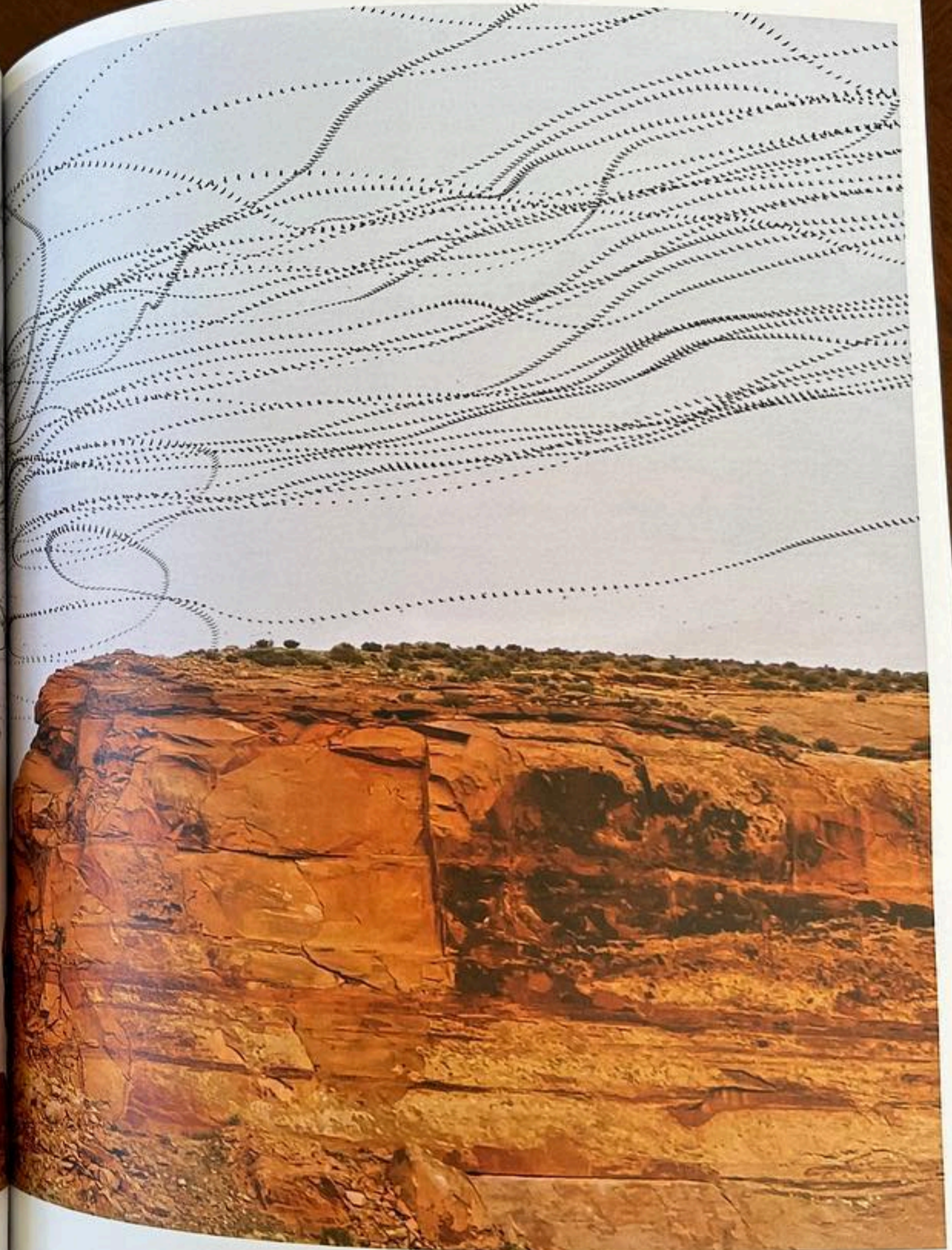
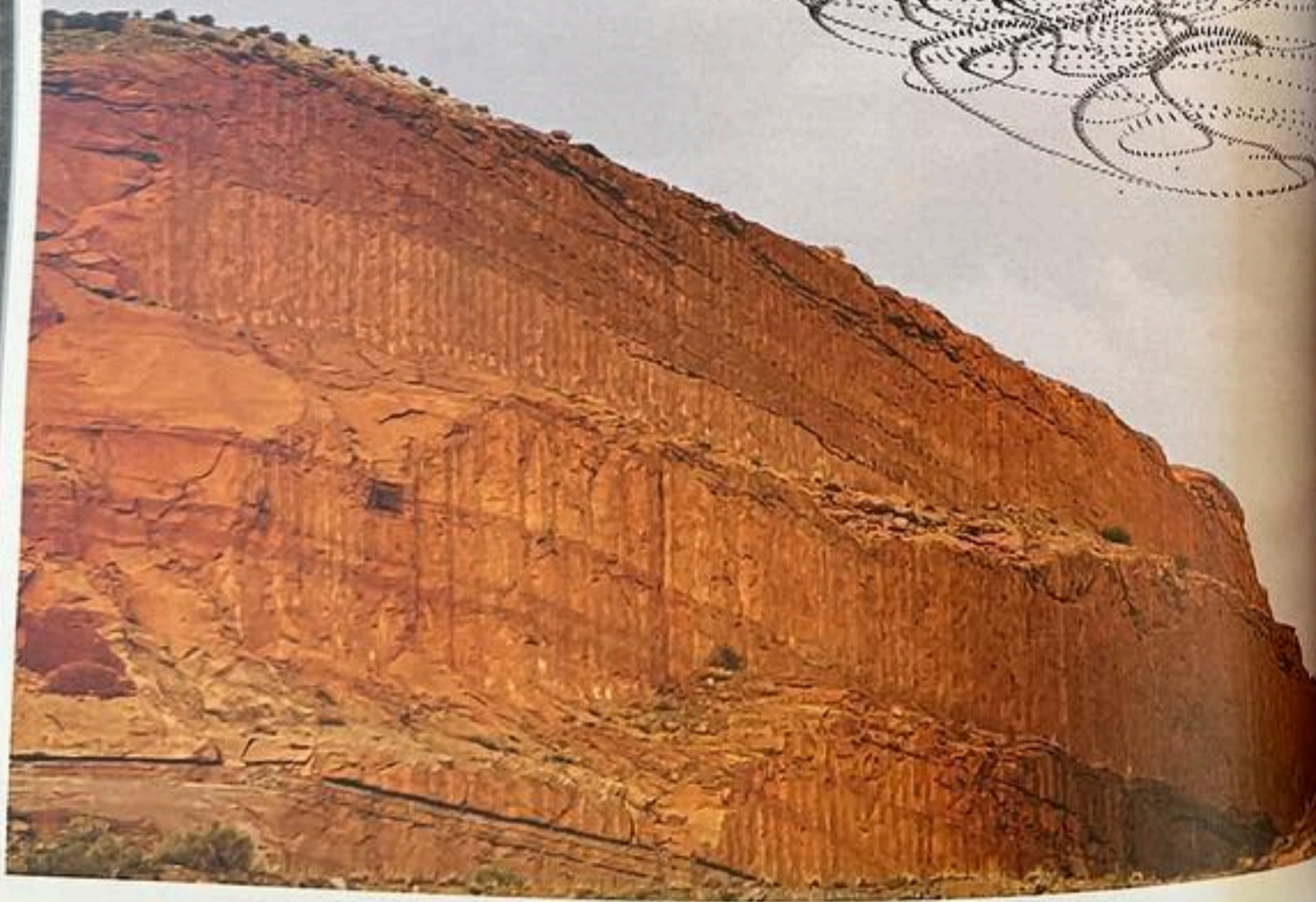


STILL IN MOTION

THE PROFOUND BEAUTY OF BIRDS IN FLIGHT

—
STORY AND PHOTOS
BY DORIS MITSCH



Vultures circling over mesas near Moab, Utah, 2022

From where I sat, the pandemic lockdown in 2020 made time itself seem to stretch and flatten in a strange way. Tense, repetitive days and long nights piled up unexpectedly into many weeks. Stuck in one place for what felt like forever, I decided to make a series of photographs based on the constraints of this collective, forced pause. I started with what I could see from a fixed point just outside my front door, looking across a small canyon at the wooded ridge opposite.

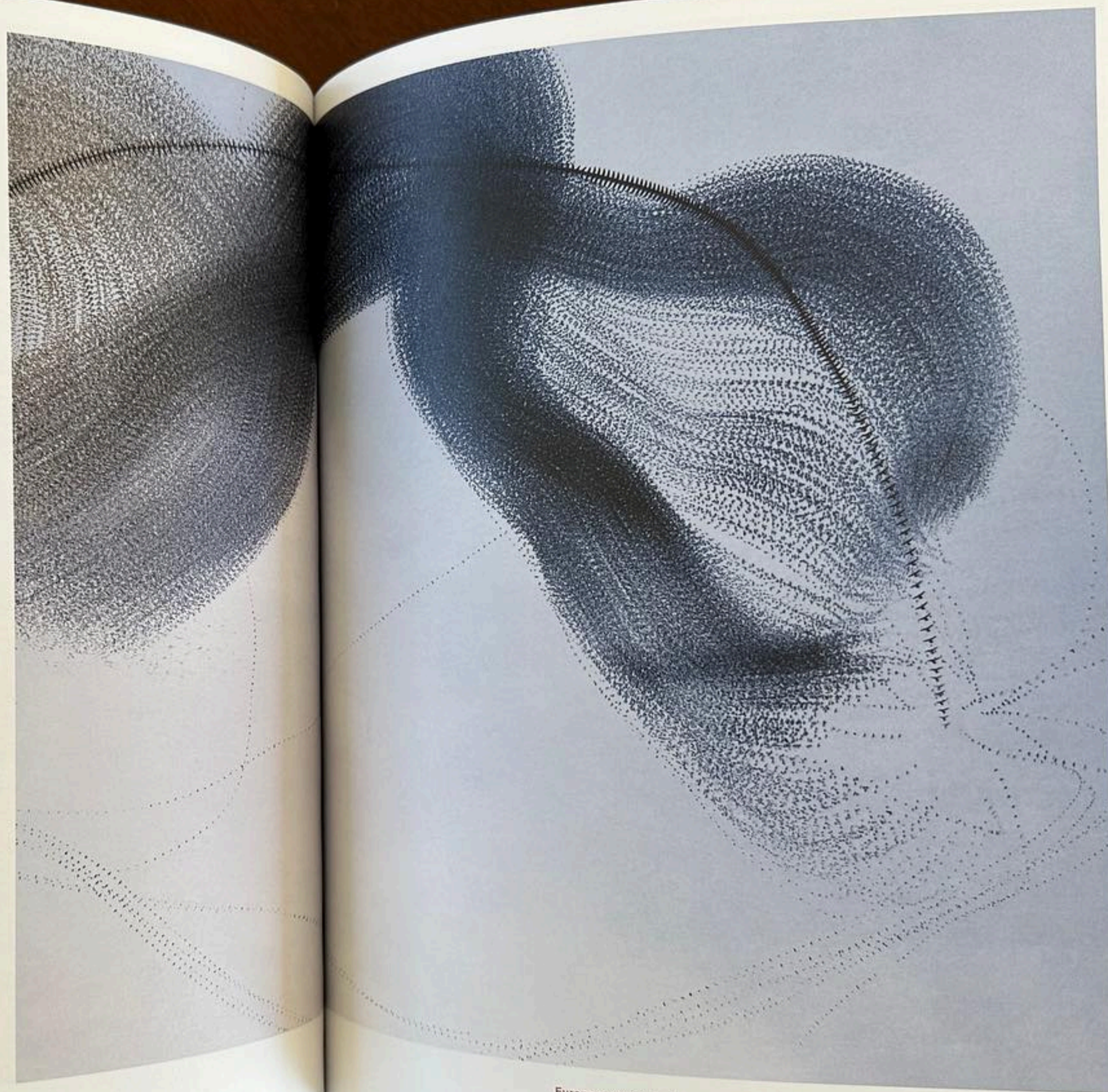
While we on the ground were locked down, there was still a lot going on up in the air. Crows went on with their travels up and down the hillside. Dragonflies zigged and zagged after prey. Hawks and vultures spiraled over the canyon riding thermal updrafts and bats came out in the evening to dine on the wing. Capturing their movements as composite photographs, I focused on the graceful and intricate paths of their flights.

I'd often watched hawks circling before, but I hadn't looked at their circles this way. Photo-stacking—combining multiple images into one—builds a picture showing four dimensions: latitude, longitude, altitude, and time. It's used in night photography for capturing star trails and can also show the path of pretty much anything else that moves, from athletes to airplanes. (For some stunning examples, check out Xavi Bou's work with birds, Daniel Kordan's fireflies, and Pelle Cass's people, among many others.)

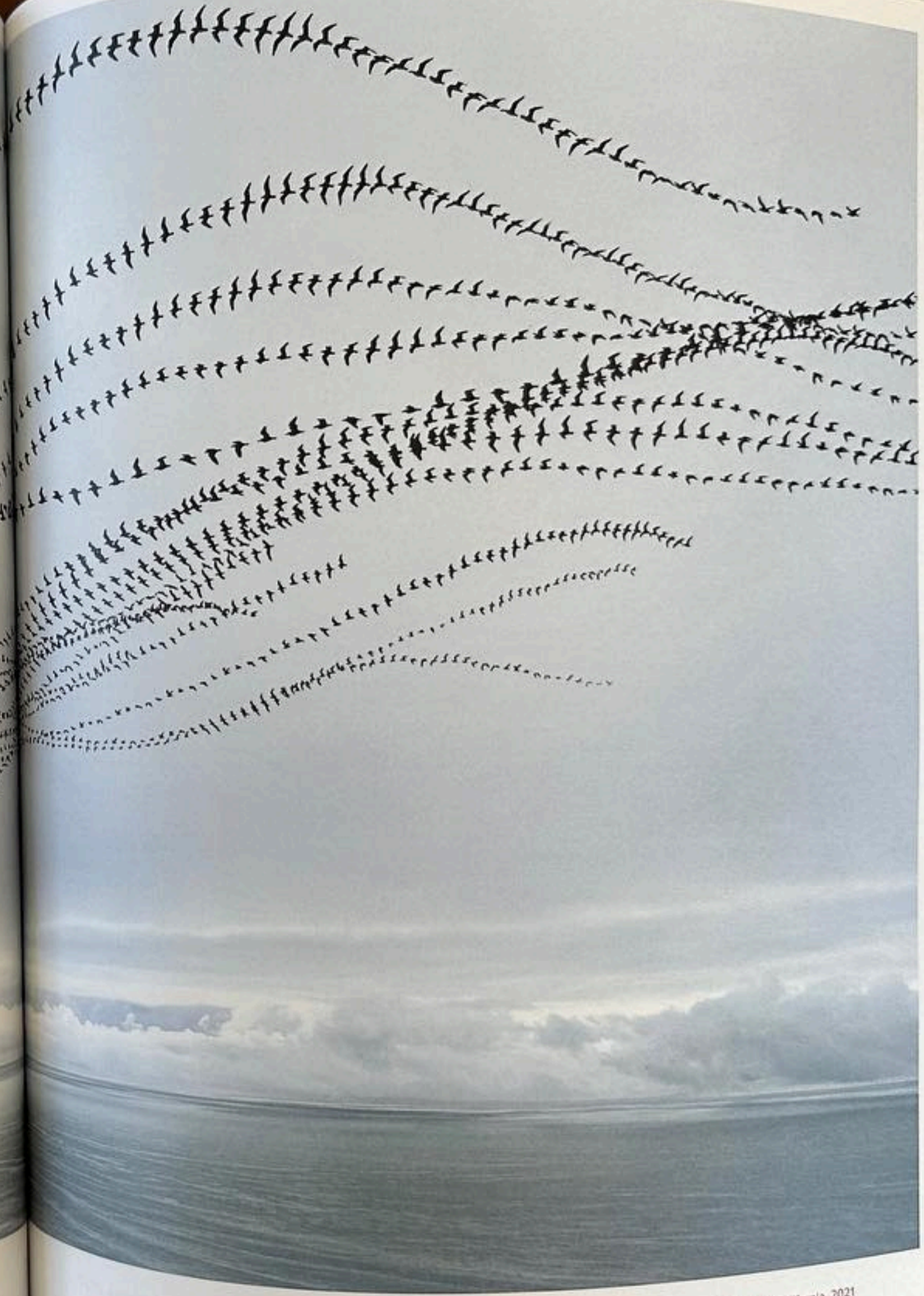
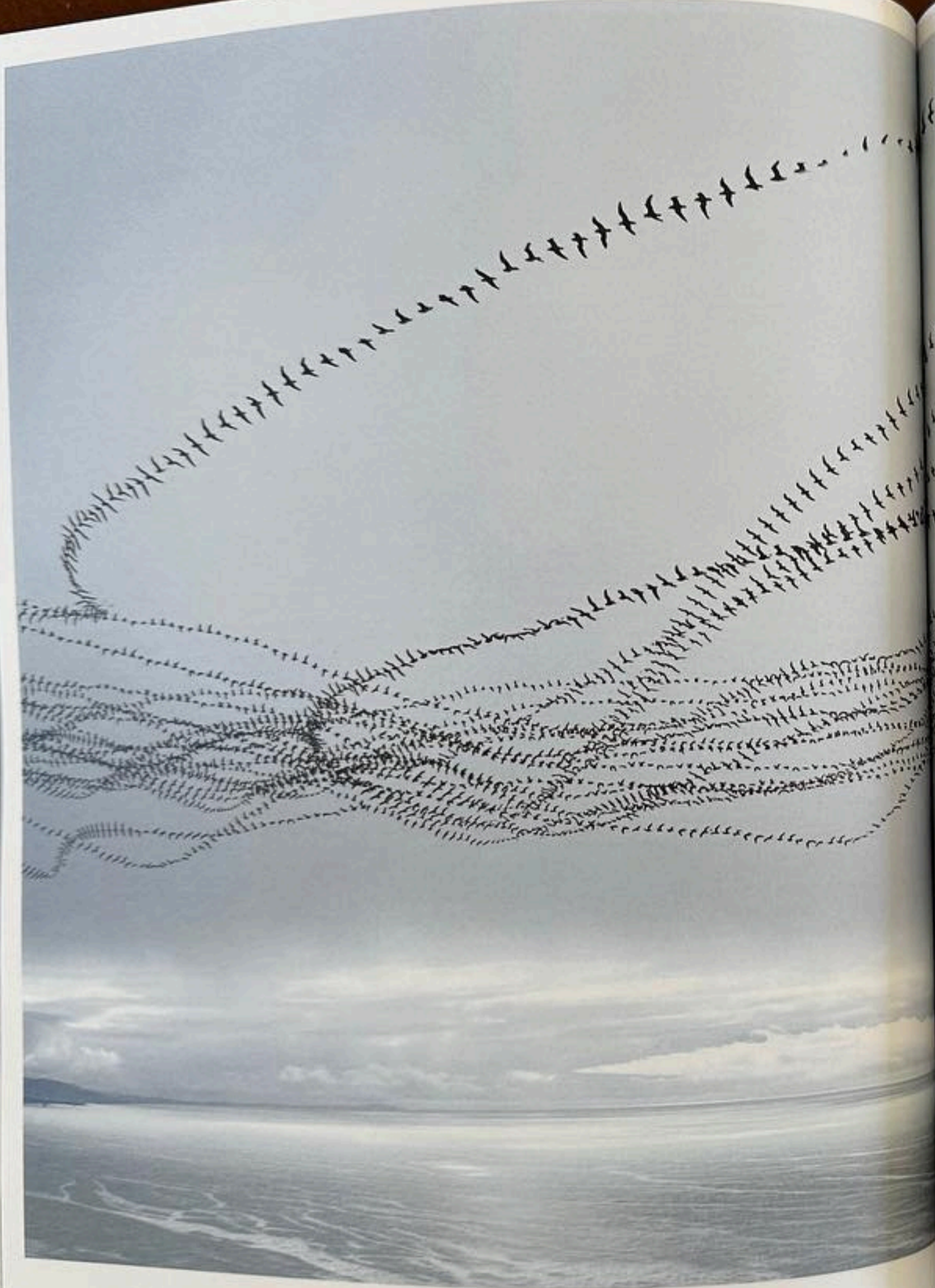
As travel restrictions eased, the project evolved. I drove along the coast after seabirds, into the desert following vultures, and under the resting spots of migrating starlings, documenting flight trails over different kinds of landscapes. And as I did, I began to realize I was also getting a look into the workings of a different kind of awareness of time.

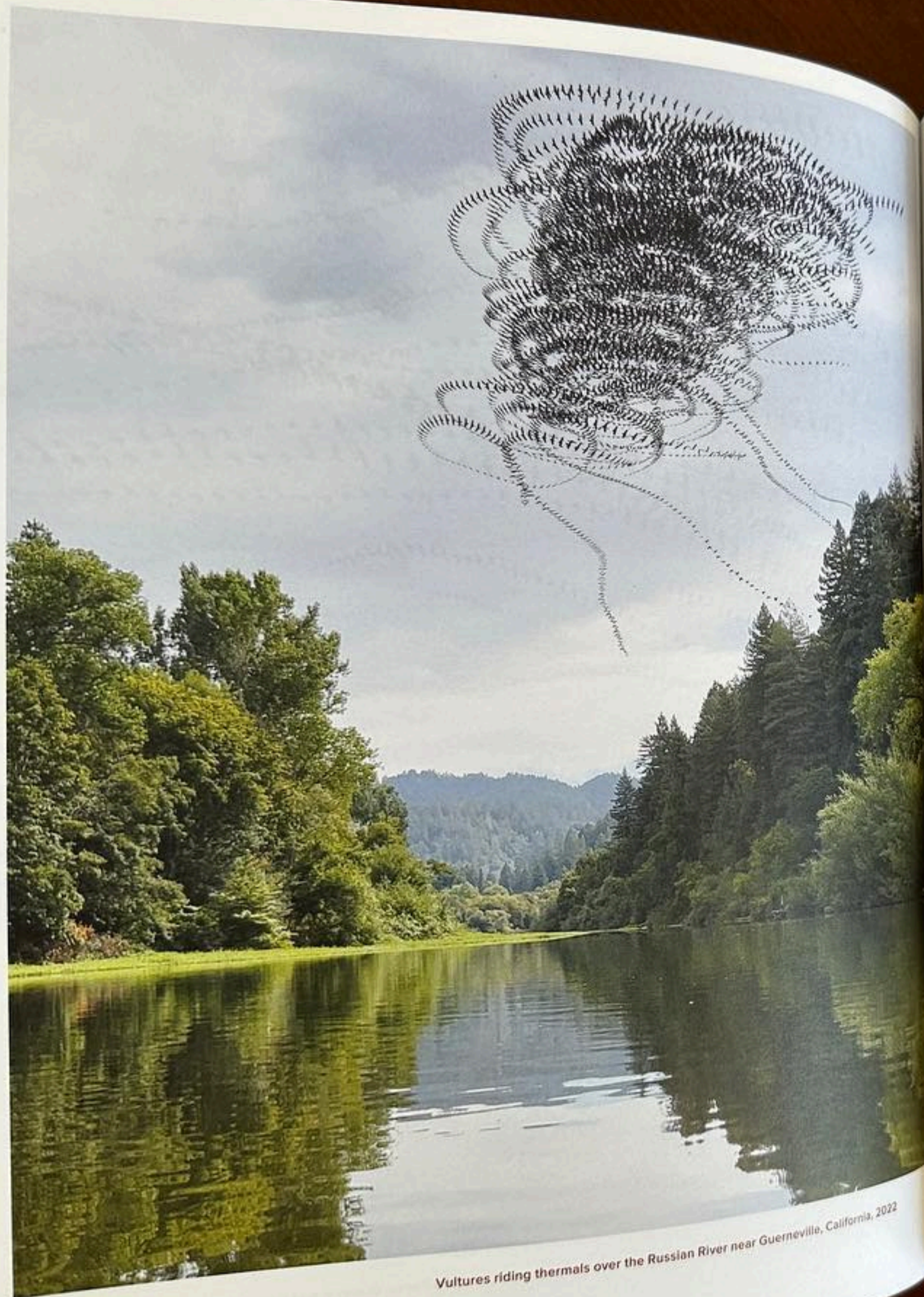
Starling murmurations are stunning to watch, with the birds moving so fluidly in synchrony they look like a single, living being. But they're actually playing a lightning-fast game of follow-the-leader: With a reaction time of less than a tenth of a second, a change in direction transmits through the flock at the rate of about ninety miles an hour. It's too quick for us to see, but it's probably a comfortable speed for them, because many birds and animals seem to experience time differently from the way we do.

To a housefly or a hummingbird, a human hand moves so slowly, escape is absurdly easy; it's like being chased by a pedal boat. Birdsong contains complexities that are



European starlings chased by a peregrine falcon near San Rafael, California, 2020





Vultures riding thermals over the Russian River near Guerneville, California, 2022



European starling flocks near San Rafael, California, 2020

far too fast for our ears. If you've heard two canaries seeming to sing the same sequence of notes back and forth to each other, they're not: Millisecond variations within each note make each one different. At the other end of the spectrum, animals including elephants, tigers, cassowaries, and octopuses can communicate over great distances with infrasound, wavelengths too long and slow for us. Some animals even seem to be able to speed up or slow down their own experience of time. When they hunt, some swordfish boost the blood flow to their brains, apparently slowing their perception of time so they can react more quickly. We are so out of sync with some of the other inhabitants of our planet, we're living in different realities.

When I think about the disproportionate power humans have in our world, it's good to be reminded the universe isn't made to our measure and it operates on scales too small and too vast for us to see. Driving across Utah recently, I stopped to photograph hawks drifting over a desert that had been a lake fifteen thousand years ago.

I picked up a handful of the salt that's been sitting there about that long and remembered that's also roughly as long as our entire Anthropocene era. We are a species of massive disruption, but we're barely a blip in the planet's timeline.

The earth is in constant transformation, shifting and rippling all around us as continents collide and pull apart. The land under our feet even rises and falls as much as twenty-two inches with lunar tides each day. As the psychiatrist and Vipassana scholar Paul R. Fleischman wrote in his essay *The Experience of Impermanence*, "Every thing is really an event. Even a stone is a form of river, and a mountain is only a slow wave."

Putting us even more firmly in our place, physicists now agree that time isn't even linear, at least not outside of human perception. Try as I may, I can't get my head around that. But it's interesting to think about when I've been following the news and can't sleep. Or when I'm trying to photograph a slice of time at a place, or a space within a spell of time. **I**