Review Of "Correspondence: Karl Ernst Von Baer [1792-1876] And Anton Dohrn [1840-1909]" By C. Groeben And J. Oppenheimer

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REVIEWS AND BRIEF NOTICES

History, Philosophy & Ethics ...................... 60
General Biology .................................... 62
For Tyros & Laics .................................. 64
Paleontology ........................................ 66
Molecular Biology .................................. 70
Cellular Biology ................................... 72
Genetics & Evolution ............................. 74
Reproduction & Development ................. 79
Microbiology ....................................... 80
Botanical Sciences ................................. 82
Zoological Sciences .............................. 85
Aquatic Sciences .................................. 91
Environmental Sciences ......................... 96
Neural Sciences ................................... 107
Animal Behavior ................................... 109
Human Biology & Health ....................... 113
Biomedical Sciences ............................ 118
De Omnibus Rebus et Quibusdam Aliis ...... 121

HISTORY, PHILOSOPHY & ETHICS

The Biological Century: Friday Evening Talks
at the Marine Biological Laboratory.
Edited by Robert B. Barlow, Jr., John E. Dowling, and Gerald Weissmann; with Pamela L. Clapp. The
Marine Biological Laboratory, Woods Hole (Massachusetts); distributed by Harvard University Press, Cam-

In eleven valuable and eminently readable essays, this volume looks at the Biological Century through
the lens of the pioneering contributions of many archi-
tects of modern biology, all associated with the Ma-
rine Biological Laboratory (MBL) in Woods Hole.
Based on the renowned “Friday Evening Talks”
given during the centennial year of MBL in 1988,
the essays also reflect the individual approach the
authors (speakers) have chosen to convey their ap-
praisal of some crucial discoveries upon which the
biological revolution is based.

Appropriately, the first essay by G. Weissmann
deals with the reductionist postulate that biological
phenomena can be analysed in terms of physics and
chemistry. “[Jacques] Loeb was the leader of the
new, mechanistic school of American biology
the adherents of which tried to explain the pheno-
mena of biology by the equations of physics and
not the quirky logic of vitalism” (p. 9). The centen-
nial year of MBL in 1988 was highlighted by a
deductive lecture in his honor. Further essays fo-
cus on the pioneering work of T. H. Morgan and
A. H. Sturtevant (by J. H. Lederberg); of E. G.
Conklin and F. R. Lillie on developmental biology
(by J. B. Gurdon); of A. Szent-Györgyi on bio-
chemistry (by B. Kaminer); of K. R. Porter on
cell ultrastructure (by S. Inoue); of W. J. V. Oster-
hout on ion permeability in membranes (by C. L.
Slayman); of K. C. Cole and A. L. Hodgkin on
the electrophysiology of the squid axon (by C. M.
Armstrong); of S. Hecht and G. Wald on the mole-
cular basis of vision (by M. L. Applebury); of H. E.
Hartline and S. W. Kuffler on visual perception
(by T. Wiesel); of C. O. Whitman and W. H.
Wheeler on behavioral biology (by E. O. Wilson);
and of S. F. Baird, H. Bigelow, and K. Redfield
on ecology (by J. E. Hobbie and J. B. Pearce).

This volume reflects the impact of the work and
ideas of the above great scientists in the Biological
Century. The essays are not intended to convey
an overview of a century of discoveries at MBL;
some readers would have appreciated a brief indi-
cation of how the seminal discoveries were carried
further by researchers at the laboratory. Still, this
volume also represents a contribution to the histor-
ical record of 100 years of existence of the foremost
marine biological laboratory in the USA.

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sylvania, Philadelphia, Pennsylvania

Correspondence: Karl Ernst von Baer [1792–
1876], Anton Dohrn [1840–1909]. Transactions of
the American Philosophical Society, Volume 83, Part 3.
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M. Oppenheimer; translated by Christiane Groeben and
Jane M. Oppenheimer. The American Philosophical
Society, Philadelphia (Pennsylvania). $15.00 (paper).
v + 156 p.; ill.; index of names. ISBN: 0-87169-

It is a privilege to listen to intelligent scientists
discussing important ideas. The scientists are Karl
Ernst von Baer, discoverer of the mammalian egg,

60
Images of Science: A History of Scientific Illustration.

This volume is typical of the kind of book one might find at an airport bookstall or at a museum gift shop. It is tailored to satisfy the curiosity of people who browse through a collection of naturalistic figures only once in their life and never again. From this point of view, the subtitle, A History of Scientific Illustration, seems a bit excessive. The text deals with the development of scientific illustration in eight chapters that cover beginnings, anatomy, zoology, botany, minerals and machinery, geography, astronomy, and microscopy. For each of these fields the exposition is chronological; philosophical, scientific, technical, and economic implications are not examined. Iconography (approximately 200 illustrations) seems to be selected on the basis of availability rather than exemplary models or any correlation with the text. Layout requirements resulted in enough disorganization to cause even specialists to lose their way. The index is excellent. It could be even better with an index of the sources of illustrations.

In the Introduction the author states that there are two main aims in scientific illustration: didactics and the recording of the state of human understanding. Though he admits that there are hidden influences and cultural pressures underlying what people choose to illustrate (p. 2), unfortunately he does not go deeply into this crucial point. Consequently he formulates hypotheses that are frankly untenable: that the mosaics of fishes in Pompei may have had a didactic use (pp. 2 and 17). For whom? Fishermen, cooks in patrician houses, or schoolboys? Or that the distortion in figures of medieval herbals may be voluntary in order to confine the knowledge of herbs to the cognoscenti (p. 97). On the other hand, the author defines the idea of scientific icons very well. These are illustrations copied by unscrupulous illustrators that frequently gave rise to iconographic traditions that lasted for centuries (p. 56, Dürer's rhino; p. 72, Gessner's hyena). The author may have exploited the concept of icon not only for post-Renaissance zoological illustrations but also for botanical and anatomical illustrations of the classic and medieval eras. But it seems that illustration in manuscripts was less in favor than the printed illustration, perhaps because it was better known or more accessible.

Let me note, in passing, some inaccuracy in captions. It is improperly stated that "the publication in 1531 of Otto Brunfels's Novi Herbarii marked a move towards a representational strand of botanical illustration" (p. 85). However, it is correctly stated that "botany took its greatest step with the publication of the Herbarum vivae eicones (1530–36) by Otto Brunfels" (p. 89). The caption on page 85 might more usefully have translated the Latin explanation of the figure Viola tricolor (Herba Trinitatis). Everybody realized that poor Brunfels neither knew the Dioscoride's name nor the correct current name (H. Trinitatis was Anemone hepatica, not Viola tricolor) but, as he says,