

cles by A. Langsdorf (on neutron collimation and shielding) and J. H. Coon (on target preparation).

It is unfortunate that the reproduction of some of the figures is poor.

There is no question that this will be an invaluable reference work for physicists working with fast neutrons and for many other scientists. We look forward to the second volume, in which the results of these techniques, applied to neutron experiments, will be confronted with theory.

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Encyclopaedia of Microscopic Stains.

Edward Gurr. Williams and Wilkins, Baltimore, Md., 1960. xii + 498 pp. Illus. \$18.50.

This encyclopedia is a well-arranged guide to stains. Section 1 presents, in alphabetical order, the numerous stains and has highly welcome, additional information on their structure and solubility in different solvents. Section 2 deals with stains and indicators (arranged in order of ascending molecular weight); section 3 with diazonium and tetrazolium salts; and section 4 with tetrazolium salts and formazans. Considering their steadily increasing importance and the applications of tetrazolium salts, the reader would welcome additional information similar to that given in the sections on the more common stains. The book by Baker, *Principles of Biological Microtechnique*, is highly recommended by Gurr, and it may be helpful in this respect. Section 5 gives many well-selected references.

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The Changing Middle East. Emil Lengyel. Day, New York, 1960. 376 pp. \$5.75.

The author, professor of history at New York University, undertakes to describe and assess the social and, especially, the political changes that occurred between 1950 and 1960 in Egypt and Syria, Iraq, Lebanon, Jordan, Sudan, Libya, the Arabian Peninsula, Turkey, Iran, and Israel, and to relate these

changes to the foreign policy of the United States, which has in recent years been faced with so many critical situations.

Most of the book is devoted to the Arab states, their internal problems, and their relations with other states within the area. A chapter on Egypt and Arab unity constitutes one-third of the volume, and the theme of Nasser's ambition for unity and the resistance to it permeates all the chapters on the Arabs. Much emphasis is given to the activities of the United States in connection with the oil industry.

Israel receives the second largest amount of space; its treatment includes not only the second longest chapter in the book but also much material, in the Arab sections, on the policies of the Arabs toward Israel. Iran and Turkey are peripheral to the group of states forming the core of the Middle East—that is, the Arab states and Israel. There is one appendix containing a table on areas, populations, and forms of government.

The tone of the book is definitely political and, in many aspects, seems to lack objectivity. One fault is due to careless writing. There are numerous mistakes. For example, Count Bernadotte is referred to as “the United States Mediator for Palestine”; and it is stated that, when the British and French took action in 1956, they demanded that Egypt and Israel “cease fighting and withdraw their forces to positions ten miles *east* of the Suez Canal” (*italics added*) instead of ten miles on each side.

The author's prejudices appear frequently in his use of frivolous words, particularly regarding the Arab countries. In his relations to Iraq's Qassem, Nasser “The strong man . . . could huff and puff.” In the 1958 crisis in Lebanon, the U.S. Marines found no obstacle to landing on the beaches except “the attractive and pleased young women in bikini suits.”

There is a definite slant favoring Israel. The Arabs boycott Israel because Israel “provides the most telling illustration of an intrusion, a dynamic way of life.” Israel's “supremacy was manifest in all phases of social activities.” Nowhere in the book is there any serious criticism of Israel. No mention is made of the Stern Gang, the massacres of Arab villagers which created the refugee problem, the assassination of Count Bernadotte, or the ignoring of United Nations' resolutions looking to-

ward a settlement. Israel appears to be the innocent victim of Arab hatred, where the various rulers need a whipping boy on whom to blame their own mistakes. The conclusion is that “time is on their side, the Israeli believe, and even the more pessimistic among them like to feel that an eventual combination of dawning realism and boredom among the Arabs will produce the beginning of peace.”

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Salt Marshes and Salt Deserts of the World. V. J. Chapman, Leonard Hill, London; Interscience, New York, 1960. xvi + 392 pp. Illus. \$14.50.

This volume represents a major synthesis of information about salt marshes. Almost throughout, the approach is that of the plant community and of the interrelationships of communities. It is interesting, almost refreshing, to read such a strong presentation of the community viewpoint and of postulated successional relationships. Environmental factors which loom large in importance in relation to these communities are the nature of the substratum; the elevation, including changes in elevation, of the land relative to the sea; and ever-present man with his grazing animals. Fewer data are available, and less material is presented, for a synthesis on the physiology and autecology of halophytes found throughout the expanse of salt marshes and salt deserts of the world. The manner in which man has, with greater or lesser wisdom, utilized these areas is noted. These instances seem to me to furnish prime examples of the importance of wild areas. Intensive reclamation of wild marshes may kill the goose that lays the golden egg, for these very wild species have, by their growth as primary colonists, brought about the building up of the land areas which progressively may be converted to grazing, haying, or crops. For salt deserts the great importance of wise use of applied waters and of suitable crops is illustrated. The mistakes of the past, and our present lack of knowledge, can be seen from the record here presented. Their import is perhaps most striking in southwestern Asia and in Africa.

Marsh and desert suggest highly varied water regimes, which turn out not to be so distinctive (though this

point is not fully discussed) because the salt deserts are often found in physiographic situations with enhanced moisture as well as salt in the soil. To quote, "Maritime salt marshes . . . comprise areas of land bordering on the sea, more or less covered with vegetation, and subject to periodic inundation by the tide. . . . Salt deserts, on the other hand, are inland areas carrying a similar or almost identical type of vegetation." Although not excluded by the definition of salt marshes above, mangroves were not discussed. The criteria for excluding coastal, tidal communities (such as mangroves) and for delimiting salt desert seems to be the presence of a similar type of vegetation throughout, based largely on the plant community approach.

The heart of the text is a thorough discussion of salt marshes, in much detail for England and becoming more attenuated with remoteness from the general North Atlantic region. The focus is primarily vegetational, with an emphasis on diagrammatic "successional" relationships. In this broad synthesis, the author points out the difficulties inherent from the different terminology and methods of study used by various researchers. For the nonspecialist reader this difficulty is greatly compounded. I feel that the enthusiasm of some plant sociologists for reducing communities to an orderly sequence of names has almost forced the awakening of the schools which emphasize the species-level approach to vegetation. In the present text the very commendable section on autecology could have been expanded profitably. A further help would have been the inclusion, early in the book, of a table setting forth the species named throughout, in their taxonomic relationships, together with life form or similar means of bringing the names to life for a reader in another part of the world. The illustrations are numerous and seem well chosen. They were not always fully intelligible to me; this is more so for materials close to the author's background and work. I felt somewhat like an intruder when confronted with places whose names were given or which were even mapped on a very local scale, but which diligent use of an atlas failed to reveal.

I have included these criticisms, which certainly are minor considering the scope of Chapman's valuable work, as suggestions for the forthcoming publication on mangroves, and as a plea for further recognition by authors of the

fact that a work as important as this one will have an international audience, the members of which simply are unable, with the references reasonably available to them, to enter on terms of familiarity into a discussion of local situations.

A world map showing the extent of salt marsh and salt desert vegetation would have been very helpful. This map would better define the world-wide extent and importance of these areas and would help in locating local areas. It would also clarify whether a given area, which may be known to the reader, had been omitted from the discussion because of limited space or because it was not considered to meet the criteria for the book.

Little discussion is included on the animal life and the nature of the ecosystem in the several areas. A special dividend for the botanist is the care given to including the algae of those areas for which information was available. Very interesting are the reports of mosses in certain northern salt marshes. Throughout there are excellent cross references for the discussions. *Salt Marshes and Salt Deserts of the World* advances significantly our understanding of one of the world's partially remaining frontiers of agricultural and scientific knowledge.

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Mathematics, Physical Sciences, and Engineering

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Clauser, Francis H., Ed. *Symposium of Plasma Dynamics*. Addison-Wesley, Reading, Mass., 1960. 378 pp. \$12.50. Based on an international symposium held at Woods Hole, Mass., June 1958.

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Emmons, William H., Ira S. Allison, Clinton R. Stauffer, and George A. Thiel, *Geology*. Principles and processes. McGraw-Hill, New York, ed. 5, 1960. 491 pp. \$7.95.

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Halbwachs, Francis. *Théorie relativiste des fluides à Spin*. Gauthier-Villars, Paris, 1960. 304 pp. \$12.50.

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Hill, Terrell L. *An Introduction to Statistical Thermodynamics*. Addison-Wesley, Reading, Mass., 1960. 524 pp. \$9.75.

International Atomic Energy Agency. *Education and Nuclear Energy*. 142 pp. \$1.50. Report of a seminar held 6-10 July 1959 at the Nuclear Research Center, Saclay, France. *Heavy Water Lattices*. 142 pp. \$1.50. National Agency for International Publications, New York, 1960.

Kaufmann, Dale W., Ed. *Sodium Chloride*. The production and properties of salt and brine. Reinhold, New York; Chapman and Hall, London, 1960. 757 pp. \$20. Data on sources, production, properties, and uses of salt and brines.

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Lewis, W. V. *Investigations on Norwegian Cirque Glaciers*. Royal Geographical Society, London, 1960. 104 pp.

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