Aharoni's book could be placed, as a challenge, in the hands of a first-year graduate student, although such a student would probably need some help in studying it.

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Plant Growth Substances. L. J. Audus. Leonard Hill, London; Interscience, New York, ed. 2, 1959. xxii + 553 pp. Illus. + plates. $10.

Audus has presented, in readable detail, the background of the nature of plant growth from cell division to the nutritional and hormonal factors affecting development. He has included a discussion of the general physiology of natural auxins, including assay methods, isolation, and identification, and a section on the chemistry of natural and synthetic auxins, relating to structure and activity. From this orientation in fundamental principles, Audus proceeds to a comprehensive coverage and classification of auxins as general growth stimulators and inhibitors, initiators of rooting, stimulators of fruit development, and selective weed killers. He defines their role in flowering and reproduction and their influence in tissue differentiation. The appendixes delineating auxin-treatment responses of plant species from all over the world are a unique feature.

This edition includes material on the advances made since 1953 in the field of plant growth substances and sections on recently isolated and newly synthesized growth substances, the separation and identification of natural plant growth substances, and on new and varied applications which have been tried and evaluated. A chapter on the mechanism of action of auxins is a significant addition, and this, taken with the comprehensive discussions concerning the physiological action of other classes of growth regulators given in succeeding chapters, offers one of the most complete and up-to-date surveys of this kind on the subject.

This book should be accepted with interest and pleasure by the intelligent layman who engages in serious reading for a better understanding of the biological responses of the plants in his environment and, more specifically, for an understanding of the factors involved in regulating these response phenomena. It is not, as Audus points out, a manual for the specific treatment of growing plants, but rather, a digest of information on the control of plant development by growth-regulating substances. While the professional chemist or physiologist will not consider it a necessary acquisition for his technical library, the student of agriculture or horticulture will certainly find it a most useful reference source. The work contains, in logically presented order, a wealth of information, possibly to the degree that it encompasses too much. It is indeed difficult to collate in one volume material which is intelligible and appealing to the layman and which, by reason of its technical information, is also valuable to the specialist.

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The United States in the World Arena. An essay in recent history. W. W. Rostow. Harper, New York, 1960. xxii + 568 pp. $8.75.

W. W. Rostow specializes in the Large View of history. His particular mode of contributing lies in fashioning new points of view from which to analyze past events, present trends, and future prospects. This he did admirably and neatly in his recent book, *The Stages of Economic Growth.* Unfortunately not so much can be said for the present volume.

The author sets about to analyze in one fell swoop the military and diplomatic events of World War II and the Truman and Eisenhower administrations to see how these events fit his conception of America's national interest. He invents a useful notion, "national style" ("that is, the typically American way of dealing with the nation's environment"), as a means of tying together his unwieldy material and relating it to his major theme. He finds serious deficiencies in the national style and suggests numerous reforms which he thinks are urgently needed in view of the political and technological changes which are going on in the world.

The persuasiveness of Rostow's critique depends ultimately on the persuasiveness of his concept of America's national interest. In company with most critics of public policy today, he holds that our national interest has a dimension over and above simple considerations of geography. Thus, while he says that the United States, "a continental island off the greater land mass of Eurasia," must prevent any single power or groups of powers, hostile or potentially hostile to itself, from dominating that area, he goes further and says that our national interest demands that "the societies of Eurasia develop along lines broadly consistent with the nation's own ideology."

So far, so good, but the trouble is that Rostow is quite unable to articulate anything worthy of being called "the nation's own ideology." Leaving aside the question of whether or not ideology is the right word, he describes the dynamic element of America's national interest in humanistic terms, and perhaps this is why his essay at this crucial point lacks both precision and good philosophical syntax. It remains to be shown that the language of humanism permits the asking of the really important questions which must be answered if one is to articulate our national interest in its dynamic dimension—questions such as "What beliefs make real and rational our concern about the future welfare of other nations and other races?" A simple benevolence toward the individuals who make up the human race is no substitute for philosophy any more than it is a substitute for national interest. Rostow is at pains to avoid the latter pitfall but does not show that he has escaped the former.

But if the author is not successful in coming up with a persuasive and practical definition of the dynamic element in our national interest, he is very successful in illustrating the perils of trying to get along without such a definition. The lack of such a definition, according to Rostow, has been a distinguishing characteristic of our national style in military and diplomatic policy since the beginning of World War II. (Earlier, he says, we alternated between the geopolitical ideas of Admiral Mahan and the idealism of Woodrow Wilson when we were not content with moralistic isolationism, which, he contends, was rarely so.)

The author finds that our national style in military and diplomatic policy came off a poor second to that of the British in World War II and to that of the Russians in the postwar period. As stylists, Roosevelt and Truman get better marks than Eisenhower (whose administration the author finds consistent-

ly "sluggish"), but none of them get very high marks. Of World War II Rostow writes: "the American national interest (in contrast to the British) was a matter of unresolved national debate, if not of private personal opinion . . . [the military] resisted systematically the application of diplomatic and political criteria to their military plans; and Roosevelt supported them." And of the postwar years he writes (specifically in the case of the aftermath of the Korean crisis): "The nation continued in its familiar style to institutionalize its emergency response to the last crisis." The picture is of the trouble shooter absorbed solely with the *immediate* source of trouble.

The author's judgment of recent events, while on the whole persuasive, is sometimes unnecessarily lugubrious, especially in view of the fact that he professes to be something of an optimist. In particular he dismisses, with an almost cavalier treatment, the innovations in national style which came, albeit briefly, with the Marshall Plan. Perhaps more than any other policy in the postwar period, the Marshall Plan brought to the fore in Washington men with a highly developed and practical sense of the dynamic element in America's national interest. It is most surprising that none of these men, not even Paul Hoffman, rates so much as a mention in this long volume. The author feels constrained to rest the major part of his judgment of the Marshall Plan on the statement that it did not move Western Europe "radically" toward unity. Perhaps the movement wasn't radical, but it was certainly substantial. Just to cite two institutional innovations: the Schumann Plan was a direct consequence of Hoffman's diplomacy, and the European Payments Union was quite literally made in Washington. Why the author chose to pass up this very apt illustration of the kind of national style he so obviously advocates is a mystery.

Rostow is more constructive and more persuasive in the final section of the book when he looks ahead. He sees a future in which there will be a considerable "diffusion of power" among the nations of the world as a result of the spread of technology and the rising political aspirations of formerly backward nations, and he draws up an agenda of problems which will face this country as a consequence. He raises the fundamental question of whether and how the deficiencies in our national style, as they relate to military and diplomatic policy, can be corrected. Specifically, he isolates the many-sided problem of policy innovations in a democracy, a subject to which one hopes he may return in the future in a more leisurely book.

One cannot help but admire the author's courage in being willing to set out his themes on such a big canvas. One could only wish he had picked fewer themes and had related his detail more closely to them. Perhaps if he had done so, his concept of national interest in its dynamic element could have been made clearer, and he would sound less like an efficiency expert who is not always clear just what it is he is trying to be efficient about.

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Science in Progress. Eleventh series. Hugh Taylor, Ed. Yale University Press, New Haven, Conn., 1960. xii + 379 pp. Illus. $7.50.

The Sigma Xi-RESA lecture series needs no introduction to the scientific community; this volume, however, seems a bit stronger in earth sciences (as they are fashionably called nowadays) than in some other disciplines, although there are excellent lectures on behavior, viruses, and other aspects of biology. The price of this volume is a bit steep, and one wonders if wider circulation might be achieved if the publishers were to issue it in paperback form at perhaps a third of the price.

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New Books

Mathematics, Physical Sciences, and Engineering

Nevanlinna, R., *et al. Analytic Functions.* Princeton Univ. Press, Princeton, N.J., 1960. 204 pp. $5. This volume, No. 24 in the Princeton Mathematical Series (Marston Morse and A. W. Tucker, Eds.), contains the principal addresses delivered at the conference on analytic functions held in September 1957 at the Institute for Advanced Study. Contributors are R. Nevanlinna, H. Behnke, H. Grauert, L. V. Ahlfors, D. C. Spencer, L. Bers, K. Kodaira, M. Heins, and J. A. Jenkins.

Newell, Homer E., Jr. *Window in the Sky.* The story of our upper atmosphere. McGraw-Hill, New York, 1960. 116 pp. $2.75.

O'Sullivan, J. J., Ed. *Proceedings of the Second Protective Construction Symposium* (deep underground construction). vols. 1 and 2. RAND Corporation, Santa Monica, Calif., 1959. 988 pp. Papers stress the design and construction of underground facilities to resist the effects of nuclear weapons. Copies of the report are available for use at deposit libraries, but the report is not for sale.

Parzen, Emanuel. *Modern Probability Theory and Its Applications.* Wiley, New York, 1960. 479 pp. $10.75.

Pugh, Emerson M., and Emerson W. Pugh. *Principles of Electricity and Magnetism.* Addison-Wesley, Reading, Mass., 1960. 441 pp. $8.75.

Reid, Charles E. *Principles of Chemical Thermodynamics.* Reinhold, New York, 1960. 318 pp. College edition, $6; trade edition, $7.80. "Intended as an introductory thermodynamics course for graduate students in chemistry . . . not beyond the ability of qualified undergraduates."

Roberts, C. Sheldon. *Magnesium and Its Alloys.* Wiley, New York, 1960. 241 pp. $9.

Rosen, Milton J., and Henry A. Goldsmith. *Systematic Analysis of Surface-Active Agents.* vol. 12 of *Chemical Analysis.* Interscience, New York, 1960. 439 pp. $13.50.

Simon, Albert. *An Introduction to Thermonuclear Research.* A series of lectures given in 1955. Pergamon Press, New York, 1959. 191 pp. $5.50.

Sneddon, I. N., and R. Hill. *Progress in Solid Mechanics.* North-Holland, Amsterdam; Interscience, New York, 1960. 460 pp. $15.50.

Steinberg, J. L., and J. Lequeux. *Radioastronomie.* Dunod, Paris, 1960. 305 pp. NF. 19.

Thwaites, Bryan, Ed. *Incompressible Aerodynamics.* An account of the theory and observation of the steady flow of incompressible fluid past aerofoils, wings, and other bodies. Oxford Univ. Press, New York, 1960. 656 pp. $12.

Vasicek, A. *Optics of Thin Films.* North-Holland, Amsterdam; Interscience, New York, 1960. 416 pp. $12.50.

Weissberger, Arnold, Ed. *Physical Methods of Organic Chemistry.* pt. 2 of vol. 1 of *Technique of Organic Chemistry.* Interscience, New York, ed. 3, 1960. 924 pp. $24.50. From the preface: New topics added include chapters on automatic control, automatic recording, weighing, determination of particle size and molecular weight, x-ray microscopy, the Kerr effect, determination of the Faraday effect, nuclear magnetic resonance, paramagnetic resonance absorption, determination of transference numbers, and controlled-potential electrolysis.

Zechmeister, L., Ed. *Progress in the Chemistry of Organic Natural Products.* vol. 17. Springer, Berlin, 1959. 525 pp. $19.80. Contributors include K. Venkataraman, H. H. Inhoffen, K. Irmscher, B. B. Stowe, and P. H. Abelson.

Ziman, J. M. *Electrons and Phonons.* The theory of transport phenomena in solids. Oxford Univ. Press, New York, 1960. 568 pp. $13.45.