

BOOK REVIEW

Sarah Simblet. 2020. *Botany for the Artist. Photography by Sam Scott-Hunter.* DK, New York. 256 pp. hardcover \$40.00. ISBN: 978-1-4654-9428-3.

Learning to see more while looking

This beautifully illustrated book not only provides instruction in drawing plants, it also gives the reader a special kind of macrobotanical instruction, which emphasizes visible features and a different—that is, artistic—perception of plants. In the Foreword, the author explains that botany and art both require observational skills, that “[d]rawing is a powerful tool for both insight and our imagination. It is a direct and universal language, as old as mankind, from which the written word developed,” and that “there is a significant difference between looking and seeing.” In teaching and learning, drawing helps to articulate visual ideas and to form memories of visual features where words are simply inadequate.

Why learn the botany? It is because learning the structures of plants and their organization helps an artist to learn what the important visual elements are and how they work together to form the larger image (i.e., gestalt). This helps the artist working with plants much as understanding the anatomy of humans or animals helps artists implement their visual ideas about them as art work. This process also enables the artist to reach beyond accurate representation of a subject to the capture of images that show different ways of viewing them. Building on basic botanical information, this book extends beyond the coverage of botany and botanical drawing to explore deeper ways of looking at and seeing plants and even allows a deeper understanding of science in general. The profuse and excellent illustrations in this book—clearly a labor of love, give strong support to these objectives. The high quality printing adds to its cost but greatly enhances its instructional value.

To understand and fully utilize this book, it is important to look at its organization. It contains eight sections, each containing many subsections that cover a wide range of related topics. The first three sections, *The Art of Botany*, *Drawing Plants*, and *Diversity*, introduce the scope and aims of the book. They range beyond the drawing process itself to evoke deeper thinking along with drawing. This helps to prepare readers for the techniques and underlying ideas presented in the subsequent five sections.

The Art of Botany section briefly summarizes the historical development of the use of botany in art and the use of art in botany. It reviews some of the artistic styles used in different time periods and how images employing those styles were used for scientific documentation, for art, or for other purposes. It also provide glimpses into the development of the artistic technology involved and builds on the idea that plants are integral to civilization in ways that increasingly

go beyond their primeval nutritional value, for example medicinal and aesthetic purposes. This made it necessary to develop the techniques needed to produce illustrations for multiple purposes, including identification, scientific communication, teaching, and aesthetics. Learning about these developments helps one to recognize and articulate the goals of the artistic processes. The *Art of Botany* section shows how the capture of aesthetic elements has increasingly enabled year-round visualization and indoor enjoyment of plants and their many ephemeral forms. In a subsection called *Zen Composition*, the reader gets a glimpse of the movement toward capturing visual elements beyond accurate representation of forms to emphasize the aesthetic essence of plants, which necessarily draws on our intuitive perceptions. Another subsection, *Meditation*, introduces the reader to meditations on plants. Here, the author starts on a very important facet of the use of art, i.e., the use of images to invite deeper thinking and to evoke spiritual responses. This topic is represented by a huge developing scientific literature that is explained in depth elsewhere. Although beautiful plant imagery has been pursued by gardeners and artists to promote a feeling of well-being for many millennia, these principles can be employed in a wide range of contemporary applications, for example in healthcare settings where they can promote serenity and healing.

The *Drawing Plants* section introduces the basic tools needed to draw plants in engaging and easy-to-understand ways. It covers handling and storing a living specimen to maintain an accurate model, the simple tools needed, supplies, techniques, and other preparations necessary to produce the desired images. Several subsections engagingly illustrate the basic processes of making marks to establish form, creating depth perspective, and working with colors, which can be daunting for beginners. These simple instructions will help interested naturalists and teachers to overcome their hesitations and record their visual ideas. The *Drawing Plants* subsection titled *Masterclass: Illustrated letter, Nikolaus von Jacquin* shows a beautifully illustrated letter composed in 1792 by the Dutch botanist Nicolaus von Jacquin. It is a powerful example of the messages in this book. The drawings in the letter enabled von Jacquin to explain what he found in the New World tropics to another scientist in London. It strongly reinforces the old adage that a picture is worth a thousand words.

The *Diversity* section introduces readers to the range of organisms that are covered in this book. Notably, it treats botany in the traditional sense, which includes fungi, lichens, and such macroalgae as brown algae, which are not included in the Plant Kingdom in the modern five-kingdom classification. It also contains a helpful, simplified taxonomic diagram of the major groups of plants. This section is supported by an extensive series of attractive drawings and photographs that show the overall appearance (gestalt) of representative organisms from the major taxonomic groups without dwelling on the often microscopic characteristics that distinguish them. As a result, the taxonomic affiliations are easy to recognize in these illustrations, thereby demonstrating the power of good simplified illustrations. Taking a different approach, the *Master Class* subsection shows a painting of grassland plants titled *Great Piece of Turf* (1503) by Albrecht Dürer. The author notes that “[w]ith this painting, [Dürer] tells that the more closely we look at small, ordinary things, the greater and more extraordi-

nary they will become, that there are entire worlds to be discovered in small places and we needn't go far to reach them." A relevant aside here—Dürer, who is best known for his stark, tortured religious images, evokes senses of serenity and visual beauty in this illustration of plants, very different thinking from this artist. If botanical artistic thinking can bring out this spirit in Dürer, it can also do it elsewhere as needed.

Each of the last five sections—*Roots; Stems; Leaves; Flowers; and Fruits, Cones, and Seeds*—focus on specific plant organs; however, we will deal with them collectively. They provide helpful, engaging instructions for portraying these organs and for using the artistic tools and pigments for achieving those portrayals. As they guide deeper studies of these organs, these sections also cover many visible facets of basic botany that might not be presented in a basic botany course, even though they may be very useful in field observations. Each section introduces the artist to the wide variety of forms taken by those structures and how they work together to form the whole (gestalt). Likewise, the sections provide ideas for developing quick sketches focusing on the important visible parts. For example, the *Stems* section contains subsections titled *Strong Stems, Stem Buds, Bark, and Runners*, among others. It is of particular interest to see how complex subjects are handled. For example, after a single pine tree is developed with simplified instructions for drawing its parts, there is also an extended series of exercises using trees as part of a landscape and in developing compositions. Photos of a variety of leaves are shown along with corresponding drawings to illustrate how they can be presented, including different perspectives and painting colors in leaves. Flowers hold a special interest for all viewers and are well represented here. The amazing diversity of flower parts, shapes, and arrangements from bud to full bloom is treated. The presentation of the pine cone is particularly satisfying in the way it simplifies observing and drawing what appears at first to be a complicated structure.

The *Preparatory Drawings* and *Drawing Class* subsections provide special instructions on the techniques needed for these special structures. The *Drawing Class* subsections contain suggestions for drawing the particular structures and perspectives featured in the sections to which they pertain. Often, several *Drawing Class* subsections are presented within a single section, each discussing different aspects of plant structure related to that section, for example, subsections on watermelon and pine cone in the *Fruits, Cones, and Seeds* section. In addition, there are special related subsections titled *Study* and *Masterclass*. The *Study* subsections discuss special aspects of particular plant parts that need careful observation. These exercises engage cognitive processes that develop artistic thinking coupled with observation and related activities, such as looking for patterns or appreciating some engaging artistic feature. The *Masterclass* subsections illustrate the ways that artistic masters handle these subjects.

Where do traditional film photography and now digital image capture fit into botanical art? Photography can instantly record image details far beyond what manual artistry can do. Not only that, but photographers can also produce very pleasing and artistic images by working with composition, exposure, and other techniques as is well illustrated in this book. On the other hand, although photography will continue to be very important, it is not well suited for simplifying

images, emphasizing key features, and bringing out, or enhancing, artistic elements that the trained human mind can perceive and show very effectively through art.

The idea of engaged observation or perception (the *seeing* noted in the subtitle of this review) also relates to education. In the now distant past, drawing what one observed was an integral part of biology lab instruction. As a student and later as a teacher, one of us (LDN) saw high value in these exercises. But apprehension by both students and teachers about their lack of artistic skill often creates a barrier. This can be mitigated, if not overcome, by assuring students that their work will not be graded on artistic skill. The aim of the drawing exercise is to capture the main elements of the forms that are observed to create more complete and durable memories. This not only achieves the goal of familiarizing observers with the subjects, it also starts them on the path of different ways of seeing and recording their insights, much like learning a new language.

Because this book goes beyond merely manual artistic instruction, it will inspire greater engagement with nature or, as the author expresses it, seeing more while looking. Indeed, this book opens opportunities not only for aspiring artists, but also for those who simply enjoy being out in nature (even urban pockets of nature) and for those with a lot of biological education. For many, this will lead into deeper scientific and artistic engagement. However, the perceptions developed as a result of deeper engagement with nature also promote conservation through a greater appreciation of nature and its environmental values. For example, consider Aldo Leopold's words in his classic *A Sand County Almanac*: "Our ability to perceive quality in nature begins, as in art, with the pretty. It expands through successive stages of the beautiful to values as yet uncaptured by language." As a result of the many interesting and useful perspectives opened up by this broad coverage, this book about botany for artists also offers art for botanists and others seeking the beauty of nature.

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