The Sorcery of Seedpods

Little packages of DNA that explode with beauty

In his 2001 book The Botany of Desire, Michael Pollan declared that the existential dilemma of a plant is its immobility. “It can’t pursue a mate, or a seed-dispersal agent, to reproduce,” says Anna Laurent Malsberger ’00. “It can’t flee from a predator or care for its offspring. Plants have had to develop defense mechanisms and ways of interacting with the environment, and other species, to survive.”

The seedpod, or fruit (such as a peach, for example, which both protects the seed and aids in its dispersal), is a crucial reproductive mechanism for many plants. Laurent (her professional surname; www. annalaurent.com) has collected hundreds of these during the past four years. In October, Dispersal, an exhibition of 33 of her breathtaking close-up photographs of seedpods, opened at Arnold Arboretum, one of her collection sites. Her Dispersal project includes written profiles of the fruits with reference to their parent plants (four black seeds encapsulated in the Hawaiian wood rose’s golden pod, for example), and may well become a book. “The seed develops in a fertilized ovary and the seedpod protects the seeds as they mature,” she explains. “The other main function of the seedpod is dispersing the seeds, ideally as far away as possible.”

Laurent’s images, at the intersection of art and science, are beautiful examples of nature photography that also document the fascinating variety of ways plants—particularly the flowering plants called angiosperms, which enclose their seeds in coverings—have evolved to spread genetic material via wind, water, animals, or simply by catapulting it away. “Seedpods are these amazing little packages of DNA,” she says, “but often they are overlooked. People see them as the death of the flowers, but in fact they are the opposite: the future of the species.”

Plants have evolved sophisticated techniques of seed dispersal. “A burdock or a burr will attach itself to any and all passersby,” Laurent said at the exhibit’s opening. “Certain pines are serotinous fire-followers, which means they require heat to trigger seed release. Poppies, on the other hand, need only a gentle tap to disperse hundreds of tiny black seeds,
Montage

like a pepper pot." Some plants are very particular about their dispersal agents. The ancient Ginkgo biloba, a gymnosperm, produces unenclosed seeds that some say smell like carrion, probably because it evolved alongside China's carnivorous civet monkeys. Toyon, a California evergreen shrub of the rose family, produces green berries that are toxic while maturing, discouraging predator consumption, but turn red and benign when mature. “Birds are more sensitive to wavelengths at the red end of the spectrum,” Laurent explains, “so a plant with red seeds often has them dispersed by birds. When the toyon seed turns red, the plant wants the bird to eat it. It’s all about timing. There’s a reason why things look the way they do, and behave the way they do.”

Laurent has collected seedpods not only at the Arboretum (she grew up 15 minutes away in Jamaica Plain), but also in partnership with the Hawaii Tropical Botanical Garden (on the Big Island, Hawaii), Lotusland (a botanic garden in Santa Barbara, California), the Queens Botanical Garden (in New York City), and elsewhere. She has even gathered them in Iraq, as a producer and photographer on The Iraqi Seed Project, a documentary, now in postproduction, on the future of agriculture in the Fertile Crescent. She began collecting in earnest when she moved to Los Angeles in 2008. “Due in part to its unique ecology—including desert, Mediterranean, and riparian climates—and its relative proximity to Asia, Hawaii, and Australia, the botanic diversity in Southern California is unlike anywhere else in the United States,” she says. “In Los Angeles, it became clear that we cohabit closely with a staggering diversity of botanic species. I realized that each plant has a story—how the seed of the individual found itself in that spot, and ultimately, how the plant evolved into a species.”

Science B-29, “Human Behavioral Biology,” helped trigger her botanical passions. The course, nicknamed “Sex” by undergraduates (see “‘Sex’ Without DeVore,” January-February 2001, page 75), included Sexual Encounters of the Floral Kind, a documentary Laurent calls “my favorite film of all time.” The history and literature concentrator worked as an interactive designer at Boston’s WGBH-TV on the Nova and American Experience programs, and was a producer and writer with documentary filmmaker Lauren Greenfield ’87 in Los Angeles (see “The Queen of Versailles,”
Off the Shelf
Recent books with Harvard connections

Why I Read, by Wendy Lesser ’73 (Farrar, Straus and Giroux, $25). The founding editor of The Threepenny Review, addressing “the serious pleasure of books” (the subtitle), explains why engaging with literature is “a compulsion” yielding rewards that “tend toward the intangible, and sometimes the inexpressible.” With a list of 100 favorites, from Ackerley to Zola.

Splendor of Heart: Walter Jackson Bate and the Teaching of Literature, by Robert D. Richardson ’56, Ph.D. ’61 (Godine, $19.95). A loving tribute to a towering mentor, “our present, concrete, living example of greatness,” by a biographer and literary historian. With the transcript of a 1986 interview by John Paul Russo ’65, Ph.D. ’69, professor of English and classics at the University of Miami, who learned how to lecture as an assistant in Bate’s criticism course.

Bernard Berenson: A Life in the Picture Trade, by Rachel Cohen ’94 (Yale, $25). A brisk modern biography, in the publisher’s Jewish Lives series, captures the Lithuanian Jewish origins of the art connoisseur, whose Villa I Tatti is now Harvard’s Renaissance-studies center. Cohen usefully characterizes her subject as “one of the leading figures in a new generation of seeing” the art he loved.

Capital Culture, by Neil Harris, Ph.D. ’65 (University of Chicago, $35). An emeritus historian at Chicago explores a modern Berenson equivalent (who apprenticed with the master for a year in Italy), in the institutional context of the later twentieth century: the late J. Carter Brown ’56, M.B.A. ’58, who perfected the craft of museum showmanship as director of the National Gallery of Art from 1969 to 1992.

The Selected Letters of Bernard DeVoto and Katherine Sterne, edited by Mark DeVoto ’61 (University of Utah, $29.95). A portion of the correspondence (the rest is online) from 1933 to 1944 between the writer, editor, and historian Bernard DeVoto ’18, and a young fan hospitalized for tuberculosis. Perhaps because they never met, the letters are both an intellectual chronicle of the time and charmingly personal—and mutually witty.

The Empire Trap, by Noel Maurer, associate professor of business administration (Princeton, $39.50). The U.S. government often projects power to protect American investments. Through that lens, Maurer traces the pattern of conduct, from small initial steps through the modern era—what the subtitle labels “the rise and fall of U.S. intervention to protect American property overseas, 1893-2013.”

Neutrino Hunters, by Ray Jayawardhana, Ph.D. ’00, RI ’12 (Farrar, Straus & Giroux, $27). The author, a University of Toronto astrophysicist, writes popularly.

Who knew! One result of combining the profit motive with musicals: an American-Standard product tribute in song

The Fissured Workplace, by David Weil, M.P.P. ’85, Ph.D. ’87 (Harvard, $29.95). A Boston University professor who also co-directs the transparency policy project at Harvard Kennedy School examines how shareholder-oriented, customer-courting businesses have outsourced work and deemphasized employees’ well-being. The results of this fissure and the challenges it poses are the subject of a book about “why work became so bad for so many and what can be done to improve it.”

The Blood Telegram, by Gary J. Bass ’92, Ph.D. ’98 (Knopf, $30). A Princeton professor reexamines the whole record—documents, voice recordings—to docu-
Rafael Campo writes clear, inviting, open-hearted poems about the most difficult, most troubling, and—for readers unused to them—most private and least traditional of subjects. He is an associate professor of medicine at Harvard Medical School and practices at Beth Israel-Deaconess Medical Center. He treats—and writes about treating—people living with serious illness, especially HIV and AIDS. That enterprise informs all his six books of verse, but in his latest, Alternative Medicine (Duke University Press), his work as a doctor becomes, literally, central. The book's three parts concern, in turn, Campo's early years as a Cuban-American child of immigrants; his professional work, both clinical (“The Third Step in Obtaining an Arterial Blood Gas”) and interpersonal; and the rest of his life, as teacher of poets, traveler, gay man, lover, beloved, and citizen. The volume concludes with warm love poems (“You're the heaven I’m still rising towards”), but its power rests with its patients and their troubles—in the repeated worry of the phrase “I’m not a real doc without my white coat,” with the hospitalized audience for “Wish Bone the cancer clown.”

By the time he entered Amherst College in the early 1980s, Campo knew he would be a doctor. He came to take poetry seriously thanks in part to his teacher Eve Kosofsky Sedgwick, who later helped create the field called queer theory. Her class, he says, let him “transgress into the realm of the literary” and “put on the drag of science in my poems.” “Part of my own impulse to write poems had to do with my queerness,” he continues, “wanting to be out, to have a voice.” Another impulse was humanistic, pushing back against “the impersonal norms...of a strictly biomedical paradigm” for pre-med and medical training.

Both impulses flourish in Alternative Medicine, which celebrates Campo’s erotic commitments in love poems (“Shared,” “Love Song for Love Songs”) and also speaks to his work in humanistic medicine, training other doctors to see their patients as whole people. A vigorous man-

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“when I get the angle right, I know it.”

Love for the plants surely helps. “I don’t notice a movie star walking by,” she says, describing her West Hollywood neighborhood. “But I will cross the street to smell a night-blooming jasmine or see a bougainvillea.”

—Craig Lambert