



**A Natural History of Beer** by Rob Desalle and Ian Tattersall, Yale University Press, 2019; 256 pages; \$28.00

**B**eer, according to this spirited little book, “is a living breathing creature,” animated by millions of fermentation reactions. So, what better qualifications for the full naturalist’s workup—archaeology, biology, chemistry, psychology, and anthropology—than by two curators at the American Museum of Natural History?

The earliest evidence of a fermented barley beverage, according to the authors, comes from a 5,000-year-old site in northern Iran, where deposits of calcium oxalate, also known as beerstone, have been extracted from shards of pottery. Clay tablets found in the same region include a *Hymn to Ninkasi*, a goddess of beer, which describes, roughly, the deity’s recipe for Sumerian suds. Thus inspired, Fritz Maytag, a San Francisco craft brewer, replicated and bottled Ninkasi’s brew, offering it for the first time in several millennia at the 1989 meeting of the American Association of Microbrewers. The beer, according to one taster, evoked both modern Europe and the ancient Near East; it had “the smoothness and effervescence of champagne and a slight aroma of dates.”

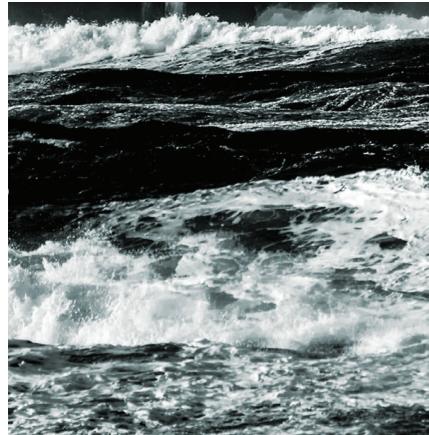
The beer that you can buy today, fortunately, is the authors’ primary focus, and they deserve a hearty

toast for their thoroughness. The molecular basis of fermentation gets an entire chapter, along with equally detailed examinations of the four brewer’s essentials—water, barley, yeast, and hops. Citing techniques similar to those employed by DNA sequencing companies and academic taxonomists, they trace the pedigrees and areas of origin of the many varieties of ingredients, as well as many varieties of beer and ale, illustrating that *terroir*, i.e. local geography, is as determinative for grain-based brews as it is for wine.

Physiology and psychology also get due attention. There is an illuminating discussion on how beer affects the senses. Not just taste, but odor and color and a host of other factors contribute to the general feeling of *Gemütlichkeit* that comes with a good beer shared. And there is a cautionary discussion on how beer affects the body—why we get beer bellies, why we get tipsy, and how beer drinking can be too much of a good thing.

The pleasure of imbibing can’t be reduced to molecules and neurons, of course, nor can a beer-drinker’s experience be fully replicated through the medium of print. To their credit, the authors have tasted much of what they write about, conducting rigorous field research in the Czech Republic and southern Germany during one recent October. Their comments from such labor—such as, “On the palate the *Brett-y* cacophony of flavors fascinated, while defying ready description,”—are tantalizing, but readers would be well advised to have a stock of their own in the fridge to provide adequate sidebars to an otherwise thoroughly satisfying literary effort.

**V**isitors to Orkney, a rocky archipelago off the northern tip of Scotland, are drawn there by a Neolithic stone circle, the Ring of Brodgar, which is, perhaps, older than Stonehenge. Set on an isthmus between two lochs, the circle is seen by ethnographer



**Energy At the End of the World: An Orkney Islands Saga** by Laura Watts, The MIT Press, 2019; 440 pages; \$35.00

Laura Watts “as distant dark teeth set in a heather jaw, with mirrored cheeks of water on either side,” a fitting centerpiece for her perceptive, often poetic, study of technology and society in a very small and remote place.

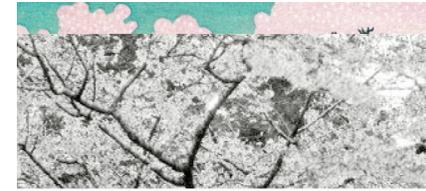
The Ring epitomizes Orkney artificers of the distant past, though what attracts Watts to the islands as an anthropologist are their position at the cutting edge of renewable energy. Prototype tidal generators of various designs bob and hum in coastal waters; giant windmills dot the hills; and a local state-of-the-art smart grid handles the logistics of sporadic supplies and shifting demands. Off the grid, over 700 mini-windmills provide low-cost charging to electric vehicles and household battery banks. On the Isle of Eday, an innovative community enterprise nicknamed “Surf and Turf” uses wind-generated electricity to generate compressed hydrogen from water. The hydrogen is stored in tanks and fed to fuel cells that power lights and electrical hookups for commercial boats in the harbor. On average, Orkney produces 20 percent more energy than it uses, and virtually all of it comes from renewable, carbon-free sources.

Watts explores the social dynam-

ics of Orkney energy through three narratives. The first describes the problem of overabundance: what can the islands do with the excess energy? The limited capacity of cables connecting Orkney to the mainland presents a technical and economic barrier to fully industrializing tidal and wind generation. Tradition meets technology in a second narrative, which explores the conflict raised by a proposal to build three large wind turbines within eyeshot of the Ring of Brodgar. And a final narrative describes inventive schemes to harness ocean tides, effective locally but difficult to apply globally. Optimistic predictions that the Orkneys had “the potential to become the Saudi Arabia of marine power,” have not been met, for a variety of reasons, many of them social and political in nature.

Watts brings sharp insight and an uncommon empathy to her study, which she displays in interviews with a representative sample of Orkadians: marine engineers, farmers, fisher folk, and artists. Well-spun island yarns offset the occasional sidetrack into the footnote-laden jargon of her specialty, and breath-taking passages evoke the rigors and rewards of living in a place where the winds and the tides never cease. “The wonder in the Energy Islands,” she writes, “is both . . . magical and mundane, historic and high tech . . . When you see vast bulges of sea rise up and burst on the tide like whales breathing, when your face is flaked with Atlantic spume dancing high in the air like a snow storm, your heart may skip and your lips may break into a gasp and smile, but this is just another ordinary day in long-lived Orkney.”

**T**he Japanese have the word *hanami*, which means, literally, “flower viewing,” to describe the annual welcoming of *sakura*, the cherry blossom. During a 1926 *hanami*, Collingwood Ingram accompanied Seisaku Funatsu and several other



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**SAKURA OBSESSION**



**The Sakura Obsession: The Incredible Story of the Plant Hunter Who Saved Japan’s Cherry Blossoms** by Naoko Abe, Alfred A. Knopf, 2019; 400 pages; \$27.95

members of the Japanese Cherry Association through a sensational display along the Arakawa River west of Tokyo. Writing in his journal, Ingram was impressed by his host’s “almost paternal interest in every tree,” noting how “The love-light in his eyes was a joy to behold . . . all the while the pink petals kept falling around him, in little whirling eddies, like a shower of summer snow.”

Ingram, an English ornithologist and gardener, shared Funatsu’s idyllic passion and was wealthy enough to indulge it. In 1920, at The Grange, his home in the picturesque Kent village of Benenden, he had begun to create a garden whose hallmark would be a collection of ornamental cherry trees unparalleled outside of Japan. Mastering the recondite literature on the field, he established his credentials through articles in horticultural journals and corresponded with arborists around the world to feed his obsession with exotic cuttings for grafting and hybridization. By the 1930s more than seventy varieties of wild and cultivated cherries trees graced his property. “When you entered the gates that led to The Grange,” a neighbor recalled, “the sight of the blooming cherry blos-

soms would take your breath away. You felt like you were being lured in by fairies.”

Things were not going as well in Japan, as Ingram noted in his 1926 visit. There, the urban cherry population was dominated by just one variety, pink *Somei-yoshino*, which had been extensively propagated after Japan opened up to the West in the late 1800s. Increased industrialization was also taking its toll: dulling blossoms and killing trees, so that some of what Ingram regarded as the most delicate and striking varieties, notably the white-blossomed *Taihaku* and pink-blossomed *Daikoku*, no longer could be found in their ancestral homeland. Sadder still, when war came in the 1940s, the brief life of the cherry blossom was co-opted by Imperial forces as a samurai symbol of self-sacrifice. Kamikaze pilots were encouraged to fall like spent blossoms “for the glory of the emperor.”

Journalist Naoko Abe grew up in postwar Japan, where the cherry blossom no longer stirred martial sentiments, and where some of the old varieties were beginning to return—thanks in part to the heroic efforts at cultivation and propagation by Collingwood “Cherry” Ingram half a world away. Ingram’s work in promoting Japan’s national tree was a revelation to Abe, and using extensive archives and diaries from Ingram’s family, as well as interviews with those who remembered him personally (Ingram died in 1981, at age 101), she paints an admiring and engaging portrait of an eccentric British enthusiast, one of the last great amateur naturalists of the Edwardian Era.

**Laurence A. Marschall** is professor of physics, emeritus at Gettysburg College in Pennsylvania. He is the co-author, with Stephen P. Maran, of *Pluto Confidential: An Insider Account of the Ongoing Battles over the Status of Pluto and Galileo’s New Universe: The Revolution in Our Understanding of the Cosmos* (both BenBella Books, 2009).