THE NATURE OF THE WEST

Camas

Winter 2010

Published by ScholarWorks at University of Montana, 2010
OUR TITLE  Camas takes its name from the plant *Camassia quamash*, which is celebrated as a staple of sustenance by American Indian tribes from the Rocky Mountains to the Cascades. Care of the camas prairies passes from generation to generation.

OUR VISION  Across the landscape of its pages, *Camas* cultivates new ideas and perspectives while remaining rooted in the inherited traditions of art and literature of the American West.

OUR FRIENDS  Camas received generous support for this issue from the Associated Students of The University of Montana and The Environmental Studies Program.
From the Editors

With winter comes the stillness and darkness of reflection. Tide pools and mudpots. Permafrost and prairie. Industrial moonscape and sagebrush. Consider the images and stories in these pages as the bringing to light of a question that haunts us in the dark: how do we fit into this world?

We’ve reached beyond the traditional boundaries of what is known as the American West in order to question what the West means. Gerri Brightwell takes us onto the frozen Chena River of Alaska, and David Estrada sends us to the bare beauty of Iceland. Other artists pull us back to the heartland: Molly Damm traces the long shadows of the Bitterroot Valley of Western Montana, and Rick Kempa leads us along the brush-lined Colorado River.

This issue’s writers and artists do not determine what the West contains. Rather, they provide a vista from which to wonder at what bounds forth.
PORTFOLIOS

PHOTOGRAPHS by DAVID ESTRADA
Iceland, Alaska, and everywhere between.

PHOTOGRAPHS by DOUG DAVIS
The interface of environment and human.

PHOTOGRAPHS by BETH GIBSON
Peace and beauty found in the detail, the minutia.

ILLUSTRATIONS by KATHERINE MOLTER
Explorations of the spaces merging ink lines and the natural world.

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LAUREN KOSHERE
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SHERRY O’KEEFE

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“The Banana Slug on the Totem Pole”
ROBERT MICHAEL PYLE

“Worlds Within the Waters”
PAT MUSICK
Down the rabbit hole of the Yellowstone thermal pools.
Contributors

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G. ENGLISH BROOKS grew up between the cottonwood canyons of Utah’s Wasatch Front and now lives with his wife and two children in Reno, where he is a student in UNR’s Literature and Environment program. In his spare time he enjoys Mexican radio, squinting at birds, and inventing poorly attended high-altitude marathons.

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BAILEY EDELSTEIN is a senior at Dreyfoos High School of the Arts in South Florida. She has a passion for photography that was stimulated while participating on National Geographic Student Expeditions to Monterey Bay, CA and Alaska. She hopes to pursue a career in photojournalism.

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A native of northwestern Wisconsin, LAUREN KOSHERE loves hardwoods, Lake Superior, and any day spent ice fishing. She holds a BA from St. Catherine University in St. Paul and is a student in the Environmental Studies graduate program at the University of Montana. In the past, she has written for The George Wright Forum and worked in development and marketing at several non-profits.

ROBERT MICHAEL PYLE lives along a tidal tributary of the Lower Columbia River in Southwest Washington where he writes essay, fiction, and poetry. He taught environmental writing in EVST as Kittredge Visiting Writer and is a Guggenheim Fellow and John Burroughs Medalist. The latest of his fifteen books is Mariposa Road: The First Butterfly Big Year (Houghton Mifflin Harcourt).


KATHERINE MOLTEN lives in Montana. She is a self-taught illustrator whose work derives from the biologically-diverse landscapes of her various homes.

PAT MUSICK lives on the Colorado Plateau. She is a freelance artist and adjunct instructor in art and interdisciplinary studies. Her background includes a stint as Grand Canyon artist-in-residence; creating enameled copper murals for university science centers; and a postgraduate degree involving early manuscripts.

 SHERRY O’KEEFE, a descendent of Montana pioneers, is the author of Making Good Use of August (Finishing Line Press). Her most current work has appeared or is forthcoming in Switched-on Gutenberg, THEM, Terrain.org, PANK, Avatar Review, Fifth Wednesday Journal, Two Review, Babel Fruit, The High Desert Journal and Main Street Rag. Currently working on a full collection, Loss of Ignition, she is the Poetry Editor for Soundzine.

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SKYLER SUHRER is a first-year undergraduate wildlife biology major at the University of Montana. He is originally from southern California.

MAYA JEWELL ZELLER grew up mostly in the Pacific Northwest, with a short stint in Des Moines, Iowa. Her first book, Rust Fish, is due out next year (2011) from Lost Horse Press, and individual poems can recently be found in Rattle, High Desert Journal, Cirque, and the anthology New Poets of the American West. Maya teaches English at Gonzaga University.
The River, On the Rising Tide
KATHLEEN DEAN MOORE

July 11

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<tr>
<th>TIME</th>
<th>HIGH TIDE</th>
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<td>11:24 am</td>
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A wave surges onto the beach, pushing a line of gravel and herring, then rolls them down again, a great rush of stone on stone. Another wave spills up the shingle, and this time, a tongue of saltwater crosses the bar. The mix of saltwater and fresh, that sizzle, that sudden shimmer, floods to the black knees of a great blue heron, pulls at the plumes that feather her neck. She lifts one foot, then another, leaving splayed footprints in the mud. She eyes the star-gleam that casts dim light on the flanks of minnows. When the stars disappear, the minnows are lost to her. She stretches, lifting her wings. Tide rises around the heron’s thin legs, curling into small whirlpools. The heron crouches, springs, squawks, and scrapes the air with her flight feathers. Dislodged by shifting stones, a caddis fly scrambles free. Listen even to this: the scratch of hooked feet on grains of sand.

Rising water probes into the roots of the sedges, flowing along shrews’ beaten-down paths, spreading through soft-bottomed salt marsh. Black and slick, the water slides around the bend, past a bank topped with sedges and horse-tails broken under the weight of bears. Pebbles cascade into the river and a section of bank gives way under a sow’s forepaws. A corn lily, a hellebore as tall as the bear, topples, flashing zigzag light back at the stars before it slaps into the water and rotates around a quiet eddy, turning in slow circles as water fingers into the deep ridges on its leaves. Finally, the corn lily sinks. A gurgle, only that. Reaching into the water, the bear’s forepaw rolls a boulder. Clouds of larvae and silt swirl in the eddy, startling a crayfish into flight. Hear the tonguing of the rising water, the tick of grass blade on blade, the crunch of crayfish carapace in the sow’s jaw, her low hum. A willow branch dives and rebounds, caught in the pulsing tide. Each time it slaps the water, it lifts a curtain of starlight.

Against the stronger current of the river, the advancing tidal bore smacks and whistles, then piles into a palisade of sticks and mud. It pauses there, tasting wood grooved by sharp teeth, lifting alder leaves, softening paw prints in mud. Gradually—the moon moves very slowly around the Earth—water lifts over the dam into a wider space in the stream. Dark water licks the mouth of a beaver’s den, crawls up the smooth passage toward the place where kits sleep, breathing warm steam from their brothers’ bodies. As the water rises, they climb on each others’ backs, mewling and whining, scrubbling claws against rough fur. Then they shimmy through the tunnel, kit and kit and kit, pop to the
surface, and paddle in circles, dragging silver waves. Their paddling paws skid out vortexes and their smooth tails leave a stream of bubbles, spheres filled with starlight, but then filled suddenly with night as clouds darken and rain pocks the rising pond. Each drop bores a hole. Each hole lifts an answering spout. Expanding rings lick into the willow flat, lifting last year's yellow leaves.

The tide glides fast along the outside curve, a sharp bank overhung with salmonberry stalks beginning to fruit, slower along the inside curve, over the dark soil under skunk cabbage leaves. Geese, settled for the night on Jimmy Pete's weir, startle at the sound of water stealing up through the stones — a whisper, a click. Muttering, the geese push to their feet, pace the weir, shake rain off their tails. But the water continues to come, sneaking up from behind, flanking them to starboard. A goose stalks to the pond and shoves off. Water pours over the weir. With great honking, the flock plows the air and drops into the pool.

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At the far edge of Jimmy Pete's pond, a mink slides down a mud bank and enters the water, then scrambles out and lopes along the undercut, splashing as the water rises and rain ticks down. There is hunting to be done: A current takes things away, a tide brings them in—a sandpiper drowned in the rip, a herring finning on its side. Gradually, the whole pond rises to meet the incoming flow. Black minnows dart in, riding the tidal bore's shadow the way a merlin rides the wind. A deer, timid, waits until the tide passes, then steps into that pause and tastes the air.

Under the water, the rock yearns upward, as the sun and the moon pull with their combined weight, and the Earth turns heavily on its axis. Every rock, every pebble, the heavy shoulders of bedrock, the thin layer of sand lift toward pale light that is just now flowing from the back of the squall. In each granite pore and crack between rocks, water rises. In each cavern, soft water rises. Rock and water, the whole mountain lifts its shoulders into the night. Rock creaks against stone slab, squeezing water upward; water deep inside the mountain lifts toward the distant moon. Stars pour blue light into crevasses in the snowfields and tug on the ice, spilling water from pools on its pocked slick. Over the lip of the waterfall, meltwater drops in vertical currents straight toward the heart of the Earth. Falling water catches the light of the stars and carries it, blue and bursting, to the bottom of the pool. There it rebounds, flying apart in the air, spraying starlight on the liverwort and maidenhair ferns. The night sounds the groan of the stiff Earth shifting, ancient stone against ancient bone.
Forest duff shifts, and the trees themselves lift heavily toward the starlight. An ancient Sitka spruce, in four hundred years grown heavy-bodied and twisted as a dragon, gradually releases its grip on the soil. Its roots claw for a long moment at the dirt, its branches tremble, and it topples into the river. Where it arcs down, a cloud of golden needles floats in the night, a mist of starlit needles where the spruce branches had been. The spruce falls across a willow, bending it to its knees. Then down. The first branches hit the water, flinging up fins of spray, a slap of sound like water on fire. Then the top of the tree crashes into the far bank. The tree splits down its length, and its belly sinks into the stream. Water piles against its body, then slides across, turning the rough trunk into beaten silver. Needles drift down and swirl away. Under water, the blue bubbles trace current lines over and under the broken tree. Water drums through the branches, beating a dull rhythm onto the deeper grumble of the lifting Earth.

As the moon and sun ride slowly through that moment, the Earth rings. Listen: it’s the sound of a bell slowly ringing, below the deep thrumming spruce, the squealing rock, the clatter of pebbles in water that falls down the flank of the moon-borne mountain.

Listen: the salmon are sliding upstream.

Excerpt from Kathleen Dean Moore, *Dog-Salmon Moon*, a novel in progress. Copyright (c) 2010, Kathleen Dean Moore. Used by permission of the author.
Palimpsest
GEORGE ENGLISH BROOKS

The plodding lunar footprints left by all these geese.

The shoeprints of a small child post-holing down and then up
over the rimed crust, onto which she stamps soft green goose turd

The affectionately parallel tracks of a couple quail across a backyard, intersected
by the bootprints of an adult male proceeding on foot, dragging a dead
Christmas tree to the woodpile

The scattered symmetry in the paths of juncos and mice around the compost pit

The absent footprints of an ouzel sporting in the half-frozen waterfall, its only current resident

The theoretical footprints of a snow flea

The cuneiform runes pressed into muddy snowmelt by wild turkeys

The ecstatic scratches and departing wing sweeps left by crows
crowding over the gutpiles stiffening between auger holes on a frozen lake
And the ragged scouring of magpies on a deer carcass

Keep their long cold library through January.
Was Not
ROSE POSTMA

And Enoch walked with God: and he was not; for God took him. Gen. 5:24

She was looking for the story of the concubine cut
into pieces and sent to the twelve tribes—her cousin
had said the story was there somewhere, so she skimmed
starting from the beginning—anything to get her mind out
of the heat, out of the sanctuary, out of the air too heavy
for ceiling fans to move.

But after twenty minutes of leaving faint sweat prints through Genesis
the most interesting thing she'd found was Enoch
walking maybe in the cool of the evening, maybe in his vineyard,
a vineyard well cared for, not like the one next door
left abandoned except for crows and her brothers who always climb
barbed wire in September to pick fruit, undersized from drought.

He walks with hands outstretched the way her mother
walks through a fabric store touching bolts of cotton and toile and satin—
fingers brushing without actually touching, caressing shriveling leaves
without disturbing the faint layer of dust that coats everything
in a field ready for harvest.

He is waiting—maybe for a staircase of fanfare.
There should be at least one dramatic flash of light
or booming voice or trumpet. But all he does is tremble, shake
and waver like the mirage at noon
on Austin Road where it curves around a walnut orchard.

Then without words, without even a breeze or bird,
right there in the row nearest the olive grove and olive press,
he is pixilated, he is transported, and is gone.
On the Chena River, Alaska, January 2008
GERRI BRIGHTWELL

There’s a thrill to stepping out on a frozen river. The snow under your boot gives just enough to imagine falling through. No wonder my son put his hand in mine and said he was scared. And what did I tell him? That I’d seen fishing holes on this river, drilled through three feet of ice. Hadn’t it been forty below for two miserable weeks?

I led him along corrugated snowmachine tracks towards the middle of the river. Snow groaned beneath our boots. From our mouths our breath trailed out in feathers. How odd to stand in so much space—the washed-out sky, the sun on its low arc, the snow blue with shadows. I held his hand in mine. Through the thickness of our mittens we were barely holding hands at all.

In the glare I didn’t understand: ahead, a stain across the river, a wisp of steam rising from it. From somewhere distant—the porch of a house on the bank—a man yelling, his voice hollow, telling us to get off the river.

I still dream about the walk back. My son marching ahead, a dark bundle against the snow. How far it was to the river’s edge. How impossible to make myself less substantial, never mind the suck of dark water beneath. How strange to finally stand on the riverbank where the land pushed back against our feet, and only then to feel myself insubstantial.
bernt, the German bellhop. I was wearing a shirt with Spanish words on the back one morning as I filled a glass at a juice machine in the employee dining room. I was startled by a husky accent tickling my ear: “Just how exactly do you whisper in Spanish?” That was when I met Bernt. I heard him telling a co-worker over lunch that he had been working seasonal jobs in American national parks for the last 14 years, and bellhops make the best tips. I learned later that he winked and whispered to every new young woman to arrive at Mammoth—apparently with some consequence. My friends and I once noticed him walking out of Lodgepole, the employee dorm for 18 to 20-year-olds, at 7 am, in yesterday’s clothes.

Jaime, who told me over a black bean burger that he once bought a seventy-dollar shot of tequila. He came to Yellowstone from Michigan by way of Alaska. When I first saw him—from across the room as his trainee group filed into our accommodation reservations office—I suspected he must have moved to Yellowstone just after his high school graduation, but when I spoke to him, I noticed white streaks in his shaved-short black hair. He favored his left leg and told me he was drunk when he drove into the telephone pole outside Detroit. His fiancé had left him. He moved to Alaska and made thousands of dollars a month as a crab fisherman. He told me that, after he bought the expensive tequila, the bar owner came to him and said, “I want to meet the man who would buy a seventy-dollar shot of tequila.”

Eugene, a Julliard-trained dance instructor. He taught in a school district near Santa Fe, but his love for Yellowstone brought him to spend his summer break making campground reservations for $6.25 an hour. He struggled to adjust to sharing his employee dorm room with a roommate because, “Honey, if I ever shared a room with a guy before, we were sleeping together!” He grew up in Odessa—“more like Slow-Deatha”—and told us that, when he came out to his father, a Baptist minister, “it went over like a fart in church.” On his last night in the Park, I ran into him packing his trunk in the parking lot in front of his dorm. He agreed to a break from packing, and we hiked to the top of the Old Gardiner Road above Mammoth. We smoked cherry-flavored Swisher Sweets as a full moon rose from behind Mt. Everts. “Don’t do anything for a man,” he said. “They’re just in it for the momentary spasm.”
Grace, a three-time great grandmother who came west from Minnesota to ease the symptoms of her emphysema. She had lived and worked seasonally in small towns all over Wyoming and Idaho and attributed her frequent moves to "nomadic ways." After the expiration of her employment contract in Yellowstone, she moved to Afton, Wyoming. We ran into each other one July afternoon in Jackson. Neither of us had lodging plans for that evening, but I had a tent and sleeping bag in my trunk. We went to K-Mart. Grace bought a sleeping bag. We camped that night at an RV Park near Moran Junction, where we paid $42 for a 12' x 12' tent pad surrounded by RVs. She told me she hadn't been camping in 20 years and said, as she crawled into my squat 3-person backpacking tent, "this is phenomenal!" The next morning, we ate a breakfast of Moon Pies and coffee from the RV park's convenience store. We talked about family and watched clouds smudge the Tetons.

Ben and Jared, reservations agents and brothers from Las Cruces whose days off were the same as mine. They drove to Mammoth in Ben's Tacoma pick-up and drank their morning coffee from jumbo white Styro-foam cups. Jared found my water-logged hiking boot tangled in willows along the Gardner River when we hiked Electric Peak and fixed my Civic when not even our auto mechanic co-workers could figure out why it wasn't starting. Ben taught me, on a 5-mile full moon hike, everything I needed to know about the Texas Tech Red Raiders's most important football challengers in the Big Twelve South (Texas, OU, and Texas A&M—in order of rivalry) and declared he was going to make a decent woman of me someday. After our first backpacking trip together, I bought them each a Yellowstone travel mug for their morning coffee.

Joseph, from Arizona, who told me as I removed a mini candy bar from the dish in our office, "You know, Lauren, you're supposed to put money in the jar if you take candy from that dish." He planned to start a police training program after his season in Yellowstone. He had come to the Park fifteen years earlier and returned that summer for a transition season between jobs. Ben and I ran into him in the lobby of his dorm one night. Joseph's face was rosy and his eyes glossy as he dropped an empty bottle labeled Beringer into a garbage can. Ben mentioned his college in Texas. Joseph regarded my chest and asked Ben, "Is it true what they say about Texas? Is everything bigger there? Even the hooters?"

Preceding pages photos by DAVID ESTRADA.
Photo to left by DOUG DAVIS.
Mabel, from Kansas, who was smiling at you always. She worked at the front desk and once showed me a picture of herself taken underneath the Roosevelt Arch in 1949. She had spent at least twenty summers as an employee in the Park and stayed in the dorm above the Terraces Grill with many other retired ladies. Every year, she and her roommates planned an annual cookout. The year rain kept their festivities indoors, they hosted a party in the common area of their dorm (a room walled with the most expansive collection of romance novels anywhere in an American national park). I discovered the gathering by accident, and Mabel offered me a paper plate of a microwaved marshmallow on a graham cracker with a half-melted Hershey’s bar. I wonder how many guests checking in at Mammoth Hot Springs Hotel have been greeted by her smile.

Henry, who prefaced most statements with, “I know you don't believe me, but...” “I know you don't believe me,” he told me the first time I ate dinner near him in the employee dining room, “but I'm a minister.” A white-haired Oklahoman with one lazy eye, he produced a tattered cardboard identification card, worn soft with age. I did not recognize the name of the religious denomination on the card. Then he pointed to his boots. “I know you don’t believe me, but I’ve hiked over two thousand six hundred and forty-eight miles in this park.” It was hard to believe he’d hiked that far, considering his particularly labored gait. He anticipated my thought and explained his stride. “I know you don’t believe me, but you know how I got my limp?” I didn’t know. “One time, I’m steppin’ off a bus in Tulsa—guy comes up, stabs me in the leg six-TEEN times!” I know you don’t believe me, but I almost choked on my chili.

Grant and Stella, lovers from Dallas. On their way to Mammoth, they stopped their Jeep at every microbrewery between Texas and Jackson. They shared a room in Aspen dorm and told me, “Some Texans listen to NPR.” We went on a front country camping trip together on Stella’s birthday. For breakfast they served lichee black tea Grant had bought in China alongside the first plate of biscuits ‘n’ gravy (Pillsbury and McCormick, respectively) I had ever eaten. Later, several of us helped them dismantle their unruly six-person tent, a model they declared to be “Wal-Mart’s biggest and cheapest.”

Jessica, who said that answering phones to make tourist reservations all day was not as bad as her job sexin’ chickens at a commercial hatchery back in Georgia. She would take cranky calls from Yellowstone tourists over breathing feathers for eight hours, any day. When my first article was published, she brought a hardcover book to the office and showed me a poem she had written about love. She explained that she had submitted the poem to a company and paid to buy the book in which it appeared. She invited me to Georgia—“come any time!”—and hugged me on my last day. “You tell me when you get published again,” she said. “I want to read what you write.”
Running the Old Darby Road home tonight,
Lake Como poured behind us like an answer
to tracing Bitterroot ten thirty light break
across the valley’s parallel rise, spear, divide.
This gravel cut of mountain contours,
our courier line in the hallowed hand
of summer. From someone’s eye
a snake has barely not escaped us
and tonight, it is true any little live thing
will catch us.
Snake too close to death
to gather living, Hubs clips it full dead
with the blunt slit of a harvest knife,
so in the backseat the long body drapes its almost
weight groin to groin across both
of our middle thighs,
and we keep towards home.
At twenty, do you ever realize
you have a spine carved of that much bone?
Almost black-dark now, like the backside
of a pitch-pipe call Hubs says
*I’m going to cook this
and in the last fold of light he shears the skin
from its tiny bone
handles and slips peppered tendrils of meat
into corn oil.
Backpackers fear rafters; there is no other way to put it. Our hiking permits warn us of them, along with “aggressive” ravens and “persistent” ring-tailed cats, and advise us on how to avoid them. They are the tamarisk invaders who crowd the banks; we are the willows, the supplanted native tribe. We have ventured “below the Rim” (a phrase we are fond of) to trade noise for silence and society for solitude. The rafters’ camp, with its big circle of lawn chairs and its boombox pumping New Age music into the air of afternoon and its nightly yodeling and strumming, agitates us.

Ours, we like to think, is the genuine adventure, theirs a glorified Disney ride. We have safely executed tens of thousands of conscious footsteps to get to the river; they have arrived here by sitting. We have skirted danger on trails that thread through cliffs or plunge down steep gravel slopes; theirs is a pseudo-danger, a jaunt through rapids whose every boulder is foreknown and often even named. The play that they sometimes indulge in—dousing each other with water cannons and buckets, talking like pirates, squealing like preschoolers—is annoying. “The Grand Canyon is no playground,” we sputter.

Most of all, we resent their opulence. The smell of cooked meat wafts through the willows to our little patch of beach and drives us crazy. If we creep close, we can hear the sizzle of the fry pan and the pop of can tops and grunts of gluttony. They have bacon and eggs, salami and three kinds of cheese, candy bars and pudding. We have chewy oatmeal, crushed crackers and slimy, flaccid cheddar, and, for dessert (if we are lucky), a wedge of dried fruit.

Our resentment is rooted in envy, and this makes us even madder, because we planned to leave all our Deadly Sins on the Rim. We have been experiencing a net loss of calories, and our appetites are raging. We would like to be invited to the feast, but don’t know how to go about it. “Just do it, man,” the stomach says. “I’m telling you, please.” But we lost our social graces somewhere up in the cliffs, and the head dreads the interplay that is the price of eating.

On a recent hike in the Nankoweap Basin, I came upon the outlying signs of a rafter’s camp in a mesquite grove—the porto-potty, the first tents. Ahead of me I could hear the weird sounds of electronic fusion music. After three days alone, I could not bear such sudden society, so I plunged off-trail up-slope through the thickets, shredding my legs in the process, and traversed above them until, from the receding smell of hot dogs and the diminishing drumbeat, I knew it was safe to go back down.

The next evening was a different story. I was just starting the climb out, and my stomach sternly lectured me: “Listen, man. Now is not the time for shyness.” A new rafting party was in residence—no techno-beat tonight. When
I walked into their camp, the clamor of voices instantly ceased. Two dozen pairs of eyes were on me. I met the nearest set of eyes, nodded.

“Can we offer you some soup?” a voice cried out. A ruddy man down by the water had spoken. When I didn’t immediately answer, because hot soup on a hot day did not appeal to me, he laughed. “Looks like I’ve got your interest.”

I was actually more interested in the spread of crackers and cheese and meat. He saw my look and gestured. “Have at it. Our only rule is that you wash your hands first.”

“I can do that,” I said, as if I were being coerced, and I dropped my pack. When I fumbled with the contraption at the hand-washing station, he showed me how to operate it. While I ate, he and another man flanked me.

“So you’re the leaders of this outfit?” I asked, between mouthfuls. One of them nodded toward the two immense rafts. “Yeah, we’re the bus drivers.”

They were hikers too, they were quick to add, one from Moab, the other Flagstaff. We stood in silence while I ate, and soon they drifted away. A lanky woman joined me at the table.

“Tell me your name,” she said, “so that I don’t have to write in my journal ‘that guy.’”

Three pink-cheeked boys watched me hoist my pack. The bravest said, “So you’re walking?”

“Sure am,” I said.

Whatever the outcome, feast or famine, society or solitude, an encounter with rafters upsets the backpacker’s equilibrium. Either way, a stomach ache is in store, if not from unquenched appetite than from a sudden engorgement. Either way, the spigot of language, which I have managed to reduce to a trickle, will be turned on full throttle. If I have shied away from them, I will spin fantasies of what I might have—should have—done instead: parried their questions with brilliant thrusts, disarmed them with terse, apt remarks. But if I have entered their camp, the aftermath will be worse. All through my evening’s hike up Nankoweap Creek, I replayed the tapes and found myself wanting. Busy as I was wolfing their food, I did not properly express my gratitude to the guides and coax from them the stories of their own hikes. And that woman who asked my name—clearly she was flirting. Why did I not ask for hers as well, for my journal? And those boys; why did I not take time to invite their unasked questions? It takes a good night’s sleep for such hauntings to subside.

These, then, are the Backpacker’s Rules of Conduct in Regards to River-Runners:

1. Control your impulses, for god’s sake. Camp upwind of their kitchen. Live within your own sorry means.

2. When self-control fails you, proceed deliberately. Walk into their camp as if by chance, in full regalia—boots, backpack, staff. Suffer the sudden silence, the weight of all those eyes. You are an exotic species, like the bighorn sheep that perch on crags or the condors who ride the updrafts high above. You would do well to speak little; you are out of practice. Do not ask for anything, and they will ask you to stay.
3. Finally, and most importantly, claim your due.

The unalterable rule of the river, known to boatman and backpacker alike, is this: Backpackers are entitled to free beer. It is the toll we exact for the disturbance we suffer, the gift they are duty-bound to give.

On a Tanner Canyon hike a while back, my buddy Bob was dosing on the beach when voices woke him. Three rafts were gliding by, accelerating on their approach to the rapids. Wasting no time, for the first two were already past our eddy and the last one broadside, he hustled to the water’s edge.

"Cervesa?" he called out.

"What?" the man at the helm shouted back.

"Tecate?"

"WHAT?"

"BEER!"

"Are you a hiker or a rafter?" the man shouted.

"A hiker!" Bob declared.

"All right. OK." Gesturing downstream to where the delta of Tanner Creek curls out into a spit of sand, he said, "We'll meet you at the point. Hurry!"

Bob leapt to his bare feet and erupted into motion, leaping over shrubs, goring himself on a root, arriving at the point just in time to effect the handoff from the woman in the prow, and off they shot into the rapids, and back he hobbled into camp, bleeding from a gash above his ankle, grinning and holding the gleaming can aloft. Dale’s Pale Ale!

The rule, more simply stated, is this: Be like Bob. Over the decades, on beachfronts from the Confluence to Elves’ Chasm, I have garnered Heineken and Hamm’s, Killian’s Red and Coors, Polygamy Porter and PBR. Each, I swear, has been the best beer of my life, the memory of which, like old lovers, I will carry to my grave.

Are you a hiker or a rafter? That, to the riverguides, is the question that matters. They need to know that you are not a jackal from some other rafting trip, a loser. The morning after I took to the brush in Nankoweap, I paddled into the boat camp with an empty water bottle. Feeling a little lazy, I was hoping to spare myself the half-mile walk back to the creek. “Mind if I refill this?” I asked. It was a rhetorical question—of course they wouldn’t—and I was already stepping toward the big ten-gallon thermos when a wiry, weathered dude—the guide, obviously—stepped in front of me.

“You know,” he said gruffly, “It takes a lot of work to pump water from the river.” When I didn’t answer, he waved his hand and said, “But go ahead anyway.”

His abruptness surprised and angered me. It was just water, for pete’s sake. It’s not like I was begging a slab of bacon.

Later, back on my own beachhead, I watched as, one by one, their yellow rafts appeared, five in all, spinning and gliding downstream. Kayakers, one, two, three, flitted back and forth. One pulled up alongside the lead raft way out there midstream, then cut cross-current in a straight line towards me.

“I have a present for you!” the helmeted, panting boy called out.

“Oh yeah?” I stood and walked to the shore. There in his lap was a 16-ounce can of Guinness Stout.
“Compliments of the guide.”

I faced downstream toward the lead raft and raised the can overhead. It was, I understood, a gesture of apology on the guide’s part for his earlier rudeness. He simply had not known I was on foot.

I chose four sturdy rocks and hauled them down to the river. I planted them in the sand in the shape of a square, where the water was about ten-inches deep, then wedged my Stout in the middle and lay a flat rock across the top. Kicking back, watching the wavelets lap against my cooler, I thought how they are not such a bad brood after all, these rafters. The guides are men and women of merit, gainfully employed. In another life, I could be one of them. The passengers could be having their Canyon experience at the IMAX theatre in Tusayan, or in a helicopter with their noses pressed against thick glass. They could be shuffling along the paved trail at the Rim, distancing themselves every few seconds with their camera lens. Instead, I admitted, they too are having an adventure. They are eating in the open air and sleeping on the ground; they are actually getting wet. Unlike this cranky old curmudgeon, they are taking on the challenge to build community, make friends from strangers, with their water-guns and lawnchairs as props. I could even envision that, when my body gets too creaky for these crazy hikes—or maybe sometime sooner—I will come aboard.
The question began as an admonition—
*do you honestly think...etcetera.*
Promise of land to sleep on—we were
entitled to it and said as much to the owners.
After long enough explaining our ragged state:
socks three days on our feet, the heavens
far enough away, the question changed
to something judgeless and manageable—
*how many horses are in this pasture,* to which
Maggie guessed *thirty-four,* and for some reason
Adam picked up a stick, peeled the bark
and started chewing on it. It tasted
primarily of wood, he said, which made us laugh.
One of the mares had been slowly approaching,
a spot on her side like the map of a great
and mysterious country. *What's her name*
was the third question of the day, and no one
knew her name, so we decided to name her
ourselves. Maggie said Cinnamon and Adam
suggested Seraphim. Caleb thought Empress
was a good name, and from there
we spoke past each other, until the horse
wandered toward a patch of dandelions,
and the dusk lowered on us its demands.
A Day is a Lifetime
CHARLOTTE BEARD

My socks were chosen
mismatched and hidden under leather boots.
I wished them green like the woman you met in New Orleans.

Today, I tried to tell a young girl what a birch tree was.
“Picture a white trunk and beautiful
leaves silvery-green.” She looked
at her street with Crapemyrtles and Jacarandas.

I bought a pack of cigarettes on the way home and
in the evening my mother confessed
her loneliness in nuances. I played
a bit of piano.
Her Willapa July

MAYA JEWELL ZELLER

In these hills, you can feel the moon coming up through your feet. Each toe begins to shine inside your boots, and you think you might float away sideways like a waterstrider on a riverbend, all slow and drifty and surrounded in alder catkins which glide the surface around you as swimmy as stars. This is a moon-shining riverbend, a boys-don't-know-about-it riverbend, the billowy curve of river only she swims in. The moon starts slowly to rock above the treeline, and she puts her toes to the surface edge, makes ripples that echo like moonlight across the sky. Pretty soon she's up to her belly in moonwater, button-to-button with moon-yellow, that moon swinging her hair around like a cat, howling and scratching out notes on the bottle-smooth water, her trying out her own yowl as melody, unsure who dove in first.
Worlds Within the Waters
PAT MUSICK

In Yellowstone, there are ten thousand pools: thermal features, no two exactly alike. Each mudpot sends up its own particular fragrance of odoriferous steam, and plays its own musical hisses, bubbles, splats and groans. The colors come from minerals such as iron, sulfur, and arsenic; the same brilliant yellow sulfide of arsenic, orpiment, once used as pigment to illuminate ancient manuscripts. And some of the colors come from things living in more bizarre environments than imagined in the wildest tall tales.

That nothing could live in the noxious, sizzling springs was assumed for most of the first century of the park’s existence. In 1964, microbiologist Thomas Brock stuck some clean microscope slides in a hot spring, left them for awhile, then looked at them under a microscope. They were covered with live bacteria. The first of these newly-discovered creatures to be characterized was named for its home in hot water: Thermus aquaticus. The enzymes in T. aquaticus don’t shut down at high temperatures, as others always had. That made DNA sequencing possible, since it requires sustained functioning at high temperatures to make copies of a specific region of DNA strands. An enzyme from T. aquaticus, Taq polymerase, was eventually used in the development of PCR (polymerase chain reaction). This allowed scientists to clone millions of copies of a DNA sequence from a single sequence in a test tube. Gene sequencing became relatively easy once it was possible to make millions of copies from a single gene.

That was the breakthrough for opening up the gene code. The importance of DNA forensic evidence in criminal cases became possible when gene-copying provided enough DNA to use, since crime scenes typically yield miniscule quantities of DNA. And gene sequencing—first made possible through enzymes from T. aquaticus—helped pick the lock of the Pandora’s box containing secrets of altering those sequences: genetic modification.

Because Yellowstone was protected to preserve its scenery and large wildlife—esthetic, “impractical” reasons—the pools where microorganisms like T. aquaticus live remained untouched. Hot springs elsewhere, as in Iceland and New Zealand, were long ago developed for pragmatic, tangible reasons: geothermal heat. At Yellowstone, microorganisms were accidentally left undisturbed, in unadulterated homes, until scientific questions and technology were up to the task of inquiring about them. What else—for which we don’t yet even know the questions—is out there somewhere, thriving as it has for eons because it was unknown and undisturbed? What if places were protected on the basis of knowing that we don’t know everything that’s there?

When you become a birder, you begin to notice every little rustle and every flick of motion in the foliage.
Once you’re introduced to botany, every combination of leaf shape and cluster, petal and stamen calls out its family name like an old friend. And once you know there are vast populations of living creatures in the strangest seething, simmering, stinking, roaring, trickling, acidic, alkaline, muddy puddles and clear rivulets in Yellowstone, you begin to realize that anything around you, no matter how inanimate it appears, is crammed full of life.

My personal introduction to the microscopic life in the hot springs came on a snowy day in June through the good graces of microbiologist Craig Oberg and writer David James Duncan. The two look innocuous enough. David’s scholarly mien belies the passion, foolishness and heart that can bring his readers to tears of hilarity, outrage, grace. Craig’s affable demeanor hardly hints at his scientific rigor, let alone the wonder that is its wellspring.

We piled into Craig’s battered land cruiser and drove to a group of hot springs near Mushroom Pool, where the first thermophiles—microbes that love hot water—were identified. Around the hill, sinter-lined Octopus Pool’s alkaline runoff channels gesticulate like tentacles. In these channels float intricate microbial civilizations: millions of bacteria, glued together by their own bodily processes in layered spongy mats. Those that thrive in light live near the surface; fused to the underside of their population live whole neighborhoods of other thermophile genera and species that prefer shade or dark. In the running water of a channel, pink streamers of Thermocrinis ruber bacteria undulated like seaweed. Thermocrinis, Craig explained, probably lives nowhere else in the world.

What if there were microscopic Thermocrinis scientists, explorers, theologians in the runoff channels, I thought, solemnly proclaiming that conditions at either end of the channel and above the surface—too hot, cold, dry—were too extreme for living things to exist. I imagined them marveling at how their Creator had placed them in the only environment in the known universe capable of supporting life. Of course, there are no theologians or scientists among the bacteria. As far as we know.

Like Chaucer’s pilgrims telling tales on the road, my companions traded stories during car intervals between the way-stations of our pilgrimage: from William Blake to the Bhagavad-Gita, the Bible to fly-fishing, Shakespeare to the organic chemistry that explains why farts result from digesting beans. Then we’d reach another stop and alight, hike in, and regard a simmering pond while Craig described yet another unbelievable life form. We stood on the shores of a lovely pristine lake, contemplating that under its placid surface is one of only two places in the world that one particular microbe is known to live; the other place is in the gizzards of turkeys. There are no wild turkeys in Yellowstone. It’s unusual, Craig observed drily, to find a pathogen living without its host.

Extremophiles are creatures that thrive in conditions
humans consider extreme, at home in boiling mud that's more acidic than battery acid. We slogged through deep wet snow near Mud Volcano, serenaded by groans, burbles and roars from sloshing pools, but stopped sort of our particular destination in deference to a very large bison. Instead, swathed in the stench of sulfur vapor, we surmounted another spring to gaze down at seething, boiling, charcoal-purple mud. There, suspended in its silky film of bubbles, *Sulfolobus acidocaldarius* was serenely oxidizing sulfur and secreting sulfuric acid. The acid helps break down the rock around it, releasing more sulfur for *Sulfolobus* to convert to sulfuric acid, dissolve more rock, and replenish its own acidic muddy home.

There, suspended in its silky film of bubbles, *Sulfolobus acidocaldarius* was serenely oxidizing sulfur and secreting sulfuric acid.

Before life invented the gourmet technique of making energy from sunlight—photosynthesis—the periodic table provided the menu for primordial nutrition: chemosynthesis, making energy from chemicals. A lot of Yellowstone's microbes carry on this ancestral tradition: sulfur, hydrogen, iron are among the favored delicacies. In Earth's infancy, its surface broken out with pools of hot chemical broth, the earliest organisms took their meals via chemolithotrophy, the derivation of inorganic chemicals from the earth's crust. NASA studies Yellowstone's extremophiles extensively: they tell a lot about any possible former (or present) inhabitants of planets or moons out in space, where—by earthly standards—temperature and chemical climates are pretty extreme.

Our final stop was Mammoth, where we walked above the exquisite terraces: calcium deposits, built up from centuries of microscopic crystals into giant travertine staircases. Five hundred gallons of hot water per minute bring two tons of dissolved limestone from underground to the surface each day. Above ground, the calcium and carbonate combine and precipitate as one foot per year of travertine. The terraces' brilliant colors come from bacteria that live in the flowing water. One of them, *Thermothrix thiopara*, forms ribbons of microbes, streamers that ripple in the flowing water. As the water trickles over the streamers, it deposits minute particles of travertine on the surface of the bacteria cells. The streamers become so encrusted with calcium carbonate they become rigid and brittle when dried. When underground channels seal or shift and water no longer flows, the microbes cease to function as living things. But the travertine remains; one might say that the enormous terraces at Mammoth are formed of petrified bacteria.

Ever since my proper introduction to the microcritters in the mudpots, sheer amazement at all that bizarre, diverse, unforeseen life remains an epiphany. Craig pointed out, "No matter where scientists have looked—the deepest hole, the highest weather balloon—even pH zero—if they have the ability to detect microbes then they find them." Truth is indeed strangest. Or, rather, the general assumption about what's true and real is a very thin slice of what's out there, all around us.

Even the definition of life and the ways scientists group living things has changed. Among the antiques in my eclectic library is Asa Gray's School and Field Book of Botany, first published in 1857. Its classification of life into
two kingdoms—animal and plant—is as charmingly archaic as the Victorian prose: “The earth itself, with the air that surrounds it, and all things...destitute of life, make up the...inorganic world. These are called inorganic, or unorganized, because they are not composed of organs, that is, of parts which answer to one another, and make up a whole...The organic world...consists of...parts which go to make up an individual, a being... It was formed of inorganic or mineral matter, that is, of earth and air, indeed; but only of this matter under the influence of life...The organic world consists of two kinds of beings; namely, 1. Plants, or Vegetables, which make up what is called the Vegetable Kingdom; and, 2. Animals, which compose the Animal Kingdom.”

Defining and classifying life and its forms has become a lot more complicated in the century and a quarter since this book was published. Zoology textbooks published in the twenty-first century spend pages discussing the question “can life be defined?” before even introducing the subject of animals. The organic world turns out to be so complex that scientists now classify beings into a lot more realms than simply Animal and Vegetable Kingdoms. Animals and Plants—along with fungi, amoebae, slime molds, and other groups that are neither plants nor animals—are so different from bacteria that biologists replaced the notion of simple Animal and Plant Kingdoms with an image of a Tree of Life with three major branches. Genetic similarity or difference determines where beings are located on this Tree; each of its branches indicates a vast genetic distance from other organisms. One branch is Prokaryotes (bacteria), whose cells have no nucleus and whose internal features—the “guts” of the cell—in fact are not “composed of organs” at all. A second is what used to be regarded as everybody else: Eukaryotes, whose cells have a nucleus. But this imagined tree was seen to possess a third branch with the identification of Archaea, which are like Eukaryotes in some ways, Prokaryotes in others, and different from both. “Animals” and “Vegetables” are clustered together on a twig at the far end of the Eukaryotes branch of the Tree. Compared to Thermothrix (a bacteria) or Sulfolobus (Archaea), humans and lodgepole pines are so closely related that we probably shouldn’t marry one another.

“The earth is alive,” say poetry and myths. Ancient trees still stand, no longer carbon and water but petrified in silica and agate. Limestone is the compacted bodies of countless ancient sea creatures. Oil shales and petroleum are the carbon distilled from dinosaurs and Pleistocene swamps—blood and cellulose, muscle and leaf of living things. And microscopic life—bacteria, clothed in dissolved calcium from the limestone of ancestral sea skeletons—creates enormous travertine terraces. “The earth is alive,” and among the hot springs and mudpots, the veil is held aside, truth revealed.

Photos in this essay by BETH GIBSON
How to Draw an Albino Coyote

SHERRY O’KEEFE

Leave your white crayon in the box.

Draw a simple forest. Brown strokes go down and up.
Upside down Vs in green make pretty lodge pole pines.

Smudge these with your thumb. This is how trees become
one forest. This is how we blur.

Leave a blank space- a place for her to hide.

For the Absaroka Wilderness, draw tips of broken stars.
Think of using purple – like the mountain song.

Save your blue crayon for when you see her eyes.
Tear the paper from your gray to slash thunder in the sky.

Scatter orange and yellow circles for flowers on the ground.
Let some of them be crushed.
sits on top of the heap, above coyote, jay, and raven. All four tentacles poke like pigtails from its head, beside the rasping mouth: long ones watching, short ones sniffing, all four palping the heady air at such an elevation.

For such a creature of the ground to find itself so far aloft, peering over evolutionary betters down below, must be a rare and pleasant vantage. Not the first banana slug that's crowned a pole since ceremony times. But maybe it's the only one carved out of cedar log, no slime trail left behind to show how it got up there.
Review:
River House
Sarahlee Lawrence, EVST Alum

Lawrence grew up on a ranch in the high desert of Oregon, where her strong, unflappable mother is content, but where her father, a surfer in a place of little water and epic winters, suffers like a caged bird.

Lawrence develops a passion for rivers, and at a young age, she becomes an accomplished, seemingly fearless, world-traveling river guide and advocate pleased with her roughing-it, transient life. Until she finds herself on the flooded, hence monstrous, Tambopata River on the border of Peru and Bolivia.

Suddenly, it seems imperative that she build her own log house on her family’s land, just as her parents did. Surely this will make her father happy. Instead, he’s instructively adversarial, and her strenuous and dangerous work on the ranch caring for 40 horses and constructing her house in the bitter cold is as harrowing and demanding as any wilderness sojourn. Handy with tools and rafts, a good neighbor, and a mighty fine horsewoman, Lawrence is also adept with language, writing with arresting lucidity and a driving need to understand her father, her legacy, the land, community, work, and herself. A true adventure story of rare dimension.

— Donna Seaman from Booklist, October 1st

TO CONTINUE THE FEAST

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