SARA J. GROSSMAN

Disability across Land and Species

On the highway passage between northern and central New Jersey, my three-legged dog sticks her snout out the window. Eyes are shut, tongue flung aside her right cheek. She smells the New Jersey Turnpike air and somehow seems better for it. We pass the meadowlands, Rahway's refinery towers, and the fielded landscapes south of exit 11. The highway is body that holds us as we move.

Exiting the highway, we drive down the dirt road to the old farmhouse that we have been living in for a few years. Sadie leans heavy on the car door. I park, open the door, and Sadie drips out. I catch her as best as I can.

In a calculated choreography that we are both still learning, I lift her to the ground. It is complicated, though. I am also missing a limb—my left arm—so I use my right hip and arm to lift her out of the car and steadily, we lower ourselves to the ground. For most of her life, we will move this way.

Sadie runs to a nearby field and is soon tangled in the brush. She has an appetite for getting into the weeds. The dry stems of the season wrap around her front paw. She sneezes and the surface dirt rises to a cloud around her. Sadie's coat is caked in mud and clay. Her body is a sediment core.

The culmination of the most recent geologic glaciation—the late Wisconsin substage—took place across northern New Jersey 21,000 years ago. The drama of the substage ice-sheet altered the northern New Jersey landscape, including parts of Somerset, where Sadie and I stand. Nineteenth-century geologist Rollin D. Salisbury argued that the general law of movement produced by drifting glaciers, known as glacial drift, made a tangible difference in the bedrock of the

ISLE: Interdisciplinary Studies in Literature and Environment 29.4 (Winter 2022), pp. 1328–1332
Advance Access publication June 18, 2021 doi:10.1093/isle/isab009

earth. Drift occurs after ice has finished its draping across earth and it refers to deposits left behind. The process produces striation (deep cuts in the rock) as well as deposits left behind known as till.

I lift Sadie out of the field. The choreography again. We move together in alliance, a constellation of care that is unique to our shapes as companion and disabled species. I see myself as glacier and my own melting movement toward Sadie as a form of drift. Together, we till the landscape of disability. We break it open.

Living a life with Sadie meant drifting in and out of disability. It meant seeing my own vulnerabilities as a disabled person reflected in her. At the same time, it also meant existing in ways that allowed me not to have to define myself through the supposed crisis of my "missing" part, but rather through the unscripted and adaptive performances of both my and Sadie's bodies. Together, our bodies made sense in ways that were not possible in normative worlds.

In her early life, Sadie and I walked the grasslands for hours at a time. As she aged, walking was harder, so we drove. Riding in a car offered Sadie a periscopic understanding of her surroundings in ways that were not always accessible to her on the ground as an aging three-legged dog. She would use the right side of the car—from the passenger seat—as a prosthetic, hooking her small arm into the door molding. The car carried us both.

We followed the river roads south into central New Jersey's Mercer County. Traveling that way, we'd end up in a different geological region than the Piedmont, having crossed the boundary into the Atlantic Coastal Plain. The Coastal Plain extends along the eastern edge of the United States from parts of Massachusetts to Florida, and it divides northern and southern New Jersey with knife-like precision. The place that Sadie and I called home was right along this division. When I see maps of the Piedmont region and the Atlantic Coastal Plain, I see the way the regions meet in jagged, asymmetrical form. I see the region's edges as zones of contact and affection. I see the regions mutually carrying one another into the stability of rock that forms the ground of this earth. I see my and Sadie's bodies in the places where one region ends and the other begins.

Some days we were of Piedmont, and other Coastal Plain. We broke the boundaries, knowingly and unknowingly, collecting on our bodies the sediments that belonged to each geology.

After ten years together, we have perfected our choreography of getting out of the car. Sadie waits for me; I use my hip and my single arm. She trusts me now and I take time to relish in carrying her. She seems to like the weightlessness of it. I do, too, though in relief. For me, it's about the weight I can support. For her, it's about the weight she

can give up. I want to hold her here forever, but my arm muscle begins to cramp and I lower her to the ground.

We shuffle down the main trail where it opens to a series of minor ones. We choose one without knowing where it leads, and end up in a low-land, hardwood forest—past a lining of red chokeberries, a scum bog, black cherry, and slippery elm. We sit by the water's edge.

The water reminds me that what is given can also be taken away. Sediment flows onto rocks, gets brushed back into the water through the motions of wave. The Black-Eyed-Susans stretch sideways in July and burn black in August. Sadie tries to bite the tiny wave that laps onto the sandy shore; the water retreats. She tries again; gets a mouthful.

On the drive home, we cross the fault line between the two geologies. In my mind, I see them break into one another jaggedly; the meeting place of forms that hold one another in alliance and compliance. Together, the rocks are enough to make the earth work.

I think of the whole ocean; water as logic. The rock beneath. Sadie's three paws submerged in the canal water. Water drenching her fur and making her small paw—where the bone stops—look like a slab. I am slab, too, where the bone stops.

In the theory of plate tectonics, slabs are massive, irregularly shaped rocks. Slabs drift; they rift. Disabled bodies do that, too. The laws of ancient movement and shift—the laws of adaptive rocks—are held in the slabs of the earth, in their striations. I think about the earth as bone; my and Sadie's bones (especially the place where each of our bones stop) are a kind of earth, a world with force and life that is always spinning out with energy. Where traditional scientific thought would understand the rift as a place of crack or split, through Sadie I understand it as a place of gathering and momentum.

Marie Tharp was the geologist whose mapping of the ocean floor proved the theory of plate tectonics through the discovery of continental drift. Tharp mapped a 10,000-mile-long Mid-Atlantic Ridge, a finding that proved the sea floor was spreading. Tharp worked with Bruce Heezen and while she wasn't allowed aboard experiment ships to collect data, she reduced and visualized the data, mostly from home, to form a world ocean floor map that made the drift visible. The Mid-Oceanic Ridge, Tharp and Heezen write, "appears to be a feature created by extension of the Earth's crust and the emplacement of new material from the mantle below." Driving around with Sadie, I dwell in Tharp's discovery of the rift valley. The laws of ancient movement and shift are catalogued in the earth. The earth is bone, and bone is catalogue, too.

On the ocean floor, beyond the rift valley, there is also something called the abyssal plain. Unlike the rift valley—which dips, almost breaks, with the masses on each of its sides—the abyssal plain is by far the flattest part of the earth. Although the rift valley and abyssal plain are distant features, they help define one other in the same oceanic landscape. Rift valley and abyssal plain form the deep zone that lies on top of Hadal.

The zones of my body, and of Sadie's, might also be categorized through the rift valley and the abyssal plain system. The plain is where our bodies extend in seeming normativity. The rift valley is the interruption—a rift of bone, a break in the plate, a place that marks an edge to our tectonic masses.

The rift valley is a place not only of rupture but also of yet-unknown creation.

I came to see my body and Sadie's body reflected and refracted in the geologies we inhabited. I came to see how deep time could be applied to geologies of the earth and the long choreography of our life together. I came to know disability as a kind of deep time etched in the earth, from the first plate formation to the late Wisconsin substage. Disability as deep time is not about what is missing or what fails, but is rather about new movements and forms. The merging of bodies and resources into new modalities of life.

When Sadie died, she had three quick seizures that were signs, the doctor told us, that the tumor blood, which had several weeks earlier pooled in her stomach, had spread to her brain. As G—the only four-limbed member of the household—and I try to stabilize her on the kitchen floor, I remember the grass. I remember how multi-species bodies get entangled, and how they learn each other in that entanglement. Our limbs collide on the floor of seizure and we become drift: *irregular covering on the bedrock of the house.* We become a rift: *new material from the mantle below.* G. cradles Sadie off the floor; I open the door to the car. We are a choreography of three now.

Throughout my life with Sadie, our bodies were asymmetrical rocks that shifted in alignment. Sadie and I learned the ways that the sediment of non-normativity moved. We learned our bodies as glacial drift. We made new and unpredictable formations.

In the shadows of what we each could and could not do, something else grew—a vulnerability that reshaped our "broken" bodies into powerful and geologic forces. Each day, and through each act, our bodies collided into new worlds where normality no longer mattered.

In the literal carrying, our limbs collided like tectonic plates, two geologic zones. But toward the end of Sadie's life—as her body grew in age and pain—she refused my carrying. She needed the support of two

hands to get around, to be carried up and down the stairs. Toward the very end, she needed assistance getting up off the floor. Some of these things she allowed me to do, though it was clear she preferred stability on both sides of her body. But there were other things—like helping her back into the house after a walk, or, later, helping her into her red radio-flyer wagon for a drive around the neighborhood after we'd relocated to New York—that she would not let me do. When I tried, she'd step back, out of my one-handed grip, to let me know we'd have to find another way. She deserved the care that she needed, and this was care I could not provide.

In the last few years of Sadie's life, G. grew into the role of primary care-lifter. The calculated choreography that Sadie and I learned in early years was no longer active in our later ones, though the outlines of how our bodies carried and collided with one another were never lost. They were etched into the earth.