tween individualism and uniformity in American culture, including racial, sexual, sectional, and intellectual conflicts. Warner briefly discusses several of these larger themes. But, perhaps in reaction against the kind of social reductionism that would portray therapeutic discrimination as nothing but the medical reflection of social prejudices, he takes pains to emphasize that such variations had their roots in the internal dynamics of the medical profession. The point is important and correct, but the emphasis placed on it minimizes significant links of medicine with other professions and with larger cultural forces.

Combining a prodigiously researched and thoroughly fascinating depiction of actual 19th-century therapy with a sophisticated and widely applicable model of scientific change, *The Therapeutic Perspective* is a superb book, likely to become a classic in the literature of medical history.

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Records of the Maya

The Murals of Bonampak. MARY ELLEN MILLER. Princeton University Press, Princeton, NJ, 1986. xviii, 176 pp., illus., + plates. $67.50.

In *The Murals of Bonampak* Mary Miller has been forced to study these deteriorating Maya wall paintings almost as if they were a lost monument. Located on the interior walls of the three rooms of Structure 1 at Bonampak, Chiapas, Mexico, the paintings were found in May 1946, and Miller details both the sensational international attention they initially attracted and their subsequent ruin as final responsibility for their preservation was taken by no single agency, and as tourism proved destructive. The murals are now covered with an opaque calcified coating resulting from a millennium of seepage through the structure's limestone walls and vaults, and in order to see them copyists made this coating transparent by soaking it with kerosene or water. The murals have been copied four times and photographed extensively. Miller's art-historical study is based on these copies and photographs and is thus generally confined to iconographic and formal (or compositional) analysis, rather than including discussion of variations in painterly style, technique, or pigments. (Miller was apparently unaware of the existence of a superb set of color transparencies available through the Instituto Latinoamericano de la Communicacion Educativa of Unesco; these are probably the ones taken by Hans Ritter that she describes as lost.)

The first and most ambitious study of these murals was published by the Carnegie Institution of Washington in 1955; here the eminent Mayanist J. Eric S. Thompson discussed the subject matter of the murals. Since Miller's work is her dissertation, it is not surprising that it is revisionist and critical of both Thompson and the Carnegie Institution of Washington. Foremost is Miller's objection to Thompson's belief that the Maya were not very warlike and that the spectacular battle depicted in Room 2 at Bonampak was a raid for captives, rather than war (p. 96). After refuting Thompson's analysis Miller nevertheless concludes her description of this engagement by arguing that the capture of prisoners was its goal (p. 111). More important than such quibbles over terminology is Miller's innovative conclusion (based on the research of Floyd Lounsbury) that the date of this battle was determined by the heliacal rise of Venus and that the paintings on the north wall of Room 2 are both compositionally and symbolically the equivalent of the glyph known as "shell/star" that signifies war.

Miller has convincingly settled the disputed reading order of the paintings in the three rooms and of the walls within the rooms. She describes Structure 1 as a monument erected to glorify the reign of the Bonampak ruler Chaan-Muan, at the end of the eighth century A.D., and she identifies him in Rooms 1 and 3 in association with the presentation of an heir and in Room 2 participating in and presiding over the capture, torture, and display of prisoners.

The inscriptions in these paintings should help resolve lingering questions about the interpretation of these scenes; there is a single long one with a date, and many captions identify participants. Miller devotes a valuable separate chapter to recording and discussing these inscriptions, but because of poor preservation and the less familiar cursive style they provide frustratingly little hard information, and it is unfortunate that they are not brought together with the discussion of the figures that they identify in the next three chapters. Here Miller has undertaken the staggering task of numbering, describing minutely, and discussing over 300 figures, although key details of her description are often invisible in the illustrations provided. The comparative iconographic discussion is magnificent, and archeologists are served with a banquet of Maya material culture in all the objects illustrated in these paintings. For instance, processions of musicians are included in Rooms 1 and 3, and Miller analyzes the Maya ritual band, its requisite rattles, drums, trumpets, and their invariable marching order; and one of her most original contributions is the analysis of all the textile and hide clothing worn, and of its techniques of design and construction, with an estimate that 600 yards of cloth is worn in Room 1 alone. *Murals of Bonampak* excels in the richness of its historic and iconographic analysis and in its evocation of the meaning, the sights, and the sounds of Classic Maya dynastic ritual and display.

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Fluid Mechanics

Wave Interactions and Fluid Flows. ALEX D. D. CRAIK. Cambridge University Press, New York, 1986. xii, 322 pp., illus. $59.50. Cambridge Monographs on Mechanics and Applied Mathematics.

The theory of wave interactions was first developed about 25 years ago in the context of nonlinear free-surface waves. Now it is widely recognized that nonlinear wave interactions play an important part in a variety of wave and instability phenomena, with applications in geophysical fluid dynamics, meteorology, flow instability and transition, and plasma physics. This book focuses attention on wave interactions in fluid flows and discusses both the general underlying ideas and some applications, dealing primarily with surface waves, internal waves, and shear-flow instability. The book is divided into eight chapters. The main discussion starts in chapter 2, which is devoted to linear concepts and shows how some stratified-flow stability phenomena can be understood in terms of linear wave interactions or mode coupling. Chapters 3 and 4 discuss the nonlinear interaction between a finite-amplitude wave train and an underlying mean flow, including the generalized mean Lagrangian approach and the conservation of wave action. Particular examples from free-surface and internal waves, including the Craik-Leibovich theory of Langmuir circulations, are mentioned. Chapter 5 deals with resonant triad interactions, the first problem to be tackled in the early '60s, which provided incentive for further research in the area of nonlinear interactions. The basic theory of conservative and nonconservative resonant triads is discussed together with more recent applications on long-short wave interactions and shear-flow instability. Chapter 6 is devoted to the evolution of nonlinear wave packets; particular emphasis is placed on the most important equations in this