Book Reviews

On So-Called Scientific Conferences

World Technology and Human Destiny. Raymond Aron, George Kennan, Robert Oppenheimer, and others. University of Michigan Press, Ann Arbor, 1963. 246 pp. $4.95.

It is easy to say what this volume is *not* about: it is not about technology and not about human destiny. If there were an index, neither term would appear in it. It is, however, all but impossible to say what this volume is about, or even what it is supposed to be about. For this is not a book. There are no authors; indeed, two of the three men mentioned in this capacity on the cover—Kennan and Oppenheimer—do not make major contributions and are clearly named only to attract (and, I am afraid, mislead) American readers. All this is, is the transcript, truncated and poorly edited, of a bull session in the faculty lounge.

The faculty, to be sure, is distinguished and contains a number of well-known names—though all except Oppenheimer are political scientists or economists. And the "faculty lounge" was a place in Switzerland where a "Congress for the Liberty of Culture" met some time in the past, presumably in 1959 or 1960. (In keeping with the general level of editing of the volume the date of the meeting is not given, but a French version of the transcript appeared in 1960.)

But otherwise this is the all-too-familiar chatter around the punch tray that can be heard in any university lounge after a faculty meeting or a lecture by a distinguished visitor. Two questions are raised at the beginning—though only in brief and journalistic form. "Is there any political belief for the non-Marxist Left in the post-war world?" And "Which way are the Soviet economy and society going?" But no one pays much attention to the questions. Every one promptly mounts his own hobbyhorse and rides off in all directions. Michael Polanyi, the British social theorist and ex-physicist, devotes a few moments to an attempt to update Veblen's Theory of Conspicuous Consumption, and Eric Voegelin, historian of political thought (formerly of Louisiana State University, now at Munich in Germany), says a few words about the emergence of the category of the political in Thucydides. An otherwise unidentified Mr. Nabakov takes a page and a half to speak about the "estrangement of the artist," the use of sound in modern music, and contemporary Polish painting. The more a man knows about a subject, the less he is permitted to talk about it. There is a good deal of cliché-talk about "science in the modern world." But the only scientist present—Robert Oppenheimer—is allowed only ten pages to talk, intelligently but far too briefly, about the confusion of tongues in modern science. There is even more talk about the "non-Western world." But the only non-Westerner present, Asoka Mehta from India, has just a few pages to assert that the non-Western world is not the West. The structure and future of communist economics is one of the major topics. But the one contributor from the Communist world, Bicanic, a Yugoslav economist, barely gets enough space—five pages—to make the point that the Soviet economy succeeds because, contrary to Western belief, it does not plan, but makes purely opportunistic decisions. And, unfortunately, all this is being said in the gray, flat, undistinguished jargon of social science that seems to be the major contribution of whoever edited this volume.

What is really upsetting, however, is that this volume is a fair specimen of an increasingly common fraud: the bull session transcript that pretends to be a serious book by serious scholars. Such meetings—called variously *conferences, conversations, confrontations,* and the like—are becoming a favorite substitute for work and thought, at least judging by the increasing number to which I am being invited. They are always "inter-something"—international; intercultural; interdisciplinary; interracial. The invitation stresses that nobody has to prepare anything, that nobody will be expected to do any work, that anything anyone wants to talk about is a proper subject for discussion. And it always implies that everybody is an expert on everything. This may make for a pleasant evening or for vacation fun. It may even serve a useful purpose, provided one believes that face-to-face chitchat is preferable to no communication at all.

But, unfortunately, somebody always brings a tape recorder; and then there is a "book" that has to be published. And undirected, uncontrolled, uninformed conversation by amateurs does no more survive exposure in print than the self-intoxication of the faculty bull session survives when, the next morning, one's wife or a colleague asks "And what did you talk about last night?"

University presses should at least not be party to this mischief. They have an important function: to publish work that is financially unattractive to the commercial publisher because of its demonstrable superiority. They only destroy themselves and their usefulness if they become "vanity publishers" to the academic promoter and publish work that, like the present volume, is unattractive to the commercial publisher because of its demonstrable inferiority.

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Ultraviolet Spectroscopy

Theory and Applications of Ultraviolet Spectroscopy. H. H. Jaffe and Milton Orchin. Wiley, New York, 1962. xv + 624 pp. Illus. $15.

This book will be of interest to both organic and physical chemists, to the former as an introduction to some of the current approaches to the interpretation of electronic absorption spectra

and to the latter as a summary of experimental and theoretical work in the areas covered. The first eight chapters primarily present essential theory, and the remaining 12 deal in a systematic fashion with various classes of organic compounds and specific types of spectroscopic studies. Throughout the latter chapters experimental results are effectively summarized, interpretations outlined, and original literature references indicated. Its organization and approach make the book a useful reference text for those who want a concise introduction to a given class of compounds. Probably its greatest single asset is, however, that it gives many specific examples of how one may relate absorption spectra to electronic and molecular structure.

This volume will doubtlessly be widely used, and for this reason its limitations should be carefully noted. The most apparent of these is that, despite its all-inclusive title, the book is, with the exception of a chapter on inorganic complexes and one that contains considerable material on emission phenomena, concerned almost exclusively with room temperature solution spectra of organic molecules. This observation is not made critically but to point out that important topics in electronic spectroscopy are not covered here, since to deal with even this more limited area in one volume is certainly a formidable task in itself. It is disappointing, however, that the authors did not emphasize more strongly the role of polarization determinations in theoretical and experimental studies of electronic absorption spectra, especially since polarized emission techniques seem to be a natural topic for consideration in the chapter that deals with fluorescence and phosphorescence.

From an interpretive point of view, the authors have essentially limited themselves to a molecular orbital and free electron approach. Especially noticeable is the omission of references to the resonance force (or exciton) theory that has been applied to such compounds as the polyenes and azodyes and to aggregates.

Technically, the book is generally well organized and very readable. There are some typographical errors and some minor errors of fact, but, for the most part, these will not confuse readers. However, some consternation may arise from the confusion in the listing of the polarization directions in Table 12.13 and from such errors as the inversion of the connection between ground and excited state vibrational frequencies and structure in emission and absorption, which occurs on page 553.

This book represents a welcome and extremely useful effort to fill a rather serious void in the chemical literature, and it is to be hoped that it will inspire further efforts aimed at completing the coverage of this area.

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Harper's Geoscience Series

Structural Geology of North America. A. J. Eardley. Harper and Row, New York, ed. 2, 1962. xviii + 743 pp. Illus. $21.50.

All geologists and geophysicists should welcome this second edition of a well-known book. Its general arrangement and appearance are similar to those of the first edition, but extensive revisions have been made without greatly increasing the number of pages. Stratigraphy and igneous geology, as well as tectonics, are fully treated.

The major divisions of the book are based on geological chronology, but the subdivision into chapters is based primarily on geographic distribution. The first three chapters are introductory. The remaining 40 chapters are arranged in six major units: Precambrian tectonic belts (1 chapter), Paleozoic tectonic belts (12 chapters), Mesozoic tectonic belts (12 chapters), Cenozoic tectonic belts (4 chapters), igneous provinces of the western Cordillera (6 chapters), and provinces in the northern and southern parts of the continent (5 chapters).

The author says that the "book is not intended to stand entirely alone. The reader or instructor should have the following maps for ready reference, preferably mounted and hanging on the wall at short range." He then lists seven maps, such as the geological maps of North America and Canada.

Evidence that the author has covered the literature exceedingly well is the list of approximately 1100 references assembled on pages 709 to 738. Fifteen colored page-size maps, 14 of which are tectonic maps for the various periods, deserve special commendation. Many of the 491 figures are direct or slightly modified copies from the original publications. Some, however, are new diagrams prepared with great thought and care for this book. The significance of recent seismic and gravitational data is thoroughly analyzed. Moreover, the numerous discussions of theoretical and genetic aspects of regional geology are most stimulating.

The book is not without deficiencies. Some of the maps lack scales. On many maps the latitude and longitude are not given—essentials in locating the area readily on the national geological maps recommended at the beginning of the book. In the structure sections more care should have been taken to show the vertical scale where it differs from the horizontal scale, and to indicate the amount of the vertical exaggeration. Good coherent descriptions of some very important areas are lacking, such as the Sierra Nevada and the Klamath Mountains. However, considering all the problems involved, Eardley has done a magnificent piece of work in assembling and presenting this material.

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Uranium Alloys

Uranium Metallurgy. vols. 1 and 2. vol. 1, *Uranium Process Metallurgy* (772 pp. $18); vol. 2, *Uranium Corrosion and Alloys* (745 pp. $16). W. D. Wilkinson. Interscience (Wiley), New York, 1962. Illus.

W. D. Wilkinson, the author of *Uranium Metallurgy*, must be congratulated on an excellent attempt to discuss and assimilate the available information on this technologically important material. Wilkinson, a senior staff member in the International Institute of Nuclear Science and Engineering at the Argonne National Laboratory, obviously had an unusual opportunity to scrutinize the literature, technology, and uses of uranium and its alloys. Many of the thousands of references that are documented here (and these extend right up to 1961) refer to relatively unavailable, unpublished reports which only recently have been declassified. The two volumes will undoubtedly be the main source of authoritative information on uranium and its alloys for some time to come.