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BOOKSHELF

Petal to the Metal

A mad dash through flowers in history—along with a close look at the artful choreography of pollination.

The flower of a giant carrion plant, the largest bloom in the world. *PHOTO: © ALCIBBUM PHOTOGRAPHY/CORBIS*

By **ANDREA WULF**

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Every third mouthful of food that North Americans eat is made possible by wild pollinators. These birds and insects need the different food substances that plants produce—nectar, pollen, oils and the protein-rich tips of thickened petals—and plants in turn have evolved to "seduce" their pollinators. This is, as Stephen Buchmann explains, one of the reasons for flowers.

Mr. Buchmann is a pollination ecologist and entomologist at the University of Arizona and the author of many books, including several on bees and one titled "The Forgotten Pollinators"—and that subject is really his forte. When he writes about the origin and reproduction of plants in the early chapters of "The Reason for Flowers," his knowledge and enthusiasm jump off the page. Orchids are "mistresses of deceit," he writes, while bees are "world-champion pollinators." Butterflies are "overpraised," he claims, because they are not that great when it comes to pollination—pollen doesn't stick easily to their large dry wings, and they are often too leggy or too clumsy. Flies, on the other hand—though people tend to brush them away in disgust when they hover over dinner plates—are quite marvelous, apparently: the second most important pollinator of flowering plants after bees.

THE REASON FOR FLOWERS

By Stephen Buchmann
Scribner, 342 pages, $26

The author's description of the biology of scent is fascinating. He writes about the evolutionary importance of scent but also about the mechanics of fragrance molecules that move through the air the "way smoke rises." Bees and other insects use them to find "their" flowers. Some plants deploy only one or two types of scent molecules, while others produce two dozen. But even if they use similar molecules,

different species will employ them in different concentrations, creating their unique signatures. There are of course the sweet-smelling roses and jasmines but also plants that reek of rotten flesh, such as stapelias or the giant carrion flower (*Rafflesia arnoldii*). Their pollinators are flies that lay their eggs on feces or decomposing animals—and in order to attract them, the flowers re-create what Mr. Buchmann calls the "smell of death."

Once Mr. Buchmann leaves biology and science behind, however, the "The Reason for Flowers" loses its focus. The subtitle should have been a warning sign—a book that claims to cover "the history, culture [and] biology" of flowers, as well as "how they change our lives," in roughly 300 pages has to be very cleverly structured and narrated or it will just be a potpourri of facts. In this case, the narrative seems like a mad dash through . . . well, almost everything. The story jumps, breaks, interrupts and loops, giving large parts of the book a staccato feel. Mr. Buchmann races through Egyptian, Chinese, Roman, Aztec, Persian and Japanese gardens to then quickly cover (to borrow from the chapters' subheadings) "European Gardens After the Fall of Rome" and "Patriotic Gardens of America."

Phew. Done that. Covered that. Move on. Whenever Mr. Buchmann returns to biology and botany, he pauses and begins to tell a real story. When he describes pollination by hand and plant breeding, he lingers over the details and develops a scene—he takes the reader inside the blossom and down the ovary of the plant.

But off he goes again. In a chapter about flowers in art, Mr. Buchmann dashes in seven pages from 2600 B.C. to the Renaissance, then offers a quick survey of Dutch flower paintings and still lifes, then goes straight to the Pre–Raphaelites and Modernism. After that there is a brief section on Postmodernism that ends with the flowers painted on hippie Volkswagen minibuses in the 1960s—which, according to Mr. Buchmann, "was flower power at its best."

He crams in a lot here: A page about flowers on coins and stamps leads to "The Art of Arranging Flowers," half a page on "Illuminated Manuscripts," a page on "Tapestries and Rugs," a page on "Ceramics and Porcelain" and then straight to a one-paragraph section titled "Scanned, Then Printed in 3-D" and then back to the 19th century in "Art in Glass," with a brief discussion of the magnificent glass flowers that the Blaschka brothers produced as teaching models for Harvard University. Confused? Me, too. It goes on.

There are also some strange asides in this book, such as this one in the section about perfumes in ancient Egypt: "Today an older generation looks wistfully at the stylish ways that the houses of Arden and Rubenstein packaged their products, but the ancient Egyptians understood that artistic containers were preferred for their best cosmetics."

I'm not quite sure what he is getting at. Nor am I sure what to make of the section "A Summer of Roses," in which Mr. Buchmann explains that he has found at least 90 "modern American and British songs that describe flowers either in their titles or lyrics"—and then goes on to quote a song from 1899 (is that really modern?) as well as lyrics from the Beatles, Jon Bon Jovi and Sting—who all (surprise, surprise) have mentioned some flowers in one of their recordings. It all seems rather arbitrary and leaves the reader wondering what this really reveals about "the reason for flowers."

—Ms. Wulf's "The Invention of Nature: Alexander von Humboldt's New World" will be published in September.