

since a theory may be built into the concepts we use in the description (in fact, in the very observation) of phenomena, to give up an important scientific law would be to do more than to give up some predictions we had become fond of making; it would be to "let our concepts crumble." Thus it can be that the abandonment of a scientific law may be a *conceptual* impossibility notwithstanding the fact that the law is empirical in the sense of aiding in the derivation of testable predictions. To put it differently, certain scientific laws (for details, see Hanson's chapter on classical particle mechanics) are *not* "empirical" in the sense that no experiment now conceivable (and this is not a "psychological" use of *conceivable*!) could overthrow them, although they are not "definitions," and they are not "a priori" either (since their abandonment *would* be conceivable if an Einstein or a Newton were suddenly to provide us with a whole new way of conceptualizing the phenomena in question). Since I feel strongly that overworking of the "empirical statement-or-else-a-definition" dichotomy is one of the worst faults of conventional philosophy of science, I was extremely happy to see Hanson take this up so thoroughly and so convincingly. Indeed, Hanson shows in detail how the same law may function in one context as a testable generalization, in another as a definition, in another as a conceptually a priori statement, and in yet another as a computing device. (I would only add: one should stress the point that the law does not have different *meanings* because it is employed in so many ways; sentences in a natural language—and not just laws—can quite frequently be used in so many different ways *because* they have a single meaning.)

Among other problems touched on in these chapters are the familiar worries about the "reality of theoretical entities" (what better reason could there be for accepting a system of concepts than that it makes the world intelligible?) and the difficulties that some have felt about the use of exact numbers in theoretical science. The book culminates in a chapter on elementary particle mechanics which shows the power and fertility of Hanson's ideas through their ability to render some of the dark mysteries of quantum mechanics understandable, not in the sense of providing final clarification (that is the goal of the physicist rather than of the philosopher of science) but understandable in the context of the past history of scientific theory-construction, and in the context of a growing research science.

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**Plain Talk from a Campus.** John A. Perkins. University of Delaware Press, Newark, 1959 (order from University Publishers, New York). x + 195 pp. \$4.

Since their average tenure is less than 5 years, many state university presidents are not in office long enough to reflect very much upon their experiences, much less reduce them to book form. John A. Perkins, president of the University of Delaware since 1950, is one of the exceptions. He speaks not only as an experienced educational administrator but also as one who has achieved recognition in the field of public administration. His *Plain Talk from a Campus* is a sharp analysis and a searching commentary on some of the critical problems in contemporary American education.

Part 1 deals with the purposes of education, both higher and secondary. According to the author, colleges and universities confront four main sources of problems: overwhelming increases in enrollment; the extremely divergent preparation of high-school graduates; the tendency of most institutions to "emphasize tradition far more than change"; and the peripheral functions which barnacle the pilings of American education. In view of the fact that higher education enrollments quintupled during the first quarter of the present century and doubled in each subsequent 15-year period, one may wonder how "overwhelming" our problem of sheer numbers is, but there can be no question about the fact that Perkins has come to grips with some of the major educational issues of our time.

In Part 2, his analysis of the problems of financing higher education, particularly on the state level, is very incisive. What he has to say about the shortcomings found almost everywhere in the patterns of state expenditure and taxation makes very understandable the fiscal fumbblings of many state legislatures, and one must agree with him that more federal support is inevitable if these mounting difficulties are not overcome. In his opinion, moreover, bringing the Federal Government more largely into the picture implies no new peril.

Perkins' special interest in public administrations is reflected in the third part of the volume. He stresses the role that the colleges and universities ought to play in training students for public service careers, and he urges a wider realization of what Walter Lippmann has called "the public philosophy." A telling contrast of a wryly amusing sort is drawn between American political leadership of the past and present, in a chapter on "Benjamin Franklin and the organization man."

The final section of *Plain Talk from a Campus* is a potpourri, having to do with such miscellaneous topics as the ingredients of effective university administration, research and publishing, the neglected importance of books as media for learning, what a president does and does not include in his annual report, and the need among students for more self-discipline.

All in all, John A. Perkins has given us some plain talk which needs to be heard and heeded within and around all of our campuses.

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**Trend and Tradition in the Prehistory of the Eastern United States.** Illinois State Museum Scientific Papers, vol. 10. American Anthropological Association Memoir No. 88. Joseph R. Caldwell. Illinois State Museum, Springfield, 1958. xiv + 88 pp. Illus.

This synthesis of the archeology of the eastern United States, originally written as a doctoral dissertation at the University of Chicago, should prove most valuable as a general introduction to the subject. It has the advantage over previous syntheses, such as *Archeology of Eastern United States*, edited by James B. Griffin (University of Chicago Press, 1952), of being a true synthesis and not just a compendium of local sequences. On the other hand, it avoids the disadvantage of *Method and Theory in American Archaeology*, by Gordon R. Willey and Philip Phillips (University of Chicago Press, 1958), in that the synthesis is expressed in narrative fashion and is not compressed into a rigid scheme of developmental stages based primarily upon what happened in nuclear America. The present volume is truer to events in the eastern United States.

The acknowledged weakness of this synthesis is that, for lack of time to cover the literature thoroughly, the author concentrated on the southeastern United States, where he has done most of his own research. On the other hand, the volume does present fresh material on Southeastern archeology, and, if any area is to be emphasized, this is the best, since the most important developments took place here, at least during the later periods. The volume also suffers from a certain vagueness of conceptualization—for example, *trend* and *tradition* are not precisely defined, and neither are most of the actual trends and traditions covered in the monograph.

The author sees three major trends in the prehistory of the eastern United