reports of mentation and the nature and content of these reports. The book also includes detailed summaries of the recent experimental literature on the determinants of the REM sleep state and of dream content.

The presentation requires no technical background of the reader and is written in a style that should be attractive to beginning students or interested laymen. The book will no doubt also attract the attention of sleep researchers who wish to know more about the point of view of its author, who has already made important original contributions to the field. The book is not unbiased in its treatment of the subject matter. Although Foulkes is usually conscientious in his presentation of alternative interpretations of the data summarized, he leaves no doubt as to where he stands on most of the issues. However, he obviously pitched his work at an elementary level, and the sophisticated reader will find little in the way of useful original theory.

The major theoretical discussion concerns functions of mentation at various stages of sleep. Foulkes believes that the primary function of mentation at sleep onset is the management of disrupting sensory stimuli and disturbing inner thoughts and feelings so that sleep may be achieved more easily. The process of management involves incorporation of stimuli and representation of impulses in simple, wish-fulfilling form in the hypnagogic fantasies. In contrast, the role of wish fulfillment is minimized for REM-period dreams, which are regarded primarily as a kind of intense self-exploration dealing with the problems of waking life. Non-REM mentation serves the function of maintaining and consolidating the "transfer of relatively intact processes of mental synthesis from wakefulness to sleep" (p. 198) so as to protect the individual from "unpleasant consequences that might attend a total failure to exert an organizing influence on mental experience" (p. 198).

The examples of dream interpretation which Foulkes presents serve to illustrate his ideas and may make the text more readable for a general audience, but as he himself recognizes, they cannot be accepted as very convincing evidence in support of his views. The function of sleep mentation is an interesting question. Unfortunately, however, it does not seem possible at this time to subject issues of this sort to experimental test in the laboratory situation. Foulkes's theoretical discussion is therefore more likely to be controversial than productive of research.

The two books have only minor areas of overlapping subject matter. Taken together they provide a particularly useful and up-to-date introduction to the findings and issues in an area of growing importance to the understanding of man.

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Elementary Plant Physiology

About Plants: Topics in Plant Biology (Addison-Wesley, Reading, Mass., 1966. 184 pp., illus. $2.95), by F. C. Steward with A. D. Krikorian and R. D. Holsten, is a fine and successful attempt to overcome the lack of elementary books in plant physiology.

Although the plant physiologists of a century ago, men such as Sachs or Von Mohl, never thought of plant physiology as a subject divorced from the rest of botany, it did develop separately over the years. More unfortunately still, plant function was taught in many places as an entirely separate course at the intermediate or advanced level only after students were well grounded in morphology and anatomy. The modern tendency is to reverse this trend by bringing form and function together and to teach them in an interrelated and more organic way in beginning courses. However, sometimes in such attempts the pendulum swings over a little too much toward the side of physiology, and important aspects of morphology and anatomy are overlooked.

The book here reviewed is intended for such beginning courses. It tries to bring form and function together, but the weight is definitely on the side of function. The teacher who uses it in his elementary course will most certainly have to supplement it with a book on morphology and anatomy.

The book is a modification of Steward's *Plants at Work*, deemphasizing the more specialized aspects of biochemistry and cell physiology. These changes are intended to make the book more useful to students of general biology with little or no knowledge of chemistry. Steward and his collaborators succeed admirably well in this task. The book is very clearly written, with nothing taken for granted, and even the most difficult subjects are made easily understandable. The authors should be congratulated for succeeding in what is probably one of the most difficult tasks in writing.

As in every text there are some errors of detail, as well as some views with which one might want to take issue. For example, the Krebs cycle is referred to as a "now familiar series of intermediates," although it is obviously not familiar to the student. The illustrations are correct and useful. However the book could have profited from more illustrations of plant structures. Finally, I would like to have seen chapter 11, "Growth: Development: Reproduction," expanded. These very crucial topics are not treated, in my opinion, with the detail they deserve.

In brief, this is an excellent beginning textbook on plant physiology for students with little or no knowledge of biochemistry, and it manages to fill a gap in the rapidly saturating market of elementary biology books.

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Reaction to a Crisis

Throughout the 19th century, New Orleans maintained a sinister and in many ways well-deserved reputation for ill-health. Yet even in this generally unenviable record of sickness and death, the yellow fever of 1853 is uniquely prominent. In **Sword of Pestilence: The New Orleans Yellow Fever Epidemic of 1853** (Louisiana State University Press, Baton Rouge, 1966. 205 pp., illus. $5), John Duffy has written a well-balanced account of this epidemic, in all probability the most severe ever to strike an American city. Of an estimated 100,000 who remained in New Orleans through the summer of 1853, about 10,000 died of yellow fever; some 40,000 cases were reported.

Though more dramatic in scale, the history of this epidemic conformed to the classic pattern of community reaction to such crises. At first, business-minded citizens suppressed news of the fever, fearing the paralyzing effects of such news upon the city's commercial life. The "better sort," of course, fled in large numbers, tending