petent compilation of effects of drugs on behavior is the first in English, and the methods of analysis will be useful should this promising field expand. As the authors correctly state, a much better understanding of normal web-building behavior is needed before these potentially exciting results will yield much information on mechanisms of drug action. The major weakness of this book, however, is its poor treatment of normal behavior. The chapter on various types of webs is scanty and flounders on misunderstandings of evolutionary pressures. The lack of understanding of the possible effects of evolution also results in failure to concentrate on important issues in other discussions. For instance, no consideration is given to the possibility that differences in web patterns of spiders of different ages result from different selective pressures on the different-sized spiders rather than from their differences in size and weight. The chapter on web-building behavior is often vague and generally (with exceptions) fails to focus on important issues.

The figures range from adequate to poor, the worst being a photograph of an obviously damaged web (fig. 8) supposedly illustrating the typical pattern of *Araneus sericatus*, and an oversimplified colored diagram of spider anatomy.

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Learning Resource

Museums and Education. Papers from a conference, Burlington, Vt., 1966. ERIC LARRABEE, Ed. Smithsonian Institution Press, Washington, D.C., 1968 (distributor, Random House, New York). viii + 255 pp. $6.50. Smithsonian Publication 4721.

The Smithsonian Institution commissioned 15 papers and invited some 40 museum professionals, educators, government administrators, foundation representatives, and others to participate in a conference held in August 1966 at the University of Vermont. This volume consists of the papers as well as a "summary of the proceedings" containing quotations from the debate in which the conferees participated and the reports of three "work groups" into which the participants were divided during a part of the conference period.

Eric Larrabee wrote a summary of the conference in addition to serving as editor for the publication.

The objectives of the conference were to survey the existing relationships between museums and formal education, to consider possible means of involving museums to a greater degree and more effectively in the educational structure, and to formulate proposals for research on various aspects of museums and education and their interrelationships.

The papers are presented under the general headings of Dimensions and Approach; The Existing Situation; Reasons for Concern; Methods of Presentation and Analysis; Kinds of Museums: Youth, Art, History, Science; and A Look at the Future.

To aid them in their deliberations the Smithsonian representatives provided the work groups with the following questions: What are some of the special advantages of museums for education? Are museums capable of an expanded role in organized, formal education? If so, what are the principal arguments for and against? If the role were accepted, what should or would the broad social consequences be? How might such an expanded role be fulfilled in a specific instance? What structural changes would be required in museum or educational organization? What would you want to learn about museums and education through research?

In his summary Larrabee points out, "First of all, the subject for consideration was forbiddingly open ended, made up as it was of two topics either of which alone could have preoccupied an even less articulate group for an even longer period of time. As it was, the pairing of Museums with Education tended to raise, all too quickly, the questions: 'What is a Museum? What is Education?' and to lead discussion aside into a search for fundamental definitions. It may well be true, as Dr. David Abbey was forcefully to argue, that without some theory of learning one is powerless to examine museums in their educational role, but to have asked an assembly of such disparate people as these to agree upon any such theory would have been a quixotic endeavor."

Elsewhere in his summary he says, "Another source of frustration was the fact that the assembly represented such contrasting degrees of familiarity with the problems it was to engage. Since one of the objects in view was to bring museum professionals together with educators and others of similar concerns, it was nearly inevitable that people who were considering the question of museum education for literally the first time in their lives would find themselves in the same room with others who had devoted their entire professional careers to it."

Nevertheless, the papers, frequently provocative or imaginative, are well worth publishing in book form, as is S. Dillon Ripley's reminiscent introduction. The volume contains much of importance to those involved in upgrading both our schools and our museums and in bringing about closer collaboration between them.

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Data-Gathering Agency

The Bureau of Labor Statistics. EWAN CLAGUE. Praeger, New York, 1968. xvi + 272 pp., illus. $6.95. Praeger Library of U.S. Government Departments and Agencies, No. 13.

The history of the United States Bureau of Labor Statistics makes for interesting and informative reading. There is no one better qualified to write it than Ewan Clague, who served with distinction as its commissioner for 20 years (1946–1965).

The Bureau has had its present title since it became a part of the newly created Department of Labor in 1913, but it had its inception in the Interior Department in 1885 as the Bureau of Labor, under a Commissioner of Labor. In the act establishing it Congress declared its function to be to "collect information upon the subject of labor, its relation to capital, the hours of labor, and the earnings of laboring men and women, and the means of promoting their material, social, intellectual and moral prosperity."

The selection of Carroll D. Wright as the first commissioner was propitious for the molding of the Bureau into the nonpartisan, research-oriented organization that it is today. Wright's ability to conduct unbiased and imaginative research won him (and the Bureau) widespread Congressional support. His 20-year tenure established the tone and aura of a highly respected, well-structured research organization. The Bureau has consistently performed

its functions as set out under the act, modified only to the extent that an evolving economy changes the emphasis of its program. Succeeding commissioners followed very closely the pattern of conduct and operations set by Wright.

In the 1890's, in the course of providing the Aldrich Committee with the economic information requested for proposed tariff reform, Wright developed the Wholesale Price Index. When Congress in 1894, responding to the unemployment crisis brought on by the recession of 1893, asked the commissioner to "investigate and make report upon the effect of the use of machinery upon labor," it laid the groundwork for the Bureau's comprehensive, authoritative studies of productivity and productivity statistics.

During Royal Meeker's term as commissioner (1913–1920), Wesley Clair Mitchell was commissioned to study the Wholesale Price Index. The resulting report, "The Making and Using of Index Numbers," originally published as Bulletin 173 of the Bureau and reprinted several times (as Bulletins 284 and 656), has for nearly half a century been considered the classic work in index numbers.

Perhaps the outstanding development during Meeker's term of office was the creation of the Cost of Living Index. The outbreak of World War I created a heavy demand for war production and munitions. Consumer demand in industrial centers sent prices soaring. In order to determine what constituted an adequate wage for industrial workers in these cities, the Bureau of Labor Statistics, in cooperation with the Shipbuilding Wage Adjustment Board, investigated the cost of living in the more important industrial and shipbuilding cities and published indexes which have evolved into the current Consumer Price Index, undoubtedly the best-known and most widely used statistic published by the United States government. In a similar fashion, as the need arose, the BLS established productivity indexes, used today as guideposts in wage negotiations; employment and payroll statistics; and unemployment statistics, these last as an outgrowth of the Great Depression. With our entry into World War II and the imposition of wage controls by the War Labor Board and price controls by the Office of Price Administration, the role of the BLS in measuring price and wage levels assumed new importance.

The integrity of the Bureau of Labor Statistics has never been seriously questioned. Every Congressional investigation of the Bureau has resulted in heightened respect for it and its products.

Clague's description of the Bureau and its functioning is concise but thorough. Anyone who is interested in any aspect of labor statistics or in the operation of a truly objective government research organization would do well to read Clague's study.

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Penicillin et al.

Antibiotics. DAVID GOTTLIEB and PAUL D. SHAW, Eds. Vol. 1, Mechanism of Action (xii + 785 pp., illus. $39). Vol. 2, Biosynthesis (xii + 466 pp., illus. $24). Springer-Verlag, New York, 1967.

"The idea for publishing these books on the mechanism of action and the biosynthesis of antibiotics was born of frustration in our attempts to keep abreast of the literature," the editors write. With the help of over 100 collaborators they have succeeded in collecting much of the existing information on more than 100 antibiotics and in presenting the information in a form acceptable for use by the novice as well as the expert. The coverage of most antibiotics is relatively complete, and most are evaluated by writers who have carried out some of the research summarized. The volumes are quite complete up until 1966–67.

The editors chose to include "any and all antibiotics about which information had been published. It was obvious . . . that such a compilation, integration, and analysis of information could never be complete unless scientific investigations ceased at the moment the last manuscript was submitted. . . . An addendum was therefore included at the end of the volume and left open for the addition of new information until the last pages of the regular articles had been printed." "The clinical and industrial aspects of antibiotics have not been emphasized" except in the case of penicillin, for which a chapter on behavior in vivo has been included. Although most of the contributors are staff members of laboratories located in the United States, there are also contributors from Japan, Italy, the U.S.S.R., Spain, Canada, Switzerland, and England. Even with some modifications by the editors the contributions tend to be individualistic.

For about 90 percent of the antibiotics the treatment of most topics is more complete than any hitherto published. Some sections include information that has not been published before. Each section has a separate reference list, and the citations happily include the full titles of the literally hundreds of papers on several of the antibiotics.

The volumes suffer from the fact that they have been published at an awkward time in the history of certain antibiotics. This is especially true with respect to some antibiotics for which the importance of the mechanisms of action and the structure-activity relationships as far as clinical utility is concerned is just beginning to be assessed. Since much is yet to be discovered concerning the biogenesis of most of the antibiotics, we expect significant progress in the near future with respect to many of the subjects dealt with in volume 2, and the volume may soon be quite dated. On the other hand, some of the reviews, such as those in volume 1 that summarize work on antibiotics as inhibitors in vital processes in bacterial cells, should continue to be of use.

We can only hope that the editors are already hard at work preparing a second edition so that we will have available within the next four years similar volumes which include the many advances in research that have been reported since these two volumes went to the printer.

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Books Received

Addition Polymers: Formation and Characterization. Derek A. Smith, Ed. Plenum, New York; Butterworth, London, 1968. viii + 492 pp., illus. $22.

Agricultural Origins and Dispersals. The Domestication of Animals and Foodstuffs. Carl O. Sauer. MIT Press, Cambridge, ed. 2, 1969. xvi + 184 pp. + 4 plates. Cloth, $7.50; paper, $2.95.

The Albuquerque Navajos. William H. Hodge. University of Arizona Press, Tucson, 1969. viii + 76 pp., illus. Paper, $4. Anthropological Papers of the University of Arizona, No. 11.

American Association of Petroleum Geologists Memoir 11. Carbonate Sediments and Reefs, Yucatan Shelf, Mexico, by Brian W. Logan *et al.*; Tectonic Relations of Northern Central America and

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