PHOTO: R.R.JONES

JUNE BLUESPRUCE

Reciprocity

Trees and People

To clear out large numbers of people and trees from land they want, colonizers use epidemic diseases, laws, threats, guns, saws, machines. They also use ideas. Epistemicide is the process of killing systems of knowledge, particularly organic, spiritual, and land-based systems, and substituting other ways of thinking and knowing.

Trees existed for hundreds of millions of years without humans. Humans have never existed without trees. We can't. Yet we now behave as though trees are an expendable commodity, to be traded off for farmland, mines, parking lots, mansions, apartment buildings, manufacturing plants, office complexes, mountain views, superhighways, railroads, airports.

Charles Darwin's groundbreaking theory of evolution by natural selection has been diluted and popularized into the false notion that we were all born to fight, within and among species. Victory and progeny go to the tallest, strongest, most aggressive individuals. Cooperation and collaboration are for the weak and naïve, the losers in evolution's grand scheme. But what if cooperation and collaboration enable fitness?

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In the spring of 2012, I wandered among the ancient oceanic sessile oaks in the Glengarriff Woods Nature Reserve on western Ireland's Beara Peninsula. Sitting on the banks of the Glengarriff River, I watched reflections of the old oaks' curving, lichen-covered branches ripple in the winding water. The reserve covers 300 hectares (741 acres) and, despite its small size, is second in importance only to the Killarney National Park in Ireland. These are among the last stands of native oaks that once covered the island, along with ash, wych elm, birch, alder, hazel, arbutus, Scots pine, aspen, cherry, holly, rowan, willow, and yew.

The ancient Irish revered trees for their practical, political, medicinal, and spiritual value. They considered trees to be essential members of the community. Thousands of Irish place names derive from *doire*, which means "oak wood." Large trees like oak and ash marked sacred sites. Hawthorn trees grew near holy wells and in places where the sidhe, "the fair (faerie) folk," gathered. Many of the letters of the earliest Irish alphabet, ogham, have tree names.

While trees do compete to ensure their survival—they can send toxins that restrict the growth of encroaching plants—studies show that, on the whole, trees survive better when other trees around them thrive.

Cutting or harming trees was a serious offense. Under early Irish law (Brehon law), the Judgments of the Neighborhood governed proper use of trees and levied fines for damaging them. Authorities enforced Brehon law until English colonizers banned the practice in 1600.

After the Norman Conquest in 1161, feudalism replaced the Irish system of communal and individual land ownership. According to Marjan Shokouhi, the British derided the Irish way of life, based on hunting, gathering, and raising cattle, as "salvage," an ancient form of *savage*, derived from *sylva*, or "wood." Civilization, in their eyes, meant cultivation. Agriculture required cutting down trees.

The colonizers ripped down Irish forests for fuel and shipbuilding to maintain the royal navy. Britain set up vast plantations, partly to increase political and economic control. The government offered Protestant immigrants from Scotland sweet, though temporary, deals to settle on plantations in Northern Ireland, where Irish republican revolutionaries, mostly Catholic, threatened British rule. Deforestation sped up. Forests sheltered the rebels; cutting trees destroyed their hiding places.

The colonizers and the Christian church joined forces to cut the Irish people off from their spiritual connection to the land and the trees, writes Shokouhi. Both destroyed sacred pagan sites at the edges of the woods. Both emphasized man as creation's highest achievement, separate from and superior to nature. The people's sense of union with the wild woods weakened; the door to exploit the people and clear the forests opened. By 1900, only 1 percent of Ireland's once-lush forest cover remained. As trees were lost, so were native creatures: wolves, wildcats, eagles, and other birds of prey. Recent efforts at reforestation have increased Ireland's tree canopy, but at 11 percent, it falls far short of the European average of 33 percent.

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Lake Quinault on Washington State's Olympic Peninsula stretches out before me. Filtered sun brightens the reflection of dark-green conifers on the north shore. At Lake Quinault Lodge, ancient forests give way to an expanse of manicured lawn. A raven, speaking in its familiar throaty croak, floats between two of the tall conifers left by the lakeshore. Some bear labels: Japanese cedar, coast redwood. These are not native, though they grow well here. Like European settler descendants, like us, they dominate this contrived setting.

Across the road loom the remnants of the original rainforest. Giant Douglas fir, Sitka spruce, Western red cedar, and hemlock trees reach up to find sun. Huge rotting stumps nurse saplings, whose smooth roots snake down the stumps, seeking food. Ferns—sword ferns, lady ferns, deer ferns, licorice ferns, oak ferns—splay their fronds on every surface. Layers of stairstep moss blanket fallen logs; yellow-green hanging moss festoons vine maple branches. Everywhere, water drips, pours, flows, cascades, thunders, pools, nourishes.

Signs along the lake trail tell me that the Quinault tribe manages the waters of the lake. In 1855 the tribe signed a treaty with Governor Isaac Stevens through which the U.S. government stole most of their territory around the lake and beyond. They managed to retain the lake's western shore and land on either side of the Quinault River where it flows out of the lake down to the sea. Their culture, spiritual practices, and survival centered around the fish and shellfish they harvested from the lake, river, and sea.

When European explorers and settlers began to arrive on the Pacific Northwest coast in the eighteenth and nineteenth centuries, they perceived the massive, almost impassible forests as untouched and endless. They failed to see Indigenous peoples' careful management, which maximized use of the forests while sustaining them for future generations. Controlled burns of undergrowth made room for large mammals—elk, deer, bears—which hunters killed for food, fur, bones, sinew, antlers, and fat. Native people perfected methods of removing needed materials from still-living trees: bark for clothing, rope, and weaving; wood for bows; and even whole planks for building. To make their canoes, Native men had to fell whole trees without metal implements and transport them through rugged terrain to the water.

In some tribes, becoming a canoe owner carried spiritual responsibility. According to stories, noted historian Vine Deloria Jr. wrote in *Indians of the Pacific Northwest: From the Coming of the White Man to the Present Day*, a young man who wanted to be a canoe owner was required to fast and meditate in the woods for days, singing a certain song asking a tree to bless him with a canoe. If his prayers were answered, a tree would sing back to him. He would camp at the base of the tree to learn from it how to be a responsible canoe owner. When the tree felt that he was worthy, it would teach him how to fell it.

In *A Vanishing Heritage: The Loss of Ancient Red Cedar from Canada's Rainforest*, John David Nelson wrote, "If salmon was the fuel for the indigenous people of coastal BC (British Columbia), then cedar formed their foundation." Trees create shaded, lush, protected environments for young and spawning salmon. The bodies of spawning salmon provide nitrogen for the forest. Pacific Northwest Indigenous people expressed and still express their connection to and gratitude for salmon, cedar, and other beings through prayers, ceremony, artistic representations like totem poles, and practices that ensured survival of these species. Then came European explorers, entrepreneurs, and settlers: first a trickle, then a flood. We know the massive damage that flood wrought.

In the United States, as in Ireland, colonizers viewed as uncivilized a forest-based existence that left much of the natural environment undisturbed. Civilization meant agriculture: not the sustainable, minimalist plant management practiced by Native people, but wholesale clearing of trees and planting of familiar, European-based plants. Once most Native people were moved to reservations, government Indian agents set about teaching them to farm and insisted that they do so. Deloria wrote:

> The tribes, as we have seen, were traditionally fisher folk, and they loved the life of fishing more than any other. Their farming efforts were undertaken largely to please their new agents, and thus they accomplished just about what they figured would satisfy the strange white men, who insisted that they plant vegetables and grains when common sense told them such things would never grow in so wet a climate.

Before European settlement, old-growth forest covered about two-thirds of the land in the Pacific Northwest. Since settlement, over 70 percent of that forest has been cut or otherwise lost.

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Both humans and trees bear the brunt of lies. The oldest of these, rooted in Christian and Enlightenment ideas, is that humans are the highest expression of creation. Wild nature is chaotic and disorderly; rational humans need to be in charge. We know how that story ends. Not content to stop with humans being on top, colonizers created white supremacy. This concept provided justification for chattel slavery and genocide of Native people in the United States.

Another lie, based loosely on science, is "survival of the fittest." While trees do compete to ensure their survival—they can send toxins that restrict the growth of encroaching plants—studies show that, on the whole, trees survive better when other trees around them thrive. And the same is true for humans.

Research by forest ecologist Suzanne Simard and others shows that individual trees in forests connect through underground mycorrhizal networks of symbiotic fungi and tree roots. The fungi break down nutrients and supply them to trees; trees provide sugar through photosynthesis. These essential partnerships extend far beyond individual trees. Through the mycorrhizae, trees pass nutrients to

other trees that need them. For example, a tree in sunlight will pass sugars to a tree in deep shade; a tree closer to water will siphon it to others in drier places. Trees can discern their genetic kin, and they do show a preference for nurturing them, but they also share with trees from other species.

Trees also warn other trees and understory plants about attacks from insects and animal predators. They emit chemical signals in the air and underground. Plants that receive these signals have a chance to bolster their defenses. Trees in forests shelter each other from wind and other strong weather events.

What about humans? Recent findings emphasize the evolutionary advantages of kindness, compassion, and cooperation. Darwin himself never fully embraced the phrase "survival of the fittest," introduced by Herbert Spencer in 1864. In 1871, in his book *The Descent of Man, and Selection in Relation to Sex*, Darwin wrote, "Those communities, which included the greatest number of the most sympathetic members, would flourish best, and rear the greatest number of offspring." According to Paul Ekman in "Darwin's Compassionate View of Human Nature, what Darwin called "sympathy" we would call "empathy, altruism, or compassion" today.

In his book *Humankind: A Hopeful History*, Rutger Bregman provides extensive evidence disproving the notion that humans are innately selfish and violent. He argues that we are hardwired for kindness and compassion and more inclined to trust than mistrust each other.

If our notions of humans as the most advanced species, whites as the pinnacle of human development, and "survival of the fittest" are so mistaken, we have to ask: why do they persist, and whom do they serve? The histories of Ireland and the Pacific Northwest show us that these lies enable a few people to gain wealth and power. In doing so, they sacrifice the well-being of most humans and the natural environment. We see evidence all around us, in huge rotting stumps and urban heat islands, high rates of asthma and stress among people in tree-deprived areas, decline and extinction of species that depend on undisturbed natural environments, and accelerating climate change. In Seattle, where I live, census tracts that have the lowest amount of tree canopy tend to have a higher proportion of people of color and low-income people. During an episode of extreme heat in July 2020, areas that had more paved landscapes and less tree canopy had temperatures twenty degrees hotter than other areas.

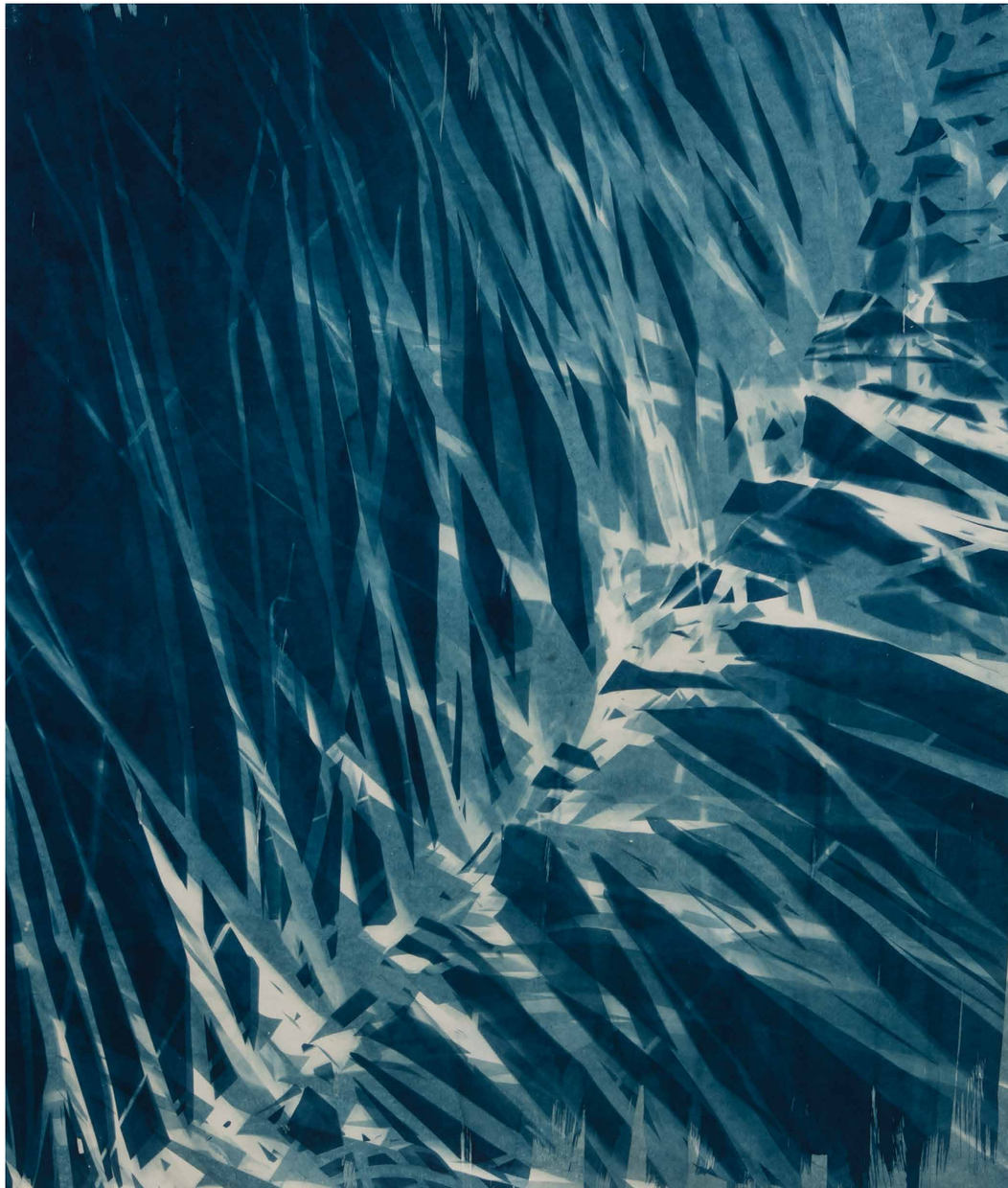
Both trees and people are wired to reach out to and connect and collaborate with others of their kind. Trees establish interdependent relationships with an enormous number of other species. In the past, Indigenous peoples lived in connection and harmony with other animal, bird, and plant beings. Whether our human drive to do so is innate or learned, our mental, physical, and emotional health relies on contact with nature, particularly trees. The process of "civilization" has weakened our bonds with the wild wood and, ironically, with each other.

We can't all go back to the old hunter-gatherer ways. There are too many of us, and environments that once provided abundance have been diminished, poisoned, drained, dredged, demolished. But we can learn from both emerging science and ancient Indigenous ways to value the whole web of life and to devise lives that nourish and sustain rather than destroy it. Humans have the ingenuity, the need, and the resources. The United States landed a rover named *Perseverance* on Mars using exquisite, fine-tuned methods of navigation, detection, and communication. If we persevered in connecting with our most ancient neighbors to the same degree, we might hear them sing back to us, as the Indigenous canoe makers once did. They would teach us what we need to know to be responsible humans.

June BlueSpruce's nonfiction essays have been published in the anthologies *Whiteness Is Not an Ancestor: Essays on Life and Lineage by White Women* (Center for Ancestral Blueprints Publishing, 2020) and *Sacred Stone, Sacred Water: Women Writers and Artists Encounter Ireland* (White Cloud Press, 2019) as well as the online journal *HerStry*. Her poetry has appeared in several journals, three anthologies, and a chapbook. She has coauthored papers published in peer-reviewed scientific journals in the field of health promotion and disease prevention. She lives with her wife in Seattle, Washington, where she works on and writes about tree protection, climate change, LGBTQIA rights, and dismantling racism.

SHELBY GRAHAM

Palm Frond Double, 2022
Cyanotype print, 30 x 26 in.



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