

Evolution for the Eye: Julia Voss's Darwin's Pictures

Darwin's Pictures: Views of Evolutionary Theory, 1834–1874, by Julia Voss. New Haven and London: Yale University Press, 2010, pp. vii + 340, H/b \$45.00

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As far as we know, only one self-portrait by Charles Darwin exists today—a hastily drawn stick figure displaying all the dexterity of a primary school student. It appears in a notebook that Darwin used to record his experiments and observations during his voyage round the world (Chancellor and van Whye 2009, 545). Yet, much in the way that Darwin collated data from experiments that he, himself, could not perform, and sent emissaries to foreign lands that he, an invalid for much of his life, could not visit, he used the images created by others to represent himself and his ideas. In her wonderful monograph, *Darwin's Pictures: Views of Evolutionary Theory, 1837–1874*, Julia Voss offers a biography of this artistic Darwin, whose magpie ways led him to amass a huge collection of drawings, photographs, and charts and to integrate these images strategically into his work. She also brings attention to Darwin's own private artistry in notebooks and on scraps, suggesting (with a touch of hagiography) that his imperfect draftsmanship actually promoted his fascination with the messiness of the natural world. Most importantly, Voss provides a compelling analysis of how imagery figured into Darwin's thought, making several bold and persuasive claims about its pivotal role not only in his rhetoric but also in his own understanding of evolution.

Evolution by natural selection would prove challenging to demonstrate empirically, and Voss shows how aware

Darwin was of this challenge by bringing to light the subtle stratagems at work in his visual rhetoric. She argues that Darwin purposefully avoided depicting the bloody brutality of the struggle for survival in images, instead he used abstract and at times mathematical language to make his points. However, in the second great pillar of his theory, variation, he developed and refined graphically both in private and in his publications. Voss uses four images from the published works to make her case and organize her vast amount of material: the now-notorious finches from the second edition of Darwin's *Journal of Researches*; an evolutionary tree, the sole diagram in the *Origin of Species*; a series depicting the evolution of a feather in *Descent of Man*; and the portrait of a laughing monkey from *The Expression of the Emotions in Man and Animals*. Spanning Darwin's career, these images allow Voss to cluster her material chronologically as well as conceptually. Around each of these loci she weaves other, broader, narratives in which she obviously delights and which will fascinate and charm her readers as well: forays into the histories of photography, animality, taxonomy, book culture, and the politics of Victorian science.

Leaving Voss's expositions of these iconic pictures for the reader to discover, I will instead briefly describe two other images she treats with particular ingenuity. The first is Darwin's early sketch of an evolutionary tree, which, she argues, was inspired by contemporary diagrams that represented affinities between species by way of their arrangement into groups on the page. Darwin, however, added to his images a dotted line representing the crucial dimension of time, scribbling, “The tree of life should perhaps be called coral of life, base of branches dead; so that passages [between species] cannot be seen” (90). Coral reefs were a pet interest of

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Darwin's, and Voss observes that his dotted line is a convention imported from that context: “Geographers used dotted lines on maps to indicate the location of coral reefs that formed the foundation of an atoll under the water's surface [...] and now [Darwin] used the same sign to indicate the sunken remains of the animal kingdom hidden beneath the earth's crust” (90–92). Through the employment of geographical shorthand, Darwin was able to represent a crucial aspect of his nascent theory—descent with modification—that he could not yet fully articulate in words.

Another fascinating insight may be found in Voss's discussion of the image of a crying infant in *The Expression of the Emotions*. It has been noted before that Darwin was one of the first scientists to manipulate photographs in print, but Voss offers an original thesis for his motivation for doing so. In one case, he requested that the artist resituate a squalling baby in an armchair instead of against a blank background, a change that “serve[d] to enhance the private, intimate atmosphere” (210). Focusing on Darwin's preference for domestic images—a family dog over a ferocious wolf, a Victorian infant instead of a howling “savage”—Voss makes the important observation that Darwin consistently selected images that would enhance the acceptability of his theory for his audience. In this and other instances, he went as far as altering the superficial details of images in order to mask the violence of his provocative claim that nature was “red in tooth and claw.”

The format of Voss's monograph is unique. There are many biographies of Darwin, some more comprehensive and some treating specific aspects of his life and career.¹ There are also, of course, countless critical essays elucidating, challenging, and commenting on his theory of evolution by natural selection.² Few studies, however, combine an engaging biographical style with high-level scholarship. For academics and others more familiar with the material, Voss's forest of substantial endnotes will deepen the usefulness of the book (though I found myself, after constantly flipping backwards and forwards, wishing the press had opted for footnotes). And, of course, there are the pictures. The volume is a relatively small one, unfortunately, and images are reduced dramatically in size, with details lost. Nonetheless, the 16 color plates and other grayscale images are a crucial aspect of the work, and Voss, the executive visual arts editor for a large German daily, has a powerful talent for descriptive prose that supports and expands on the images provided.

As Dame Gillian Beer has noted, profusion is a necessary element of evolutionary explanations (Beer 2000, p. 13)³

¹ I would recommend in particular Browne (1995–2002).

² For an introduction to Darwin's ideas, see Lewens (2007). For a summary of major themes in historical and philosophical scholarship on Darwin and Darwinian theory, see Hodge and Raddick (2009).

³ This superlative reflection on the literary aspects of Darwiniana would make an appropriate companion or follow-up read to Voss's volume, though it is more technical.

and this maddening and compelling aspect of Darwinian theory is reflected in Voss's own style. While the prose is fluid and eminently readable, a tribute in part to her translator, Lori Lantz, Voss occasionally seems to get lost in her own abundance of information, with the result that facts and assertions are repeated, circled back upon, and sometimes absent where they are needed. Her enthusiasm for Darwin's artistic employment of the pheasant feather, for example, comes with insufficient explanation of the larger argument that the images serve. Those not familiar with Darwin's ideas may be puzzled here and in other places where the focus on pictures detracts from more general explanations of Darwinian theory and method.

And there is, of course, content that one might wish Voss had included—as she recognizes in her introduction, Darwin created, collected, and considered more pictures than any monograph could possibly recount. One particularly noticeable lack is of reference to the enormous collection of photographs of the mentally ill that Darwin collected and drew on in *The Expression of the Emotions*. In 1873, one of Darwin's many correspondents and informants, James Crichton Browne, wrote to Darwin in an unusual about-face to ask *him* a favor. Crichton Browne was constructing a taxonomy of mental pathology based on the physiognomy of his patients and requested Darwin's help. Darwin politely declined on the grounds that he did not agree with Crichton Browne that evolutionary theory was applicable in this instance and begged off on account of his lack of qualification for judging the photographs. Voss perhaps neglects this episode because it has been treated at length elsewhere (e.g., Browne 1985; Gilman 1979), but it would have made an interesting counterpoint to her observation that Darwin preferred the British stage actor to the tribesman when picturing human beings.

While dense and not ideally sectioned for use in the classroom, this book would be a valuable contribution to background reading for advanced high school and college students studying Darwin and Darwinism. It would also make a wonderful subject for a scholarly book group or discussion section. Students and scholars of the rhetoric of science should consider it required reading. Voss is also an understated but convincing advocate for the strength of the Darwinian view against its historic and contemporary detractors, insofar as the power of Darwin's argument for design without a designer is subtly insisted on throughout the text. In this respect, her book contributes to today's ongoing debates about the legitimacy of Darwinian theory and its proper place in science education. Overall, this is a work that may turn skeptics into Darwin enthusiasts, if not science enthusiasts, and will surely give those who need no further encouragement the deep satisfaction of a truly good read.

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