retical aspiration in these essays, like the theories appealed to, varies considerably.

Does this muted polemic for what one of the authors calls the "macrocosmic positioning" of science within its social and cultural context point to the future toward which the history of science is moving? If so, there can be little hope that this specialty will provide a meeting ground for scientists interested in the history of their subject and professional historians of science. The new history of science happily ignores precisely those topics that scientists generally consider the most intriguing aspects of their work. Perhaps the evolution of the history of science as a distinct discipline has entered a second phase. If so, one can at this point note little more than the losses entailed and the hopes entertained. It is possible, however, that this most recent attempt to further desanctify science will have the unintended effect of forcing us to realize that science, while inescapably historical, is no less humanistic than poetry, painting, or music. Scientists, like other creative individuals, enrich our lives with specific products of great beauty. When seen in this light, science surely must be considered a constituent of a larger culture. But we should beware of histories that minimize the distinctiveness of the genre, the individuality of the creators, or the particular features of their achievements. Otherwise, we may end up with a history of science without science.

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Plate Tectonics

Geological and Geophysical Investigations of Continental Margins. Papers from meetings, 1977. JOEL S. WATKINS, LUCIEN MONTADERT, and PATRICIA WOOD DICKERSON, Eds. American Association of Petroleum Geologists, Tulsa, Okla., 1979. viii, 472 pp., illus., + plates + index. $24; to AAPG-SEPM members, $19.50. AAPG Memoir 29.

The literature of tectonics is enjoying, or perhaps suffering, a continuing, seemingly exponential growth, which results from a number of factors. First, there is a now general understanding that plate tectonics forms the basic foundation on which we should be modeling global lithosphere kinematics and structural evolution. Consequently, an increased understanding of tectonic processes and relationships has led to a great increase in the number of scientists involved in tectonic research. Second, advances in materials science, coming from ceramics, metallurgy, and the aircraft and the new strong-materials industries, are being, albeit tentatively, applied to structural geology and tectonics. Third, multichannel seismic reflection with computer-based deconvolving techniques developed mainly by the oil industry and the deep-crustal reflection technique developed by Kaufman and Oliver at Cornell have yielded seismic-stratigraphic and crustal-structural data of a beauty and clarity that have enabled us to draw believable structure sections across continental margins and orogenic belts for the first time. Thematic books and data compendia are therefore on the increase and play a welcome and important role in providing concise, up-to-date summaries that make the data and current ideas of tectonics available to a wide audience who would otherwise need to wade through a morass of literature.

The present volume admirably fulfills this role and follows the fine tradition set by the volume edited by Burk and Drake and by the Maurice Ewing series. Four main topics are covered: rifted margins, convergent margins, small basins and their margins, and the natural resources of continental margins. A mistake, in the reviewer's opinion, was made in including a paper on the southwestern margin of Iceland, hardly the best example of any kind of continental margin.

The role of the new seismic stratigraphy is seen in the sequence of fine papers on the Gulf of Mexico and the eastern United States rifted margin. A notable omission in all these papers except for Bott's is any systematic discussion of the structure and petrology of the rifted-margin–continent-ocean transition, in particular the role of thinned, stretched, continental lithosphere beneath the upper continental rise, a phenomenon well displayed by the Jurassic history of the Alps and the northern margin of the Bay of Biscay.

Of fundamental importance is Pitman's paper relating the effect of sea-level change and the thermal subsidence of rifted margins to stratigraphic development. Pitman's work on stratigraphic modeling is probably the single most important piece of research ever done in stratigraphy. He computes sea-level changes from changing ridge volumes, superimposes this effect on a hinging, thermally subsiding rifted margin, and generates a theoretical stratigraphy with onlap and offlap, transgressive and regressive, sequences and disconformities that can be matched with the observed seismic stratigraphy on the eastern U.S. margin.

An imaginative and clever paper on the evolution of the Mediterranean oceanic basins by Biju-Duval, Letouzey, and Montadert ties the basins kinematically to the geometry and history of adjacent tectonically mobile zones. The paper is a fine illustration of how integrated tectonics should be done and is an important example of a new genre of integrative tectonics typified by the French school.

The book also contains papers that fill a useful role in providing up-to-date summaries of otherwise hard-to-find data on areas and topics of importance. Among these are papers by Ludwig *et al.* on the Falkland Plateau, Talwani *et al.* on the South Australian quiet zone, Karig *et al.* on the Sunda arc, and Duque-Caro on the structure and evolution of northwestern Colombia.

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Chemistry in China

Chemistry and Chemical Engineering in the People's Republic of China. A Trip Report of the U.S. Delegation in Pure and Applied Chemistry. JOHN D. BALDESCHWIELER, Ed. American Chemical Society, Washington, D.C., 1979. xx, 266 pp., illus. Cloth, $15; paper, $9.50.

In mid-1978 a delegation of 12 American scientists chaired by Glenn T. Seaborg visited the People's Republic of China for a firsthand view of that nation's research, development, and teaching programs in chemistry and chemical engineering. The visit was the counterpart of one the previous year by Chinese scientists to the United States and covered some 30 sites, including research institutes, universities, and industrial operations. This book is a report of that trip.

The book summarizes the delegation's observations about basic research in organic, inorganic, physical, nuclear, and analytical chemistry and in chemical engineering and research in key areas of technology—petroleum and petrochemicals, catalysis, polymers and synthetic fibers, laser chemistry, isotope separation, instrumentation, and computers.

Part of the book is devoted to a review of the development of chemical science in China over the past 50 years and to a useful examination of the disruptions brought about by the Great Leap Forward and the Cultural Revolution.