Commemorative Reconsiderations *Marion Endt-Jones*

Endless Forms: Charles Darwin, Natural Science and the Visual Arts edited by *Diana Donald* and *Jane Munro*, Cambridge, New Haven and London: Fitzwilliam Museum and Yale Center for British Art in association with Yale University Press, 2009, i-xiii + 344 pp., 150 col. and 100 b. & w. illus., £40.00

Visualising the Unseen, Imagining the Unknown, Perfecting the Natural: Art and Science in the 18th and 19th Centuries edited by Andrew Graciano, Newcastle: Cambridge Scholars Publishing, 2008, i-xxiv + 214 pp., 5 col. and 39 b. & w. illus., £34.99

The year 2009 marked the bicentennial celebration of Charles Darwin's birth (12 February 1809) and the 150th anniversary of the publication of his most famous book, On the Origin of Species by Means of Natural Selection (24 November 1859). The commemorations, which took place all around the world with major hubs in Britain, Germany, North America and Australia, resulted not only in an incomparable outpouring of both scholarly and popularizing publications, but also perceptibly pervaded popular media and culture: Darwin-related television and radio programmes abounded; the feature-length biopic Creation was released in the UK; Darwin emerged as a worthy protagonist of books of poetry and novels; newspapers and magazines published Darwin specials throughout the year; and even the smallest provincial museum and library was determined to add their own events, exhibitions and merchandise to the gigantic worldwide tribute.

Within this unequalled joint effort and output, considerable attention was directed towards the relationship between 'Darwinism' and the visual arts¹ – both a necessary and somewhat predictable venture. Predictable, because the arts and humanities claimed their piece of the pie in the huge Darwin-related funding spree; and necessary simply because reliable scholarly work in this fruitful field was scarce before 2009. Gillian Beer, Margot Norris, Jane R. Goodall and Jonathan Smith had provided important studies on Darwin and nineteenth-century literature; the

influence of Darwin's (and Herbert Spencer's) ideas on Friedrich Wilhelm Nietzsche, Sigmund Freud, Frank Kafka, Max Ernst and D. H. Lawrence; on evolutionary themes in nineteenth-century performing arts; and on Darwin and Victorian visual culture.² While these books remain major reference works for academics with an interest in Darwin, the arts and visual culture,³ entirely new standards are set by Diana Donald's and Jane Munro's Endless Forms exhibition catalogue.

Andrew Graciano's edited volume Visualising the Unseen, Imagining the Unknown, Perfecting the Natural: Art and Science in the 18th and 19th Centuries, considered first, is less epic in scope and is not, strictly speaking, a product of the 2009 Darwin commemorations; it came out of two conference panels Graciano chaired in 2005 and 2006 in the US and Canada, respectively. However, while all of the contributions are based on the premise that both art and science share an interest in and dependence on the visualization of knowledge from the Enlightenment onwards, three of the essays deal with the impact of Darwin's theory of evolution on the intellectual climate and artistic practice in the late nineteenth century more specifically and directly.

In one of the most engaging contributions, Alexandra Karl convincingly demonstrates that Arnold Böcklin's mythological paintings from the midnineteenth century onwards are rooted in Darwinian ideas about man's origins and position in nature. In paintings such as Triton and a Nereid (1875), Böcklin developed and drew on a compendium of hybrid classical beasts, from which he stripped their strictly mythological implications in order to re-contextualize them in terms of what Karl calls – borrowing the term from the popularizer of natural history Wilhelm Bölsche – 'Darwinian man'. De-mythologizing classical man-animal hybrids allowed Böcklin to visualize man's animal nature and ancestry. What one would like to see more of in this perceptive essay, as indeed in the two other Darwin-related contributions by Maria P. Gindhart and Martha Lucy, is a profound first-hand knowledge and discussion of Darwin's own writings: the impact of his ideas on Böcklin and nineteenthcentury thought is established largely via Darwinreception and secondary sources, and Bölsche's dictum of the 'Darwinian man' as 'animal-in-man' is described as 'apocryphal to Darwin's writings' (135-6) but never fully explained or contextualized. Moreover, while Karl emphasizes that the connections she draws between Darwinian ideas and Böcklin's paintings are implied in the works' reception and thus inductive rather than

based on any explicit proclamations, manifestos or statements by Böcklin himself, a useful tool might have been – and this does, again, equally apply to Gindhart's and Lucy's essays – to introduce George W. Stocking's differentiation, frequently invoked in Donald and Munro's book, between 'Darwinian' (based on Darwin's own writings) and 'Darwinistic' (more loosely derived from Darwin's ideas, their antecedents, and their afterlife).

Similarly to Karl, Maria P. Gindhart and Martha Lucy consider the depiction of modern man at the intersection of mythology and natural science. Gindhard discusses Albert Besnard's painted programme for the School of Pharmacy in Paris, which included depictions of Primitive and Modern Man, carefully situating the work within contemporary debates around man's prehistoric past. She argues that the eight small canvases, which Besnard produced between 1883 and 1888, are characterized by scientific symbolism, consciously and comfortably sitting between science and fiction, fact and fabrication, knowledge and imagination, or truth and wonder. In a similar vein, Lucy draws extensively on the reception of Darwin's theory in France, especially the challenge it posed to the definition of species as immutable and fixed entities, and its impact on conceptions of man's prehistoric ancestors. According to Lucy, anxieties about the human body aroused by the rapid dissemination of Darwinian ideas were instrumentalized by the conservative establishment who used historical and classical artistic genres to contain, repress and actively resist notions of change implied in evolutionary theory.

The essays' strength throughout the volume lies in their careful consideration of the historical, social, political, economic, moral, pedagogic and philosophical contexts in which the works under discussion are embedded. Thus Daniela Bleichmar usefully directs our attention away from Europe to natural history paintings from South America, suggesting that the visual and material aspects of eighteenth-century natural history were inextricably linked to European colonialism and global trade; Paula Lee painstakingly unravels the social and political circumstances responsible for the rejection of plans for a Garden of Artificial Plants at the Musée d'Histoire naturelle in Paris at the end of the eighteenth century; Megan Doherty, in one of the less successful contributions which would have greatly profited from more rigorous editing, identifies Robert Thornton's three-volume

botanical work A New Illustration of the Sexual System of Carolus von Linnaeus as a distinctly nationalistic project, the creation of a utopian landscape garden in an attempt to combine nation and empire; Gabriela Jasin exchanges a strictly iconographical interpretation of Jean-Baptiste-Siméon Chardin's Soap Bubbles (c. 1739) for a discussion of the painting's empiricist, didactic implications related to Lockean epistemology and Newtonian physics; and Graciano himself argues for a geological and mineralogical (and thus historical and didactic) understanding of Joseph Wright's 'Derbyshire Landscapes', complementing their positioning within the aesthetic discourses of the sublime and picturesque with a more scientific perspective. Likewise, the three Darwin-related contributions are at their best when they provide detailed grounding in the scientific, aesthetic and social developments pre-dating, accompanying and following Darwin's publications: thus Karl, for example, compellingly links Böcklin's representations of marine animals with technological advancements in public aquarium display and the craze for aquariums and zoos that emerged in England and continental Europe in the second half of the nineteenth century.

While most of the essays in Graciano's anthology make a convincing case for crucial connections between art and science under the shared banner of the primacy of the visual and material, Graciano's intention to initiate a re-examination of 'our contemporary tendency to see art and science as completely divergent, mutually exclusive fields of study with similarly distinct methodologies (and to privilege science over art in most aspects of our culture)' (xv) is problematic. In fact, a burgeoning field of interdisciplinary research into art-science interrelationships tells a different story from the kind of 'rat race' between the disciplines Graciano insinuates. I would argue, moreover, that a complete conflation of methodologies may not be helpful: does not the biggest opportunity of distinct methodologies for the fields of art and science lie in a mutual critical assessment of questionable practices and entrenched ideologies? This is, in fact, a theme that repeatedly comes through in the essays assembled in this volume, and most clearly in the three Darwinrelated contributions by Karl, Gindhart and Lucy: that art is, valuably and profitably, used to shed light on science, to re-evaluate, re-contextualize and reframe scientific ideas and practice – and vice versa. Disappointingly, Graciano fails to draw out these kinds of issues in the introduction (a conclusion or epilogue



I William Henry Simmons after Edwin Landseer, The Sick Monkey, 1875. Mixed media engraving on chine collé, artist's proof impression. Figure 228 from Diana Donald and Jane Munro, eds, Endless Forms: Charles Darwin, Natural Science and the Visual Arts, Cambridge, New Haven and London, 2009.

is missing entirely); instead, he explicitly shifts this responsibility to readers, urging them to come up with their own conclusions.

While a stringent, coherent narrative is largely absent from Graciano's book, Diana Donald and Jane Munro's Endless Forms: Charles Darwin, Natural Science and the Visual Arts keeps an elaborate and consistent system of cross-references between the single articles in play. Moreover, its dozen essays are organized into four sections, which build and depend on each other. One of the most impressive achievements of this book, and the prevailing experience in reading it, is indeed that it manages to strike a balance between the diversity of a multi-authored volume and the unity and consistency of a monolithic single-authored study: although the work of several authors, it seems the product of one intellectual hotbed.

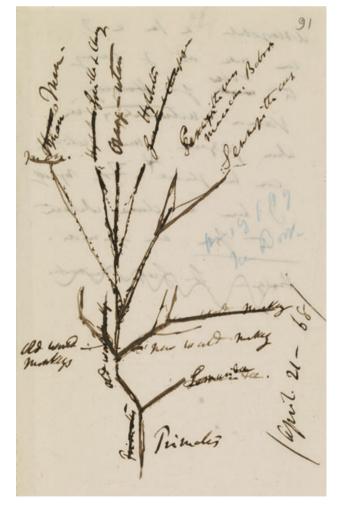
The book is the catalogue accompanying the interdisciplinary exhibition with the same title, which was on show at the Yale Center for British Art in New Haven, Connecticut, before touring to the Fitzwilliam Museum in Cambridge – to the very town where

Darwin was educated before embarking on his lifeand career-changing trip around the world on the HMS Beagle in 1831. The exhibition was a resounding success with both the public (half-way through its running time in Cambridge from June to October 2009, it had already drawn over 37,000 visitors)⁴ and with critics, who kept piling up the superlatives: to name just two accolades, the show was dubbed 'best show of the year' by the Daily Telegraph (22 June 2009) and voted exhibition of the year by *Apollo Magazine* (24 November 2009).

The beautifully produced catalogue, a tour-deforce brimming with stunning colour illustrations, meticulous documentation and detailed information, can be read on several levels – each layer providing a more in-depth engagement with the topic. There is the lavish visual material to be marvelled at while merely leafing through the book; the extended image captions providing further information on key works; the two introductory articles by Diana Donald and Julius Bryant setting the scene for Darwin's embracing of, and influence on, nineteenth-century aesthetics and visual culture; the three clusters of essays examining varied responses to several aspects of Darwin's theory; and the painstakingly annotated and referenced scholarly articles.

What all of the contributions to Endless Forms have in common is a profound, knowledgeable engagement with Darwin's own writings and ideas. This prevents the book from succumbing to (as have a majority of commentators - those contemporary with Darwin as well as those since) the temptation of extracting disjointed bits and pieces from Darwin's theory, dissociating them from their original context and adapting them to a particular agenda. The sheer range of material taken into account and the wealth of themes explored in this volume are remarkable, covering not only the book that so often has been termed 'earthshattering', 'ground-breaking' and 'revolutionary', Darwin's On the Origin of Species by Means of Natural Selection, but also his travel account and his other works on evolution, geology, and zoology, most prominently The Descent of Man, and Selection in Relation to Sex, first published in 1871, and, maybe lesser-known and under-explored to date, The Expression of the Emotions in Man and Animals (1872). The essays are concerned, on the one hand, with artistic themes that informed Darwin's view of nature and that he himself inspired; on the other hand, they evaluate how his theories transformed his contemporaries' understanding of the nature of art and

aesthetic theory itself. Thus discussions range from the impact of the discovery of geological 'deep time' on artists and illustrators such as Joseph Mallord William Turner, William Dyce, Benjamin Waterhouse Hawkins and Frederic Edwin Church (Rebecca Bedell) to the representation of man's origins through zoomorphic fantasy, myth and allegory by artists such as Böcklin, Odilon Redon, George Frederic Watts and Auguste Rodin (David Bindman); from representations of struggle, entanglement, camouflage and the expression of emotions in animal pictures by Edwin Landseer (plate 1), Joseph Wolf, Alfred Edmund Brehm, Bruno Liljefors and Abbott Handerson Thayer (Diana Donald, Jan Eric Olsén, Nicola Gauld) to concepts of race bound up with anxiety, anthropomorphism, prejudice and sexual obsession – negotiated in ethnographic photographs, music hall acts, museum displays and 'missing link' exhibitions as well as in popular



2 Charles Darwin, Sketch of Primates' Evolutionary Tree, 1868. Cambridge: University Library (Darwin Papers). Figure 230 from Diana Donald and Jane Munro, eds, *Endless Forms: Charles Darwin, Natural Science and the Visual Arts*, Cambridge, New Haven and London, 2009.

depictions of apes (Elizabeth Edwards, Julia Voss); and from the impact of Darwin's theory of sexual selection on Victorian aesthetics. fin-de-siècle art movements. the iconography of the peacock and the hummingbird, and representations of women (Jonathan Smith, Jane Munro) to the influence of Darwinian ideas on Paul Cézanne, Claude Monet and Edgar Degas (Richard Kendall). Repeatedly considered tropes and ideas that emerge from a close reading include Darwin's extraordinary powers of observation; his deep appreciation of beauty in nature; his indebtedness to scientific tradition; and his struggles with aspects of his own findings, especially 'survival of the fittest', human descent from an ape-like ancestor (plate 2), sexual selection, and the compatibility of scientific rationalism with religious belief.

A pairing of Graciano's book with this lavish, exhaustive exhibition catalogue for review purposes might seem slightly unjust: following a completely different rationale, namely the publication of conference proceedings, Visualising the Unseen comes across as visually drab and sparsely edited in comparison. The only criticism of Donald and Munro's volume, by contrast, is that it ends with the impressionists; the mention of La Nature in Kendall's closing contribution brings to mind Max Ernst's and the surrealists' engagement with post-Darwinian notions of man, nature and origins, and a similar enterprise, exploring the impact of evolutionary theory on twentieth-century art and visual culture would be much appreciated indeed. Hopefully we won't have to wait until the tercentennial celebrations.

Notes

- For a comprehensive overview of Darwin 2009 commemorations in the UK and worldwide, see http://darwin-online.org.uk/2009.html and http://www.darwin200.org/ (accessed 15 December 2009).
- 2 Gillian Beer, Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction, London, Boston, Melbourne and Henley, 1983; Margot Norris, Beasts of the Modern Imagination: Darwin, Nietzsche, Kafka, Ernst and Lawrence, Baltimore and London, 1985; Jane R. Goodall, Performance and Evolution in the Age of Darwin: Out of the Natural Order, London and New York, 2002; Jonathan Smith, Charles Darwin and Victorian Visual Culture, Cambridge, 2006.
- 3 See also the following more recent publications: Fae Brauer and Barbara Larson, eds, The Art of Evolution: Darwin, Darwinisms, and Visual Culture, Hanover, NH, 2009; and Pamela Kort and Max Hollein, eds, Darwin: Art and the Search for Origins, Frankfurt and Cologne, 2009.
- 4 See http://www.darwinendlessforms.org/newsandpress/news/ news-stories/ (accessed 15 December 2009).