tion. Ironically, he could never accept the theory himself.

Darwin's letters to Henslow began in 1831, the year the *Beagle* sailed, and the earlier letters show that Darwin looked upon Henslow as his mentor. After the voyage ended in 1836 and Darwin had become a well-known naturalist in his own right, the tone of the letters changed, but they retained their cordiality undiminished. Even after Darwin published the *Origin of Species* in 1859, he and Henslow remained close friends, and although Henslow never became an evolutionist, he defended Darwin several times against some of the scurrilous attacks that were made on him.

Nearly all of the 121 letters published in *Darwin and Henslow* were written by Darwin to Henslow, but to clarify certain points several of Henslow's letters to Darwin and to others are included. The letters show the development of Darwin's changing concept of species, although, in order not to annoy his friend, Darwin never emphasized his evolutionary views.

The letters are accompanied by the usual scholarly apparatus including, in the appendix, Darwin's published recollections of Henslow. The illustrations are well chosen and include maps of the voyage of the *Beagle*. The editor, Nora Barlow, is a granddaughter of Charles Darwin. She has added a great deal to our knowledge of her grandfather in her earlier books. In *Darwin and Henslow* she is continuing the good work.

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The Idea of an Ice Age

Studies on Glaciers. Preceded by the Discourse of Neuchâtel. LOUIS AGASSIZ. Translated from the French and edited by ALBERT V. CAROZZI. Hafner, New York, 1967. lxxii + 213 pp., illus. $27.50.

"On July 24, 1837 . . . Agassiz gave his opening address known as the *Discours de Neuchâtel*, which is the starting point of all that has been written on the Ice-age." So writes the translator and editor of one of the classics of geologic literature, in which the concept of a glacial age of secular proportions was formulated. The concept started one of the great controversies in the history of geology. Recent research in the Antarctic, minute study of sea-floor sediments, and the revealing results of potassium-argon and carbon-14 dating have brought into new focus the significance of late-Cenozoic climatic changes and the glaciation that accompanied them. As a result, interest in "ice-age" problems has widened, and this handsome book appears at a very appropriate time. Its appeal will not be confined to scientists concerned directly or indirectly with glacial ages; its language will be clear to anyone, and Agassiz's reasoning from the well-described field evidence can be followed without difficulty. Far from being either dry or old-fashioned, the exposition is both lively and modern, with a clear, direct style that has solid personality. Much of the argument constitutes a quite elegant essay, proceeding from field details to larger and larger syntheses. Toward the end, however, the highest synthesis becomes very speculative and in places almost wild, and it is apparent that Agassiz was carried away by his enthusiasm for an idea which, in its essentials, was wholly valid.

The book is more than a mere translation of *Études sur les Glaciers*. The translator has wisely included the slightly earlier, spontaneous *Discours de Neuchâtel*, said to have been written in a single night, and published so obscurely that it has always been little known. Also included in the book is a thoughtful and entertaining editor's introduction, first published in a slightly different form ["Agassiz's amazing geological speculation: the Ice-Age," *Studies in Romanticism* **5**, No. 2, 57–83 (1966)]. This document skillfully sets the historical stage for the two translations and makes them more meaningful than they could have been otherwise. Finally, the volume includes a reprint of the atlas accompanying Agassiz's book, with its 18 fine lithographs by Nicolet. Being large, the original atlas has become separated from many of the original copies of Agassiz's treatise and is therefore not often seen.

The translation is extremely tight; in his effort to stay close to the original text, the translator has sacrificed English idiom in some places, and occasionally he betrays the fact that English is not his native language. These matters do no harm, however, to an excellent and highly readable work. I recommend it.

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Physics at Erice

Strong and Weak Interactions: Present Problems. International School of Physics "Ettore Majorana," Erice, Italy, June–July 1966. A. ZICHICHI, Ed. Academic Press, New York, 1966. xx + 859 pp., illus. $26.50.

Physics establishments concerned with the welfare of high-energy physicists at relatively isolated places have discovered that a summer school is the most convenient and economical and often the only practical means of promoting informal contact between young physicists and the leaders in their field. In view of the sharp increase in the number of young physicists during the last decade, the global proliferation of summer schools is an understandable phenomenon. Unfortunately, however, the number of gifted and creative individuals available as lecturers, as well as the number of serious students with adequate preparation for advanced courses, has not yet increased in proportion. It is not surprising, therefore, that the participants of a typical summer school generally include not only some good scholars and desirable students but also an incongruous assortment of court jesters, professional critics, and salesmen. If the published proceedings are a faithful rendition of the deliberations of the summer school, they will generally contain some grain mixed with a lot of chaff. The volume under review, with its 879 pages, is no exception.

The proceedings of the 1966 Erice summer school are "dedicated to the memory of Ettore Majorana on the anniversary of his sixtieth birthday." It is fitting and proper, therefore, that the technical lectures are preceded by a very informative and occasionally moving account of Majorana's life and work, by E. Amaldi. Amaldi's article will be of interest to all theorists; it may be of special interest to afficionados of infinite-component wave equations.

The inaugural speeches are followed by nine lectures on various theoretical topics (including current algebra, *CP*, and Reggeology), two experimental lectures on the zoology of mesons and baryons, seven seminars, and a straight transcript of 26 discussion sessions.

Most of the lectures are standard reviews of material available in journals, conference proceedings, and the like; this does not, however, detract from their value as useful adjuncts to the conventional literature. Among the articles which do not quite conform

to this mold, perhaps the most noteworthy are two lectures by Gell-Mann on current algebra. After a quick review of the canonical topics (sum rules, method of infinite momentum, "good" and "bad" charges, and so on), Gell-Mann describes in some detail his program for constructing quark models via representations of the algebra of charge densities.

The seminars (on topics ranging from mono-poles to Regge poles) include a discussion by Y. Yamaguchi on the almost-forgotten subject of intermediate vector bosons.

The transcript of the discussion sessions indicates that, although some intelligent questions were indeed asked and answered, the discussion often degenerated to a puerile level. It is painful to have to plough through 115 pages of such stuff for the sake of a few interesting dialogues. The editor would have helped the reader considerably if he had placed after each lecture or seminar the discussion relevant to that particular lecture or seminar and relegated to the end of the proceedings the transcript of informal discussions of general interest.

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